Configuration et vérification de la sécurité de la couche 2 du WLAN Wi-Fi 6E

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Introduction

Ce document décrit comment configurer la sécurité de la couche 2 du WLAN Wi-Fi 6E et ce à quoi s'attendre sur différents clients.

Conditions préalables

Exigences

Cisco vous recommande de prendre connaissance des rubriques suivantes :

- Contrôleurs LAN sans fil Cisco (WLC) 9800
- Points d'accès Cisco prenant en charge le Wi-Fi 6E.
- Norme IEEE 802.11ax.
- Outils : Wireshark v4.0.6

Composants utilisés

Les informations contenues dans ce document sont basées sur les versions de matériel et de logiciel suivantes :

- WLC 9800-CL avec IOS® XE 17.9.3.
- AP C9136, CW9162, CW9164 et CW9166.
- Clients Wi-Fi 6E :
 - Carte Lenovo X1 Carbon Gen11 avec Intel AX211 Wi-Fi 6 et 6E avec pilote version 22.200.2(1).
 - Adaptateur Wi-Fi 6 et 6E Netgear A8000 avec pilote v1(0.0.108);
 - Téléphone portable Pixel 6a avec Android 13 ;
 - Téléphone portable Samsung S23 avec Android 13.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. Si votre réseau est en ligne, assurez-vous de bien comprendre l'incidence possible des commandes.

Informations générales

Il est important de savoir que le Wi-Fi 6E n'est pas une norme entièrement nouvelle, mais une extension. À sa base, le Wi-Fi 6E est une extension de la norme sans fil Wi-Fi 6 (802.11ax) dans la bande de radiofréquences de 6 GHz.

Le Wi-Fi 6E repose sur le Wi-Fi 6, qui est la dernière génération de la norme Wi-Fi, mais seuls les périphériques et applications Wi-Fi 6E peuvent fonctionner dans la bande 6 GHz.

Sécurité Wi-Fi 6E

Le Wi-Fi 6E renforce la sécurité grâce à la norme Wi-Fi Protected Access 3 (WPA3) et au cryptage sans fil opportuniste (OWE) et il n'y a pas de rétrocompatibilité avec la sécurité Open et WPA2.

WPA3 et Enhanced Open Security sont désormais obligatoires pour la certification Wi-Fi 6E et Wi-Fi 6E nécessite également la technologie Protected Management Frame (PMF) dans les points d'accès et les clients.

Lors de la configuration d'un SSID 6 GHz, certaines exigences de sécurité doivent être respectées :

- Sécurité WPA3 L2 avec OWE, SAE ou 802.1x-SHA256
- trame de gestion protégée activée ;

• Toute autre méthode de sécurité de couche 2 n'est pas autorisée, c'est-à-dire qu'aucun mode mixte n'est possible.

WPA3

WPA3 est conçu pour améliorer la sécurité Wi-Fi en permettant une meilleure authentification sur WPA2, en fournissant une puissance cryptographique étendue et en augmentant la résilience des réseaux critiques.

Fonctionnalités clés du WPA3 :

- La trame de gestion protégée (PMF) protège les trames de gestion de monodiffusion et de diffusion et chiffre les trames de gestion de monodiffusion. Cela signifie que les systèmes de détection et de prévention des intrusions sans fil disposent désormais de moins de moyens de force brute pour appliquer les stratégies client.
- L'authentification simultanée d'égal à égal (SAE) permet l'authentification par mot de passe et un mécanisme d'accord de clé. Cela permet de se protéger contre les attaques en force.
- Le mode de transition est un mode mixte qui permet d'utiliser WPA2 pour connecter des clients qui ne prennent pas en charge WPA3.

Le WPA3 concerne le développement continu de la sécurité et de la conformité, ainsi que l'interopérabilité.

Aucun élément d'information ne désigne WPA3 (comme WPA2). WPA3 est défini par les combinaisons AKM/Cipher Suite/PMF.

Dans la configuration WLAN du 9800, vous pouvez utiliser 4 algorithmes de cryptage WPA3 différents.

Ils sont basés sur les protocoles Galois/Counter Mode Protocol (GCMP) et Counter Mode with Cipher Block Chaining Message Authentication Code Protocol (CCMP) : AES (CCMP128), CCMP256, GCMP128 et GCMP256 :

WPA2/WPA3 Encryption -		
AES(CCMP128)	CCMP256	D
GCMP128	GCMP256	O

Options de cryptage WPA2/3

PMF

PMF est activé sur un WLAN lorsque vous activez PMF.

Par défaut, les trames de gestion 802.11 ne sont pas authentifiées et ne sont donc pas protégées

contre l'usurpation. Infrastructure Management Protection Frame (MFP) et 802.11w protected management frames (PMF) assurent une protection contre de telles attaques.

 Protected Management Frame – 	
PMF	Required 🔻
Association Comeback Timer*	1
SA Query Time*	200

Options PMF

Gestion des clés d'authentification

Voici les options AKM disponibles dans la version 17.9.x :

Auth Key Mgmt		
SAE	O	FT + SAE
OWE	Ο	FT + 802.1x
802.1x- SHA256	Ο	
Anti Clogging	Threshold*	1500
Max Retries*		5
Retransmit Tin	neout*	400
PSK Format		ASCII
PSK Type		Unencrypted -
Pre-Shared Ke	ey*	•••••
SAE Password	Element 🚯	Both H2E and HnP

Options AKM

DEVOIR

Opportunistic Wireless Encryption (OWE) est une extension de la norme IEEE 802.11 qui assure le cryptage du support sans fil (<u>IETF RFC 8110</u>). L'objectif de l'authentification basée sur OWE est d'éviter une connectivité sans fil ouverte et non sécurisée entre les points d'accès et les clients. L'OWE utilise le cryptage basé sur les algorithmes Diffie-Hellman pour configurer le cryptage sans fil. Avec OWE, le client et le point d'accès effectuent un échange de clés Diffie-Hellman au cours de la procédure d'accès et utilisent le secret PMK (Pairwise Master Key) résultant avec la

connexion en 4 étapes. L'utilisation d'OWE améliore la sécurité du réseau sans fil pour les déploiements où des réseaux basés sur une clé prépartagée ouverte ou partagée sont déployés.



échange de trames OWE

SAE

WPA3 utilise un nouveau mécanisme d'authentification et de gestion des clés appelé Authentification simultanée d'égal à égal. Ce mécanisme est encore amélioré grâce à l'utilisation de SAE Hash-to-Element (H2E).

SAE avec H2E est obligatoire pour WPA3 et Wi-Fi 6E.

SAE utilise une cryptographie à logarithme discret pour effectuer un échange efficace d'une manière qui effectue une authentification mutuelle à l'aide d'un mot de passe qui est probablement résistant à une attaque de dictionnaire hors ligne.

Une attaque par dictionnaire hors connexion est une attaque par laquelle un pirate tente de déterminer un mot de passe réseau en essayant des mots de passe possibles sans autre interaction réseau.

Lorsque le client se connecte au point d'accès, il effectue un échange SAE. En cas de succès, ils créent chacun une clé cryptographiquement forte, à partir de laquelle la clé de session est dérivée. Fondamentalement, un client et un point d'accès passent en phases de validation, puis

de confirmation.

Une fois l'engagement pris, le client et le point d'accès peuvent passer à l'état de confirmation chaque fois qu'une clé de session doit être générée. La méthode utilise le secret de transmission, où un intrus pourrait craquer une seule clé, mais pas toutes les autres clés.



échange de trames SAE

Hachage d'élément (H2E)

Hash-to-Element (H2E) est une nouvelle méthode SAE Password Element (PWE). Dans ce procédé, le PWE secret utilisé dans le protocole SAE est généré à partir d'un mot de passe.

Lorsqu'une station (STA) qui prend en charge H2E lance SAE avec un point d'accès, elle vérifie si le point d'accès prend en charge H2E. Si oui, le point d'accès utilise H2E pour dériver le PWE en utilisant une valeur de code d'état nouvellement définie dans le message SAE Commit.

Si STA utilise le protocole HnP (Hunting-and-Pecking), l'ensemble de l'échange SAE reste inchangé.

Lors de l'utilisation de H2E, la dérivation PWE est divisée en ces composants :

 Dérivation d'un élément intermédiaire secret (PT) du mot de passe. Cette opération peut être effectuée hors connexion lorsque le mot de passe est initialement configuré sur le périphérique pour chaque groupe pris en charge. • Dérivation du PWE à partir du PT stocké. Cela dépend du groupe négocié et des adresses MAC des homologues. Cette opération est effectuée en temps réel lors de l'échange SAE.



Remarque : 6 GHz prend uniquement en charge la méthode PWE SAE Hash-to-Element.

WPA-Enterprise alias 802.1x

WPA3-Enterprise est la version la plus sécurisée de WPA3 et utilise une combinaison nom d'utilisateur/mot de passe avec 802.1X pour l'authentification des utilisateurs avec un serveur RADIUS. Par défaut, le WPA3 utilise un cryptage 128 bits, mais il introduit également un cryptage de puissance cryptographique 192 bits éventuellement configurable, qui offre une protection supplémentaire à tout réseau transmettant des données sensibles.



Flux du diagramme WPA3 Enterprise

Jeu de niveaux : modes WPA3

- WPA3 personnel
 - WPA3-Personal only mode
 - PMF requis
 - WPA3-Mode de transition personnel
 - Règles de configuration : sur un point d'accès, chaque fois que le mode WPA2 personnel est activé, le mode de transition WPA3 personnel doit également être activé par défaut, sauf si l'administrateur le remplace explicitement pour fonctionner en mode WPA2 personnel uniquement
- WPA3-Entreprise
 - WPA3 mode entreprise uniquement
 - Le PMF doit être négocié pour toutes les connexions WPA3
 - WPA3-Mode transition entreprise
 - Le PMF doit être négocié pour une connexion WPA3
 - PMF en option pour une connexion WPA2
 - Mode WPA3-Enterprise suite-B « 192 bits » aligné sur l'algorithme CNSA (Commercial National Security Algorithm)
 - Plus que pour le seul gouvernement fédéral
 - Des suites de chiffrement cryptographiques cohérentes pour éviter toute erreur de configuration

- Ajout de GCMP et ECCP pour les fonctions de chiffrement et de hachage (SHA384)
- PMF requis
- La sécurité WPA3 192 bits doit être exclusive pour EAP-TLS, qui doit exiger des certificats à la fois sur le demandeur et sur le serveur RADIUS.
- Pour utiliser WPA3 Enterprise 192 bits, les serveurs RADIUS doivent utiliser l'un des chiffrements EAP autorisés :

TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384 TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 TLS_DHE_RSA_WITH_AES_256_GCM_SHA384

Pour en savoir plus sur les informations détaillées sur la mise en oeuvre de WPA3 dans les WLAN Cisco, y compris la matrice de compatibilité de sécurité client, n'hésitez pas à consulter le <u>Guide</u> <u>de déploiement de WPA3</u>.



Points d'accès Cisco Catalyst Wi-Fi 6E

Points d'accès Wi-Fi 6E

Paramètres de sécurité pris en charge

Vous pouvez trouver quel produit prend en charge WPA3-Enterprise à l'aide de la page Web WiFi Alliance <u>product finder</u>.

Sur les périphériques Windows, vous pouvez vérifier quels sont les paramètres de sécurité pris en charge par la carte à l'aide de la commande "netsh wlan show drivers".

Vous pouvez voir ici la sortie de l'AX211 Intel :

C:\Users\tantunes>netsh wlan sh	ow drivers	
Interface name: Wi-Fi		
Driver : Vendor	Intel(R) Wi-Fi 6 Intel Corporatio	E AX211 160MHz
Provider	Intel	
Date	3/9/2023	
Version	22.200.2.1	
INF file :	oem151.inf	
Type :	Native Wi-Fi Dri	ver
Radio types supported :	802.11b 802.11g	802.11n 802.11a 802.11ac 802.11ax
FIPS 140-2 mode supported :	Yes	
802.11w Management Frame Pr	otection supporte	d : Yes
Hosted network supported :	No	
Authentication and cipher s	upported in infra	structure mode:
	Open	None
	Open	WEP-40bit
	Open	WEP-104bit
	Open	WEP
	WPA-Enterprise	TKIP
	WPA-Enterprise	CCMP
	WPA-Personal	TKIP
	WPA-Personal	CCMP
	WPA2-Enterprise	TRIP
	WPA2-Enterprise	
	WPA2-Personal	
	WPA2-Personal	
	Upen WDA2-Demoenal	
	WPAS-Personal	Contraction defined
	WDA3-Enterprise	
	OWF	
	WPA3-Enternrise	ССМР
	WPA3-Enterprise	TKIP
Number of supported bands :	3	
	2.4 GHz [0 MHz	- 0 MHz]
	5 GHz [0 MHz	- 0 MHZ]
	6 GHz [0 MHz	- 0 MHz]
IHV service present :	Yes	
IHV adapter OUI :	[00 00 00], type	: [00]
IHV extensibility DLL path:	C:\WINDOWS\Syste	m32\DriverStore\FileRepository\netwtw6e.inf_amd64_eda979fbdedea064\IntelIHVRouter12.dll

Sortie Windows de _netsh wlan show driver_ pour le client AX211

Netgear A8000 :

Interface name: A8000_NETGEAR

Driver :	NETGEAR A8000 WIN	Fi 6 & 6E Adapter
Vendor :	NETGEAR Inc.	
Provider :	MediaTek, Inc.	
Date :	11/25/2022	
Version :	1.0.0.108	
INF file :	oem9.inf	
Type :	Native Wi-Fi Driv	ver
Radio types supported :	802.11b 802.11a 8	802.11g 802.11n 802.11ac 802.11ax
FIPS 140-2 mode supported :	Yes	
802.11w Management Frame Pr	otection supported	d : Yes
Hosted network supported :	No	
Authentication and cipher s	upported in infras	structure mode:
	Open	None
	Open	WEP-40bit
	Open	WEP-184bit
	Open	WEP
	WPA-Enterprise	TKIP
	WPA-Enterprise	CCMP
	WPA3-Personal	CCMP
	OWE	CCHP
	WPA-Personal	TKIP
	WPA-Personal	CCMP
	WPA2-Enterprise	TKIP
	WPA2-Enterprise	CCMP
	WPA2-Personal	TKIP
	WPA2-Personal	CCMP
Number of supported bands :	3	
	2.4 GHz [0 MHz -	- 0 MHz]
	5 GHz [0 MHz·	- 0 MHz]
	6 GHz [0 MHz ·	- 0 MHz]
IHV service present :	Yes	
IHV adapter OUI :	[00 00 00], type:	: [88]
IHV extensibility DLL path:	C:\WINDOWS\system	n32\mtkihvux.dll
IHV UI extensibility ClSID:	{0000000-0000-00	800-0000-000000000000000000000000000000
IHV diagnostics CLSID :	{0000000-0000-00	860-0060-006000000000000000000000000000
Wireless Display Supported:	Yes (Graphics Dr:	iver: Yes, Wi-Fi Driver: Yes)

Sortie Windows de _netsh wlan show driver_ pour le client Netgear A8000s

Android Pixel 6a :

None.

WEP

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WPA/WPA2-Personal

WPA/WPA2-Enterprise

WPA3-Enterprise 192-bit

GIE

2 3 4 5

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WPA3-Personal

WPA3-Enterprise

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Enhanced Open

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- WPA3 + chiffrement AES + AKM 802.1x-SHA256 (FT)
- WPA3 + chiffrement AES + AKM OWE
- WPA3 + chiffrement AES + AKM SAE (FT)
- Chiffrement WPA3 + CCMP256 + SUITEB192-1X AKM
- Chiffrement WPA3 + GCMP128 + SUITEB-1X AKM
- Chiffrement WPA3 + GCMP256 + SUITEB192-1X AKM

Configuration de base

Le WLAN a été configuré avec une méthode de détection de stratégie radio et de réponse de sondage de diffusion (UPR) 6 GHz uniquement :

Edit WLAN		×
A Change	ng WLAN parameters while it i	s enabled will result in loss of connectivity for clients connected to it.
General Security	Advanced Add To	Policy Tags
Profile Name*	wifidE_test	Radio Policy ①
SSID*	wif6E_test	6 GHz
WLAN ID*	5	Status ENABLED WPA2 Disabled
Status		 WFW3 Enabled Dot11ax Enabled
prosociast SSID	INACLO .	Status DISABLED
		-2.4 GHz Status DISABLED
		802.11b/g 802.11b/g • Policy

Configuration de base WLAN

Cisco Catalys	st 9800-0	CL Wireless Controller		Welcome admin 🐐 🕫 🛕 🖺 🏟 🖗 🥝	C Search APs and Clients Q		
O. Search Merry Imme	Configuratio	on * > Tags & Profiles * > RF/Radio		Edit RF Profile	×		
C Staten world turns	RF Rad	dio		General 802.11 RRM Advanced	802.11ax		
Dashboard				6 GHz Discovery Frames ()	O None		
(2) Monitoring >	+ Add	1 X Delete			Broadcast Probe Response C ELS Discovery		
N) Conferentian	St	tate T RF Profile Name	▼ Band	Readcast Daba Decores Intenal (meas)*			
Configuration >	0 (default-rf-profile-6ghz	6 GHz	broadcast Probe Response Interval (Insec)	20		
Administration	0 (Low_Client_Density_rf_5gh	5 GHz	Multi BSSID Profile	MBSSIDprofile_test 👻 💈		
	0 (High_Client_Density_rf_5gh	5 GHz	Spatial Reuse			
C Licensing	0 (Low_Client_Density_rf_24gh	2.4 GHz				
	0 (High_Client_Density_rf_24gh	2.4 GHz	OBSS PD	DISABLED		
A mountaining	0 (Typical_Client_Density_rf_5gh	5 GHz	Non-SPG OBSS PD Max Threshold (dBm)*	-62		
	0 (Typical_Client_Density_rf_24gh 	2.4 GHz	Hereice observe max mission (carry			
	н 4	1 🕨 🗏 10 🔻		SRG OBSS PD	DISABLED		
Walk Me Through >				SRG OBSS PD Min Threshold (dBm)*	-82		
				SRG OBSS PD Max Threshold (dBm)*	-62		

Configuration du profil RF 6 GHz

Vérifier

Vérification de sécurité

Dans cette section, la configuration de la sécurité et la phase d'association du client sont présentées à l'aide des combinaisons de protocoles WPA3 suivantes :

- WPA3- AES(CCMP128) + OWE
 - Mode de transition OWE
- WPA3 personnel
 - AES(CCMP128) + SAE
- WPA3-Entreprise
 - AES(CCMP128) + 802.1x-SHA256
 - AES(CCMP128) + 802.1x-SHA256 + FT
 - Chiffrement GCMP128 + SUITEB-1X
 - Chiffrement GCMP256 + SUITEB192-1X



Remarque : bien qu'aucun client ne prenne en charge le chiffrement GCMP128 + SUITEB-1X au moment de la rédaction de ce document, il a été testé pour observer sa diffusion et vérifier les informations RSN dans les balises.

WPA3 - AES (CCPM128) + OWE

Voici la configuration de la sécurité WLAN :

Q. Search Menu hems	nfiguration • > Tags & Profiles • > WLANs	E	dit WLAN			
Dashboard	+ Add X Dwine Clone Enable V	WLAN Disable WLAN	Changing WLAN part	ameters while it is enabled will result in loss o	f connectivity for clients con	nected to it.
Monitoring	ected WLANs : 0		General Security Advance	ed Add To Policy Tags		
Configuration	Status T Name	T ID	Layer2 Layer3 AAA			
	MacFilter	• 1				
dministration 🦻 📮	O dot1x	• 2	O WPA + WPA2 O WP	A2 + WPA3 • WPA3	O Static WEP	O None
Troubleshooting			Lobby Admin Access WPA Parameters WPA Parameters WPA CTK Randomize Transition Disable WPA2WPA3 Encryption AES(CCM#128) C Protected Management Frame PMF Association Comeback Timer* SA Query Time*	PA2 O oley Over Pa3 Over Rease CMP256 O CMP256 O Required • 1 200 Trans	Annahition s the DS sociation Timeout * Cey Mgmt c c c c c c c c c c c c c	Disabled • 0 20 FT + SAE 0 FT + 802.1x 0 0 0 NID = 0 means WLAN

Paramètres de sécurité OWE

Affichage sur l'interface graphique utilisateur WLC des paramètres de sécurité WLAN :

 •
 wih6E_test
 •
 5
 wih6E_test
 [WPA3][OWE][AES]

Paramètres de sécurité WLAN sur l'interface graphique WLC

Ici, nous pouvons observer le processus de connexion des clients Wi-Fi 6E :

Intel AX211

Nous présentons ici le processus de connexion complet du client Intel AX211.

Détection OWE

Ici vous pouvez voir les balises OTA. Le point d'accès annonce la prise en charge d'OWE en utilisant le sélecteur de suite AKM pour OWE sous l'élément d'information RSN.

Vous pouvez voir la valeur 18 (00-0F-AC:18) du type de suite AKM qui indique la prise en charge OWE.

R	wan besid === 00x	dfi Sdiddi 7	dt 38 or wian. fc. type_	subtype == 0x00)1d						S = +
No.	Time	Delta	Source	Destination	Protocol	Length Cha	nnei Signalist	r Info	1000		> Frame 158: 355 bytes on wire (2040 bits), 355 bytes captured (2040 bits) on interface \Device\WFF_(D4578905-2998-4456-8C33-C343166
	158 2.334878	0.02050	M Cisco_dd:7d:38	Broadcast	882.11	355	53 -36 das	Beacon frame, SN+1350, FN+0, Flagt+C, HI+100, SSID="wifi66_test"			> Ethernet II, Srci Cisco_62:97:47 (74:11:02:02:97:47), Ost: Universa_07:cf:06 (00:3a:80:07:cf:06)
	159 2.336797	0.00191	9 IntelCor_98:58:	. Broadcast	802.11	168	53 -38 d8m	Probe Request, SN+201, FN+0, Flags+C, SSID+Hildcard (Broadcast)			> Internet Protocol Version 4, Src: 192.168.1.15, Ost: 192.168.1.121
	168 2.337912	0.00111	\$ Cisco_dd:7d:38	Broadcast	602.11	312	\$3 -37 dem	Probe Response, SN+13, FN+0, Flags+C, 01+100, SSID+"wif166_test"			> User Datagram Protocol, Src Port: 5555, Dst Port: 5000
	161 2.357771	0.01905	9 Cisco_dd:7d:38	Broadcast	802.11	312	53 -34 d8m	Probe Response, SN+1852, FN+0, Flags+C, 81+100, SSID+"wifi68_test"		118	> AiroPeek/OmiPeek encapsulated IEEE 002.11
	162 2.377743	0.01997	2 Cisco_dd:7d:38	Broadcast	802.11	312	53 -34 d8m	Probe Response, SN+1853, FN+0, Flags+C, 81+100, SSID="wifi68_test"		C 11	> 802.11 radio information
	164 2.397549	0.02900	6 Cisco_dd:7d:38	Broadcast	802.11	312	53 -37 dim	Probe Response, SN+1854, FN+0, Flags+C, BI+100, SSID+"wifi68_test"			> IEEE B02.11 Reacon frame, Flags:C
	220 2.419342	0.02179	3 Cisco_dd:7d:38	Broadcast	002.11	312	53 -36 dBm	Probe Response, SN+1855, FN+0, Flags+C, 81+100, SSID+"wifi68_test"			✓ IEEE D02.11 wireless Management
	221 2.435846	0.01570	H IntelCor_98:58:	_ Cisco_dd:7d.	882.11	96	53 -42 dBM	Authentication, SN+24, FN+0, Flags+C			> fixed parameters (12 bytes)
	222 2.435846	0.00000	0 192.168.1.15	192.168.1.1.	882.11	76	53 -36 dBM	Acknowledgement, Flags+C			 Tagged parameters (253 bytes)
	223 2.437126	0.00205	0 Cisco_dd:7d:38	Broadcast	002.11	355	53 -35 d8t	Beacon frame, SN+1856, FN+0, Flags+C, 81+100, SSID+"wif16E_test"			> Tag: SSID parameter set: "kirid&_test"
	226 2.438813	0.00168	7 Cisco_dd:7d:38	IntelCor_98.	802.11	96	53 -36 dên	Authentication, SNv11, FNv0, Flags+C			> Tag: Supported Rates 4(8), 9, 12(8), 18, 24(8), 36, 48, 54, [Mbit/sec]
	227 2.438813	0.00000	0 192.168.1.15	192.168.1.1.	802.11	76	53 -39 d8m	Acknowledgement, Flags+C			> Tag: Traffic Indication Map (TIM): DTIM # Of 1 Difmap
	228 2.439674	0.00005	il IntelCor_98:58:	Cisco_dd:7d.	802.11	294	53 -44 d8t	Association Request, SN+25, FN+0, Flags+C, SSID+"wifi6E_test"			> Teg: Country Information: Country code na, Environment Global operating classes.
	229 2.439727	0.00005	3 192.168.1.15	192.168.1.1.	\$92.11	76	53 -36 der	Acknowledgement, Flags+C			> Teg: Power Constraint: 6
	238 2.458667	0.02094	@ Cisco_dd:7d:38	IntelCor_92.	992.11	275	53 -36 d8m	Association Response, SNw0, FNw0, Flags+C			> last the Advantage Proof is the particular
	231 2.458667	0.00000	0 192.168.1.15	192.168.1.1.	902.11	76	53 -39 d8m	Acknowledgement, Flags+C			The second
	232 2.451486	0.00001	9 IntelCor_98:58:	_ Cisco_dd:7d.	002.11	93	53 -43 d8m	Action, SN+26, FN+0, Flags+C			Tag Nemer: Ask Antornation (va)
	233 2.451486	0.00000	0 192.168.1.15	192.168.1.1.	002.11	76	53 -36 den	Acknowledgement, flags+C			The Artigent and
	236 2.451874	0.00038	# Cisco_dd:7d:3#	IntelCor_98.	EAPOL	221	53 -36 dBt	Key (Message 1 of 4)			A desire Calder Calder Mandelar (Tere 201 11) 455 (CDI)
	237 2.451874	0.00000	0 192.168.1.15	192.160.1.1.	882.11	76	53 -40 dbs	Acknowledgement, #lags+C			Particle Clarks Collect Collection (Collection) And (Coll)
	238 2.455234	0.00336	@ IntelCor_98:58:	_ C15C0_dd:7d.	EAPOL	227	53 -48 088	Key (Message 2 of 4)			 Balance capital state control of frame Bit 113 (SF (Frail))
	239 2.455234	0.00000	0 192.168.1.15	192.168.1.1.	882.11	76	53 -35 088	Acknowledgement, #lags+C			and the instance fails where is failed and a failed and the failed
	248 2,456798	0.00156	4 C15C0_00170138	IntelCor_98.	EAPOL	295	53 -35 dBm	key (message 3 of 4)			which may be appresent (may) list deleter (Tees 101 11) construction visibles formation
	241 2,456798	0.00000	0 192.168.1.15	192.168.1.1.	992.11	26	53 -47 dBt	Acknowledgement, Flags+C			which the management (and) that doubles (the data the start of the sta
	242 2.457640	0.00004	2 Cisco_dd:7d:38	Broadcast	802.11	312	53 -35 der	Probe Response, SN+1857, FN+0, Flags+C, BI+100, SSID="W1f166_test"			auth are honopenent (app) quict deservation (tee east, 1)
	243 2.457715	0.00007	's intercor_warsa:	_ cisco_dd:7d.	LAPOL	199	53 -47 des	key (nessage + of +)			auth Key Hanagement (ADM) type: Opportunistic Wireless Encryption (18)
	244 2.457941	0.00022	6 192.168.1.15	192.168.1.1.	802.11	76	53 -36 der	Acknowledgement, Flags+C			v Siu (acabilities: dudes
	252 2.463554	0.00561	3 C15C0_5C175124	Tutetro."Aar	LLL	283	53 -47 088	1, N(X)+62, N(S)+42; DSAP EXCE INDIVIDUAL, SSAP EXCE COMMAND			
	253 2.463554	0.00000	0 192.160.1.15	192.160.1.1. Tetal/oc.05	110	10	53 -4/ 000	Accounting the set and the set and the set and the			
	294 2.463554	0.00000	N 163 168 1 16	103 108 1 1	885 11	20	22	tribulations flag.			10 = RSN PTKSA Replay Counter capabilities: 4 replay counters per PTKSA/GTKSA/STAKeySA (8x2)
	255 2.453554	0.00000	2 Cisco 44124118	Broadcact	882.11	352	53 -15 /00	Probe Bacconce Ch-1803 FL-8 Flags- C 87-188 SSTD-"wifild Tech"			
	263 2 495618	0.03041	A Cisco ddi 1di 18	Broadcast	883.11	353	63 .35 .000	Broke Baccourse Sh-1000 Fb-A Flags- / 87-100 SSTD-"villet tart"			
	265 2 516887	0.02020	Clara dd: 24:38	Broadcast	883.11	311	43 -34 484	Broke Bernorse Studies fund Flass. / 87-100 SSTD-"villes tert"			+ Hanagement Frame Protection Capable: True
	267 2.641553	0.02254	6 Cisco dd:7d:38	Broadcast	882.11	155	\$3 .35 day	Reacon frame, Skatiki, Flueb, Flamts,			
	268 2.541553	0.00000	a intelfor 98:58:	Broadcast	110	114	\$1 .15 day	T.P. N(8)+25. N(5)+115: DEAP Budd Group. SEAP SNA Path Control Command			
	278 2,568899	0.01554	6 Cisco dd:7d:18	Broadcast	802.11	312	\$1 -15 da	Probe Response, Sh-1262, FN-0, FlagsC. 81-100, SSID-"wifi6E test"			
	271 2,561746	0.00164	7 192.168.1.15	192,168,1,1	802.11	26	\$3 -35 d8m	Acknowledgement, FlagtyC			PPHID Count: 0
	272 2,588532	0.01878	6 Cisco dd:7d:18	Broadcast	882.11	312	\$3 -35 das	Probe Resonne, SN+186), FN+0, FlagsC. 81+100, SSID+"wifi66 test"			Prixip List
	273 2.601003	0.02047	1 Cisco dd:7d:38	Broadcast	802.11	312	51 -15 dBm	Probe Response, SN+1864, FN+0, Flags+C, BI+100, SSID+"wif16E test"			> Group Hanagement Cipher Suite: 00:0f:ac (Seee 002.11) 83P (128)
	274 2,610168	0.00916	5 192.165.1.15	192.168.1.1	802.11	76	53 -35 der	Acknowledgement, Flags+C			> Tog: QBSS Load Element B02.11e CCA Version
	276 2,623696	0.01352	# Cisco dd:7d:3#	eroadcast	882.11	312	53 -34 dam	Probe Response, SN+1865, FN+0, Flags+C. #1+100, SSID+"wif168 test"			> Teg: RM Enabled Capabilities (S octets)
	277 2.632344	0.00064	4 192.168.1.15	192.168.1.1.	842.11	76	53 -35 dem	Acknowledgement, #lags+C			> Tag: Extended Capabilities (11 octets)
	278 2.642863	0.00971	9 Cisco_dd:7d:38	Broadcast	802.11	355	53 -36 der	Beacon frame, SN+1866, FN+0, Flags+C, 82+100, SSID+"wifi6E_test"			> Tag: Tx Power Envelope
	279 2.662429	0.02036	4 Cisco_dd:7d:38	Broadcast	802.11	312	53 -36 der	Probe Response, SN+1867, FN+0, Flags+C, BI+100, SSID+"wifi6E_test"			> Tag: Tx Pover Envelope
	280 2,662513	0.00005	4 192.168.1.15	192.168.1.1.	882.11	26	53 -34 dBr	Acknowledgement, Flags+C			> Ext reg: multiple essue Configuration
	338 2.682866	0.02035	3 Cisco_dd:7d:38	Broadcast	882.11	312	53 -34 dBr	Probe Response, SN+1868, FN+0, Flags+C, #I+100, SSID+"wif16E_test"			> EXT THE: HE CADABOLITIES
	339 2.684793	0.00192	7 192.168.1.15	192.168.1.1.	842.11	26	53 -36 d8r	Acknowledgement, Flags+C			> Ext Tag: HE Operation
	348.2.783468	8.81866	3 fisca dd:7d:18	Repadrast	887,11	352	5136.088	Probe Retnonte, Shalles, Flags, Flags,	1		

trame de balise OWE

Si vous regardez le champ de capacités RSN, vous pouvez voir que l'AP annonce à la fois les capacités de protection de trame de gestion (MFP) et le bit requis MFP défini sur 1.

Association OWE

Vous pouvez voir l'UPR envoyé en mode de diffusion, puis l'association elle-même.

Le message OWE commence par la requête et la réponse d'authentification OPEN :



Ensuite, un client qui veut faire OWE doit indiquer OWE AKM dans l'IE RSN de la trame de demande d'association et inclure l'élément de paramètre Diffie Helman (DH) :



Réponse de l'association OWE

Après la réponse d'association, nous pouvons voir la connexion en 4 étapes et le client passe à l'état connecté.

Ici, vous pouvez voir les détails du client sur l'interface utilisateur graphique du WLC :

Cisco Catal	yst 980	0-CL Wireless (Con	troller		me admin 🛛 🕷 🕵 🛕	8	* * • •	Search APs and Cli	Ints Q	edback 🦨 Թ	
O. Search More Items	Monitor	ing • > Wireless •	> (Clients						×		
Select meno meno	Clients	Sleeping Client	8	Excluded Clien	ts	General QOS Statisti	ics	ATF Statistics	Mobility History	Call Statistics		
Dashboard	_						perties AP Properties	Secu	urity Information	Client Statistics	QOS Properties	EoGRE
Monitoring >	×	Delete 2					ate Servers		None			
N) Configuration	Selec	ted 0 out of 12 Clients					CLS		None			
~ Consiguration ,	0		-		ID & Lating		try Create Time		43 seconds			
Administration	0	Client MAC Address	1	IPv4 Address T	IPv6 Address	AP Name T	pe Do Ciober		COMP (AES)			
~	0	286b.3598.580f	1	192.168.1.159	fe80::ac5b:e1e1:67ba:c353	AP6849.9253.CA50	estion Key Management		OWE			
C Licensing	0	60fb.008b.0e66	۶	N/A	N/A	AP01_RC_9135_F80C	a		Not Applicable			
	0	34ea.e702.6240	۶	192.168.1.70	N/A	AP6849.9253.CA50	Timeout		86400			

NetGear A8000

Connexion OTA avec accent sur les informations RSN du client :

No. Dest		(wian.add	y == 94()	8:65:48:70:95) or (ilan.fc.type	e_subtype == 0x00 sd)						
$ \begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $	No	. Te	ie .		Delta	Source	Destination	Protocol	Lengti Ch	annel Signal stre	Info		> Frame 1039: 250 bytes on wire (2000 bits), 250 bytes captured (2000 bits) on interface \Device\NFF_{04578905-2998-4456-8C33
$ \begin{array}{ c c c c c c c c c c c c c$		930 20	23-06-12	14:03:07.117065	0.000000	Netgear 48:70:95	Broadcast	802.11	166	5 -51 d0m	Probe Request, SN+1530, FN+0, Flags+C, SSID+"blizzard"		Ethernet II, Src: Cisco_dd:7d:37 (00:df:1d:dd:7d:37), Dst: Universa_b7:cf:06 (00:3a:88:b7:cf:06)
19 202.4-12 34.000000000000000000000000000000000000		931 28	23-06-12	14:03:07.117906	0.000921	Netgear 48:70:95	Broadcast	802.11	166	5 -51 dbm	Probe Request, SN=1531, FN=0, Flags=C. SSID="blizzard"		> Internet Protocol Version 4, Src: 192.168.1.15, Ost: 192.168.1.121
$ \begin{array}{c} 1 \\ 1 \\ 1 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\$		932 28	23.06.12	14103107.118792	0.000004	Netgear 48:20:95	Broadcast	882.11	166	5 .51 dbm	Probe Request, SNa1512, FNa0, Flags,C. SSIDa"blizzard"		> User Datagram Protocol, Src Port: 5555, Dst Port: 5000
bit 202:-0-10 bit 202:-0-10<		933 28	23-06-12	14:03:07.119655	0.000163	Netgear 48:20:95	Broadcast	882.11	166	5 -51 d8m	Probe Request, SNa1533, FNa0, Flagta		> AiroPeek/OmriPeek encapsulated IEEE 802.11
191 2021-04-12 1000000000000000000000000000000000000		1013 20	21-06-12	14:01:08.485478	1.365823	Netgear 48:70:95	Cisco 13:80:-	882.11	360	5 -51 d8m	Probe Request, SNo1, FNo0, FlagtsC. SSIDe"wifi6E test"		> 802.11 radio information
191 202-0-0-1 14:00:0.41349 0.00000 192:0.4131 0.00000 192:0.1000 0.00000 192:0.0000 0.00000 192:0.0000 193 202-0-0-1 14:00:0.41349 0.00000 192:0.1000 0.00000 192:0.0000 0.00000 192:0.0000 0.00000 192:0.0000 193 202-0-0-1 14:00:0.41359 0.00000 192:0.1000 0.00000 192:0.0000 0.00000 192:0.0000 0.00000 192:0.0000 0.00000 192:0.0000 193 202-0-0-1 14:00:0.1138 0.00000 192:0.1000 0.00000 192:0.0000 0.000000 192:0.0000 0.0000000000 0.0000000000		1014 20	21-06-12	14:01:00.405470	0.000000	192,168,1,15	192,168,1,121	882.11	76	5 -36 dBm	Acknowledgement, Flags,C		> IEEE 802.11 Association Request, Flags:C
195 2023-04-12 10100 10100 1010 <td></td> <td>1015 20</td> <td>21-06-12</td> <td>14101108-455548</td> <td>0.000470</td> <td>Netwear 48:20:55</td> <td>Cisco 11:00:</td> <td>882.11</td> <td>160</td> <td>5 .57 (88</td> <td>Probe Benuest, Stat. ENel. Elarse</td> <td></td> <td>✓ IEEE 802.11 Wireless Management</td>		1015 20	21-06-12	14101108-455548	0.000470	Netwear 48:20:55	Cisco 11:00:	882.11	160	5 .57 (88	Probe Benuest, Stat. ENel. Elarse		✓ IEEE 802.11 Wireless Management
$ \begin{array}{c} 1 \\ 1 \\ 1 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\$		1016 20	23.06.12	14103108-485989	0.000041	192,168,1,16	192.168.1.121	882.11	26	5 -36 dbs	Arknowledgement, flags,		> Fixed parameters (4 bytes)
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		1019 20	23.06.12	14103108.504575	0.012524	Netgear 48:20:05	Cisco 13:88:	882.11	368	5 .51 dite	Probe Request, Stal, Flags, Flags,		✓ Tagged parameters (156 bytes)
194 2021-4-21 4/2016 7/2010 0.21348 Migrar, 4217918 0.51248 Migrar, 4217918 0.5148 M		1020 20	23-06-12	14:03:08.504575	0.000000	192,168,1,15	192.168.1.121	882.11	26	5 -36 dim	Acknowledgement, Flagt,		> Tag: SSID parameter set: "wifi68_test"
1919 2921-46-12 1921-46-1.12 921-46-1.12 921-46-1.12 921-46-1.12 921-46-1.12 921-46-1.12 921-46-1.12 921-46-1.12 921-46-1.14 <		1034 20	21-06-12	14:03:00.710003	0.211500	Netgear 40:70:95	Cisco 13:00:	882.11	96	5 -51 dim	Authentication, Shat, FNaD, FlagtaC		> Tag: Supported Rates 6(8), 9, 12(8), 18, 24(8), 36, 48, 54, [Mult/sec]
199 292-14-22 1492		1015 20	21.06.12	14:03:00.710003	0.000000	192,168,1,15	192, 168, 1, 121	882.11	76	5 -36 dbm	Acknowledgement, FlagsC		> Ext Tag: HE Capabilities
197 202-0-4-12 14/010 7/4010 0.000000 192:141.15 193.148.1.12 193.		1016 20	23.06.12	14103108.724481	0.006350	Cisco 13:00:e7	Netgear 4817	882.11	96	5 .36 dbs	Authentication, Shafe, Flag, Flags,		> Ext Tag: HE 6 GHz Band Capabilities
Bits Description Description Description Description Description 1 344 2023-46-12 1448 2023-46-12 <td></td> <td>1017 20</td> <td>23.06.12</td> <td>14103108.724481</td> <td>0.000000</td> <td>192,168,1,15</td> <td>192,168,1,121</td> <td>882.11</td> <td>76</td> <td>5 .50 dtm</td> <td>Acknowledgement, FlagsC</td> <td></td> <td>> Tag: Vendor Specific: Ralink Technology, Corp.</td>		1017 20	23.06.12	14103108.724481	0.000000	192,168,1,15	192,168,1,121	882.11	76	5 .50 dtm	Acknowledgement, FlagsC		> Tag: Vendor Specific: Ralink Technology, Corp.
194 223-4-2 12 43281,73191 0 4000000 932.181.11 92.481.12 92.481.21 93.481.12 93		1019 20	23-06-12	14:01:08.728154	0.001671	Netgear 48:20:95	Cisco 13:80:-	882.11	258	5 -51 dkm	Accordation Request, SNu2, Flugh, FlagssC. SSIDs"wifi6E text"		> Tag: Extended Capabilities (10 octets)
194 2021-46:2 24:001-46:2 4:0	12	1040 20	21-06-12	14:01:08.728154	0.000000	192,168,1,15	192,168,1,121	802.11	76	5 -36 dim	Acknowledgement, FlagtsC		> Tag: Vendor Specific: Hicrosoft Corp.: WMV/WHE: Information Element
1945 2021-4-22 14/2016.773019 0.000000 12/2016/07 0.00000000000000000000000000000000000		1044 20	21-06-12	14:01:00.736359	0.001205	Netgear 48:70:95	Broadcast	LLC	114	5 -36 dim	U.F. funculinknown: DSAP ex4c Group, SSAP Remote Program Load Response		✓ Tag: KSN Information
1942 2021-4-21 24/0101779319 0.000000 1921/01.115 1923/041.212 8021.115		1045 20	23-06-12	14:03:05.739319	0.002568	Cisco 13:00:e7	Netgear 48:7	882.11	299	5 -36 dbm	Association Response, SNu0, FNu0, FlagsC		Tag Number: RSN Information (48)
194 202-04-02 14/2016/75900 0.000000 Mtgtgrg_4179167 Vigtgrg_4179167 Vigtgr_4179167 Vigtgr_4179167<		1046 20	23-06-12	14:03:08.739319	0.000000	192.168.1.15	192,168,1,121	882.11	76	5 .50 dbm	Acknowledgement, FlagsC		Tag length: 22
1949 2021-46:12 14/010 (m,VTM)9 0.400913 (01/01 (m,VTM)9 0.40091(1047 20	23-06-12	14:03:08.739401	0.000002	Netgear 48:70:95	Broadcast	LLC	114	5 -36 dbs	I P. N(R)+50, N(S)+13: DSAP dwd0 Group, SSAP dwei Response		RSN Version: 1
199 2001-06-12 24101010-74104 0.00000000000000000000000000000000000		1049 20	23-06-12	14:03:08.747359	0.007958	Cisco 13:80:07	Netgear 48:7.	EAPOL	221	5 -36 d8m	Key (Nessage 1 of 4)		> Group Cipher Suite: 00:0fiac (Ieee 802.11) AES (CCH)
1951 2023-46-21 241018,74812 0.000000 \$110118111.5 0.000000 \$11011811.5 0.00000 \$1101181.5 0.00000 \$110181.5 0.00000 \$110181.5		1050 20	23-06-12	14:01:08.748342	0.000103	192.168.1.15	192,168,1,121	802.11	76	5 -50 d8m	Acknowledgement, Flagt,C		Pairwise Cipher Swite Count: 1
195 222-0-4-21 4/0101-74582 0.000000 1023-1161.115 192-108-1.110		1051 20	21-06-12	14:03:00.740342	0.000000	Netgear 48:70:95	Cisco 13:00:-	EAPOL	223	5 -51 dBm	Key (Nessage 2 of 4)		> Pairwise Cipher Swite List 00:0f:ac (See 802.11) AES (CCH)
195 2021-46-12 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 195 195 2021-46-12 195 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 2021-46-12 195 195 4-00 17-1200-16 195 2021-46-12 195 195 4-00 17-1200-16 195 4-00 17-1200-16 195 195 195 195 195 195 195 195 195 195 195<		1052 20	23-06-12	14:03:08.748342	0.000000	192,168,1,15	192,168,1,121	802.11	76	5 -36 dbm	Acknowledgement, Flags+C		Auth Key Management (AKH) Suite Count: 1
195 2021-46.22 195/1007-11162 9.000000000000000000000000000000000000		1053 20	23-06-12	14:03:08.751342	0.003000	Cisco 13:80:e7	Netgear 4817	EAPOL	295	5 -36 dbm	Key (Message 3 of 4)		> Auth Key Management (AKM) List 00:0f:ac (Ieee 802.11) Opportunistic Wireless Encryption
1 1 55 222-14-12 1/2 <td></td> <td>1054 20</td> <td>23-06-12</td> <td>14:03:08.751342</td> <td>0.000000</td> <td>192.168.1.15</td> <td>192.168.1.121</td> <td>802.11</td> <td>76</td> <td>5 -50 d8m</td> <td>Acknowledgement, FlagsC</td> <td></td> <td>> RSN Capabilities: 0x0000</td>		1054 20	23-06-12	14:03:08.751342	0.000000	192.168.1.15	192.168.1.121	802.11	76	5 -50 d8m	Acknowledgement, FlagsC		> RSN Capabilities: 0x0000
1955 2021-46-12 14/0101/07101 0.000000 102101/011 195 2021-46-12 14/0101/0101/01101 195 2021-46-12 14/0101/0101/01101 195 2021-46-12 14/0101/0101/01101 195 2021-46-12 14/0101/01	L	1055 20	23-06-12	14:03:08.751342	0.000000	0 Netgear 48:70:95	Cisco 13:80:	EAPOL	199	5 -55 d8m	Key (Hessage 4 of 4)		PPKID Count: 0
199 2021-46-12 14/3018.77011 0.00001 931/clist Hegger_417. LLC 197 5 - 0 dm 1, N(1)/sijl (504 Post Fosticula), S54 Post Commed > b t Tgc 104 (04713-wclist Presting 198 2021-46-12 14/3018.77011 0.00000 932/clist 13 195 5 - 0 dm 1, N(1)/sijl (504 Post Fosticula), S54 Post Fosticula), S54 Post Fosticula), S54 Post Fosticula S54 Commed > b t Tgc 104 (04713-wclist Presting > b t Tgc 104 (04713-wclist Presting 198 2021-46-12 14/3018.77011 0.00000 932/clist 13 195 5 - 0 dm 1 Trigger Heffer Status Report Post (16897), TagsC > Tgc 106 (04713-wclist Presting > b t Tgc 104 (04713-wclist Presting > b		1056 20	23-06-12	14:03:08.751342	0.000000	192,168,1,15	192.168.1.121	802.11	76	5 -43 d8m	Acknowledgement, Flags,C		PPKID List
1985 2021-46-12 14/018.77841 6.000000 1921.161.11 192.148.1.21 280.11 74 5 - 5 dim acconsidering right C 198 2021.46.21 198 2021.46.21 198 2021.46.21 198 2021.46.21 198 2021.46.21 198 2021.46.21 2		1057 20	23-06-12	14:03:08.757481	0.006139	Ciscomer 53:ca:54	Netgear 48:7-	LLC	187	5 -43 dbm	I. N(R)+98. N(S)+91: DSAP 0xe6 Individual, SSAP 0xe8 Command		> Ext Tag: OWE Diffie-Hellman Parameter
199 2021-46-12 14/0101(0000) 0.00000 1021(011.15) 192 14/01.21 80/21.11) 193 15 - 0.0000 17 rigger infrest status Report Poll (1897), flagsC The lumber: in tradel Gaulities (20) 198 2021-46-12 14/0101(0000) 0.00000 1921(01.15) 192 14/01.21 80/21.11) 193 - 0.0000 17/1gger infrest status Report Poll (1897), flagsC The lumber: in tradel Gaulities (20) 198 2021-46-12 14/0101(0000) 0.00000 1921(01.15) 192 14/01.21 80/21.11) 193 - 0.0000 1/1gger infrest status Report Poll (1897), flagsC The lumber: in tradel Gaulities (20) 198 2021-46-12 14/0101(0000) 0.00000 1921(01.15) 192 14/01.21 80/21.11) 193 - 0.0000 1/1gger infrest status Report Poll (1897), flagsC The lumber: in tradel Gaulities (20) 198 2021-46-12 14/0101(0000) 0.00000 1921(01.15) 192 14/01.21 80/21.11 193 - 0.0000 1/1gger infrest status Report Poll (1897), flagsC The lumber: in tradel Gaulities (20) 198 2021-46-12 14/0101(0000) 0.00000 1921(01.15) 192 14/01.21 80/21.11 193 - 0.0000 1/1gger infrest status Report Poll (1897), flagsC 198 2021-46-12 14/0101(0000) 0.00000 1921(01.15) 192 14/01.21 80/21.11 193 - 0.0000 1/1gger infrest status Report Poll (1897), flagsC C C C 198 2021-46-12 14/0101(0000) 0.00		1058 20	23-06-12	14:03:08.757481	0.000000	192.168.1.15	192,168,1,121	802.11	76	5 -55 dbm	Acknowledgement, FlagsC		 Tag: RH Enabled Capabilities (5 octets)
1943 2021-46-12 14/0310.00004 0.44143 01 3021.01.15 195.148.1.120 802.1 119 5 - 4.0 dm 17/ggpt infty first status apport		1059 20	23-06-12	14:03:08.757481	0.000000	192.168.1.15	192.168.1.121	802.11	119	5 -43 d8m	Trigger Buffer Status Report Poll (858P), Flags=C		Tag Number: RH Enabled Capabilities (78)
1181 2021-46-12 14/018.00001 0.400059 bracket/sciences 220 5 6-40 dm 7, (10)-001 (2007) 0.500 PRANE (12005) 1.500 PRANE (12005) 1.5000 PRANE (12005) 1.500 PRANE (12005) 1.500 PRANE		1063 20	23-06-12	14:03:08.798868	0.041387	192.168.1.15	192.168.1.121	802.11	119	5 -43 d8m	Trigger Buffer Status Report Poll (BSRP), Flags+C		Tag length: S
1182 223-4-21 2430184,80830 0.000000 932,148.1.15 152,148.1.212 882.1 76 5 - 40 dm Actonologgement, TagersC 1184 223-4-21 2430184,80830 0.000000 932,148.1.15 152,148.1.212 882.1 76 5 - 40 dm Actonologgement, TagersC 1184 223-4-21 2430184,80830 0.000000 932,148.1.15 152,148.1.212 882.1 76 5 - 40 dm Actonologgement, TagersC		1101 20	23-06-12	14:03:08.880363	0.001495	5 Netgear 48:70:95	IPv6mcast_16	LLC	227	5 -61 d8m	I, N(R)+49, N(S)+75; DSAP PROWAY (IEC955) Active Station List Haintena		✓ RM Capabilities: 0x42 (octet 1)
1184 2021-06-12 14(2)		1102 20	23-06-12	14:03:00.000363	0.000000	9 192.168.1.15	192.168.1.121	802.11	76	5 -43 d8m	Acknowledgement, Flags+C		e = Link Measurement: Disabled
1185 2021-46-12 14/0101400543 0.4000000 brigger_4017015 5 90400041 (2014) 109 5 -1 000 5, fmortsky, (10)/035 054 Pack Group, Side Rad Raponte, 1001000 (2014) (2		1104 20	23-06-12	14:03:08.880363	0.000000	9 192.168.1.15	192.168.1.121	802.11	119	5 -42 dbm	Trigger Buffer Status Report Poll (BSRP), Flags+C		
1115 2021-46-12 14/10/16 19/20/16-12 14/10/16 19/20/16-12 14/10/16		1105 20	23-06-12	14:03:08.880363	0.000000	Netgear_48:70:95	IPv6mcast_16	LLC	190	5 -38 d8m	5, func+RR, N(R)+95; DSAP exac Group, SSAP exd6 Command		
1132 2221-46-12 1410316.00109 6.0000000 0112611.0012 0.000000 0112611.0012 0.000000 011261.0012 0.0000000 011261.0012 0.00000000000000000000000000000000000		1126 20	23-06-12	14:03:08.889249	0.005556	192.168.1.15	192.168.1.121	802.11	76	5 -42 d8m	Acknowledgement, Flags+C		0 * Repeated Measurements: Disabled
1111 2021-4-2 14:010.101979 0.000000 ttgggr_41:015 102.102.1.12 802.104.1.12 80		1130 20	23-06-12	14:03:08.889249	0.000000	0 Netgear_48:70:95	Broadcast	LLC	444	5 -56 d8m	U P, func+FRMR; DSAP ex9a Group, SSAP ex16 Command		
1112 2021-04-12 14/010000000000000000000000000000000000		1131 20	23-06-12	14:03:08.889249	0.000000	192.168.1.15	192.168.1.121	802.11	76	5 -42 d8m	Acknowledgement, Flags+C		= Beacon Active Measurement: Disabled
1135 2021-46-12 14/0101.09025 6.000359 Metger_417015 Frondest LLC 442 5.3-6 dB 17, N(1)-143, N(3)-464 February 14/0101, SSAF Beak Regionse 1/14/021-46-12 14/0101.091751 6.00000 Metger_417015 Frondest LLC 4/15 5.4-6 dB 17, N(1)-143, N(3)-464 Feak Regionse 1/14/021-46-12 14/0101.091751 2.14/0101.		1132 20	23-06-12	14:03:08.889249	0.000000	0 Netgear_48:70:95	IPvGmcast_01_	LLC	195	5 -37 dbm	I, N(R)=125, N(5)=49; DSAP 0x94 Group, SSAP 0x24 Response		.1 = Beacon Table Heasurement: Supported
143 2021-06-12 14/03/06.517512 0.022966 Netger_40170:55 1Pvincest_01_LLC 065 5 -61 08m U F, forcivinoum DSAF Recc Individual, SSAF Recc Response D N Capabilities: embo (octet 1) 144 2021-06-12 14/03/06.517512 0.000000 Niteser Attributes D Produces (Tags		1135 20	23-06-12	14:03:08.890825	0.001576	5 Netgear_48:70:95	Broadcast	LLC	442	5 -36 dbm	I P, N(R)+118, N(S)+104; DSAP @xa0 Individual, SSAP @x64 Response		0 + Beacon Heasurement Reporting Conditions: Disabled
1144 2021-06-12 14:031:047721 04:031:04771 04:060000 0fter 4:01 05:061.121 082.104.1.21 082.104.	1	1143 28	23-06-12	14:03:08.917921	0.027096	Netgear_48:70:95	IPv6mcast_01_	LLC	385	5 -61 d8m	U F, funcwUnknown; DSAP excc Individual, SSAP exec Response		> RM Cepabilities: exx00 (octet 2)
1146 2023-06-12 14:00:00 Notgeer -40:70:95 TPvincast 01. LLC 268 5 -37 dBm T. N(R)+86. N(5)+50: DSAP EIA 85-511 Manufacturing Message Service Ind > MM Capabilities: 0x00 (octet 4)	1	1144 28	23-06-12	14:03:08.917921	0.000000	9 192.168.1.15	192.168.1.121	802.11	76	5 -41 d8m	Acknowledgement, Flags+C		> RF CADEDILITES: EXXMP (OCTE 3)
has developed a state of the st	1	1146 20	23-06-12	14:03:08.917921	0.000000	0 Netgear_48:70:95	IPv6mcast_01_	LLC	268	5 -37 d8m	I, N(R)+86, N(S)+58; DSAP EIA RS-511 Hanufacturing Message Service Ind	1	> NY CADADITIES: WWW (OCTE 4)
1148 2023-06-12 14:00:00.921977 0.004056 Cisco_13:00:07 Netgear_40:7. 002.11 110 5 -36 d0m Action; SN=1, FN=0, Flags=.pC > N0 Capadollitles: 0x000 (octet 5)	1	1148 20	23-06-12	14:03:08.921977	0.004056	G Cisco_13:00:e7	Netgear_48:7	802.11	118	5 -36 d0m	Action, SN+1, FN+0, Flags+.pC		> NV CAPADILITIES: ENABL (OCTET 5)
1149 2023-06-12 14:03:01.921977 0.000000 192.168.1.15 192.168.1.121 002.11 76 5 -51 dbm Acknowledement. FlaesC	1	1149 28	23-06-12	14:03:08.921977	0.000000	9 192.168.1.15	192.168.1.121	802.11	76	5 -51 d0m	Acknowledgement. FlagsC		

Détails du client dans le WLC :

Cisco Cata	00-CL Wireless Controller Welcome admin 🛛 🏶 🖘 🖄 🚱 🕫 🕼 📿 Search APs and Clients 🔍 🗎 🕿 Feedback	2.0
Q. Search Menu Items	vring * > Wireless * > Clients Client	×
	s Sleeping Clients Excluded Clients ATF Statistics ATF Statistics Mobility History Call Statistics	
Cashodald	Client Properties AP Properties Security Information Client Statistics QOS Properties EoGRE	
Monitoring >	Client State Servers None	
Configuration	cted 0 out of 11 Clients Client ACLS None Client ACLS Client ACLS Seconds	
	Client MAC Address Y IPv6 Address AP Name Y Policy Type WPA3	
201 Administration	9418.6548.7095 🗡 192.168.1.163 fe80::ce19.6116.279d.5154 AP6849.9253.CASO CEncryption Cipher CCMP (AES)	
C Licensing	60fb.08b.0e66 / 192.168.1.155 N/A AP04_DurdoorF_3DC8 Authentication Key Management OWE	
	34ea.e702.6240 ✔ 192.168.1.70 N/A AP6849.9253.CA50 Sestion Timeout 8640.0	
X Troubleshooting	a810.87bb.b833 / 192.168.1.94 fe80::aa10:87ff:febb:b833 AP03_Sotao_9548 Session Manager	

Pixel 6a

Connexion OTA avec accent sur les informations RSN du client :

I ((peekremote) 8& (vlan.addr == 24:95:2f:72:8a:66)) (vlan.fc: hype_subtype == 0x001d)	🛛 — — +
The Time Dalta Source Destination Destination Example Source Sources	> Frame 589: 293 bytes on wire (2344 bits), 293 bytes captured (2344 bits) on interface \Device\\MPF_(04578905-2998-4456
The fine cost of the cost of t	Ethernet II, Src: Cisco.dd:7d:37 (00:df:1d:dd:7d:37), Dst: Universa.b7:cf:06 (00:3a:88:b7:cf:06)
2/4 2021/00/1021/01/2010/01 0 100/01 0 100/01 0 100/01 0/01/01 0/01/01 0/01 100/01 0/01/01 0/01 0/01/01/01/01/01/01/01/01/01/01/01/01/01	Internet Protocol Version 4, Src: 192.168.1.15, Ost: 192.168.1.121
The second	> User Datagram Protocol, Src Port: 5555, Dst Port: 5000
EET 201.0C.13 15-151.0C.00 & BILEET (Second Second Se Second Second Seco	> AiroPeek/OmniPeek encapsulated IEEE 802.11
582 303.06.13 15 (51)27.35620 8.00000 102 152.115 103.162.113 803.11 76 5.48 400 27000/26500004 [00:00] 100.110	> 802.11 radio information
- 500 1001-00-10 10:511-07-205500 8. Addess Good a Tribard Circo 11:00 100 1001 10 100 11 00 10 - 44 dim Accordington Angel Internet Inch Flags	> IEEE 002.11 Association Request, Flags:C
500 1001.06.11 15:511.07.20560 8.00000 101.155 1.155 101.155 1.11 801.11 75 5.15 400 Activation respects property respectively respecti	✓ IEEE 802.11 Wireless Hanagement
500 1001.06.10 15:501-77.701006 @ 0.05018 (1scn 11:00+7) Forela 201:11 700 5.15.40 issues topological fragmentic Guide Elaste	> Fixed parameters (4 bytes)
599 3071.06.17 15:51:77.791916 8.00000 107.161.1.15 107.161.111 807.11 76 5.45 48 4//wuldefement flats	 Tagged parameters (199 bytes)
600 2021.06.12 15:51:27.26168 8.002252 (16:0 11:00:07 Goodle 22:08 E000 221 5.16.008 Eer (Netcase 1.0 4)	> Tag: SSID parameter set: "wifi66_test"
631 2021.06.12 15:151/27.26158 0.000000 102.168.1.15 102.168.1.171 002.11 26 5.46 dim Arknowledgement. Flarts	> Tag: Supported Rates 6(0), 9, 12(0), 10, 24(0), 36, 40, 54, [Mbit/sec]
644 2023-86-12 15:51:27.82315 0.017984 Google 72:8a:66 (icco 11:80: 5400, 227 5.46 dim Key (Nettage 2.0 f.4)	> Tag: Power Capability Min: -7, Max: 19
665 2023-06-12 15:51:27.020152 0.000000 102:16.1.15 102:160.11 200.11 76 5.17 dim Arknowledgement. Elasta	> Tag: Supported Channels
666 2023-06-12 15:51:27.834424 0.002272 (isco 11:80:07 Google 72:84 E400 295 5-36 dBm Key (Nessaes 1 of 4)	 Tag: RSN Information
607 2023.06.12 15:51:72.034424 0.000000 102.163.1.15 102.163.1.121 002.11 76 5.46 dim Arkyouledgement. Flatte	Tag Number: RSN Information (48)
680 2021.06.12 15151127.868721 0.000290 Google 22184166 Cisco 111801 EAPCL 199 5.46 dBx Key (Nessare 4 of 4)	Tag length: 26
609 2023.06.12 15:51:22.868721 0.000000 192.168.1.15 192.168.1.121 802.11 76 5.17 dim Acknowledgement. Flags	RSN version: 1
611 2023-06-12 15:51:22.860914 0.020191 Ciscover Sica:50 Goodle 22:8a LLC 187 5 -46 dBm I P. N(8)=17. N(5)=1: DSAP dwcc Group, SSAP dwse Command) Group Cipher Suite: 00:0fiac (Ieee 802.11) AES (CCM)
612 2023-06-12 15:51:27.860914 0.000000 192.163.1.15 193.168.1.121 802.11 76 5-53 dim Acknowledgement. Flatte	Pairwise Cipher Suite Count: 1
613 2023-06-12 15:51:27.860914 0.000000 192.168.1.15 192.168.1.121 802.11 76 5-17 dBm Acknowledgement, FlatteC	> Pairwise Cipher Suite List 00:0f:ac (Ieee 802.11) AES (CCH)
614 2023-06-12 15:53:27.864106 0.003192 192.168.1.15 192.168.1.121 802.11 76 5.36 dBm Acknowledgement, flatsC	Auth Key Hanagement (AKH) Suite Count: 1
616 2023.06.12 15:53:27.875667 0.011561 192.168.1.15 192.168.1.121 802.11 76 5.36 dBm Acknowledgement, FlagsC	> Auth Key Hanagement (AKH) List 00:0f:ac (Ieee 802.11) Opportunistic Wireless Encryption
617 2023-06-12 15:51:27.82281 0.006434 192.168.1.15 192.168.1.121 802.11 76 5.45 dBm Acknowledgement, FlagteC	> RSN Capabilities: 0x00c0
618 2023-06-12 15:51:22.884151 0.002052 Google 72:88:66 (isco 11:80: 802.11 122 5 -46 dBm Action, Sus1703, FM-0, Flags.cC	PrKID Count: 0
619 2023-06-12 15:51:27.884153 0.000000 192.168.1.15 192.168.1.121 802.11 76 5 -36 dBm Acknowledgement, FlagsC	PHKID List
623 2023-06-12 15:53:27.933491 0.049338 Cisco 13:00:e7 Google 72:08 002.11 124 5 -37 dbm Action. Swal, Fixed, Flagse.cC(Nalformed Packet)	> Group Hanagement Cipher Suite: 00:0f:ac (Ieee 802.11) 8IP (128)
624 2023-06-12 15:53:27.933491 0.000000 192.163.1.15 192.164.1.121 802.11 76 5 -47 dbm Acknowledgement, FlagsC	✓ Tag: RH Enabled Capabilities (5 octets)
629 2023-06-12 15:53:28.018696 0.085205 Google 72:88:66 Cisco 13:80: 802.11 115 5 -48 dBm Action, Su-1704, Fueb, Flags.cC	Tag Number: RH Enabled Capabilities (70)
610 2023-06-12 15:51:28.018656 0.000000 192.168.1.15 192.168.1.121 802.11 76 5 -36 dBm Acknowledgement, FlagteC	Tag length: 5
631 2023-06-12 15:53:28.018750 0.000054 Google 72:88:66 IPv6mcast ff_ LLC 227 5 -55 dBm I. N(R)+37. N(S)+11: D5AP 0xec Individual, 55AP 0x4a Command	RM Capabilities: 0x73 (octet 1)
632 2023-06-12 15:53:28.018864 0.000114 192.168.1.15 192.168.1.121 802.11 76 5 -46 dbm Acknowledgement, FlagsC	1 = Link Heasurement: Enabled
634 2023-06-12 15:53:28.020947 0.002003 Cisco 13:00:07 Google 72:08. 002.11 115 5-37 d0m Action, SN=2, FN=0, Flags=.pC	
635 2023-06-12 15:53:28.020947 0.000000 192.168.1.15 192.168.1.121 802.11 76 5 -48 dbm Acknowledgement, FlagsC	
636 2023-06-12 15:53:28.021574 0.000627 192.168.1.15 192.168.1.121 802.11 86 5 -48 dBm 802.11 8Jock Ack Reg. Flags+C	0 = Repeated Measurements: Disabled
637 2023-06-12 15:53:28.021574 0.000000 192.168.1.15 192.168.1.121 802.11 94 5 -37 dBm 802.11 Block Ack, FlagsC	1 = Beacon Passive Measurement: Enabled
638 2023-06-12 15:53:28.026616 0.005042 192.168.1.15 192.168.1.121 802.11 82 5-55 dBm Request-to-send, FlagsC	Beacon Active Measurement: Enabled
639 2023-06-12 15:53:28.026616 0.000000 192.168.1.15 192.168.1.121 802.11 76 5 -46 d0m Clear-to-serd, FlagsC	.1 = Beacon Table Heasurement: Supported
648 2023-06-12 15:53:28.026661 0.000045 192.168.1.15 192.168.1.121 802.11 94 5 -46 dBm 802.11 Block Ack, Flags+C	e Beacon Measurement Reporting Conditions: Disabled
652 2023-06-12 15:53:28.206666 0.180005 Google_72:88:66 Broadcast LLC 448 5 -51 dBm I, N(R)=122, N(5)=124; DSAP 0x5c Individual, SSAP 0x9c Command	> RH Capabilities: 0x00 (octet 2)
653 2023-06-12 15:53:28.206666 0.000000 192.168.1.15 192.168.1.121 802.11 76 5 -37 dBm Acknowledgement, Flags+C	RM Capabilities: dx01 (octet 3)
657 2023-06-12 15:53:20.241617 0.034051 Cisco_13:00:07 Google_72:0a. 002.11 110 5 -37 d0m Action, 5N=3, FN=0, Flags=.pC	+ AP Channel Report capability: Enabled
658 2023-06-12 15:53:28.241617 0.000000 192.168.1.15 192.168.1.121 802.11 76 5 -51 dBm Acknowledgement, Flags+C	
659 2023-06-12 15:53:28.241976 0.000359 Google_72:8a:66 Cisco_13:80: 802.11 115 5 -49 dBm Action, SN=1705, FN=0, Flags=.pC[Malformed Packet]	0 00 = Operating Channel Max Measurement Duration: 0
660 2023-06-12 15:53:28.241976 0.000000 192.168.1.15 192.168.1.121 802.11 76 5 -37 dBm Acknowledgement, Flags+C	000 = Nonoperating Channel Hax Heasurement Duration: 0
661 2023-06-12 15:53:28.243742 0.001766 AlticeLa_90:59:af Google_72:8a. LLC 459 5 -47 dBm 5, func=RNR, N(R)=85; DSAP 0x96 Individual, SSAP 0x9a Command	> RH Capabilities: Exem (octet 4)
662 2023-06-12 15:53:28.243742 0.000000 192.168.1.15 192.168.1.121 802.11 94 5 -56 dBm 802.11 Block Ack, FlagsC	> RH Capabilities: exRM (octet 5)
667 2023-06-12 15:53:28.328207 0.084465 Google_72:88:66 Cisco_13:80:. 802.11 115 5 -50 dBm Action, 5%+1706, Flags+.pC[Malformed Packet: length of contain	ned ite > Tag: Supported Operating Classes
668 2023-06-12 15:53:28.328207 0.000000 192.168.1.15 192.168.1.121 002.11 76 5 -37 dBm Acknowledgement, Flags+C	> Tag: Extended Capabilities (10 octets)
669 2023-06-12 15:53:28.328254 0.000047 Google_72:88:66 Broadcast LLC 144 5 -50 dBm I P, N(R)=19, N(S)=114; DSAP 0xea Individual, SSAP 0x48 Command	Ext Tag: HE Capabilities
670 2023-06-12 15:53:28.328372 0.000118 192.168.1.15 192.168.1.121 802.11 76 5 -37 dBm Acknowledgement, Flags+C	Ext Tag: HE 6 GHZ BAND Capabilities
672 2023-06-12 15:53:28.330678 0.002306 Cisco_13:00:e7 Google_72:8a. 802.11 115 5 -37 dBm Action, SN=4, FN=0, Flagis.pC[Halformed Packet]	> EXT Tag: ONE DIFIE-HEIMAN Parameter
673 2023-06-12 15:53:28.330678 0.000000 192.168.1.15 192.168.1.121 802.11 76 5 -49 dBm Acknowledgement, FlagsC	> Tag: Vendor Specific: Broadcom
674 2023-06-12 15:53:28.330957 0.000279 192.168.1.15 192.168.1.121 002.11 86 5 -49 d0m 002.11 Block Ack Reg, Flags=C	> Tag: Vendor Specific: Microsoft corp.: WPV/WE: Information Element

Détails du client dans le WLC :

Cisco Cata	lyst 980	0-CL Wireless C	Contr	roller			Welco	ome <i>admin</i>	*	A 7	8 (0 0	Search APs and Cl	ients Q	redback 🦨 Թ
O Search Menu Jame															×
C Startch Mend harms	360 View	Genera	al QO	S Statistic	s A	TF Statistics	Mobility History	Call Statistics							
Dashooard							Client Pro	perties	AP Prope	rties	Security	Information	Client Statistics	QOS Properties	EoGRE
Monitoring >	×	Delete			Client State Servers				None						
Configuration	Select	ed 0 out of 13 Clients					Client Al	CLS	ime			None 135 seconds			
	0	Client MAC Address	Ŧ	IPv4 Address	IPv6 Address	AP Name	Policy T	ype	1110			WPA3			
O Administration	0	2495.2f72.8a66	×	192.168.1.162	fe80::b13:f107:7c5f:a7e0	AP6849.9253.CA50	Encrypti	on Cipher				CCMP (AES)			
C Licensing	0	0429.2ec9.e371	×	192.168.1.160	fe80::6a20:34e8:ab1b:6332	AP6849.9253.CA50	Authenti	ication Key N	fanagemen			OWE			
Consing	O	60fb.008b.0e66	×	N/A	N/A	AP01_RC_9136_F800	EAP Typ Session	Timeout				Not Applicabl 86400	0		
Y Troubleshooting		34ea.e702.6240	1	192.168.1.70	N/A	AP6849.9253.CA50	53.CA50								

Samsung S23

Connexion OTA avec accent sur les informations RSN du client :

1	(Deepermont) and (Harcood		A II (marcicicly)e Joos	the an origo roll						Without 1
N	b. Time		Delta	Source	Destnation	Protocol	Lengt Char	nnel Signals	e Info		> Frame 2387: 388 bytes on wire (3104 bits), 388 bytes captured (3104 bits) on interface \Device\NFF_{D4578905-2998-445
	2383 2023-06-12	15:10:49.938966	0.419825	Samural chiel:71	Cisco 11:00:	882.11	96	5 -45 dB	Authentication, SN+2164, FN+0, Flagt+C		> Ethernet II, Src: Cisco_dd:7d:37 (00:df:1d:dd:7d:37), Ost: Universa_b7:cf:06 (00:3a:00:b7:cf:06)
	2384 2023-06-12	15-18-49 938966	0.000000	192.168.1.15	192,168,1,121	882.11	76	5 .17 /0	Arknowledgement, Elagra /		> Internet Protocol Version 4, Src: 192.168.1.15, Ost: 192.168.1.121
	2385 2023-06-12	15:38:49.937354	0.006388	Cisco 13:80:47	Sancurat (9)	882.11	96	5 .37 48	Authentication, Shulla, Elug, Elasta		> User Datagram Protocol, Src Port: 5555, Ost Port: 5000
	2286 2022-06-12	15-38-48 837364	0.000000	101 108 1 10	103 168 1 131	883 11	74	5 . 47 . 48	Arknowladaenest flass-		> AiroPeek/OmniPeek encapsulated IEEE 802.11
	2300 2023-00-12	15-38-49 941841	0.000000	Cancered chigh-74	Circo 13:80:	002.111	100	5 -47 48	Arrestation Bassart (N-3125 (N-0 Elast- / SSTA-Sublid tart)	_	> 802.11 radio information
10	A244 1442-44-44	17-30-40 048041	0.000000	South a start	103.100.1.1001.	002124	200	5 147 00	Appendential adverses and any respectation of polos arrive_cest		> IEEE 002.11 Association Request, Flags:C
11	2388 2023-06-12	13:30:49.941041	0.000000	194.100.1.19	192.100.1.121	002.33	76	5 -37 08	Acknowledgement, Plagsa		Y 1555 882.11 wireless Hanagement
	2393 2023-06-12	15:38:49.956542	0.014701	C15C0_13:80:07	sansungs_c91.	802.11	273	5 -37 de	Association Response, SNWW, FRWW, Flags*		> Fixed parameters (4 bytes)
1.1	2394 2023-06-12	15:38:49.956542	0.000000	192.160.1.15	192.160.1.121	002.11	76	5 -46 00	Acknowledgement, Flags+C		Y Tapped parameters (264 hytes)
	2395 2023-06-12	15:38:49.958831	0.002285	C15C0_131801e7	Sansungt_C91_	EAPOL	221	5 -37 dB	Key (Message 1 of 4)		 > The structure constants of the "widder back"
12	2396 2023-06-12	15:38:49.958831	0.000000	192.168.1.15	192.168.1.121	802.11	76	5 -45 dB	Acknowledgement, Flags*C		Tas: Europeted Stars ((8) 6 11(8) 18 14(8) 16 48 64 [bb]*/car1
	2398 2023-06-12	15:38:49.984449	0.025618	SamsungE_c9:e3:71	Cisco_13:80:_	EAPOL	227	5 -46 dB	Key (Message 2 of 4)		Fig. Support to match w(w), y, La(w), La, La(w), Su, W, W, W, (Match Mc)
13	2399 2023-06-12	15:38:49.984821	0.000372	192.168.1.15	192.168.1.121	802.11	76	5 -37 dB	Acknowledgement, Flags+C		> registrower expensional rank of react an
	2400 2023-06-12	15:38:49.985981	0.001168	Cisco_13:80:e7	SamsungE_C91.	EAPOL	295	5 -37 dB	Key (Message 3 of 4)		7 Teg. population contracts
13	2401 2023-06-12	15:38:49.985981	0.000000	192.168.1.15	192.168.1.121	802.11	76	5 -46 dB	Acknowledgement, #lags+C		 rag: KW information
14	2403 2023-06-12	15:38:50.007376	0.021395	SansungE_c9:e3:71	Cisco_13:80:	EAPOL	199	5 -47 dB	Key (Message 4 of 4)		Tag Number: Kis Information (48)
	2404 2023-06-12	15:38:50.007376	0.000000	192.168.1.15	192.168.1.121	882.11	76	5 -37 dB	Acknowledgement, Flags=C		Tag Length1 26
	2410 2023-06-12	15:38:50.093619	0.086243	SamsungE_c9:e3:71	Cisco_13:80:_	802.11	118	5 -47 dB	Action, SN=2, FN=0, Flags=.pC[Malformed Packet: length of contained	11	KSN Version: 1
	2411 2023-06-12	15:38:50.093619	0.000000	192.168.1.15	192.168.1.121	802.11	76	5 -37 dB	Acknowledgement, Flagi*C		> Group Cipher Suite: 00:0f:ac (Ieee 802.11) AES (CCH)
	2412 2023-06-12	15:38:50.096846	0.002427	Cisco 13:80:e7	Sansungt co:_	882.11	118	5 -37 dB	Action, SN+1, FN+0, Flags+.0C		Pairwise Cipher Suite Count: 1
	2413 2023-06-12	15:38:50.096846	0.000000	192.168.1.15	192.168.1.121	882.11	76	5 -45 dB	Acknowledgement, Flags+C		> Pairwise Cipher Suite List 00:0f:ac (Ieee 802.11) AES (CCH)
	2414 2023-06-12	15:38:50.101726	0.005658	Sancunel ch:e3:71	TPuincast ff	LLC	227	5 .59 db	T. N/R)+54, N/S)+52: DSAP duce Group, SSAP SNA Command		Auth Key Management (AKM) Suite Count: 1
	2415 2022-06-12	15-38-58 181716	0.000000	Cancunge (9-43-71	TRUGBCASE 16	110	161	5.59.40	T N(P)-47 N(S)-43- DCLP dute from SCLP durb Personie		> Auth Key Management (AKM) List 00:0f:ac (Ieee 802.11) Opportunistic Wireless Encryption
	2416 2023-06-12	15-38-58 181726	0.000000	102.168.1.15	192,168,1,121	682.11	110	5 .44 40	BBO 11 Block Lek, Elanta		> RSN Capabilities: 0x00c0
	2416 2023-00-12	10.30.00.1000710	0.000000	fancing chief. 71	Recordence	110	450	1 44 48	U.B. Autoutt, Mile auto Tediuldus) FF18 auto Company		PHKID Count: @
	2419 2023-00-12	15-30-50 100525	0.000000	sensorge_corest/1	103 148 1 131	883 11		5	Arknowladamant flam.		PHKID List
	2420 2023-00-12	15:20:20.200247	0.000000	174:190:1:19	172-199-1-121	002.11		5 - 37 00	indian (in a first of the first of the first formed basised)		> Group Hanagement Cipher Suite: 00:0f:ac (Iece 802.11) 8IP (128)
	2429 2023-06-12	15:30:50.102052	0.074123	C1500_13180167	Paulonds"ca!"	002.33	110	5 -37 08	Action, SN#2, FN#0, Fings*.pC[Maiformed Packet]		Y Tag: Bt frahled (anabilities (5 octets)
	2430 2023-06-12	15:38:50.182652	0.000000	192.168.1.15	192.168.1.121	802.11	76	5 -45 GB	Acknowledgement, Flags*C		Tag Number: By Enabled Ganabilities (78)
	2431 2023-06-12	15:38:50.188281	0.005625	Sansungs_c9:e3:71	C15C0_13:80:_	802.11	118	5 -46 dB	Action, SN#2160, FN#0, Flags#.pC[Maiformed Packet: length of contain	nec .	Tag langth: 6
	2432 2023-06-12	15:38:50.188586	0.000305	192.168.1.15	192.168.1.121	802.11	76	5 -37 dB	Acknowledgement, Flags+C		V Bit Anabilities: Bv23 (Artet 1)
	2433 2023-06-12	15:38:50.189704	0.001118	AlticeLa_9e1591af	Samsungt_C91_	LLC	429	5 -47 08	U P, func+RESET; DSAP ex46 Group, SSAP ex6e Command		t - the manufacture for the
	2434 2023-06-12	15:38:50.189704	0.000000	192.168.1.15	192.168.1.121	802.11	118	5 -58 dB	802.11 Block Ack, Flags*C		1 - Mainten Banari, Englist
	2436 2023-06-12	15:38:50.197365	0.007663	SamsungE_c9:e3:71	Broadcast	LLC	446	5 -47 dB	S P, func=RR, N(R)=17; DSAP PROMAY (IEC955) Active Station List Maintenance	ce	- Analis - Magney Appril - Analis
	2437 2023-06-12	15:38:50.197365	0.000000	192.168.1.15	192.168.1.121	802.11	76	5 -37 dB	Acknowledgement, Flags=C		
	2441 2023-06-12	15:38:50.239457	0.042092	AlticeLa_9e:59:af	SamsungE_c9:_	LLC	459	5 -47 dB	I, N(R)+54, N(S)+28; DSAP @x50 Group, SSAP @x84 Response		e = Kepested Heasurements: Disabled
	2442 2023-06-12	15:38:50.239457	0.000000	192.168.1.15	192.168.1.121	802.11	118	5 -58 dB	802.11 Block Ack, Flags+C		= seacon Passive Peasurement: Enabled
	2443 2023-06-12	15:38:50.248619	0.009162	SansungE_c9:e3:71	Broadcast	LLC	456	5 -46 dB	I P, N(R)+75, N(5)+42; DSAP Ungermann-Bass Group, SSAP PROMAY (IEC955) Net	bec	Beacon Active Heasurement: Enabled
	2444 2023-06-12	15:38:50.248619	0.000000	192.168.1.15	192.168.1.121	882.11	76	5 -37 dB	Acknowledgement, Flags+C		.1 = Beacon Table Heasurement: Supported
	2449 2023-06-12	15:38:50.307062	0.058443	AlticeLa_9e:59:af	SamsungE_c9:	LLC	459	5 -47 dB	S P, func+SRE3, N(R)+0; DSAP exce Group, SSAP exc2 Command		0 = Beacon Pleasurement Reporting Conditions: Disabled
	2450 2023-06-12	15:38:50.307062	0.000000	192.168.1.15	192.168.1.121	802.11	110	5 -58 dB	B02.11 Block Ack, Flags+C		> RM Capabilities: 0x10 (octet 2)
	2453 2023-06-12	15:38:50.344977	0.037915	Samsungt_c9:e3:71	Broadcast	LLC	144	5 -45 dB	I, N(R)+9, N(S)+42; DSAP @x46 Individual, SSAP @x36 Response		 RM Capabilities: 0x91 (octet 3)
L	2454 2023-06-12	15:38:50.344977	0.000000	192.168.1.15	192.168.1.121	882.11	76	5 -37 dB	Acknowledgement, Flags+C		+ AP Channel Report capability: Enabled
	2456 2023-06-12	15:38:50.340061	0.003054	Alticals Sectoral	Samural ch:	LLC	197	5 .46 db	T. N/R)-10. N/S)-17: DSAP dule Individual. SSAP dula Response		
	2457 2023-06-12	15:10:50.340061	0.000000	192.168.1.15	192,168,1,121	882.11	110	5 .57 db	992.11 Block Ack, Flagts		1 00 = Operating Channel Max Measurement Duration: 4
	2458 2023-06-12	15-18-58 158146	0.002288	Cancungt /0143171	alticela del	110	210	5.55.40	T. N/B)-CE. N/C)-77: DCLE dute Comm. CCLE dura Beconnia		100 = Nonoperating Channel Max Measurement Duration: 4
	2459 2023-06-12	15:38:50.358346	0.000000	167.168.1.16	162.168.1.121	882.11	118	5 .44 48	BBT 11 Black Ldk, Black		> RH Capabilities: 0x00 (octet 4)
	2400 2020-00-12	15-30-50 350330	0.000000	Altical a Barthrof	familiant chi	110	101	5 . 44 . 48	T N/B)-47 N/S)-64: Mill Bris Store fill Bris Barantes		> RM Capabilities: 0x04 (octet 5)
E	1461 1411 46-11	15-30-50 356336	0.007303	101 100 1 10	100 100 1 101	000 11	110	5 . 68 . 68	an ministery ministery user ente uroup, soer ente nesponse		> Tag: Supported Operating Classes
	2463 2823-86-12	15-38-58 33-569	0.000233	Are see 1.15	17c. 100.1.121	002.11	110	5 .55 08	T B H(B).47 H(C).33; DELB BROWNY (TECHER) Lebius Chapies sich Heine		> Tag: Extended Capabilities (11 octets)
1	2465 2023-06-12	47-20-20-274150	w.w19981	personge_C9:03:71	ALLACELA_SEL			5 -60 CB	A F, M(M/MM/, M(M/MAR) VANF FROMME (180999) ACTIVE SCRITCH LIST MELTCENERS		> Ext Tag: HE Cacabilities
1	2464 2023-06-12	15:38:50.374150	0.000000	192.108.1.15	192.108.1.121	802.11	110	5 -47 00	BE2.11 BLOCK ACK, PIREIM		> Ext Tag: HE 6 GHz Band Capabilities
E	2465 2023-06-12	15:38:50.391157	0.017007	ALLICELA_9015918f	sensungs_c91.	LLC	242	5 -46 dB	S, TURCESKEJ, N(K)+12; DSAP exce Group, SSAP exce command		> Ext Tag: Out Diffic-wellman Parameter
	2466 2023-06-12	15:38:50.391157	0.000000	192.168.1.15	192.168.1.121	802.11	118	5 -57 08	002.11 010CK ACK, F10g5+C		> Tag: Wender Specific: Qualcom Inc.
1	2468 2023-06-12	15130150.391157	0.000000	sensunge_C9:e3:71	AITICEL8_901.	LLC	215	5 -59 08	U, func+XID; DSAF exke Group, SSAF ekle Response		> Tap: Vendor Corridic: Cassing Electronics Coitd
1	2469 2023-06-12	15:38:50.391157	0.000000	192.168.1.15	192.168.1.121	802.11	118	5 -47 dB	802.11 Block Ack, Flags*C		 The Under Constitution of the second s
	2470 2023-06-12	15:38:50.391157	0.000000	SamsungE_c9:e3:71	AlticeLa_9e:_	LLC	217	5 -58 de	U, funcaUnknown; DSAP exic Group, SSAP exi2 Response		> registeration operators personal electronics solvers
	2471 2021-06-12	15-38-58 393157	0.000000	102 108 1 15	102 148 1 121	887.11	110	5 .47 48	BAD 11 Block Lok Flags.		

Détails du client dans le WLC :

Cisco Catal	yst 980	0-CL Wireless C	Con	troller			Welcome admin # 🕫 🋦 🖹 🏟 🔞 O 🎗 Search APs and Cleres Q	,
O. Search Menu Items	Monitor	ing • > Wireless •	> 0	Clients		Client	×	
	Clients	Sleeping Clients	s	Excluded Clients	8		360 View General QOS Statistics ATF Statistics Mobility History Call Statistics	_
Dashooard							Client Properties AP Properties Security Information Client Statistics QOS Properties EoGRE	
Monitoring	×	Delete C					Client State Servers None	
Configuration	Select	ed 0 out of 13 Clients					Client ACLs None	
	0	Client MAC Address	Ŧ	IPv4 Address	IPv6 Address	AP Name	Policy Type WPA3	
203 Administration	0	0012.17e1.dd57	×	192.168.1.33	fe80::212:17ff:fee1:dd57	AP03_Sotao_9548	Encryption Cipher CCMP (AES)	
C Licensing	0	0012.17e2.4856	×	192.168.1.37	fe80::212:17ff:fee2:4856	AP05_Outdoor8_220	Authentication Key Management OWE	
	0	0012.17e2.4b40	×	192.168.1.31	fe80::212:17ff:fee2:4b40	AP04_OutdoorF_3D0	EAP Type Not Appricable Section Timeout 88400	
X Troubleshooting	0	0429.2ec9.e371	×	192.168.1.160	fe80::6a20:34e8:ab1b:6332	AP6849.9253.CA50	Session Manager	
	O	0c8b.9509.3518	×	192.168.1.129	N/A	AP03_Sotao_9548		

WPA3 - AES (CCPM128) + OWE avec mode de transition

La configuration détaillée et le dépannage du mode de transition OWE sont disponibles dans ce document : <u>Configure Enhanced Open SSID with Transition Mode - OWE</u>.

WPA3 personnel - AES(CCMP128) + SAE

Configuration de la sécurité WLAN :

II DAN	
Changing WLAN parameters while it is enabled will	result in loss of connectivity for clients connected to it.
teral Security Advanced Add To Policy Ta	gs
yer2 Layor3 AAA	
O WPA + WPA2 O WPA2 + WPA3	NPA3 O Static WEP O None
MAC Filtering	
WPA Parameters	Fast Transition
WPA O WPA2 O	Status Disabled
GTK O WPA3 O	Over the DS O
Transition O	Reassociation Timeout * 20
Lissole	
WPA2/WPA3 Encryption	Auth Key Mgmt
GCMP128 O GCMP256 O	SAE 0 FT - SAE 0 OVE 0 FT - 802.1x 0
Protected Management Frame	802.1x+ O 5HA256
NIT Received	Anti Clogging Threshold* 1500
Par Internet I	Max Retries* 5
Association Comeback Timer*	Retransmit Timeout* 400
SA Query Time* 200	PSX Format ASC1
	Diffy Trans
	Pok type
	Pre-Shared Key*
	SAE Password Element Ø Hash to Element 0

Configuration WPA3 SAE



Remarque : n'oubliez pas que la chasse et le prélèvement ne sont pas autorisés avec la politique radio 6 GHz. Lorsque vous configurez un WLAN 6 GHz uniquement, vous devez sélectionner H2E SAE Password Element.

wifi6E_test

Affichage sur l'interface graphique utilisateur WLC des paramètres de sécurité WLAN :

5

O O wih6E_test

Vérification des balises OTA :

[WPA3][SAE][AES]

No.	Time	Deita	Source	Destination	Protocol	Lengtl Chann	el Signal st	e Info > Frame 6: 500 bytes on wire (4064 bits), 500 bytes captured (4064 bits) on interface \Device\NFF_(D4578905-2990-4456-1
	2 2023-06-12 17:12:24.650110	0.0000	Nee Cisco_13:80:ed	Broadcast	802.11	463	5 -36 084	Probe Response, Six717, PN=0, Flags=
	4 2023-06-12 17:12:24.670646	0.0205	D6 Cisco_13:00:ed	Broadcast	\$82.11	461	5 -36 d8m	Probe Response, SN-718, FN-0, FlagsC, 81-100, SSID-"wified test 02", SS) Internet Protocol Version 4, Src: 192.148.1.15, Dst: 192.148.1.121
	5 2023-06-12 17:12:24.691121	0.0204	75 Cisco 13:80:ed	Broadcast	802.11	461	5 -36 dan	Probe Response, Starig, Fixed, Flatte
	6 2023-06-12 17:12:24,711672	0.0205	51 Cisco 11:00:ed	Broadcast	802.11	585	5 -37 dbm	Beacon frame, Su-728, Fu-8, FlagsC. 81-188, SSID-"uificE test 81", SSID > AiroPeek/OmiPeek encapsulated IEEE 882.11
_	7 2023-06-12 17:12:24 732104	8.8764	14 C1500 13:08:ed	Ecoadrast	882.11	441	5 . 16 (88	Probe Bridgetse Shu221, Shu8, Elaster of States Stimulation > 802.11 radio information
	18 2023-06-12 17:12:24.752541	8.8204	be disco 11/08/ed	Broadcast	882.11	445	5 .36 day	Prome Becommen Unit22: Hund Flagra
	11 3033 dd 13 17:13:34 TTION		AB CITCO STUDDING	Broadcast		444	5 - 17 dis	Product Reserves County Study Ellars. / en.ide corp
	13 1013-00-11 17-13-14 701000	8 6164	OR CIPCO_SI-D0:44	Broadcast	887.11	44.1	5 .17 da	Production as Contracting to the second
	14 MAX 46 13 17:13:34 81:040		do cloco_solered	En concest.			5 36 484	Y Tagged parameters (406 bytes)
	10 2023 00 12 17-12-24-01002	0.0100	The Class and the second	Broadcast.	894-88		5 10 000	Tag: SSID parameter set: "wifide test.00"
	15 2023-00-12 17:12:24.834977	0.0203	175 C15C0_13.00.00	Recodence	894.33	444	5 - 36 - 684	Tag: Supported Rates 6(8), 9, 12(8), 18, 24(8), 36, 48, 54, (Mit/sec)
	10 2023-00-12 17:12:24.855007	0.0204	02 C15C0_13:00:00	Broadcast	202.115		5 - 36 000	Trac: Traffic Indication Nap (TEN): DTEN 2 of 3 bitmap
	1/ 2023-06-12 1/112124-0/54/0	0.0204	W1 C15C0_13:00:00	er cauces c	802.11		5 - 36 - 001	The: Country Information: Country Code na. Environment Global operating classes
	18 2023-00-12 17:12:24-055825	0.0203	159 C15C0_13180160	Broadcast	862.13	463	5 - 36 088	Proce Actionic, SHARAY, Free, Flagsermann, Black, Cost Cost, So
	19 2023-00-12 17:12:24.910556	0.0207	29 C15C0_13:80:60	Broadcast	002.33		5 - 36 088	becon trate, Skr/B, Flwg, Flags
	20 2023-00-12 17:12:24.937923	0.0213	N5 C15C0_13:80:60	ercadcast.	002.11	-992	5 -37 GE	From Response, Starla, Files, Figgs, Riside, Solo Willie (HST, VI , 35
	21 2023-06-12 17:12:24.969625	0.0317	02 C15C0_13:00:00	Broadcast	002.11	462	5 -37 088	Proce Response, SH#722, Fixed, Figgs
	22 2023-06-12 17:12:24.990372	0.0287	47 Clsco_13:80:ed	Broadcast	102.11	462	5 -37 084	Probe Response, SN#724, Fibe, FingsC, BI=100, SSID="mirisd_test_02", SS Tas leasth: 14
	23 2023-06-12 17:12:25.010811	0.0204	39 Clsco_13:80:ed	Broadcast.	102.11	586	5 -36 dBH	Beacon frame, SHx735, FNv0, FlagsC, BIx100, SSID+"Wifi66_test_02", SSID
	24 2023-06-12 17:12:25.039348	0.0205	37 C15C0_13:80:ed	Broadcast.	882.11	461	5 -36 dBr	Probe Response, SN#736, FN=0, FLags+C, BI=100, SSID="Wif164_test_02", SS
	25 2023-06-12 17:12:25.059012	0,0204	64 C1sco_13:80:ed	Broadcast	302.11	461	5 -36 dBr	Probe Response, SNA737, Phule, Flags+C, 81+100, SSID="Wifide_test_02", SS
	26 2023-86-12 17:12:25.008400	0.4285	i88 Cisco_13:80:ed	Broadcast	\$82.11	461	5 -16 der	Probe Response, SNa738, FNa8, FlagsC, 81a300, SSIDa"Nifide_test_02", SS
	27 2023-06-12 17:12:25.100884	0.0204	484 Cisco_13:80:ed	Broadcast	802.11	461	5 -36 d8t	Probe Response, Swa739, Finds, Flags
	28 2023-06-12 17:12:25.121559	0.0206	75 Cisco_13:80:ed	Broadcast	802.11	588	5 -36 dBr	Beacon frame, SN=748, FixeB, FlagsC, BI=100, SSID="wifiGE_test_02", SSID Auto Key Management (AMN) Suite count: 1
	31 2023-06-12 17:12:25.141678	0.0201	19 Clsco_13:00:ed	Broadcast	102.11	461	5 -36 d0m	Probe Response, SNo741, FNo8, Flags+C, BI+100, SSID="wifide_test_02", SS > Auto Key Management (ADM) List Gereriet (Leee B02.31) SAE (SMA256)
	34 2023-06-12 17:12:25.162724	0.0210	M6 Cisco_13:80:ed	Broadcast	102.11	461	5 -36 dbr	Probe Response, SW/342, FWWB, Flags*C, BI×100, SSID+"wifi66_test_02", SS > KW Capabilities: WW800B
	35 2023-06-12 17:12:25.182664	0.0199	He Cisco_13:80:ed	Broadcast	302.11	461	5 -36 dbm	Probe Response, SW-743, FRWB, Flags+C, 81-100, SSID+"wifide_test_02", SS PMCD Court: 0
	37 2023-06-12 17:12:25.203081	0.0204	17 Cisco_13:80:ed	Broadcast:	882.11	461	5 -16 d8m	Probe Response, SW-744, FN-06, Flags=C, 81=100, SSID="wifide_test_02", SS PRID LIST
	38 2023-06-12 17:12:25.223702	0.0206	21 Cisco_13:80:ed	Broadcast	882.11	588	5 -36 d8m	Beacon frame, Sku745, Flug, FlagsC, BIaldo, SSIDu"wifi6E_test_02", SSID > Group Management Clipher Suite: 00:04/8c (leee 802.11) BIP (128)
	39 2023-06-12 17:12:25.244147	0.0204	HS Cisco_13:80:ed	Broadcast	802.11	461	5 -16 dBm	Probe Response, SN#746, FN#0, FlagsC, BI#100, SSID="wifide_test_02", SS > Tag: QBSS Load Element B02.11e CCA Version
	48 2023-06-12 17:12:25.264534	0.0203	187 Cisco_13:00:ed	Broadcast	802.11	463	5 -36 d8m	Probe Response, SW-747, FNw8, Flags+C, BI+100, SSID+"wifide_test_02", SS > Tag: Multiple #SSID
	41 2023-06-12 17:12:25.285014	0.0204	all Cisco 13:00:ed	Broadcast	802.11	461	5 -36 dbm	Probe Response, SNu748, Flues, FlagsC, Bluine, SSID="wifide test ez", SS > Tag: RN Enabled Capabilities (5 octets)
	42 2023-06-12 17:12:25.305513	0.0204	99 Cisco 13:80:ed	aroadcast	\$02.11	461	5 -36 d8m	Probe Response, Sw749, Flwg, FlagsC, 81+100, SSID="wifi64 test 02", SS > Tag: Extended Capabilities (11 octets)
	44 2023-06-12 17:12:25.326072	0.0205	59 Cisco_13:80:ed	Broadcast	802.11	588	5 -36 dan	Beacon frame, SN-750, FN-0, FlagsC, 01-100, SSID-"wifiet test 01", SSID > Tag: Tx Power Envelope
	45 2023-06-12 17:12:25.346502	0.0204	30 Cisco_13:80:ed	Broadcast	802.11	461	5 -36 dam	Probe Response, SN#751, FN#8, Flags=C, 81=100, SSID="wifike test e2", SS > Tag: TX Power Envelope
	46 2023-06-12 17:12:25.367033	0.0205	31 Cisco 11:00:ed	Broadcast	882.11	461	5 -36 dir	Probe Response, SNo752, FN-8, FlagsC, Bl-100, SSIDs"wifies test 02", SS > Ext Tag: Multiple BSSID Configuration
	47 2023-06-12 17:12:25.387452	0.0204	19 Cisco 13:80:ed	Broadcast	802.11	463	5 -16 dbr	Probe Response, Sha753, FNwB, Flatta
	48 2023-06-12 17:12:25,407950	0.0204	og Cisco 13:80:ed	Broadcast	802.11	461	5 -37 dbs	Probe Response, SW-754, FW-8, Flats, 81-100, SSID="wifice test 02", SS > Ext Tag: HE Operation
	49 2023-06-12 17:12:25 428554	8.0200	the clock thinking	Broadcast	882.11	6.88	5 .16 dbs	Rearing frame, Sup 255, Fluid, Flands,
	58 2823-86-12 17:12:25-449829	0.0204	75 Cisco 11:00:ed	Broadcast	882.11	441	5 .37 dbs	Probe Becomese, Churles, Final Flagra, C. BTalles, SCTIL-"Hilf Fact at", SL
	\$1 2023-06-12 17:12:25.469415	0.0201	the cisco il:00:ed	Broadcast	882.11	461	5 -17 d8m	Prode Reconse, SurJST, Hued Flags, c Efelde, SSTD-"wifief tect at", SS > Ext Tag: HE 6 GH2 Band Capabilities
	52 2023-06-12 17:12:25-409090	0.0204	75 Cisco 13:80:ed	Broadcast	882.11	461	5 -37 dim	Prode Resonante, Shu'lls, Flues, C. BTulbo, SSIDu "wifiles text ab", SS Y Tegl RSW extension (1 octet)
	\$1 2023-06-12 17:12:25 510333	0.0204	43 Cisco 13:00:ed	Broadcast	682.11	465	5 -16 dbs	Probe Basonese, Stu-750, Exuel Flams, C. 87,100, SSTD, "wifile test at", SS. Tag Number: HSN extension (244)
	64 3033.00.13 17-13-35 630037	0.0200	A Citro 11-101ed	Broadcast	885.11	645	5 . 16 .484	based for the time to the time of the time
	66 3033.00.13 17:13:36 661340	0.0301	23 Cicco 13:88:44	Broadcast	887.11	441	5 . 16 .000	Productioners that the flam. (state ctrustic state as c
	54 1011 00 11 17:11:10 ET1261	8.8164	A2 (1000 13:188:44	Broadcast	882.11	44.5	5 - 16 dis	Productionance that 19 and 19 are or strated attraction and an area are an area area and area are area area area area area area
	ED AND AC 15 ST-15-5E EDITOR	0.000	the clinical standard	Recodence			6 14 484	sold brows (0.31 Ded flam, d state dis bidge bas at a + Protected TwT Operations Support: 0
	FR 2022 46 12 17-12-26 212726		the first 13-bound	Repadence		444	6 14 484	Tende temperature (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	68 1011_06_11 17-18-16 410-17	0.0700	07 (1020 11-00-04	Econdrast	887.11	640	5 . 16	Based frame Shinks David F Bit big SCHL frame art sch bit sch
	17 1011 AC 12 17:12:29.633372	0.0351	or class shipping	Reputeral	ant 11		1 33 68	> Tag: Vendor Specific: Atteros Comunications, Inc.: Unknown
	12 1013 AC 13 17:12:23.653834	0.0301	10 Circo 13:00:00	an constants	me.11		1 17 000	Tag: Vendor Specific: Hicrosoft Corp.: uHV/ME: Parameter Element
	es 2023-00-12 1/112125-0/0190	4.4203	Ma 41540_43180100	ar very dist.	ant.11		5 -37 OB	> Tae: Vender Specific: Cisco Systems, Inc: Aironet Unknown (44)
	0* 2023-00-12 17:12:25.694588	0.0203	re 11300_13100:00	ex ceocest	002.11		3 - 20 (004) Tar: Vender Specific: (isco Svitem, Inc: Aironet Unknown (11) (11)
	·· ···································	0.0204		Broadcast.	002.11	46.1	3 - 26 (88	> Tee: Vendor Specific: (isco Systems, Inc: Aironet Client WP Disabled
	06 2023-06-12 17:12:25.736219	0.0211	162 C15C0_13180160	eroadcast.	002.11	500	5 - 37 084	becom trans, pawrep, range ranges
	87 2023-06-12 17:12:25.756092	0.0193	178 £15C0_13:80:0d	aroadcast.	392.11	463	5 -36 dilt	From Melonice, She//1, Fram, Figure

Balises SAE WPA3

Ici, nous pouvons observer les clients Wi-Fi 6E associés :

Intel AX211

Connexion OTA avec accent sur les informations RSN du client :



Détails du client dans le WLC :

¢	Cisco Catal	yst 980	0-CL Wireless (Con	troller			Welcome admin # 📽 🛕 🖹 🕸 🔞 🕢 🌫 Search APs and Clients Q 🗷 Feedback	" (I
0	Search Menu Items	Monito	ring • > Wireless •	> (Clients			Client	
		Clients	Sleeping Client	s	Excluded Clients	s		360 View General QOS Statistics ATF Statistics Mobility History Call Statistics	
100	Dashboard	_						Client Properties AP Properties Security Information Client Statistics QOS Properties EoGRE	
	Monitoring >	\sim	Delete					Client State Servers None	
5	0	Selec	ted 0 out of 12 Clients					Client ACLs None	
2	Configuration >	0	Class MAC Address	-		ID-6 Address	AD Name	Client Entry Create Time 339 seconds Policy Type WDA3	
<u>છ</u>	Administration	0	0012.17e1.dd57	,	192.168.1.33	fe80::212:17ff:fee1:dd57	AP03_Sotao_9548	Encryption Cipher CCMP (AES)	
0	Licensing	0	0012.17e2.4856	×	192.168.1.37	fe80::212:17ff:fee2:4856	AP05_Outdoor8_2200	Authentication Key Management SAE	
		0	0012.17e2.4b40	×	192.168.1.31	fe80::212:17ff:fee2:4b40	AP04_OutdoorF_3DC	EAP Type Not Applicable Session Timeout 86400	
×	Troubleshooting	0	0c8b.9509.3518	×	192.168.1.129	N/A	AP03_Sotao_9548	Session Manager	
		0	286b.3598.580f	+	192.168.1.159	fe80::ac5b:e1e1:67ba:c353	AP6849.9253.CA50		
		0	34ea.e702.6240	1	192.168.1.70	N/A	AP6849.9253.CA50	Point of Attachment capwap_90000010	
		0	60fb.008b.0e66	1	N/A	N/A	AP01_RC_9136_F800	IF ID 0x9000010	
	Walk Me Through >	0	84d8.1b0f.294f	۶	192.168.1.91	N/A	AP03_Sotao_9548	Common Session ID 00000000000000000000000000000000000	
		0	9669.5a28.a115	۶	192.168.1.138	fe80::9469:5aff:fe28:a115	AP02_Suite_1084	Acct Session ID 0x0000000	
		0	a810.87bb.b833	×	192.168.1.94	fe80::aa10:87ff:febb:b833	AP03_Sotao_9548	Auth Method Status List	
		н	≪ 1 2 ►	н	10 🔻			Method SAE	
								Local Policies	

NetGear A8000

Connexion OTA avec accent sur les informations RSN du client :

	((peekren	iote]) && ([vlan.addr == 94)	18.6548.709	95]) (wian.fc.type_su	btype == 0x001d)					
	io. Te	e	Delta	Source	Destination	Protocol	Lengt Char	nnel Signalist	tre Info	> Frame 757: 216 bytes on wire (1728 bits), 216 bytes captured (1728 bits) on interface \Device\NPF_(D4578985-2998-4456)
	322 20	23-06-12 17:22:13.919266	0.00000	0 Netgear 48170195	Broadcast	802.11	166	5 -48 d8e	Probe Request, SN+1739, FN+0, Flags+C, SSID+"blizzard"	> Ethernet II, Src: Cisco_dd:7d:37 (00:df:1d:dd:7d:37), Dst: Universa_b7:cf:06 (00:3a:00:b7:cf:06)
	323 28	23-06-12 17:22:13.920174	0.00091	4 Netgear 48:70:95	Broadcast	802.11	166	5 -48 d8m	Probe Request, SN+1740, FN+0, Flags+C, SSID+"blizzard"	 > Internet Protocol Version 4, Src: 192.168.1.15, Dst: 192.168.1.121
н	324 28	23-06-12 17:22:13.921093	0.00011	9 Netgear 48:70:95	Broadcast	882.11	166	5 -48 d8m	Probe Request, SN+1741, FN+0, FlagteC. SSID+"blizzard"	> User Datagram Protocol, Src Port: 5555, Dst Port: 5000
	326 28	23-06-12 17:22:13.921977	0.00015	4 Netgear 40:70:95	Broadcast	882.11	166	5 -40 d8m	Probe Request, SN+1742, FN+0, FlagsC. SSID+"blizzard"	> AiroPeek/OmniPeek encapsulated IEEE 802.11
	713 28	3.06.12 17:22:21 416944	7.49496	3 Netgear 48:78:95	Cisco 11:00:	882.11	360	5 .49 (88	probe pequect, Chud, Dug, Flags,	> S02.11 radio information
	734 28	3.04.12 17:22:21.416948	0.00000	0 192.168.1.15	192.168.1.121	882.11	76	5 .36 d84	Arknuladement flags	> IEEE 802.11 Association Request, Flags:C
	736.20	3.66.12 17:22:21.416411	0.00247	7 Netrear 48:78:95	Cisco 13:88:	882.11	160	5 -49 day	Probe Request, Shud, Flags,	✓ IEEE 002.11 Wireless Management
	717 10	3.46.12 17-22-21 419411	0.00000	0 192,168,1,15	192,168,1,121	882.11	76	5 -17 dia	kinnuladement, Elasta	> fixed parameters (4 bytes)
н	748 18	3.06.12 17-22-21 444010	0.07467	1 Netrear 48:78-95	Cisco 11:00:	882.11	160	5 .49 (84	Probe Request, Shud, Dup, Elarta,	 Tagged parameters (122 bytes)
	743 30	3.04.13.17:33:31.444034		A 163 168 1 16	103 168 1 131	883.33	76	5 . 37 484	Arken-latement flags.	> Tag: SSID parameter set: "wifi6E_test"
	744 20	3 Ad 13 17:33:31 ABBAG	0.00000	1 National Adultation	Circo 13:88:	883.33	104	5 -50 dbs	Authentication fluit fluit flatte /	> Tag: Supported Rates 6(8), 9, 12(8), 18, 24(8), 36, 48, 54, [Nbit/sec]
	747 20	13.66.13 13-33-31 ABBAG		A 162 168 1 16	103 168 1 131	001 11	76	5 -36 d8a	According to the state of the s	> Ext Tag: HE Capabilities
	768 10	13.00.13 17-33-31 CALCAR		# /irca 11:50:47	Sateaar 48-7	002.111	104	5 -17 die	Authoritization Ch.133 Die Elant. /	> Ext Tag: HE 6 GHI Band Capabilities
н	750 20	13. AC. 13 17-33-31 CACELO	0.00000	A 162 168 1 16	142 168 1 121	002.11	76	5 .40 dbs	Abouteterent Flags.	> Tag: Vendor Specific: Ralink Technology, Corp.
н	753 20	3. Ac. 12 17:22:21 CEASO	0.00415	3 Netgear 48:78:65	Cisco 11:00:	882.11	110	5 .40 .000	Authentication Ch.1 Flug Flags	> Tag: Extended Capabilities (10 octets)
н	754 30	13.64.13 17:33:31 CEASA	0.00000	A 162 168 1 16	162 168 1 121	883.11	76	5 .37 d8a	Arkon-latement flags.	> Tag: Vendor Specific: Hicrosoft Corp.: WHV/WHE: Information Element
	755 10	13.46.13 13-33-31 CELCA	0.00170	6 Circo 13:80:47	Natroas 4817	001 11	130	5 -37 dia	Authentication Shitld Blad Flatta /	 Tag: RSN Information
н	756 10	13.86.13 17-31-31 CE3681	0.00000	A 191 168 1 15	197 168 1 171	001 11	76	5 -49 (88	About determined there /	Tag Number: RSN Information (48)
l.	- 252.38	3.0C.12 17-23-21 CC200	0.00140	A heteene 40:70-05	Cisco 13-88:	682.11	216	5 .49 /04	a Association Descent Coul Dium Class. C CCTD_"wifice test"	Tag length: 22
12	758.20	1.04.12 17:22:21 CC20M	0.00000	A 192.168.1.16	192.168.1.121	882.11	76	5 .17 dbs	Linnalatement flags.	RSN Version: 1
	768.28	3.84.12 17:22:21 COMM	0.00159	S Netgear 48:78:95	Broadract	110	114	5 .17 dbs	II. Func-Linknows: DELR Burr Group, SELR SHIP Compand	> Group Cipher Suite: 00:0f:ac (Ieee 802.11) AES (CCH)
	763 20	13.46.12 17:22:21 662111	0.00050	6 fisco 11:80:47	Netrear 4817	887.11	262	5 -37 day	Association Resource, Shuk, Flags,	Pairwise Cipher Suite Count: 1
	764 10	13.46.12 17-21-21 662111	0.00000	A 197 168 1 15	197 168 1 171	887.11	76	5 -49 (88	kingulatement Elasta	> Painvise Cipher Suite List 00:0f:ac (Ieee 802.11) AES (COI)
	765 20	23-06-12 17:22:21.567166	0.00004	9 Netgear 48:70:95	Broadcast	LLC	114	5 -37 d8m	I P. N(R)+63, N(S)+9; DSAP ex9c Group, SSAP ex56 Response	Auth Key Management (AKH) Suite Count: 1
	766 28	23-06-12 17:22:21.568723	0.00156	3 Cisco 13:00:e7	Netgear 45:7.	EAPOL	221	5 -37 dbe	Key (Message 1 of 4)	> Auth Key Hanagement (AKH) List 00:0f:ac (Ieee 802.11) SAE (SHA256)
Ш	767 28	3-06-12 17:22:21.568723	0.00000	0 192.168.1.15	192,168,1,121	802.11	76	5 -48 d8e	Acknowledgement, FlagsC	> RSN Capabilities: @x00c0
	782 28	23-06-12 17:22:21.742254	0.17353	3 Netgear 48:70:95	Cisco 13:80:	EAPOL	226	5 .55 das	Key (Message 2 of 4)	PHCID Count: 0
Ш	783 28	23-06-12 17:22:21.742256	0.00000	0 192,168,1,15	192,168,1,121	802.11	76	5 -44 d8m	Acknowledgement, FlagsC	PMCD List
Ш	785 20	23-06-12 17:22:21.743972	0.00171	6 Cisco 13:80:e7	Netgear 48:7.	EAPOL	295	5 -37 d8m	Key (Nessage 3 of 4)	✓ Tag: RSN extension (1 octet)
	786 28	23-06-12 17:22:21.743972	0.00000	0 192.168.1.15	192,168,1,121	802.11	76	5 -50 dbs	Acknowledgement, FlagsC	Tag Number: RSN extension (244)
	787 28	23-06-12 17:22:21.744676	0.00070	4 Netgear 48:70:95	Cisco 13:00:	EAPOL	199	5 -55 dbe	Key (message 4 of 4)	Tag length: 1
	788 28	23-06-12 17:22:21.764676	0.00000	0 192.168.1.15	192.168.1.121	802.11	76	5 -44 d8e	Acknowledgement, FlagsC	V RSNX: 0x20 (octet 1)
1	789 28	23-06-12 17:22:21.752543	0.00786	6 Ciscover_53:ca:50	Netgear_48:7.	LLC	187	5 -44 d8m	U, func-Unknown; DSAP exc6 Group, SSAP ex30 Response	0000 + RSNX Length1 0
1	790 20	23-06-12 17:22:21.752543	0.00000	0 192.168.1.15	192.168.1.121	802.11	76	5 -55 d8m	Acknowledgement, Flags+C	0 = Protected TwT Operations Support: 0
1	791 20	23-06-12 17:22:21.754271	0.00172	9 192.168.1.15	192.168.1.121	802.11	119	5 -43 dbm	Trigger Buffer Status Report Poll (BSRP), Flags+C	= SAE Hash to element: 1
1	793 20	23-06-12 17:22:21.754643	0.00037	6 Netgear_48:70:95	Broadcast	LLC	144	5 -55 dbm	I P, N(R)+81, N(S)+32; DSAP Banyan Vines Group, SSAP LLC Sub-Layer Managemen	00 = Reserved: 0x0
1	20.4							A	internet filmer a	Tag: RH Enabled Cacabilities (5 octets)

Détails du client dans le WLC :

Cisco Catalyst 9800-CL Wireless	Controller	Welcome admin	***	Search APs and Clients Q					
O Search Manu Isame Monitoring * > Wireless *	> Clients	Client	Client *						
Clients Sleeping Client	ts Excluded Clients	360 View Genera	QOS Statistics ATF Statistics	Mobility History Call Statistics					
Dashboard		Client Properties	AP Properties Security Information	Client Statistics QOS Properties EoGRE					
Monitoring		Client State Servers	None						
Configuration Selected 0 out of 12 Clients		Client ACLs Client Entry Create T	None 24 seconds						
Client MAC Address	T IPv4 Address T IPv6 Address	AP Name Policy Type	WPA3						
Administration 0012.17e1.dd57	192.168.1.33 fe80::212:17ff:fee1:dd57	AP03_Sotao_9548 Encryption Cipher	CCMP (AES)						
O 0012,1792,4856	★ 192.168.1.37 fe80::212:17ff:fee2:4856	AP05_Outdoor8_2200 Authentication Key N	anagement SAE						
0 0012,17e2,4b40	▲ 192.168.1.31 fe80::212:17#:fee2:4b40	AP04_OutdoorF_3DCI	Not Applicable						
Troubleshooting	▲ 192.168.1.129 N/A	AP03_Sotao_9548	86400						
G 34ea.e702.6240	▲ 192.168.1.70 N/A	AP6849.9253.CA50							
G 60tb.006b.0e66	▲ N/A N/A	AP01_RC_9136_F80C Point of Attachment	capwap_900000	10					
B4d8.1b0f.294f	▲ 192.168.1.91 N/A	AP03_Sotao_9548 IIF ID	0x90000010						
9418.6548.7095	★ 192.168.1.163 fe80::ce19:6f16:279d:515f	AP6849.9253.CA50 Authorized	TRUE						
Walk Me Through > 9669.5a28.a115	▲ 192,168,1,138 fe80::9469:5aff:fe28:a115	AP02 Suite 1084	000000000000	FAFB0A160F3					
a810.87bb.b833		Apo3 Sotao 9548	0×0000000						
	H 10 -	Auth Method Status	LIST SAF						

Pixel 6a

Connexion OTA avec accent sur les informations RSN du client :

	((peerenote) as (wan.addr == 24.9)	scatt /acidacoo)) (wian.tc.type_s	etype == 0x001d)					
N	. Time	Delta Source	Destination F	Protocol	Lengti Cha	annel Signal stre	Info	Frame 1255: 262 bytes on wire (2006 bits), 262 bytes captured (2006 bits) on interface \Device\NPF_{Device\NPF_{Device}} 2005-2008-2008
	1235 2023-06-12 17:37:02.730333	0.000000 Google 72:88:66	Broadcast 8	802.11	343	5 -42 d8m	Probe Request, SN+2096, FN+0, Flags+C, SSID+"wifi6E test"	Ethernet II, Src: Cisco_dd:7d:37 (00:df:1d:dd:7d:37), Dst: Universa_b7:cf:06 (00:3a:80:b7:cf:06)
	1243 2023-06-12 17:37:02.051631	0.121298 Google 72:88:66	Cisco 13:80:_ 8	102.11	194	5 -42 d8m	Authentication, SN+2097, FN+0, Flags+C	 > Internet Protocol Version 4, Src: 192.168.1.15, Ost: 192.168.1.121
	1244 2023-06-12 17:37:02.051631	0.000000 192.168.1.15	192.168.1.121 8	102.11	76	5 -37 dbm	Acknowledgement, Flags+C	> User Datagram Protocol, Src Port: 5555, Dst Port: 5000
	1246 2023-06-12 17:37:02.050904	0.007353 Cisco 13:80:e7	Google 72:88. 8	102.11	194	5 -37 00m	Authentication, SN+141, FN+0, Flags+C	> AiroPeek/OmniPeek encapsulated IEEE 802.11
	1247 2023-06-12 17:37:02.858984	0.000000 197.168.1.15	192,168,1,121 8	102.11	76	5 -43 dbs	Acknowledgement, Flags,C	> S02.11 radio information
	1248 2023-06-12 17:37:02.868831	0.009847 Google 72:88:66	Cisco 13:80: 5	882.11	130	5 -41 dim	Authentication, SN+2098, FN+0, Flags,C	> IEEE 002.11 Association Request, flags:C
	1249 2023-06-12 17:37:02.868831	0.000000 192.168.1.15	192.168.1.121 6	102.11	76	5 -37 dim	Acknowledgement, Flagt,C	✓ IEEE 802.11 Wireless Management
	1252 2023-06-12 17:37:02.904326	0.035495 Cisco 13:00:e7	Google 72:8a. 8	102.11	110	5 -37 dbn	Authentication, SN+142, FN+0, Flags,C	> Fixed parameters (4 bytes)
	1253 2023-06-12 17:37:02.904326	0.000000 192.168.1.15	192.168.1.121 8	102.11	76	5 -41 dbn	Acknowledgement, Flags+C	 Tapped parameters (168 bytes)
	1255 2023-06-12 17:37:02.920933	0.016607 Google 72:88:66	Cisco 13:80:_ 8	802.11	262	5 -41 084	Association Request, SN+2099, FN+0, Flags+C. SSID+"wifi68 test"	> Tag: SSID parameter set: "wifi66_test"
12	1256 2023-06-12 17:37:02.920933	0.000000 192.168.1.15	192,168,1,121 8	102.11	26	5 .17 dbs	Acknowledgement, Flagte	 > Tag: Supported Rates 6(0), 9, 12(0), 10, 24(0), 36, 48, 54, [Hbit/sec]
	1259 2023-06-12 17:37:02.930350	0.009417 Google 72:8a:66	Broadcast L	LLC	114	5 -17 dia	I.P. N(R)+52. N(S)+7: DSAP Byte Individual. SSAP Byte Command	> Tag: Extended Supported Rates SAE Hash to Element Only, [Hbit/sec]
	1261 2023-06-12 17:37:02.934129	0.001779 Cisco 11:00:07	Google 72:84. 8	102.11	262	5 -37 dim	Association Response, SNud. Flued, Flags,C	> Tag: Power Capability Min: -7, Max: 19
	1262 2023-06-12 17:37:02.934129	0.000000 192.168.1.15	192,168,1,121 8	102.11	76	5 -41 (00	Arknowledgement, FlagsC	> Tag: Supported Channels
	1263 2023-06-12 17:37:02.034120	a append coorde 7218a166	Broadcast I	1.0	114	5 .37 dbs	S. E. Func-Bill, N/81-821 DELE dulla donue. SELE du'h Bassance	 Tag: RSN Information
11	1265 2023-06-12 17:37:02 941002	0.000000 000000 13100147	doorle 71:8a E	EARON	221	5 .37 dbs	Yay (Massama 1 of 4)	Tag Number: RSN Information (48)
11	1266 2022-06-12 17-37-02 941002	0.000000 101 160 1.15	192, 168, 1, 121 6	882.11	26	5 -41 /84	Acknowledgement Flags.	Tag length: 26
	1273 2023-06-12 17-37-02 992247	8 851155 Google 77-8a-66	Cisco 11:00: E	EARCH	234	5 .51 /08	Vev Diessage 2 of 4)	RSN Version: 1
11	1224 2023-06-12 12-32-02 992242	0.000000 192 168 1.15	192.168.1.121.6	102.11	76	5 .17 /08	Arknowledgement, Elapse	> Group Cipher Suite: 00:0f:ac (Seee 802.11) AES (CCH)
11	1276 2013 00 12 17:37:02 0013/0	0.000000 101.100.1.10	doonle Think I	EABOU	204	5 . 37 .000	Yau (Massana 3 of A)	Pairwise Cipher Suite Count: 1
11	1275 2023-00-12 17:37:02.995305	0.0000122 (1900_19100.00)	100 148 1 131 6	883.88	24	5 . 51 (84	Acknowledgement flagr.	> Pairwise Cipher Suite List 00:0f:ac (Ieee 802.11) AES (CCH)
	1770 1013-00-12 17:37:02.775305	0.000000 171100.1115	Circo 13:98: 6	EARCH	100	5 .48 684	Val (Marrana A of A)	Auth Key Management (AKM) Suite Count: 1
	1270 2023-00-12 171271031000137	0.0000000000000000000000000000000000000	103 168 1 131 6	002 11	36	5 .37 /04	Active and an and a second sec	> Auth Key Management (AKM) List 00:0fiat (Ieee 802.11) SAE (SMA256)
	1217 2023-00-12 17:37:03.000133	0.000000 171.100.1.15	103 1/8 1 131 1		24	5 - 57 600	Ishan adamant flags	> RSN Cecabilities: exempt
	1281 2023-06-12 17:37:03.023390	0.023231 192.100.1.15	192.190.1.121 C	002.11		5 -46 088	Action re-line rises a clusiformed mathemal	PHID Count: 0
	1282 2023-06-12 17:37:03.025924	0.002334 000g10_/2:08:00	C15C0_13:00: 0	002.11	111	5 -49 000	Action, Smeller, Files, Filess, p	PHID List
	1203 2023-00-12 17:37:03.023924	0.0000000 192.100.1.15	192.100.1.121 0	002.11		5 -37 000	Action defensest flags.	> Group Hanagement Cipher Suite: 40:0f:ac (Ieee 802.11) BIP (128)
	1205 2023-00-12 17137103.043013	0.01/009 192.100.1.15	172.150.1.121 0	002.11		5 -37 000	Activity and a second s	> Tag: RM Enabled Capabilities (\$ octets)
	1200 2023-00-12 17:37:03.050/00	0.007/55 152.100.1.15	Coople Thile I	002.88		5 137 000	Adding the the flatter of f	> Tag: Supported Operating Classes
	1290 2023-00-12 17:37:03.070107	0.027401 (15/0_15/00/07	100 1/2 1 101 1	004-88	24	5 - 57 - 684	Ishandadaanaat flaar.	> Tag: Extended Capabilities (10 octets)
	1291 2023-00-12 17:37:03.070107	0.000000 192.100.1.19	Cicco 13:00: 1	002.22		5 .49 000	Action (N-2104 (N-0 (144)	> Ext Tag: HE Capabilities
	1297 2023-06-12 17:37:03.166223	e.essese uoogie_/2:sa:ee	C1500_13:00:_ 0	002.11	115	5 -40 000	ACTION, SN#2104, FN#0, FINgS#.pC	Tag: SN extension (1 octet)
	1290 2023-06-12 17137103.166223	0.000000 192.160.1.15	192.100.1.121 0	002.11	76	5 -37 000	Acknowledgement, Flagswithing	Tag Number: RSN extension (244)
	1297 2023-06-12 17:37:03.166299	e.eeeere uoogie_rzieeiee	IPV68C8ST_TT_ L		227	5 -57 088	U P, TunckALD; USAP 0X32 Group, SSAP 0X8C Command	Tag length: 1
	1900 2023-06-12 17:37:03.166299	0.000000 192.168.1.15	192.168.1.121 8	002.11	26	5 -46 088	Acknowledgement, Flags	#SNX: #x20 (octet 1)
	1302 2023-06-12 17:37:03.167999	0.001/00 C15C0_13:80:0/	000g16_/2:88_ 8	002.11	115	5 -37 cen	Action, SNHI, FNHO, FIRESH.pC[Mainormed Packet]	0000 = 850X Length: 0
	1303 2023-06-12 17:37:03.167999	0.000000 192.168.1.15	192.168.1.121 8	002.11	76	5 -49 com	Acknowledgement, Flags*C	
	1384 2023-06-12 17:37:03.168296	0.000257 192.168.1.15	192.168.1.121 0	002.11	86	5 -49 008	B02.11 BLOCK ACK Req, Flags+C	.1 = Sid Hesh to element: 1
	1985 2023-06-12 17:37:03.168396	0.000100 192.168.1.15	172.106.1.121 4	002.11	74	5 -37 088	BRAILE BLOCK MURY FLEEDER CONTRACTOR	00 # Reserved: 0x0
I.	1906 2023-06-12 17:37:03.168543	0.000147 000g1e_72188166	IPVemcast_ff_ L	rrc	106	5 -38 d8m	I P, N(K)=5, N(5)=45; USAP exce individual, SSAP ex4a Response	> Ext Tag: HE 6 GHZ Band Capabilities
I.	1987 2023-06-12 17:37:03.177442	0.0003399 192.168.1.15	192.168.1.121 8	002.11	82	5 -55 dim	Request-to-send, Flags*	> Tar: Wendor Specific: Broadcom
Т	1908 2023-06-12 17:37:03.177442	0.000000 192.168.1.15	192.16d.1.121 d	002.11	76	5 -46 d0m	clear-to-send, Flagswitting	> Tag: Vendor Specific: Higrosoft Corp.: MMV/ME: Information Element
	1309 2023-06-12 17:37:03.177515	e.eeee/s coog1e_72:88:66	invencast_16 L	uu	2/1	5 -56 dbn	1, N(R)+7, N(S)+34; USAF exce group, SSAF exce Response	

Détails du client dans le WLC :

Cisco Cataly	/st 9800	0-CL Wireless (Con	troller			Welcome admin # 🕫 🋕 🖺 🔅 🕅 🚱 🎜 Search APs and Clerus Q 🛛 🗷 Feedback 🖉						
Q. Search Menu Items	Monitori	ing * > Wireless *	> (Clients			Client *						
	Clients	Sleeping Clients	s	Excluded Client	S		360 View General QOS Statistics ATF Statistics Mobility History Call Statistics						
Dashboard	_						Client Properties AP Properties Security Information Client Statistics QOS Properties EoGRE						
Monitoring >	×	Delete					Cilent State Servers None						
Configuration	Select	ed 0 out of 12 Clients					Client ACLs None						
~~~~	0	Client MAC Address	Ŧ	IPv4 Address	IPv6 Address	AP Name	Policy Type WPA3						
(O) Administration	0	2495.2172.8a66	×	192.168.1.162	fe80::b13:f107:7c5f:a7e0	AP6849.9253.CA50	Encryption Cipher CCMP (AES)						
C Licensing	0	60fb.008b.0e66	×	N/A	N/A	AP01_RC_9136_F80C	Authentication Key Management SAE						
	Ο	34ea.e702.6240	×	192.168.1.70	N/A	AP6849.9253.CA50	Session Timeout 86400						
X Troubleshooting	0	a810.87bb.b833	×	192.168.1.94	fe80::aa10:87ff:febb:b833	AP03_Sotao_9548	Session Manager						
	Ο	9669.5a28.a115	×	192.168.1.138	fe80::9469:5aff:fe28:a115	AP02_Suite_1084							
	0	84d8.1b0f.294f	×	192.168.1.91	N/A	AP03_Sotao_9548	Point of Attachment capwap_90000010						
	Ο	0c8b.9509.3518	×	192.168.1.129	N/A	AP03_Sotao_9548	IF ID 0x9000010						
Walk Me Through 2	0	0012.17e2.4b40	×	192.168.1.31	fe80::212:17ff:fee2:4b40	AP04_OutdoorF_3DC8	Authorized TRUE Common Session ID 0000000000ER5R04ED383						
	0	0012.17e2.4856	×	192.168.1.37	fe80::212:17ff:fee2:4856	AP05_Outdoor8_2200	Acct Session ID 0x0000000						
	0	0012.17e1.dd57	×	192.168.1.33	fe80::212:17ff:fee1:dd57	AP03_Sotao_9548	Auth Method Status List						
	H 4 1 2 🕨 H 10 🔻					Method SAE							
							Local Policies						

# Samsung S23

Connexion OTA avec accent sur les informations RSN du client :

0	(peel	remote)	55 ((vian.addr == 04:2)	hileocitice3c7	1)    (vian.fc.type_subt	type == 0x001d))	X 🖘 🔹 +					
N	s.	Time		Delta	Source	Destination	Protocol	Lengti Channel	Signal stre	Info		> Frame 773: 194 bytes on wire (1552 bits), 194 bytes captured (1552 bits) on interface \Device\NFF_[D4578985-2998-4456
h	77	2023-0	6-12 17:26:55.727215	0.000000	SansungE_c9:e3:71	Cisco_13:80:_	802.11	194	5 -45 d8n	Authentication, SN=2176, FN=0, Flags=C		Ethernet II, Src: Cisco_dd:7d:37 (00:df:1d:dd:7d:37), Dst: Universa_b7:cf:06 (00:3a:88:b7:cf:06)
E	774	2023-0	6-12 17:26:55.727215	0.000000	192.168.1.15	192.168.1.121	802.11	76	5 -38 d8m	Acknowledgement, Flags+C		> Internet Protocol Version 4, Src: 192.168.1.15, Dst: 192.168.1.121
	77	2023-0	6-12 17:26:55.734153	0.006935	Cisco_13:80:e7	SamsungE_c9:_	802.11	194	5 -37 den	Authentication, SN+126, FN+0, Flags+C		> User Datagram Protocol, Src Port: 5555, Dst Port: 5000
	77	2023-0	6-12 17:26:55.734153	0.000000	192.168.1.15	192.168.1.121	002.11	76	5 -45 don	Acknowledgement, Flags+C		> AiroPeek/OmniPeek encapsulated IEEE 802.11
	773	2023-0	6-12 17:26:55.741069	0.006910	Sansungt_c9:e3:71	Cisco_13:80:_	802.11	130	5 -43 dbm	Authentication, SN+2177, FN+0, Flags+C		> 802.11 radio information
	771	2023-0	6-12 17:26:55.741069	0.000000	192.168.1.15	192.168.1.121	802.11	76	5 -37 d8m	Acknowledgement, Flags+C		> IEEE 002.11 Authentication, Flags:C
	78	2023-0	6-12 17:26:55.743197	0.002121	Cisco_13:80:e7	SansungE_c9:	802.11	130	5 -36 d8m	Authentication, SN=127, FN=0, Flags=C	1	IEEE 002.11 Wireless Management
	783	2023-0	6-12 17:26:55.743197	0.000000	192.168.1.15	192.168.1.121	802.11	76	5 -43 d8m	Acknowledgement, Flagi*C		✓ Fixed parameters (104 bytes)
	783	2023-0	6-12 17:26:55.740041	0.004544	SamsungE_c9:e3:71	Cisco_13:00:_	802.11	354	5 -45 dön	Association Request, SN+2178, FN+0, Flags+C, SSID+"wifi66_test"		Authentication Algorithm: Simultaneous Authentication of Equals (SAE) (3)
	783	2023-0	6-12 17:26:55.740041	0.000000	192.168.1.15	192.168.1.121	802.11	76	5 -36 dön	Acknowledgement, #lags+C		Authentication SEQ: 0x0001
	783	2023-0	6-12 17:26:55.758316	0.010275	SamsungE_C91e3171	Broadcast	LLC	114	5 -37 d8m	I, N(R)=3, N(S)=23; DSAP ISO Network Layer (unofficial?) Group, SSAP Banyan Vine		Status code: SAE authentication uses direct hashing, instead of looping, to obtain the PAE (0x007e)
	781	2023-0	6-12 17:26:55.758316	0.000000	SansungE_c9:e3:71	Broadcast	LLC	114	5 -36 d8m	S F, func=RR, N(R)=63; DSAP HP JetDirect Printer Individual, SSAP XNS Response		SAE Message Type: Commit (1)
	781	2023-0	6-12 17:26:55.761192	0.002876	Cisco_13:80:e7	SamsungE_c9:_	802.11	236	5 -36 d8m	Association Response, SNw0, FNw0, Flags+C		Group 18: 254-512 random ECP group (19)
	794	2023-0	6-12 17:26:55.761192	0.000000	192.168.1.15	192.168.1.121	802.11	76	5 -45 d0n	Acknowledgement, Flags+C		5C8187: 0102818990633606200C34630C08444687506378C00070726000905081729500
	793	2023-0	6-12 17:26:55.762296	0.001104	Cisco_13:80:e7	Samsungt_c9:_	EAPOL	221	5 -36 dbm	Key (Message 1 of 4)		Finite Field Element: 063455a0d02004637bC7808731e81401e3a0b8370c9820732378177464800220c01c
	79	2023-0	6-12 17:26:55.762296	0.000000	192.168.1.15	192.168.1.121	802.11	76	5 -44 dbm	Acknowledgement, flags+C		
	795	2023-0	6-12 17:26:55.791219	0.028923	SansungE_c9:e3:71	Cisco_13:80:_	EAPOL	230	5 -43 d8m	Key (Message 2 of 4)		
	79	2023-0	6-12 17:26:55.791219	0.000000	192.168.1.15	192.168.1.121	802.11	76	5 -37 d8m	Acknowledgement, Flags=C		
	793	2023-0	6-12 17:26:55.793000	0.001783	Cisco_13:00:e7	SamsungE_c9:_	EAPOL	295	5 -37 d0n	Key (Message 3 of 4)		
	790	2023-0	6-12 17:26:55.793000	0.000000	192.168.1.15	192.168.1.121	802.11	76	5 -44 d0n	Acknowledgement, Flags+C		
	795	2023-0	6-12 17:26:55.798403	0.00540)	Sansungt_c9:e3:71	Cisco_13:80:_	EAPOL	199	5 -44 dön	Key (Message 4 of 4)		

Détails du client dans le WLC :

Cisco Cat	alyst 980	0-CL Wireless (	Con	troller				W	/elcome	admin	*	♠ ♠	8	• • • • •	Search APs and Cli	ents Q	edback 🖉 🗭
O Search Mercu Items	Monito	ring * > Wireless *	> (	Clients				Client	:								×
Dashbaard	Clients	Sleeping Client	s	Excluded Cl	ients			360 V	iew	General	Q	OS Statisti	:5	ATF Statistics	Mobility History	Call Statistics	
Monitoring	Calar	Delete Ø						Client	nt State ! nt ACLs	ies i Servers	AP Prop	erties	Secur	None None	Client Statistics	QOS Properties	EoGRE
Configuration	50100	ted 0 out or 12 Cilents	_		_			Clie	nt Entry (	Create Tin	ne			78 seconds			
៍កំ Administration	0	Client MAC Address	۲	IPv4 Address	۲	IPv6 Address	AP Name	Poli	cy Type					WPA3			
~ .	0	0012.17e1.dd57	×	192.168.1.33		fe80::212:17ff:fee1:dd57	AP03_Sotao_9548	Enc	ryption C	ipner				COMP (AES)			
C Licensing	0	0012.17e2.4856	×	192.168.1.37		fe80::212:17ff:fee2:4856	AP05_OutdoorB_220	AUG	Turcatio	in key Ma	nageme	nt		SHE Assisshis			
	0	0012.17e2.4b40	×	192.168.1.31		fe80::212:17ff:fee2:4b40	AP04_OutdoorF_3D0	Sec	rion Time	out.				86400			
X Troubleshooting	0	0429.2ec9.e371	×	192.168.1.160	)	fe80::6a20:34e8:ab1b:6332	AP6849.9253.CA50	Sessi	on Mana	ger				00400			
	0	0c8b.9509.3518	×	192.168.1.129	)	N/A	AP03_Sotao_9548										
	0	34ea.e702.6240	1	192.168.1.70		N/A	AP6849.9253.CA50	Poir	nt of Atta	chment				capwap_90000	010		
	0	60fb.008b.0e66	×	N/A		N/A	AP01_RC_9136_F80	IIF I	D					0x90000010			
	ō	84d8.1b0f.294f	×	192.168.1.91		N/A	AP03 Sotao 9548	Aut	horized					TRUE			
Walk Me Through >	ŏ	9669 5e28 e115		102 168 1 138		fe80-0460-5+8-(e28-a115	AP02 Suite 1084	Con	nmon Se	ssion ID				000000000000	0FB1B0A58F78		
		-010 0755 5000	1	100 100 1 04		60000010.000000000000000	AD03 Patra 0548	Acc	t Session	ID				0x00000000			
	н	1 2 M	í	10 -		1000.388 10.07 IT.1000.0033	AF-03_30600_9548	Aut	h Method thod	Status Li	ist			SAE			

WPA3 personnel - AES(CCMP128) + SAE + FT

Configuration de la sécurité WLAN :

# Edit WLAN

March     Compage     Compage     Compage     Compage       MAC Filtering     Compage     Compage     Compage     Compage       Lobby Admin Access     Compage     Compage     Compage     Compage       WPA     WPA2     Compage     Compage     Compage       WPA2     WPA2     Compage     Compage     Compage       WPA2     WPA2     Compage     Compage     Compage       Other the DS     Compage     Compage     Compage       Pastion     Compage     Compage     Compage       MAI     Compage     Compage     Compage       Past     Required     Compage     Compage       PAST     Required     Compage     FT + SAE     Compage       PAST     Required     Max Retries*     S       Association Comeback Time*     1     Researceit Timeout*     400       PASK Type     Unencrypted     Pre-Shared Key*     Compage <th>eral Security Advanced Add To Policy</th> <th>Tags</th> <th></th> <th></th>	eral Security Advanced Add To Policy	Tags		
O WPA + WPA2       O WPA2 + WPA3       Image: WPA3       O Static WEP       O None         MAC Filtering       Image: WPA3       Image: WPA33       Image: WPA33 <th>er2 Layer3 AAA</th> <th></th> <th></th> <th></th>	er2 Layer3 AAA			
MAC Filtering	O WPA + WPA2 O WPA2 + WPA3	• WPA3	O Static WEP	O None
Lobby Admin Access     WPA Parameters   Transition   Disable     PARE/WPA3 Encryption   AES(COMP128)   COMP256   COMP256   COMP256   COMP256   PMF   Required   Association Comeback Time*   1   SA Query Time*   200     PSK Format     Assci   PSK Type   Unencrypted	MAC Filtering O			
WPA Parameters       VPA2       Pastey         VPA       WPA2       Pastey         OTK       WPA3       Over the DS         Randomize       Policy       Over the DS         Transition       Over the DS       Reassociation Timeout *         MPA2/WPA3 Encryption       COMP256       Over the DS         Association Comp256       Ocemp256       Over the DS         Protected Management Frame       SAE       FT + SAE       Over the Os         PMF       Required       Status       FT + 802.1x       Over the Os         Association Comeback Time*       1       Status       FT + 802.1x       Over the Os         SA Query Time*       200       FT + 802.1x       Over the Os       Status       Status         PAF       Required       Imagement Frame       Status       FT + 802.1x       Over the Os         PAF       Required       Imagement       Imagement       Imagement       Too         Status       Required       Imagement       Post       Post       Post         Status       Required       Imagement       Post       Post       Post         Status       Imagement       Post       Post       Post       Post       Post	Lobby Admin Access			
WPA WPA2   Policy Policy   GTX WPA3   Transition WPA3   Transition Over the DS   PA2/WPA3 Encryption   AES(CCMP128) CCMP256   GCMP128 CCMP256   OCMP256 Over the DS   PMF Required   Association Comebook Timer* 1   SA Query Time* 200   SA Query Time* 200 Status Status Interstoid* Interstoid* Interstoid* MSK Type Unercrypted Pack Type Unercrypted Pack Type Unercrypted Pack Type Unercrypted Pack Type Intercrypted Pack Type Pack Type Pack Type Pack Type Pack Type Pack Type Pack Type<	NPA Parameters	- Fest Tr	ansition	
GTK WPA3   Pandomize Policy     Transition   Disable   Over the DS    PMA2/WPA3 Encryption   AES(OCMP128)   CCMP256   GCMP128   CCMP256   GCMP256   CCMP256   GCMP256   GCMP256   MF   Required   Association Correback Timer*   1   SA Query Time*   200    PMK Required And Clogging Threshold* Max Retries* S Retrained Timeout* 400 PSK Format PSK Type Unencrypted Pre-Shared Key*	WPA O WPA2 O Policy Policy	Status		Erabled •
Transition   Disable     WPA2/WPA3 Encryption   AES(OCMP128)   CCMP256   CCMP256   CCMP256   CCMP256   Photected Management Frame   PMF   Association Comeback: Time*   SA Query Time*   200     PK Format   ASCI   PK Type   Unencrypted	GTK WPA3 C Randomize Policy	Over th	te DS	0
MPA2/WPA3 Encryption   AESICCMP128   CCMP256   GCMP256   CCMP256   CCMP256   Protected Management Frame   PMF   Required   Association Comeback Timer*   1   SA Query Time*   200     PSK Format   ASSCI   PSK Type   Unencrypted	Transition O Disable	Reaso	ociation Timeout *	20
AES(OCMP128) CCMP258 C	WPA2/WPA3 Encryption	- Auth Kr	ey Mamt	
OCMP128 OCMP258   Protected Management Frame PMF Association Comeback Timer* SA Query Time* 200 FT + 802.1x O SHA256 Arti Clogging Threshold* ISO Nax Retries* S Retransmit Timeout* 400 PSK Format ASCI  PSK Type Unencrypted Pre-Shared Key*	AES(CCMP128) COMP256	545	0	ET + SAE
Protected Management Frame   PMF   Association Comeback Timer*   SA Query Time*   200   Max Retries*   SK Format   ASSOCIATION   PSK Format   ASSOCIATION   PSK Type   Unencrypted   Pre-Shared Key*	GCMP128 C GCMP256 C	OW	ō	FT + 802.1x 0
PMF     Required     Arti Clogging Threshold*     1500       Association Comeback Timer*     1     Max Retries*     5       SA Query Time*     200     Retransmit Timeout*     400       PSK Format     ASCI     •       PSK Type     Unencrypted     •       Pre-Shared Key*	Protected Management Frame	802 SHA	1x- O	_
Association Cometack Timer* Association Cometack Timer* Association Cometack Timer* Max Retries*  Retransmit Timeout* 400 PSX Format Assci  PSX Type Unencrypted  Pre-Shared Key*	PMF Required •	Arti	Clogging Threshold*	1500
SA Query Time* 200 Retransmit Timeout* 400 PSK Format ASCI • PSK Type Unencrypted • Pre-Shared Key*	Association Comeback Timer*	Max	Retries*	5
PSK Format ASCI    PSK Type Unencrypted    Pre-Shared Key*	SA Query Time* 200	Retri	ansmit Timeout*	400
PSX Type Unencrypted   Pre-Shared Key*		PSK	Format	ASCI •
Pre-Shared Key*		PSK	Туре	Unencrypted •
		Pre-	Shared Key*	

×



Attention : dans la gestion des clés d'authentification, le WLC permet de sélectionner FT+SAE sans SAE activé, mais il a été observé que les clients ne pouvaient pas se connecter. Activez toujours les deux cases à cocher SAE et FT+SAE si vous souhaitez utiliser SAE avec transition rapide.

wifi6E_tes

[WPA3][SAE][FT + SAE][AES].[FT Enabled]

Affichage sur l'interface graphique utilisateur WLC des paramètres de sécurité WLAN :

Vérification des balises OTA :

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No.	Time	Delta	Source	Destination	Protocol	Length (	Channel	Sinnal stre	Infa		Frame 1: 508 bytes on wire (4064 bits), 508 bytes captured (4064 bits) on interface \Device\NFF_[D4578905-2998-4456-8C33-C343166A
1	2023-06-12 18:34:49.385337	0.000000	Cisco 11:00:ed	Broadcast	802.11	544	5	16 dim	Beacon frame, SN+422, FN+0, FlagtsC. BI+100, SSID+"wifi68		Ethernet II, Src: Cisco_dd:7d:37 (00:df:1d:dd:7d:37), Dst: Universa_b7:cf:06 (08:3a:88:b7:cf:06)
2	2023-06-12 18:34:49.487544	0.102207	Cisco 13:00:ed	Broadcast	802.11	585	5	36 dbm	Beacon frame, SN+427, FN+0, Flags+C, BI+100, SSID+"wifi60		Internet Protocol Version 4, Src: 192.168.1.15, Dst: 192.168.1.121
3	2023-06-12 18:34:49.589867	0.102323	Cisco 13:80:ed	Broadcast	802.11	588	5	37 dbm	Beacon frame, SNo432, FNo0, FlagssC. BIo100, SSIDe"wifi68		User Datagram Protocol, Src Port: 5555, Dst Port: 5000
4	2023-06-12 18:34:49-692332	0.102465	Cisco 13:88:ed	Broadcast	882.11	5.88		17 dbs	Reacon frame, Shud37, Fluid, Flagts,C. RTu100, SSTDu"wifild		AiroPeek/OmniPeek encapsulated IEEE 002.11
	2823-06-12 18:34:49.791004	0.090672	Netzear 48:78:95	Cisco 11:80:	882.11	368	ŝ	49 dbs	Probe Request, Skale, Flags,		802.11 radio information
	2023-06-12 10:34:49.791004	0.000000	192,168,1,15	192, 168, 1, 121	882.11	26	ŝ	17 dbm	Acknowledgement, Elasta		IEEE 802.11 Beacon frame, Flags:C
7	2023-06-12 18:34:49.791356	0.000157	Netgear 48:78:95	Cisco 11:00:	882.11	168		49 (88	Probe Request, Skall, ENaB. Elapta	×	/ IEEE 802.11 Wireless Management
	2023-06-12 18:34:49.791427	0.000071	192,168,1,15	192,168,1,121	882.11	76	÷.	17 dbs	Arizouledgement, Elapsa		> Fixed parameters (12 bytes)
	2022-04-12 10:34:40 204403	0.003066	Circo 11(B)(ed	Broadcast	882.11	5.00		17 dbs	Rearrow Scame Shield's Shield Flatter C 87-100 SSTD-"widited		<ul> <li>Tagged parameters (406 bytes)</li> </ul>
10	1011-04-11 10134-40 010101	0.015705	Natowar 48-38-86	Circo 13:88:	882.11	368		48 188	Broke Request Shall Elect. / SSTD-"widide test"	1	) Tag: SSID parameter set: "wifi6E_test_02"
11	3873.66.17 10.34-46 010303		103 100 1 15	101 100 1 111	882.11	74		17 dia	icknuladeamant Elast-		> Tag: Supported Rates 6(8), 9, 12(8), 18, 24(8), 36, 48, 54, [Mbit/sec]
12	3873.06.17 18-34-49 874951	a plates	Natasar 48-78-95	Cisco 11:00:	882.11	194		40 100	Authentication Shud Eluga Elagon /		> Tag: Traffic Indication Hap (TIM): DTIM @ of 3 bitmap
11	3873.86.17 18-34-46 874651	0.000000	102 168 1 15	192 168 1 121	882.11	26		17 dile	Librauladament Elasta		> Tag: Country Information: Country Code na, Environment Global operating classes
14	3831.06.13 18:34:46 896563	0.021612	Cisco 11:80:e7	Netgear 4817	882.11	194		17 dbs	Authentication Chatte Flag Flags.		> Tag: Power Constraint: 6
15	3873.06.17 18:34:49 896563	0.000000	162, 168, 1, 15	162.168.1.121	882.11	76		49 (88	Arknuladrement, Elasta		> Tag: TPC Report Transmit Power: 17, Link Hargin: 0
16	1013 AL 11 10-34-40 004044	0.000000	directived	Broadcast				17 dite	Rearing Come Co. 147 Date Class. / BT.100 CCTD. 5-16100		Tag: RSN Information
17	2023-00-12 10:34:45.704700	* *****	hatman 48.78-56	Circo 11:00:	002.11	120	2	40 40-	Authoritation Shift Elich Flags-	4	Tag Number: RSN Information (48)
	2023-00-12 10-34-49-304900		103 108 1 15	103 100 1 131	002.11	26	2	17 dia	Activity Sets, Field, Fields		Tag length: 24
10	2023-00-12 10-34-49-904900	0.000000	Circo 13180.47	balance dit?	002.11	130		37 484	Addressing the start the flast of		RSN Version: 1
	2023-00-12 10.34.49.904900	0.000000	103 108 1 10	103 108 1 131	882.11	24		48 484	Advantationent flags /		> Group Cipher Suite: 00:0f:ac (Ieee 802.11) AES (CCH)
20	2022-00-12 10:24:45.004900		National ARIZA-RE	Circo 13:88:	883.11	224		48 (88	According to the state of the s		Pairwise Cipher Suite Count: 1
4	2023-06-12 18:34:47.704766	0.000000	Nergear_461/4135	C1500_131001_	002.11	216	2	-49 008	ASSOCIATION Request, Save, Fave, Flagsw, SSIDW WITIGE_LE		> Pairwise Cipher Suite List 00:0fiac (Ieee 802.11) AES (CON)
	2023-00-12 10:54:47.704700	e.000000	192.100.1.15	192.100.1.121	002.11	76	2	36 484	Activities and a second s		Auth Key Management (AUM) Suite Count: 1
	2023-00-12 10:34:49.912474	e.eesses	C15C0_13180107	hetgear_4ai7_	002.11	202	2	10 404	Association Response, Show, Prove, Plagsw		> Auth Key Management (AUM) List 00:0fiac (Ieee 802.11) SAE (SHA256)
	2023-00-12 10:04:49.911474	0.000000	192.100.1.19	192.168.1.121	002.11			17 484	According to the set and the s		> RSN Capabilities: dxdMe8
23	2023-06-12 18:34:49.911719	0.000245	Netgear_48:70:95	Broadcast	LLC	114		37 008	U, funceUP; USAP ex32 Individual, SSAP ex62 command		PHKID Count: 0
26	2023-06-12 18:34:49.911719	0.000000	Netgear_48:70:95	Broadcast	LLC	114		-36 CBM	U, funceunknown; DSAP ex/a individual, SSAP ex04 Response		PMUD List
27	2023-06-12 18:34:49.922346	0.010627	C15C0_13180107	Netgear_4617_	EAPOL	221	2	36 088	key (Hessage 1 of 4)		) Group Hanagement Cipher Suite: 00:0fiac (Ieee 802.11) BIP (128)
28	2023-06-12 18:34:49.922346	e.000000	192.168.1.15	192.168.1.121	802.11	76		49 088	Acknowledgement, Flags+C		> Tag: OBSS Load Element B02.11e CCA version
29	2023-06-12 18:34:49.999581	0.077235	C15C0_13:80:60	Broadcast	802.11	244		36 C88	BEBCON Trane, SNo452, FNo0, F18g1+C, 81+100, SSID+ W17160	91	Tag: Multiple #551D
10	2023-06-12 18:34:50.104510	0.104929	C15C0_13:80:00	eroadcast	802.11	140		10 Oliu	Beacon trane, 50+457, FN+0, F18g1+C, 81+100, 5510+'91116	91	) Tar: NY Enabled (anabilities (5 octets)
31	2023-06-12 18:34:50.204600	0.100090	C1sco_13:80:ed	Broadcast	002.11	588	5	-37 dbm	Beacon frame, SN+462, FN+0, Flags+C, BI+100, SSID+"H1f160	4	) Tay: Extended Cambilities (il octats)
32	2023-06-12 18:34:50.211615	0.007015	Netgear_48:70:95	C15C0_13180!	EAPOL	226	5	-55 dbm	Key (Nessage 2 of 4)		) Tap: Ty Phase Studios
33	2023-06-12 18:34:50.211615	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	42 088	Acknowledgement, Flags+C		Tag: Ty Proved Envelope
34	2023-06-12 18:34:50.213376	0.001761	C15C0_13180:07	Netgear_4817_	EAPOL	295	5	36 088	Key (nessage 3 of 4)		> fat Tag: sultiple BSSD configuration
15	2023-06-12 18:34:50.213376	e.000000	192.168.1.15	192.168.1.121	802.11	76		Se den	Acknowledgement, Flags+C		> fut Tag: wE Camabilities
36	2023-06-12 18:34:50.214354	0.000971	Netgear_48:70:95	C15C0_13:00:_	EAPOL	199		Se den	Key (Hessage 4 of 4)		> Ext Tar: wE Operation
37	2023-06-12 18:34:50.214354	0.000000	192.168.1.15	192.168.1.121	002.11	76	5	42 dbm	Acknowledgement, Flags+C		) Ext Tar: Scatial Ruise Parameter Set
38	2023-06-12 18:34:50.220721	0.006367	192.168.1.15	192.168.1.121	802.11	76	5	42 08#	Acknowledgement, Flags+C		> Ext Tap: NU EDCA Parameter Set
39	2023-06-12 18:34:50.224049	0.003328	192.168.1.15	192.168.1.121	802.11	119	5	44 058	Trigger Buffer Status Report Poll (BSRP), Plags=C		> For Taping 6 Car Band Canabilities
40	2023-06-12 18:34:50.224049	e.000000	AITICEL8_90:59:87	Netgear_4817	LLC	223		44 088	U, func-unknown; DSAF exbs group, SSAF exds Response		Y Tag: BX extension (1 octet)
41	2023-06-12 18:34:50.224049	0.000000	192.168.1.15	192.168.1.121	802.11	76		54 088	Acknowledgement, Flags+C		Tag Number: BSN extension (244)
											The length: 1
											V BOW AVA (AFAF 1)
											AB
											Tar: Vendor Sparific: Athens Commutations. Inc.: Unknown
											) Tar Vendor Sparific: Hirroroft Corn.: WHV/AH: Parameter Element
											) Tay worke Specific Cico Science, Ter Alevet Discourt (Alevet)
											<ul> <li>reg. render appearance serve appearance and servers ensemble (99)</li> <li>Tass unable francificit disco biochast contrast informat (15) (15)</li> </ul>
											<ul> <li>Tage transfer for first distant are distant films with first bird</li> </ul>
											<ul> <li>Tigs Terror operators size operand and operand size of VISE000</li> <li>Tigs Terror Configuration States Terror Alexandro (VISE0000)</li> </ul>
											<ul> <li>The result server appearance are respondent as a respondent and resp</li></ul>

WPA3 SAE + balises FT

Ici, nous pouvons observer les clients Wi-Fi 6E associés :

#### Intel AX211

Connexion OTA avec accent sur les informations RSN du client :



Événement d'itinérance où vous pouvez voir le PMKID :

. 9	11P	COL CITY	122) 000	(man.accr == 2000.	5596. 500t)	) II (warricreype_soor	pe are oxoo say o	e mantrotyp	e_subtype ==	• 000000				
2	ió.	Tene			Delta	Source	Destination	Protocol	Lengt Chann	el Signal str	e Info			> Frame 22065: 272 bytes on wire (2176 bits), 272 bytes captured (2176 bits) on interface \Device\MPF_(D4578905-2998-4
	22	0. 202	1-06-1	2 18:53:11.488635	0.000129	IntelCor_98:58:0f	IntelCor_98:.	LLC	325	5 -75 d8m	S, funcali	, N(R)=0; DSAP NULL LSAP Individual, SSAP NULL LSAP Command		Ethernet II, Src: Cisco_dd:7d:37 (00:df:1d:dd:7d:37), Dst: Universa_b7:cf:06 (00:3a:88:b7:cf:06)
	22	0. 202	1-06-1	2 18:53:11.488681	0.000046	IntelCor_98:58:0f	IntelCor_98:.	LLC	325	5 -75 d8m	S, func-RR	, N(R)=0; DSAP NULL LSAP Individual, SSAP NULL LSAP Command		> Internet Protocol Version 4, Src: 192.168.1.15, Dst: 192.168.1.121
	22	0. 202	1-06-1	2 18:53:11.489310	0.000629	IntelCor_98:58:0f	IntelCor_98:	LLC	245	5 -75 den	S, func+RR	, N(R)=0; DSAP NULL LSAP Individual, SSAP NULL LSAP Command		> User Datagram Protocol, Src Port: 5555, Ost Port: 5000
	22	0. 202	-06-1	2 18:53:11.409310	0.000000	IntelCor 98:58:0f	IntelCor 98:	LLC	325	5 -69 000	S. func-RR	N(R)+0: DSAP NULL LSAP Individual, SSAP NULL LSAP Command		> AiroPeek/OmniPeek encapsulated IEEE 002.11
	22	0. 202	-06-1	2 18:53:11.409359	0,000045	IntelCor 98:58:0f	IntelCor 98:	LLC	325	5 -74 088	5, func-RR	N(R)+0: DSAP NULL LSAP Individual, SSAP NULL LSAP Command		> 802.11 radio information
	22	0. 202	-06-1	2 18:53:11.489462	0.000103	IntelCor 98:58:0f	IntelCor 981.	LLC	325	5 -74 d8m	5, funcali	N(R)+0: DSAP NULL LSAP Individual, SSAP NULL LSAP Command		> IEEE D02.11 Reassociation Request, Flags:C
	22	0. 202	1-06-1	2 18:53:11.489584	0.000042	IntelCor 98:58:0f	IntelCor 98:.	LLC	325	5 -74 d8m	S. funcali	N(R)+0: DSAP NULL LSAP Individual, SSAP NULL LSAP Command		✓ IEEE D02.11 Wireless Management
	22	8. 282	1-06-1	2 18:53:11.489639	0.000135	IntelCor 98:58:0f	IntelCor 98:.	LLC	325	5 -74 d8m	S. funcall	, N(R)+0: DSAP NULL LSAP Individual, SSAP NULL LSAP Command		> fixed parameters (10 bytes)
	22	0. 202	1-06-1	2 18:53:11.490161	0.000522	IntelCor_98:58:0f	IntelCor_98:.	LLC	245	5 -74 d8m	S, func+RR	, N(R)=0; DSAP NULL LSAP Individual, SSAP NULL LSAP Command		✓ Tagged parameters (172 bytes)
	22	0. 202	1-06-1	2 18:53:11.490363	0.000202	IntelCor_98:58:0f	IntelCor_98:	LLC	325	5 -00 dom	S, func+RR	, N(R)+0; DSAP NULL LSAP Individual, SSAP NULL LSAP Command		> Tag: SSID parameter set: "kifi66_test"
	22	0. 202	-06-1	2 18:53:11,491197	0.000034	IntelCor 98:58:0f	IntelCor 98:	LLC	325	5 -77 000	S. func-RR	N(R)+0: DSAP NULL LSAP Individual, SSAP NULL LSAP Command		> Tag: Supported Rates 6(0), 9, 12(0), 10, 24(0), 36, 40, 54, [Hbit/sec]
	22	0. 202	-06-1	2 18:53:11.491197	0.000000	IntelCor 98:58:0f	IntelCor 981.	LLC	325	5 -76 088	S. func-RR	N(R)=0: DSAP NULL LSAP Individual, SSAP NULL LSAP Command		> Tag: Power Capability Hin: 0, Hax: 9
	22	0. 202	1-06-1	2 18:53:11.491242	0.000045	IntelCor 98:58:0f	IntelCor 981.	LLC	325	5 -77 d8m	5, funcalit	N(R)=0: DSAP NULL LSAP Individual, SSAP NULL LSAP Command		<ul> <li>Tag: RSW Information</li> </ul>
	22	0. 202	1-06-1	2 18:53:11.491353	0.000111	IntelCor 98:58:0f	IntelCor 98:	LLC	325	5 -77 d8m	S. funcali	, N(R)+0: DSAP NULL LSAP Individual, SSAP NULL LSAP Command		Tag Number: RSN Information (48)
	22	8. 282	1-06-1	2 18:53:11.491399	0.000044	IntelCor 98:58:0f	IntelCor 98:.	LLC	325	5 -76 d8m	S. funcall	, N(R)+0: DSAP NULL LSAP Individual, SSAP NULL LSAP Command		Tag length: 42
	22	8. 202	1-06-1	2 18:53:11.491965	0.000566	IntelCor 98:58:0f	IntelCor 98:.	LLC	245	5 -77 d8m	S. funcaRR	N(R)+0: DSAP NULL LSAP Individual, SSAP NULL LSAP Command		RSN Version: 1
	22	0. 202	-06-1	2 10:53:11.500563	0.016550	IntelCor 98:58:0f	Cisco 13:00:	892.11	96	5 -63 dem	Authentica	tion, SN+16, FN+0, Flags+C		> Group Cipher Suite: 00:0f:ac (Ieee 802.11) AES (CCM)
	22	0. 202	-06-1	2 18:53:11.500632	0.000065	192.168.1.15	192,168,1,121	892.11	76	5 -36 000	Acknowledg	ement, FlagsC		Painwise Cipher Suite Count: 1
	22	0. 202	1-06-1	2 18:53:11.513546	0.004914	Cisco 13:00:e7	IntelCor 981.	802.11	96	5 -36 088	Authentica	tion, SN+161, FN+0, Flags+C		> Pairwise Cipher Suite List 00:0f:ac (Ieee 802.11) AES (CCH)
	22	0. 202	1-06-1	2 18:53:11.513546	0.000000	192.168.1.15	192.168.1.121	802.11	76	5 -62 d8m	Acknowledg	ement, Flags+C		Auth Key Management (ARM) Suite Count: 1
	- 22	0. 202	1-06-1	2 18:53:11.514178	0.000632	IntelCor_98:58:0f	Cisco 13:80:	802.11	272	5 -66 d8m	Reassociat	ion Request, SN+17, FN+0, Flags+C, SSID+"wifi6E test"		> Auth Key Management (ARM) List 00:0fiac (Ieee 002.11) SAE (SHA256)
12	22	0. 202	1-06-1	2 18:53:11.514178	0.000000	192.168.1.15	192.168.1.121	802.11	76	5 -36 d8m	Acknowledg	ement, FlagtwC		> RSN Capabilities: 0x00fc
	22	9. 202	1-06-1	2 18:53:11.527665	0,013487	7 Cisco 13:00:e7	IntelCor 98:	892.11	262	5 -36 d8m	Reassociat	ion Response, SN+0, FN+0, Flags+C		PHKID Count: 1
	22	0. 202	-06-1	2 18:53:11.527665	0.000000	192.168.1.15	192,168,1,121	892.11	76	5 -62 008	Acknowledg	ement, FlagswC		V PHOID List
	22	0. 202	-06-1	2 18:53:11.528405	0,000740	IntelCor 98:58:0f	Broadcast	LLC	114	5 -36 008	I P. N(R)-	54, N(5)+1221 DSAP XNS Group, SSAP Netware Response		PHKID: 6d62731#1996e329c2921713e0276e25
	22	8. 282		2 18:53:11.528445	0.000040	IntelCor 98:58:0f	Broadcast	LLC	114	5 -36 dbs	T. N(8)=77	N(S)=271 DSAP dyle Individual, SSAP XNS Command		> Group Hanagement Cipher Suite: 00:0fiac (Ieee D02.11) BIP (128)
	22	8. 282		2 18:53:11.530430	0.001105	192,168,1,15	192,168,1,121	882.11	82	5 -36 d8m	Request-to	send. Flarse		> Tag: Supported Operating Classes
	22	8. 282	-06-1	2 18:53:11.530638	0.000205	Cisco 13:80:e7	IntelCor 98:-	EAPOL	221	5 -36 dim	Key Olessa	re 1 of 4)		> Tag: RM Enabled Capabilities (\$ octets)
	22	8. 282	-06-1	2 18:53:11.538638	0.000000	192.168.1.15	192,168,1,121	802.11	76	5 -67 dilm	Acknowledg	ement, Flagte		> Tag: Extended Capabilities (10 octets)
	22	8 282	-06-1	2 18:53:11.533168	0.002530	IntelCor 98:58:0f	Cisco 13:00:	EAPOL	246	5 -67 dbm	Key (Nessa	ee 2 of 4)		> Tag: Vendor Specific: Hicrosoft Corp.: WMVWHE: Information Element
	22	8 282	1-06-1	2 18:53:11.533168	0.000000	192.168.1.15	192,168,1,121	892.11	76	5 -36 dbm	acknowledg	ement, FlagsC		> Tag: Vendor Specific: Intel Wireless Network Group
	22	9. 202		2 18:53:11.534769	0.001601	192.168.1.15	192.168.1.121	802.11	82	5 .36 088	Request.to	send, flagsC		Tag: RSN extension (1 octet)
	22	8. 282		2 18:53:11.535872	0.000101	Cisco 13:88:e7	IntelCor 981	EAPOL	303	5 -36 dbs	Key (Nessa	pe 3 of 4)		Tag Number: RSN extension (244)
	22	8. 282		2 18:53:11.535872	0.000000	192,168,1,15	192,168,1,121	802.11	76	5 .70 d8m	Acknowledg	ement, Flags		Tag length: 1
	- 22	8. 282	-06-1	2 18:53:11.535907	0.000115	IntelCor 98:58:0f	Cisco 13:88:-	EAPOL	199	5 -70 d8m	Key Olessa	re 4 of 4)		✓ R5NX: 0x20 (octet 1)
	22	8. 282	-06-1	2 18:53:11.535907	0.000000	192.168.1.15	192,168,1,121	892.11	76	5 -36 dim	Acknowledg	ement, FlagteC		0000 = KSIX Length: 0
	22	8. 282	-06-1	2 18:53:11.545286	0.009299	Cisco 13:00:ed	Broadcast	892.11	\$17	5 -36 dbm	Beacon fra	me. SN+974. FN+0. Flags+C. BI+100. SSID+"wifies test 02".		Protected TwT Operations Support: 0
	22	9 202	1-06-1	2 18:53:11.545286	0.000000	192.168.1.15	192.168.1.121	802.11	82	5 -46 088	Request-to	send, flagsC	'	SAE Hash to element: 1
	22	0. 202		2 18:53:11.545206	0.000000	Ciscoller SilcalSe	IntelCor 981	LLC	187	5 .46 088	I. N(8)=16	N(5)=2: DSAP NULL LSAP Group, SSAP dute Command		00 = Reserved: 0x0
	22	8. 202		2 18:53:11.545206	0.000000	192.168.1.15	192,168,1,121	802.11	76	5 .72 dbs	Acknowledg	ement, flags,		> Ext Tag: HE Capabilities
	22	b. 202	-06-1	2 18:53:11.556775	0.011565	192.168.1.15	192,168,1,121	802.11	82	5 -72 dia	Request-to	stend, Flags,		Ext Tag: HE 6 GHZ Band Capabilities
	22	2. 2.02	-06-1	2 18:53:11.556775	0.000000	192,168,1,15	192,168,1,121	802.11	76	5 -36 dim	Clear-to-s	end. FlagtsC		
	22	2.02	-06-1	2 18:53:11.556977	0.000202	IntelCor 98:58:0f	Broadcast	LLC	\$15	5 -75 den	I.P. N(R)-	67, N(S)+77: DSAP @x48 Individual, SSAP Banvan Vines Command		
	22	2.02	-06-1	2 18:53:11.556977	0.000000	192.168.1.15	192.168.1.121	882.11	76	5 -36 d8m	Acknowledg	ement, FlagsC		

Demande de réassociation WPA3 SAE + FT

#### Détails du client dans le WLC :

¢	cisco	Cisco Cataly	/st 980	0-CL Wireless (	Cor	ntroller			Welcome admin 🛛 🏘 🌾 🛕 🖺 🏟 🔞 🤣 Search APs and Clients 🔍 🗍 🖀 Feedback	2.0
	Search Magu Iter		Monito	ring > Wireless *	> (	Clients			Client	×
	Search Meno nar		Clients	Sleeping Client	s	Excluded Clier	nts		360 View General QOS Statistics ATF Statistics Mobility History Call Statistics	
201	Dashboard			_					Client Properties AP Properties Security Information Client Statistics QOS Properties EoGRE	
٢		*	×	Delete					Client State Servers None	
2	Configuration	>	Selec	ted 0 out of 12 Clients					Client ACLs None Client Forty Create Time 380 seconds	
~			0	Client MAC Address	Ŧ	IPv4 Address	IPv6 Address	AP Name	Policy Type WPA3	
562	Administration	n <b>&gt;</b>	0	286b.3598.580f	×	192.168.1.159	fe80::ac5b:e1e1:67ba:c353	AP6849.9253.CA50	Encryption Cipher CCMP (AES)	
C	Licensing		0	60fb.008b.0e66	×	N/A	N/A	AP01_RC_9136_F80C	Authentication Key Management SAE	
			0	34ea.e702.6240	F	192.168.1.70	N/A	AP6849.9253.CA50	Session Timeout 86400	
× 1	Troubleshooti	ng	0	a810.87bb.b833	×	192.168.1.94	fe80::aa10:87ff:febb:b833	AP03_Sotao_9548	Session Manager	
			0	9669.5a28.a115	×	192.168.1.138	fe80::9469:5aff:fe28:a115	AP01_RC_9136_F80C		
			Ο	84d8.1b0f.294f	×	192.168.1.91	N/A	AP03_Sotao_9548	Point of Attachment capwap_90000010	
			0	0c8b.9509.3518	×	192.168.1.129	N/A	AP03_Sotao_9548	IIF ID 0x9000010	
	Walk Me Through		0	0012.17e2.4b40	×	192.168.1.31	fe80::212:17ff:fee2:4b40	AP04_OutdoorF_3DC8	Authorized TRUE	
			0	0012.17e2.4856	×	192.168.1.37	fe80::212:17ff:fee2:4856	AP05_Outdoor8_2200	Acet Settion ID 0x00000000	
			Ο	0012.17e1.dd57	×	192.168.1.33	fe80::212:17ff:fee1:dd57	AP03_Sotao_9548	Auth Method Status List	
			н	< 1 2 ▶	н	10 💌			Method SAE	
									B. B	

#### NetGear A8000

Connexion OTA avec accent sur les informations RSN du client. Connexion initiale :

No.	Time	Delta	Source	Destination	Protocol	Length Char	el Signal strength	BSS Id	Info	> Frame 21: 256 bytes on wire (1728 bits), 236 bytes captured (1728 bits) on interface 'Device'NPF_(D4578985-2998-4456-
	1 18:54:49.385337	0.00000	00 Cisco_17:00:ed	Broadcast	892.11	544	5 -36 dBm	38/91-37:13:90:ed	Beacon frame, SNe422, FNe8, FlagseC, 82+100, 5532+"wif586_test_82", 5532+"wif	> thereas is, set: theo_setemps (webering.set.set, part) with webering.b7(cf:06 (Webs:WebF)cf:06)
	2 38:34:49.487544	0.58230	87 Cisco_13:00:ed	Broadcast	862.11	5496	5 -36 dBm	38:91:57:13:80:ed	Beacon Frame, Sti-427, Hiell, Flags+C, 82+200, 5520+"sdF26E_test_82", 5520+"sdF	3 Desret Protocol Write 4, Srt. Dollar.1.15, Dit: DV.108.1.15
	3-18:34:49.589867	0.38232	23 Cisco_13:80:ed	Broadcast	842.11	509	5 -37 dBe	38:91:57:13:80:ed	Beacon Frame, SN+432, HN+B, FlagssC, BL+100, SS3D+"xd+14E_test_62", SS3D+"xd+	) the decay we recently set wort: soos, but wort: see
	4 18:14:149.892332	8.38246	65 Cisco_131801ed	Broadcast	862.11	5498	5 -37 das	36/95/37(53)(80)ed	Beacon frame, Stu-417, Hu-9, FlagueC, 81+100, SSID="hdFist_test_02", SSID="hdF	) Adverse version and an adversaria and an adversaria
	5 \$8:34:49.795804	0.25967	22 Netpur_48:70:95	Cisco_13:88:#7	862.13	368	5 -49 dBm	38:91:b7:13:80:e7	Probe Request, SHvDd, FMwd, FlagskC, SSIDw"wifisE_test"	) BULLI (BULLI AND AND ADD ADD ADD ADD ADD ADD ADD ADD
	8 18:34:49.792884	0.00000	80 192.188.1.15	192.168.1.121	862.11	26	5 -37 d84		Acknowledgement, Flagse	> Ittle Moral Association Report, Flags:
	7 18:34:49.791356	0.00035	52 Netgeur_48:70:95	Cisco_15:80:#7	982.51	168	5 -49 dbs	38:91:57:13:80:47	Probe Request, SHvii, Field, FlagssC, SSID+"wifisi_test"	V LEE MALLE REPEATS AND ADDRESS
	8 18(34)49,795427	0,00007	71 192.168.1.15	192.168.1.121	882.13	26	5 -37 day		Acknowledgement, Flags+C	<ul> <li>Fixed parameters (a systex)</li> </ul>
	9 18:34:49.794493	0.00300	66 Cisco_17:90:ed	Broadcast	882.11	588	5 -37 dBm	10:01:57:13:00:ed	Beacon frame, SN-442, FN-0, FlagsC, 81×100, 5532+"xdf148_test_82", 5523+"xdf	) capacitites investor: exists
	38 38:34:49.838282	9,80378	0 Netgear_48170195	Cisco_13:80:e7	882.11	368	5 -49 dBH	38:95:57(53:88)#7	Probe Repuest, SNv12, Flw0, FlagsvC, SSIDv"wiFi6E_test"	Little Diversal example
	11 18:34:49.838292	0.00000	00 152.168.1.15	192.368.3.321	882.11	- 76	5 -37 dbt		Acknowledgement, Flags+C	<ul> <li>radio brancos (175 obra)</li> </ul>
	12 18:34:49,874951	0.06466	69 Netgear_48:70:95	Cisco_13:80:e7	992.11	194	5 -49 dile	38:35:57:53:891#7	Authentication, SN-4, Hu-0, FlagsC	) mg: SLD parameter set: wiring test
	13 18:34:49.874951	0.00000	00 192.358.1.15	192.368.1.321	882.11	26	5 -37 dbs.		Acknowledgement, Flagss	> Tag: Supported Wates 6(0), 9, 12(0), 18, 26(0), 30, 48, 54, [Most/sec]
	14 18:34:49.898563	0.02163	12 Cisco_13:00147	Netgear_48179195	882.11	394	5 -37 dBe	38:91:57:13:80:47	Authentication, Shidds, Hird, FlagsrC	> Let Tag: HE Capuelistees
	15 18:34:49.896563	0.00000	00 192.168.1.15	192.368.1.321	882.11	26	5 -49 dbm		Acknowledgement, Flags+C	5 Ext Tag: HE & GHD Back Capabilities
	26 28:34:49.994966	9,00640	83 Cisco_33:80:ed	Broadcast	842.11	5495	5 -37 dbt	38:91:07:15:80:ed	Beacon frame, 59-447, Hu-0, FlagsC, 81+100, 5512+"wdf188_test_02", 5512+"wdf	3 Tagi Wender Spectraci Ralbie Technology, Corp.
	17 18:34:49.904966	0.00000	00 Netgeor_48:70:95	Cisco_13:80:#7	882.11	138	5 -49 dbt	38:91:37:13:80:47	Authentication, SN+5, FN+8, Flags+C	> Tag: Extended Capabilities (30 octets)
	18 18:34:49.984966	0.00000	00 152,168.1.15	192.168.1.121	942.11	26	5 -37 dBm		Acknowledgement, Flags+C	3 Tag: Wester Spectraci Increased Corp.; amprantics Element
	19 18:34:49.908966	0.00000	00 Cinco_13:00:e7	Netgear_48:70:95	882.11	238	5 -37 dBt	38:91:57:11:89:47	Authentication, SNe147, FNe0, FlagseC	<ul> <li>Tage Kin Information</li> </ul>
	20 18:34:49.904966	0.00000	80 192.168.1.15	192.168.1.121	882.11	75	5 -45 dbt		Acknowledgement, Flags	Tag Number( 854 Enformation (48)
	21 18:34:49.004966	0.00000	00 Netgear_AB179195	Cisco_10:00:e7	802.33	236	5 -02 404	36:91:57:13:80:47	Association Request, SN-6, FD-8, FlagssC, SSID="wifisit_test"	Tag Leogth: 22
	22 18:34:49.994966	0.00000	80 192.168.1.15	192.168.1.121	882.53	26	5 -36 dBH		Acknowledgement, Flags+K	ROV Version: 1
	23 18:84:49.915474	0.00050	08 Cisco_11:80:e7	Netgeor_48:79:95	882.11	262	5 -36 dbt	38:91:57:11:80:47	Association Response, S0-0, H0-0, FlagseC	) Group Cipher Sulte: 60:01:ac (leee MU.11) ACS (CDR)
	24 18:34:49.915474	0.00000	00 192.168.1.15	192.168.1.121	862.11	25	5 -49 dbt		Acknowledgement, Flags+X	Pagnatise Cipher Sudte Count   1
	25 38:34:49.911719	0.00024	IS Netgear_A8:70:05	Broadcast	LLC	114	5 -37 dbs	38:91:57:13:80:47	U, Func-KP; 05AP BK12 Individual, 55AP BK52 Command	> Pachadie Cipher Suite List deteriac (Dees BH2.33) AES (COR)
	26 18:34:49.911719	0.00000	00 Netgear_48:70:05	Broadcast	LLC	114	5 -36 d8t	38:91:57:13:80:e7	U, func-Uninewer; DSAP ex/s Individual, SSAP exist Response	Auth Kay Ranagement (ARR) Subte Count: 1
	27 18:34:49,922346	0.05062	27 Cisco 13:80:47	Netgeor_48:70:95	EMPOL	225	5 -36 dbs	38:91:57:13:80:47	Key (Message 1 of 4)	<ul> <li>Auth Key Management (ADP) List Mr30Fisc (Leve MK2.11) SAE (SMAIS6)</li> </ul>
	28 18:34:49.922348	0.00000	89 192.168.1.15	192.168.1.121	882.11	75	5 -49 dBt		Acknowledgement, FlagsC	<ul> <li>Auth Key Hanagement (ARN) Sulte: 00:07:ac (Leee 802.11) SAE (SHA256)</li> </ul>
	29 18:34:49.999581	8.87723	15 Cisco 12:Mored	Broadcast	882.11	505	5 -36 dbt	18:91:07(13:80)ed	Beacon frame, StudS2, Flueb, FlagssC, 82+300, 5530-"xd-FisE_text_82", 5530-"xd-F	Auth Key Management (AKM) CUL: 00:09:ac (lees 002.11)
	30 18:34:58.104518	0.30492	29 Cisco 13:80:ed	Broadcast	882.11	505	5 -36 dBt	38:91:57:13:80:ed	Beacon frame, SN-457, FN-0, FlagsC, 80-100, 5510-5df586_test_82*, 5520+5df	Auth Key Ranagement (ARR) type: SAE (SH256) (8)
	31 18:34:58.284608	0.52000	90 Cisco 11:80:ed	Broadcast	882.11	588	5 -37 dbe	38:91:57:13:80:ed	beacon frame, 98-462, F8-0, FlagsC, 82-100, 5525-"xdF168_test_82", 5525-"xdF	<ul> <li>Kow capabilities: execce</li> </ul>
	12 18:34:58.211615	0.00705	15 Netgear 48:70:95	Cisco_13:80:e7	EAPOL	228	5 -55 dBt	38:95:57:13:80:e7	Key (Message 2 of 4)	
	83 28:34:50.222625	0.00000	80 192,168.1.15	192.168.1.121	882.11	25	5 -42 dbt		Acknowledgement, Flags+C	
	34 18:34:58.213376	0.00176	11 Cisco 13:00:47	Netgear 48:70:55	EAPON.	295	5 -35 dbt	38:91:57:13:80:47	Key (Message 3 of 4)	80., = RSN PRSA Replay Counter capabilities: 1 replay counter per PRSA/GRSA/StaGepS
	35 18:34:58.213376	0.00000	00 102.168.1.15	192.168.1.121	982.11	26	5 -50 dbs		Acknowledgement, Flags+	
	36 18:34:58.214354	0.00007	78 Netgear 48:70:95	Cisco 13:80:47	EAPOL	199	5 -56 dbt	38:91:57:13:80:47	Key (Pethope 4 of 4)	1 Management Frame Protection Regulred: True
	37 18134(59).214354	8.00000	00 192.168.1.15	192.168.1.121	882.11	26	5 -42 day		Acknowledgement, Flagse	I Annapement Frame Protection Capable: True
	38 18:34:58.228725	0.00536	67 152.188.1.15	192.168.1.121	882.11	26	5 -42 dim		Acknowledgement, Flags+C	@ = Joint Multi-band MJMA: False
	39 18:34:58.234849	0.00132	28 192, 188, 1, 15	192.368.1.121	882.11	119	5 -44 day		Trigger Buffer Status Report Poll (8589), Flags	
	#2 18:34:50.224849	0.00000	No. AlticeLa_0e:59:av	Netgeor_48:20:55	LLC	223	5 -44 dbs	38:95:57:53:89:47	U, funcitinknown; DSAP thote Group, SSAP thote Response	
	45 18(34)58,228849	0.00000	00 182.188.1.15	192.168.1.121	882.13	78	5 -54 dbs		Acknowledgement, Flags	WED CONT: 0
										PMKID List

) Tag: KW extension (1 octer) ) Tag: WM Enabled Capabilities (5 octers)

#### Détails du client dans le WLC :

Cisco Cataly	st 980	0-CL Wireless (	Cor	troller			Welcome admin 🛛 🌴 🧒 🏠 🖺 🏟 🔞 🤣 🕄 Search APs and Clients 🔍 🗎 🖀 Feedback 🖍	*
Q Search Merculterns	Monitor	ing • > Wireless •	> (	Clients			Client	×
	Clients	Sleeping Client	s	Excluded Clien	ts		360 View General QOS Statistics ATF Statistics Mobility History Call Statistics	
Dashboard	_						Client Properties AP Properties Security Information Client Statistics QOS Properties EoGRE	
Monitoring	×	Delete					Client State Servers None	-
Configuration	Selec	ted 0 out of 13 Clients					Client ACLs None Client Entry Create Time 11 seconds	
	0	Client MAC Address	٣	IPv4 Address	IPv6 Address	AP Name	Policy Type WPA3	
Of Administration	0	9418.6548.7095	×	192.168.1.163	fe80::ce19:6f16:279d:515f	AP6849.9253.CA50	Encryption Cipher CCMP (AES)	
C Licensing	0	286b.3598.580f	×	192.168.1.159	fe80::ac5b:e1e1:67ba:c353	AP6849.9253.CA50	Authentication Key Management SAE	
	0	60fb.008b.0e66	×	N/A	N/A	AP01_RC_9136_F80C	EAP Type Not Applicable Service Timeout 86400	
X Troubleshooting	0	34ea.e702.6240	×	192.168.1.70	N/A	AP6849.9253.CA50	Session Manager	
	0	9669.5a28.a115	×	192.168.1.138	fe80::9469:5aff:fe28:a115	AP01_RC_9136_F80C		
	0	84d8.1b0f.294f	×	192.168.1.91	N/A	AP03_Sotao_9548	Point of Attachment capwap_90000010	
	0	0c8b.9509.3518	×	192.168.1.129	N/A	AP03_Sotao_9548	IIF ID 0x90000010	
	0	0012.17e2.4b40	×	192.168.1.31	fe80::212:17ff:fee2:4b40	AP04_OutdoorF_3DC8	Authorized TRUE	
war we meaps a	0	0012.17e2.4856	×	192.168.1.37	fe80::212:17ff:fee2:4856	AP05_Outdoor8_2200	Common Session ID UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	
	0	0012.17e1.dd57	×	192.168.1.33	fe80::212:17ff:fee1:dd57	AP03_Sotao_9548	Auth Method Status List	
	н	< 1 2 ▶	н	10 🔻			Method SAE	

#### Pixel 6a

Le périphérique n'a pas pu se déplacer lorsque FT est activé.

Samsung S23

Le périphérique n'a pas pu se déplacer lorsque FT est activé.

WPA3-Enterprise + AES(CCMP128) + 802.1x-SHA256 + FT

#### Configuration de la sécurité WLAN :

Cisco Catalyst 9800-CL Wireless Controller	Welcome admin server extract that the set of the the the set of the the set of the set o
Q, Saarch Manu Itums Configuration* > Tags & Profiles* > WLANs	Edit WLAN *
Cashboard	Changing WUAN partameters while it is anabled will result in loss of connectivity for clients connected to a.
(2) Monitoring Selected WLANs : 0	General Security Advanced Add To Policy Tags
Configuration     D     Status     T     Neme     T     D     D     MacSitian     S	Layer2 Layer3 AAA
Administration , O O dotta .	O WPA + WPA2 O WPA2 + WPA3 O Static WEP O None
With Mer Turnight D	MAC Fitning         O           Lobby Admin Access         O           WPA Parameters         Fest Transition           WPA ()         WPA2 ()           OTK ()         O           OTK ()         WPA3 ()           Transition ()         O           Transition ()         O           WPA2 ()         O           Other the DS ()         O           Maskie         O           WPA2 ()         O           Assice         FT - SAE ()
	Protected Management Frame      PMF     Regard     Association Correback Time*      SA Quely Time*     200

Configuration de la sécurité WPA3 Enterprise 802.1x-SHA256 + FTWLAN

## Affichage sur l'interface graphique utilisateur WLC des paramètres de sécurité WLAN :

0	0	wih6E_test	5	wifr6E_test	[WPA3][FT + 802.1x][AES][PMF 802.1X].[FT Enabled]

Ici, nous pouvons voir les journaux en direct ISE montrant les authentifications provenant de

### chaque périphérique :

	Time	Status	Details	Repeat	Identity	Endpoint ID	Endpoint Profile	Authenticat	Authorizati	Authorizati	IP Address		Network Device
×					Identity	Endpoint ID	Endpoint Profile	Authentication	Authorization	Authorization	IP Address	~	Network Device
	Jun 27, 2023 01:52:38.130 PM	•	6	0	tantunes	04:29:2E:C9:E3:71		WirelessDot	WirelessDot	PermitAccess			
	Jun 27, 2023 01:52:38 130 PM		à		tantunes	04:29:2E C9:E3:71		WirelessDot	WirelessDot	PermitAccess			eWLC-9800-01
	Jun 27, 2023 01:51:53 850 PM	•	a	0	tantunes	24:95:2F:72:8A:66	Unknown	WirelessDot	WirelessDot	PermitAccess			
	Jun 27, 2023 01:51:53.850 PM		.0		tantunes	24:95:2F:72:8A:66	Unknown	WirelessDot	WirelessDot	PermitAccess			eWLC-9800-01
	Jun 27, 2023 01:50:58.679 PM	•	a	0	tantunes	94:18:65:48:70.95	Netgear-Device	WirelessDot	WirelessDot	PermitAccess			
	Jun 27, 2023 01:50:58.679 PM				tantunes	94.18:65:48:70:95	Netgear-Device	WirelessDot	WirelessDot	PermitAccess			eWLC-9800-01
	Jun 27, 2023 01:50:43.883 PM		0		tantunes	94:18:65:48:70.95	Netgear-Device	WirelessDot	WirelessDot	PermitAccess			eWLC-9800-01
	Jun 27, 2023 01:50:42.877 PM	0	Q	0	tantunes	28.68:35.98:58.0F	Intel-Device	WirelessDot	WirelessDot	PermitAccess			
	Jun 27, 2023 01:50:42.877 PM		0		tantunes	28.6B:35.98.58.0F	Intel-Device	WirelessDot	WirelessDot	PermitAccess			eWLC-9800-01

Journaux en direct ISE

## Les balises OTA ressemblent à ceci :

No.	Time	Delta Source	Destination	Protocol	Length Ch	annel Sona	stre Info	) Frame 327 428 bytes on size (3424 bits), 428 bytes captured (3424 bits) on interface 'Device/WF(D4378085-2008-4666-4C13-C341864A088), 54 8
	114 3 409421	a stillage formalizer on-tailed	Broadcast	807.31	144	11	Probe Banary Maddal Had Flama / SCHaddaran / Innadrani	) Ethernet II, Src: Class_62:97:47 (HcI1:h2:62:97:47), Dut: Universa_07:cf:06 (Hc:la:Hch7:cf:06)
	125. 3.405402	# ANNESS FLACA AN DO-18	Broadcast	887.51	1214	55 - 12 -	Probe Britomics (Sed) Budt Flams / Bi-MB SUD-"dfield text" SUD-address (Resolvent)	> Internet Protocol Version 4, Src: 292.168.1.15, Dit: 292.168.1.121
	126 3.751368	# 25 DBAR Class dd-70:04	Broadcast	880.51	174	\$1 - 11 d	Bridge Bergerson (Br. 2000) High Filmers / F. Bl. 2000 SUD-"	> User Datagram Protocol, Src Port: 5555, Dat Port: 5800
	117-3.727541	a press prove de la la	Broadrast	842.01		55 - 35 -	Annual frame the black black flame, of \$1,500 CORA-Selling surf (CORA-Selling Construct)	> AbroPeek/Demi/Peek encapsulated IHEE 882.11
	AND D TRADES	# 107700 107 168 1 15	101 146 1 510			5.1	Plant Revenue of Charles and the second seco	> 802.11 radio information
	AND A DEPENDENCE	a source fines do to se	Areastrand.	BR2 53	100	E2	And to send taget more the stars of strang divertified and stranger	) IDEE 882.11 Beaton Frame, Flags:C
	220 0 200000	a setting teaching deliver	Cinese de la la	Mar. 23		52 - 32 0	From response, second, free, range-interior, second, some an and the second second second	✓ IEE 802.11 kireless Ranagement
	Are a reason	a second disease de la la	Casco Jos Porte				harden and a second sec	> fixed parameters (12 bytes)
	384 3.763048	B. DECTA LAND DECTE OF	THE PARTY OF THE PARTY	B04-88			a second state, second state, read and state a state build a second	✓ Tagged parameters (35 hytes)
	383 3.754858	around theritor because	623000_00170100	862.15		55 -42 0	s seesocation require, serve, range,	> Tag: SSID parameter set: "wdf56E test"
	385 3.756913	#L8988/5 L1305_30:70:38	Broadcast	802.23	274	50 - 00 0	<ul> <li>Proce Reporte, Second, ree, Fight</li></ul>	> Tag: Supported Rates 6(8), 0, 12(8), 18, 24(8), 36, 48, 56, (MDIT/Lec)
	386 3.772396	0.001173 20182L0r_90/5818r	BPOARCAST	ELC.	234	53 - 34 0	<ul> <li>U.P., functioning Duar ende group, star esta comment</li> </ul>	> tag: traffic indication Rep (TIR); DTDL # of 1 bitsep
	367 3,776363	#.004255 £15c0_00:70:58	IntelCor_30:56:94	842.31	34.3	55 - 33 0	<ul> <li>Restociation Reporte, SWE, Field, Figge</li></ul>	1 > Tag: Country Information: Country Code na, Environment Global operating classes
	389 3,777572	0.001211 192.108.1.15	192.198.1.111	862.11	84	55 -35 0	Requisit-to-send, Flags+C	> fac: Poer Constraint: 6
	392 3.777572	#.000000 C15C0_dd:70:18	Integcio-Jan Market	100	769	53 - 13 0	e Request, Identity	have The Report Franket Power: 54, Link Rendin: 8
	393 3,788648	#.#01276 CLsco_MI:76:58	Broadcast	892.11	374	53 -35 d	Probe Response, Sk-2009, Phole, FlagsC, 82-300, SSID='sified_test', SSID-wildcard (Broadcas.)	Y Tax: KN Information
	304 3.889467	0.820629 £1sco_dd:7d:38	Broadcast	862.11	304	55 -35 d	Probe Response, Sh-2010, Hieb, FlagsC, 81-300, SSID="ulfide_test", SSID=wildcard (Broadcas.	Tar Number: HON Information (48)
	305 3.824287	W.W54820 IntelCor_98:5810f	C1400_6570118	642	317	53 -41 d	<ul> <li>Response, Identity</li> </ul>	Tax Levels 10
	307 3.829933	#1005646 Cisco_dd:7d:38	Broadcast.	882.53	428	53 -33 d	<ul> <li>Beacon Frame, SN-2011, FRed, FlagsC, B1-100, SSIDe"wiffink_test", SSID-mildcard (Broadcast)</li> </ul>	The summary of the second
	398 3.831548	0.001215 192.168.1.15	192.168.1.121	882.11	102	55 -33 d	<ul> <li>Request-tc-send, Flags+C</li> </ul>	Server Friday Scher Welder Flag III) 113 85 (119)
	409 3.833548	8.000000 CLuco_dd:7d:38	Intelfor_98:58:9F	5.62	228	53 -33 d	Request, Protected LAP (LAP-PLAP)	Server Fisher Softe (Ref. Bolder Jane 90) 111
	482 3.899955	0.004887 232.168.1.15	192.368.1.123	842.11	78.	53 -45 d	<ul> <li>Clear-to-sent, FlagsC</li> </ul>	design fuller and the fuller fuller of the
	403 3.850236	0.054201 Cisco_dd:7d:30	Broadcast	882.11	324	53 -33 d	Probe Response, SM-2012, FN-8, FlagsC, 82-500, SSID-"wid106_test", SSID-Wildcard (Broadcas	billion (share share (pre-marcule))
	405 3.851338	0.003303 IntelCor_98:58:84	Ciaco_dd:7d:38	TL5v5.2	365	53 -42 d	<ul> <li>Client Hello</li> </ul>	Provide Control Provide Vision 1 and 1
	407 3,868559	0.007221 292.168.1.15	192.168.1.121	862.11	62	53 -39 d	s Repet-to-send, FlagsC	<ul> <li>Provide Lipser Socie Libs, Worthan (Lines Sec. 12) His Const.</li> <li>Market Socie Libser Socie Libser Socie Library Sec. 12 (1998)</li> </ul>
	400 3.862858	0.001409 Cisco_dd:7d:38	1nte0Cor_98:58:04	1.64	1336	55 -35 d	Request, Protected LAP (LAP-PLAP)	<ul> <li>Patricia Capiter Sature (Control (Contro) (Control (Contro) (Control (C</li></ul>
	411 3.363808	0.001750 intelcor_suisated	Cisco_dd:7d:88	642	338	53 -43 d	Response, Protected LAP (LAP-PLAP)	Patricke Capiter Sattle Soll (Witer Sat Lee Mar. 11)
	413 3.866585	0.002377 192.168.1.15	182.168.1.121	882.11	82	53 - 18 d	Auguest-tu-send, Flags	rainese caper suche (ye: als (con) (4)
	415 3.896778	0.000503 Cisco_dd:7d:38	IntelCor_98:58:84	1L5v1.2	304	55 -33 d	s Ignored Unknown Record	Auth say management (Ann) Soste Count: 2
	417 3.878928	0.004002 Elsco_dd:76:38	Broadcast	882.11	374	53 -33 d	Probe Response, Sk-DELL, Fk-B, FlagsC, El-GDM, SSID-"wif106_test", SSID-wildcard (Broadcas.	<ul> <li>Auto Kay Managament (AMA) List ancienta: (Dama MULII) PT over List MULIA (MICHTAR (Dama MULIA))</li> </ul>
	418 3.877396	#.006586 IntelCor_98:58:84	CLACH_00170138	TL5v1.2	248	5342.0	<ul> <li>Client Key Exchange, Change Cipher Spec, Encrypted Handshake Ressage</li> </ul>	<ul> <li>while and legislicity (model prices, model prices, provide the model price model)</li> </ul>
	428 3.880931	0.003440 222.168.1.15	192.168.1.125	882.11	82	53 -33 d	r Request-to-send, FlagsC	Auth Key Hangement (ARM) OLE: MCHT:ac (Deer MCL11)
	422 3.880836	0.000000 Elsco_dd:7d:18	IntelCor_98:58:94	TL5v5.2	263	51 -11 4	Change Lipher Spec, Encrypted Handshake Message	Auth Key Ranagement (AMR) type: FT over IEEE HE2.EX (3)
	424 1,885572	0.004336 IntelCor 98:58:64	CENID. dd(7d1)8	1.00	13#	53 -43 -8	s Response, Protected (AP ((AP-P(AP)	<ul> <li>Auth my Panagenent (ANR) Sulte: 00(0Fist (Lees 802.11) MR (SH256)</li> </ul>
	425 3.887787	0.002515 192,168,1,15	152.168.1.122	842.33	82	53 -33 d	<ul> <li>Request-to-send, Flags</li></ul>	Auth Key Haragement (AdM) OUE: 40:04:ac (Leve M02.11)
	425 3.857889	0.000202 Claco dd:7d:38	IntelCor 98:58:04	TL5v5.2	240	\$3 -33 d	<ul> <li>Application Data</li> </ul>	Auth Key Ranagement (AMR) type: WRA (SHUS6) (S)
	438.3.896302	0.002413 1vts1Cor_90;50;84	C\$809,40(70)38	TLSv5.2	248	53 -43 0	<ul> <li>Application Data</li> </ul>	V Kin Lapadilities: exemes
	432 3,891177	@.0000875 Cisco dd:7d:38	Broadcast	882.11	376	55 -35 d	Probe Response, Sk-3814, Field, FlagsC. 81-000, SSID-"wif166 test", SSID-scilocard (Broadcas,	iii iii iii iii iii iii iii iii iii ii
	413 3.891289	0.002112 122.168.1.15	192.568.1.121	842.11	82	53 -33 d	Request-to-send, Flags	
	435 3.893343	#.000054 Clace dd:72:38	tenaldor-server	115v1-2	367	53 -10 4	<ul> <li>Application Data</li> </ul>	
	437 3.500079	0.006736 IntelCor 58:58:00	Classo dd:7d:38	TL5v1.2	282	55 -43 d	<ul> <li>Application Data</li> </ul>	10
	448 3,006605	0.006526 292.168.1.15	192,348.3.125	892.11	28	53 -66 d	Clear-to-seed flags	
	441 3.914954	#, postato Etaco del 74138	Broadcast	882.11	374	\$3 -33 d	Probe Resource, Mc2015, Flore, Flares,, C. Birthe, Ultrafield text", Ultradictory (Broadcas,	1
	441 3.925584	#. #106.38 192, 168, 1, 15	192, 566, 1, 125	882.11	80	51	Benard Annual Flats	A A A A A A A A A A A A A A A A A A A
	AAS 3 SUSSEA	8.000000 (taro dd:70:18	Intellior Statist	71541.7	186	\$1	Application flats	
	447 3.538823	a matrix tension on tend	Claim All Maile	T15+5.2	141	\$2.42.4	Application Data	
	449 3.032902	a astrant Clarks Advint Is	Broadcast	880.55	478	\$3	Barrow frame (20-2016 Flad Flams, F Statist U22s-"office test" U25s4(Mand Reserve)	PMCID Counti 0
	458 3 S17908	# PROVING 107 168 1 15	100 100 1 100	1007 11		53 . 33 .	Repart to and them. I	PMCD List
	ALL A STREET	a papers rises do bring	Tatalitas Destand	2131-2 2	114	11 - M -	Application form	) Group Mecanement (Topler, Softre: JMD (MT are 100-301) STP (118).
	AND A ADDATE	a denter handline dentered	Ciase de Marie	Taked 7	100	10.000	Page and a second se	> Tag: RebLity Domain
	and how would	a matrix and and a st	and prove a pite	contracted		20 - 42 C	Record Real of Class	> Tag: QBS Load Element M02.11e CCA Version

WPA3 Enterprise 802.1x +FT Beacon

Ici, nous pouvons observer les clients Wi-Fi 6E associés :

#### Intel AX211

Connexion OTA avec accent sur les informations RSN du client sur un événement d'itinérance :

No.	Time	Delta	Source	Destination	Protocol	Length Ch	annel	Signal stre	Info	> Frame SJ: 215 bytes on wire (1888 bits), 215 bytes captured (1888 bits) on interface \Device\MPF_(D4578085-2008-4A56-BC11-C141)
	1 0.000000	0.000000	Cisco_dd:a0:18	Broadcast	892.11	428	69	-36 dbt	Beacon Frame, SN+220, FN+0, Flags+C, BI+100, SSID+"wif16E_test"	> Ethernet II, Srci Cisco di:W747 (74:11:8:1d2:97:47), Dat: Universa_D7:cf:06 (08:3a:88:07:cf:06)
	2 0.102260	8.182268	Cisco_dd:a0:18	Broadcast	892.11	428	69	-37 dBt	Beacon frame, SN+221, FN+0, Flags+C, BI+300, SSID+"wdfi66_test"	) Internet Protocol Version 4, Src: 102.108.1.15, OHT: 102.108.1.121
	3 0.204689	8.182425	Cisco_dd:a0:18	Broadcast	892.11	428	69	-36 dBt	Seacon Frame, SN+222, FN+0, Flags+C, BI+100, SSID+"wifi66_test"	> User Catagram Protocol, Src Port: 5555, Ust Port: 5880
	4 0.280665	0.075976	192.168.1.15	192.168.1.121	802.11	76	69	-56 dBt	Clear-to-send, Flags+C	> Alrower/om/wer encapsulated ILLE 802.11
1	57 0.384987	0.024323	IntelCor_98:58:0f	Cisto_00:00:18	892.11	235	69	-57 dBR	Authentication, SW423, HW+0, Flags+C	> MALII Facto Information
	58 0.305271	0.000284	192.168.1.15	192.168.1.121	802.11	76	69	-36 dim	Acknowledgement, Flags+C	> Its scill Americano, Flag:
	59 0.307125	0.001855	Cisco_dd:a0:18	Broadcast	892.11	428	69	-36 d8e	Beacon frame, SN+223, FN+0, Flags+C, BI+100, SSID+"wifi66_test"	Internet and the second s
	68 0.308823	0.001697	Cisco_dd:a0:18	IntelCor_98:58:0F	892.11	247	69	-36 d8m	Authentication, SNv12, FNv0, Flags+C	> rame permeters (c cyces)
	61 0.388823	0.00000	192.168.1.15	192.168.1.121	882.11	76	69	-53 d8m	Acknowledgement, Flags+C	Tagge parameters (122 synes)     Tag Tag Tag Tag Tag Tag Tag Tag Tag
	62 0.310363	0.001546	IntelCor_98:58:04	Cisco_dd:a0:18	802.11	372	69	-69 dBt	Reassociation Request, SN+24, FN+0, Flags+C, SSID+"wifi6E_test"	<ul> <li>Fag: Not Enformation</li> <li>Fag: Not Enformation</li> <li>Fag: Not Enformation</li> </ul>
	63 0.310363	0.000000	192.168.1.15	192,168.1.121	882.11	75	60	-35 dBt	Acknowledgement, Flags=C	The header is a structure (se)
	66 0.339277	0.028914	Cisco_dd:a0:18	IntelCor_98:58:0f	882.11	433	69	-36 dBn	Reassociation Response, SN+0, FN+0, Flags+C	Pick Lawring of a
	67 0.339277	0.000000	192.168.1.15	192.168.1.121	892.11	76	69	-58 dBn	Acknowledgement, Flags+C	<ul> <li>Server Fisher Softer Briddian (Jacob 800 11) 465 (CDW)</li> </ul>
	68 0.346279	8.007003	192.168.1.15	192.168.1.121	892.11	82	69	-68 dBm	Request-to-send, Flags+C	Building fisher Suite Front 1
										<ul> <li>Definition Capture Lists 40-361-arr (Tassa 802 11) 415 (1714).</li> </ul>
										Arth You Reparament (ANY) City Court 1
										Auth East Internetioner (1997) Just Control (1997) IT over THE BR 1Y
										> Bit could the and the set of the set of the set of the set
										9 For capacitizes: constru-
										A DECTO LAS
										DAVID: STR-ADD-CIDIOA-COTIVE-CALOD-7
										) Group Hangement Lipher Suite: decentac (lees add.il) alv (lis)
										· ag Rectify death
										Tag Number: Modelity bondin (54)
										Tag Length: 5
										Robility Jonah Identitier: duet27
										> FT Capability and Policy: dead
										Tag: Fast BSS Transition
										Tag Number: Fast ESS Transition (55)
										Tag Length: 88
										> MIC Control: exeese
										MLC: 000000000000000000000000000000000000
										Marce: 000000000000000000000000000000000000
										SNonce: eb8292cef97e51baf93d1e563ee10f104e1f6d8f96643fc98898e10f05c658bf
										✓ Subelement: 99K-80 key holder identifier (R006-ID)
										Subelement ID: PMC-90 key holder identifier (8009-ID) (3)
										Length: 4
										PMC-80 key holder identifier (8004-1D): 082055a2

Un comportement intéressant se produit si vous supprimez manuellement le client du WLAN (à partir de l'interface graphique du WLC par exemple). Le client reçoit une trame de dissociation mais tente de se reconnecter au même AP et utilise une trame de réassociation suivie d'un échange EAP complet parce que les détails du client ont été supprimés de l'AP/WLC.

Il s'agit essentiellement du même échange de trames que dans un nouveau processus d'association. Ici vous pouvez voir l'échange de trames :



Flux de connexion WPA3 Enterprise 802.1x + FT Ax211

## Détails du client dans le WLC :

Ionitorin	g* > Wireless* >	Clients				Client					*
Clients	Sleeping Clients	Excluded Clients				360 View General QOS Statis	tics ATF Statistics	Mobility History	Call Statistics		
_						Client Properties AP Properties	Security Information	Client Statistics	QOS Properties	EoGRE	
Calasta	C C					Re-Authentication Timeout Client State Servers	1800 sec (Remai None	ning time: 462 sec)			Î
2010010	a o out or i cilents					Client ACLs	None				
0	Client MAC Address	Y IPv4 Address	▼ IPv6 Address	AP Name	Y SSID	Client Entry Create Time	1338 seconds				
0	2865.3598.5801	€ 192.168.1.159	2001:8a0:#b91:1c00:c07a:1190:8069:7398	AP9136_5C.F524	wihte	Policy Type	WPA3				
-						Encryption Cipher	OCMP (AES)				
1.0.0	1	0				Authentication Key Management	FT-802.1x				
						EAP Type	PEAP				
						Session Timeout	1800				

Détails du client WPA3 Enterprise 802.1x + FT

Ce client a également été testé à l'aide de FT sur le DS et a pu se déplacer à l'aide de 802.11r :

No.	Time	Delta	Source	Destination	Protocol	Length	Channel Signal stre	Info		) Frame sense: 3/2 system on size (20/6 DITS), 3/2 system captures (20/6 DITS) on interface Gentlemart_10
34	18 16.491589	0.102243	Cisco_dd:a0:18	Broadcast	882.11	364	69 -36 dBm	Beacon frame, SN+387, FN+0, Flags+C, BI+100, SSID+"wdf		5 Ethernet II, Srci Cisco_sulsvid/ (V4III)SuldISV(4/), DST: UNIVErsa_Brictime (0815a18810/10106)
38	9 16.594273	0.102684	Cisco_dd:a0:18	Broadcast	882.11	364	69 -36 dBm	Beacon frame, SN-388, FN-0, FlagsC, BI-100, SSID="wiff	8 - M	) Internet Protocol Version 4, Src: 192.168.1.15, Dit: 192.168.1.121
38	0 16.644794	0.050523	IntelCor_98:58:0f	Broadcast	892.11	268	69 -45 dile	Probe Request, SN+527, FN+0, Flags+C, SSID+Hildcard (B		> Geer Dutagram Protocol, Src Port: 5555, Ost Port: 5688
38	1 16.644794	0.000000	B Cisco_dd:a0:18	Broadcast	882.11	312	69 -38 dBt	Probe Response, SN+460, FN+0, Flags+C, 81+100, SSID+"w		> Alrowee/Omipeek encapsulated IEE 80.11
38	9 16,696429	0.051635	Cisco_dd:a0:18	Broadcast	802.11	364	69 -38 dim	Seacon frame, SN+390, FN+0, Flags+C, BI+100, SSID+"wdf		> SEC.11 radio information
38	8 15.701455	0.005828	intelCor_98:58:0f	Cisco_dd:a0:18	882.11	235	69 -46 d3t	Authentication, S0x31, FNx0, Flags+C		> IIII NU.11 Reassociation Request, Flags:
38	1 16.701542	0.000083	7 192.168.1.15	192.168.1.121	892.11	76	60 -30 dBm	Acknowledgement, Flags+C		V Ittt 882.11 Wireless Rangement
38	12 16.706278	0.004736	Gisco_dd:a0:18	IntelCor_98:58:0f	882.11	247	69 -38 dbs	Authentication, SNv119, FNv0, FlagsvC		> Fixed parameters (30 bytes)
38	3 16.706278	0.000000	9 192.168.1.15	192.168.1.121	882.11	-76	69 -39 dBm	Acknowledgement, Flags=C		<ul> <li>Tagged parameters (272 bytes)</li> </ul>
- 38	4 16.708297	0.002015	IntelCor_98:58:00	Cisco_dd:a0:18	802.11	372	60 -48 dbs	Reassociation Request, SN+32, FN+0, Flags+C, SSID+"wdf		> Tag: SSID parameter set: "wiFi66_test"
38	15 16.708297	0.000000	9 192,168.1.15	192.168.1.121	892.11	76	69 -38 dBH	Acknowledgement, Flags+C		> Tag: Supported Rates 6(8), 9, 12(8), 18, 24(8), 38, 48, 54, [Mbit/sec]
L 30	7 16.718126	0.009825	Cisco_dd:a0:18	IntelCor_98:58:0f	882.11	433	60 -39 dBm	Reassociation Response, SN+0, Flags+C		> Tag: Power Capability Min: 0, Max: 9
38	8 16.718126	0.000000	9 192.168.1.15	192.168.1.121	892.11	26	69 -41 d8e	Acknowledgement, #lags+C		<ul> <li>Tag: KN Information</li> </ul>
34	1 16.727349	0.009223	IntelCor 98:58:04	IPvincast #F:9e:59:af	LLC	223	60 -59 dBm	1 P. N(R)+99, N(S)+582; DSAP SNAP Group, SSAP Bude Response		Tag Number: #SN Information (48)
38	2 16.727457	0.000100	192.168.1.15	192.168.1.121	882.11	26	69 -47 dbm	Acknowledgement, FlagsvC		Tag length: 42
38	15 16.748833	0.013376	S IntelCor 98:58:00	Broadcast	LLC	525	69 -59 dBm	U.P., Func-Unknown; 05AP (bc)6 Individual, SSAP (bc62 Command		RSN Version: 1
32	6 16,788833	0.000000	9 192.168.1.15	192.168.1.121	882.11	76	60 -88 dBn	Acknowledgement, Flags+C		> Group Cipher Suite: 00:0f:ac (leee 802.11) AES (COM)
38	9 16,742904	0.002073	Cisco Scif8:0c	IntelCor 98:58:0F	LLC	183	60 -50 dbs	I P. N(R)=113, N(S)=72; OSAP Ungermann-Bass Individual, SSAP 6		Balandes-Giphen-Sudde-Geunte-2
31	8 16,742984	0.000000	192.168.1.15	192.168.1.121	892.11	76	62 -53 dbs	Acknowledgement, Flags+C		> Painwise Cipher Suite List 00:061ac (Ieee 802.11) AES (COM)
32	1 16.742984	0.00000	Cisco Scificito	IntelCor 98:58:0f	LLC	183	69 -50 das	1. N(R)+16. N(S)+75: DSAP SARP Individual, SSAP By7c Command		Auth Key Management (ARM) Suite Count: 1
310	2 16.742984	0.00000	192.168.1.15	192,168,1,121	882.11	76	69 -53 dla	Arknowledgement, FlagueC		> Auth Key Management (AKM) List 00:0f:ac (Leee 802.11) Ff over IEEE 802.1X
32	6 16,768589	0.025525	IntelCor 98:58:64	Dytecast ff:9e:59:af	LLC	223	60 -50 dbm	I P. N(R)+16, N(S)+11: DSAP Boas Individual, SSAP Boas Response		> KM Capabilities: domec
33	7 16,768633	0.000124	1 192.168.1.15	192.168.1.121	892.11	26	60 -48 dbs	Acknowledgement, Flags+C		PMKID Count: 1
31	9 16,772475	0.003842	Cisco dd:a0:18	IntelCor 98:58:0f	882.11	118	60 -40 dbs	Action, Siel, Field, Flagsson,C		V PMCD List
31	@ 16.772475	0.00000	192.168.1.15	192,168,1,121	892.11	26	60 -52 dile	Arknowledgement, FlagsvC		PMKID: d42cf85b48c421856e585c13d78f0f77
31	3 16,773542	0.000667	IntelCor 98:58:00	Broadcast	LLC	179	60 -50 dBm	I P. N(R)+59, N(S)+33: DSAP SWP Group, SSAP ISO Network Laver		<ol> <li>Groun Management Cicher, Softe: 00:06/ac (Lees 802.33) 809 (328)</li> </ol>
31	4 16.773542	0.000000	3 192.168.1.15	192,168,1,121	882.11	26	69 -48 dbs	Acknowledgement, Flags+C		V Tag: Mobility Domain
31	5 16,773436	0.000294	IntelCor 98:58:04	Cisco dd:a0:18	802.11	118	62 -48 din	Action, SWAIL FW-R, Flagss.cCIMulformed Packet1		Tag Number: Hobility Domain (54)
31	6 16,773436	0.000000	9 192.168.1.15	192,168,1,121	882.11	26	69 -41 dBe	Acknowledgement, Flags,C		Tag length: 3
31	0 16.775112	0.001676	Altical a Gardinal	Entailor 98:58:04	110	228	40 -42 din	U. Func-Uninner: 054P (http://coup. 554P (http://omand		Mobility Domain Identifier: 0xef27
100	2 16.726545	0.001413	Cisco dd at 18	Intelfor 98:58:8F	882.11	118	60 .44 /00	Artist Skil Roll, Flatten,		<ul> <li>FT Capability and Policy: RHP1</li> </ul>
33	13 16.776545	0.00000	192.168.1.15	192, 168, 1, 121	882.11	26	60 -52 dila	Arknuledseneot, Flams,		1 = Fast 855 Transition over 05: 0x1
32	4 16,778399	0.001854	Intelfor SE-SE-M	Cisco dd:a8:18	892.11	118	60 -45 die	Artino, Skild, Hud. Flame n (198) formed Darket: langth		
31	5 16.778399	0.000000	102.168.1.15	192, 168, 1, 121	892.11	- 26	60 -40 dia	Arknadedeenent, Flams,		and a strend and
31	8 15,781449	0.003014	Altical a Gertinial	IntelCor 08:58:04	LLC	197	40 -40 dbs	U.P. funceSNAME: DEAP Orde Individual, SSAP Orde Command		✓ Tag: Fast BSS Transition
31	2 16.781449	0.00000	IntelCor SRISE	Altirela DerStraf	110	222	60 -58 dbs	11. Funculationant (SAP Bace Genue, SSAP Build Company		Tag Number: Fast BSS Transition (55)
31	13 16.781449	0.00000	9 192.168.1.15	192, 168, 1, 121	882.11	26	60 -47 dim	Arkondednment, Flams,		Tag Length: 96
31	6 16,298815	0.000364	intelfor SS:58:0F	Altirela SerStraf	110	292	60 -55 /00	T.P. N/R)-84, N/S)-85: DSAP (h/6) Group, SSAP TSD Network Lawer		) MIC Control: 0x0300
31	7 16,798815	0.00000	102.168.1.15	192, 168, 1, 121	882.11	26	60 -47 das	Arknadedeenert, FlamsC		MIC: 491289737c15a2675185Fdc58cc16caF
31	0 16.793454	0.002505	Intelfor 98-58-84	Broadcast	110	515	60 .55 /04	1. N/R3+68. N(S3+22) DSAP HP Extended 11C Group, SSAP Nethane		Mionce: d514fb17ab7fa805b7fd75e5b6d6a9e882cf4ec50fbd1f492e13089fb1a860cb
11	13 16,793427	0.000051	1 102.168.1.15	192, 168, 1, 121	882.11	26	60 +47 dlm	Acknowledgement, Flagss		SNonce: 65c3770b523b83d717c0c097bb28b8ec679edfc365743f3dfb8ae6c7483554fc
- 11	4 16,793774	0.000293	IntelCor SELSED	Broadcast	LLC	179	60 -58 dile	5. funcaSEE1. N(R)+12: DEAP 0x70 Individual. SSAP 0x10 Response		> Subelement: PMK-R1 key holder identifier (8104-10)
11	5 16.793849	0.000075	102.168.1.15	192, 168, 1, 121	882.11	26	60 -45 dbs	Arknowledgement, Flags,		> Subelement: FMK-H0 key holder identifier (H0KHs-ID)
	0 16 204563	0.000714	IntelCon GE-SE-M	Dularast di	110	183	40 -53 die	T D N(P)+12 N(C)+115-7540 Byle Group SGAD By20 Benorma		> Tag: Supported Operating Classes
	16.704636	0.00005	107.168.1.15	192,168,1,121	897.11	26	60 .48 dis	Arkna-Jedamant Flame C		> Tag: RM Enabled Capabilities (5 octets)
	4 16,794924	0.000100	IntelCor 98-58-out	Devenant Nofficia	LLC	283	62 -58 clim	5 F. FuncaSRE3, N(R)+6: DSAP Bylla Group, SSAP publi Banavena		> Tag: Extended Capabilities (10 octets)
	5 16 7949998	0.000064	1 102 168 1 15	192, 168, 1, 121	882.11	26	50 .45 day	Arknauladeesent Elasta		> Tag: Vendor Specific: Microsoft Corp.: WMV/WR: Information Element
31	a 16 705454	0.000000	Intelfor 98-58-bit	Theorem distanci St	110	255	60 -58 dia	U.L. Europidement: ISSP MELLISSP Technicken1 SSAP Berner Vine		> Tag: Vendor Specific: Intel Wireless Network Group
	0 16 205400	0.00000	102.168.1.15	102.168.1.121	882.11	26	40 .43 .08	Arbaulaisment flams f		> Ext Tag: HE Capabilities
35	4 16.795785	0.000000	Intelfor 98-58-64	Theincast 44:70:r5:10	110	215	40 -58 dbs	C. Europhy. 5/121-101: DSAP (byl) Group. SSAP (byl): Response		Ext Tag: HE 6 GHz Band Capabilities
10	3 16 295852	0.00005	102 168 1 15	192.168.1.121	882 11	26	50 .45 dbs	Arkywladament flams (		
		2,00000		are see and		10		and the second sec		

Itinérance AX211 avec FT sur DS

#### Nous pouvons également voir les événements d'itinérance FT :

Monitorin	-> Wireless -> Clien	nts											Cli	ent								
Clients	Sleeping Clients Ex	clude	ed Clients										36	0 View General	QOS Stati	stics	ATF Statistics	Mo	bility H	istory	Call Statistics	
×D	⁴⁰¹⁰ C													Recent associati	ion history:							
Selected	0 out of 1 Clients													AP Name	BSSID	AP Slot	Assoc Time	T Ins	tance	Mobility T Role	Run T Latency (ms)	Roam <b>T</b> Type
0	Client MAC Address	Ŧ	IPv4 Address	т	IPv6 Address	AP Name	т	SSID	т	WLAN ID	Ŧ	Client Type		AP01_RC_9136_F80C	00df.1ddd.a01	8 3	08/04/2023 14:24:27	0		Local	15	802.11R
0	286b.3598.580f	1	192.168.1.159		N/A	AP01_RC_9136_F80C		wifi6E_test		5		WLAN		AP9136_5C.F524	00df.1ddd.7d3	8 3	08/04/2023 14:22:59	0		Local	6	802.11R
	· · · · ·	1															0000400000					

WPA3 Entreprise avec FT

#### Et le client ra trace de wlc :

Logging display requested on 2023/08/04 14:27:5	5 (GMT) for Hostname: [eWLC-9800-01], Model: [C9800-CL-K9], Version: [17.09.03], SN: [9RY35HS1803], MD.SN: [9RY35HS1803]
2023/08/04 14:22:59.315308237 (wnod x R0=0)(1):	[client-orch-sm] [15210]: (note): MAC: 206b.3590.500f Re-Association received, ESSID 00df.1ddd.7d30, WIAN wifi6E test, Slot 3 AP 00df.1ddd.7d30, AP9136 5C.F524, old ESSID 00df.1ddd.a010
2023/00/04 14:22:59.315064120 (wned x R0=0)(1):	(dot11) [15210]: (note): MAC: 20(b.3590.500f Association success. AID 33. Roaming = True. WGB = False. 11r = True. 11w = True Fast roam = True
2023/08/04 14:22:59.316488412 (ymed x 20-01(1):	(client-orch-sm) [15218]: (note): MAC: 18(b.3598.580f Delete mobile navload sent for BSSID: 00df.1ddd.a018 WTP mac: 00df.1ddd.a010 slot id: 3
2023/08/04 14:22:59.316652383 (weed x 20-0)(1):	(client-orch-state) (15218): (note): MAC: 286b.3588.580f Client state transition: S CO 20N -> S CO 12 AUTH IN FROMERSS
2023/08/04 14:22:59.317328574 (whed x 20-0)(1):	(client-auth) [15210]: (note): MAC: 206b.3590.500f ACD MOBILE sent. Client state flags: 0x71 8583D: MAC: 00df iddd.7d30 capyap IFID: 0x5000000d. Add mobiles sent: 1
2023/08/04 14:22:59 321041967 (wood x 20:01/11)	(clianteorchesm) (15210): (nota): MaC. 28th 1590 500f Mobility discovery trianered. Client mode: Local
2023/08/04 14:22:55 321044351 (wood x 20:01/11)	(c)interpretented (15210): (more): MGC 20th 3585 500 C)int state transition: 5 CO 12 MTH IN DOCORES => 5 CO MOBILITY DISCOVERY IN DOCORES
2023/08/04 14:22:59 321044980 (word x 20-01/11)	Improvidenti (18218): (Acta): Mac. 2865 5806 Mobility Supressful Doam Tone None Style Date Tone Md SUB 2014 TVE 19733 THSTANCE Drawfore BSSTD Mac. 0046 1444 4018 Client TFID: 0x00000003 Client Dolar
Toosal Bol: Av4000004 Bol: Av0	
2023/00/04 14-22-56 221212602 Juned v 50+01/11-	ANIANTANYANI TISTIST (MARA) MARA 1860 6004 100 MOBILE PART (TIANT FILM ONTO BOOTD MAR 1044 7410 ANNAL TETR (WANNANA 144 WANTAR FILM FILM
2023/08/04 14-22-56 321256052 (wood x 20+0)/11-	Teleformentel (telefor) (note) and (teleform) of a basic state state teleform and the state inter state and the state state inter state and the state state inter state and the state state inter state state state state state inter state state state state state inter state stat
2023/00/04 14-22-66 2214/2466 (mod a 20-0)[1];	(values values and provide a state of the state state and state and provide a state and provide a state and provide a state and state an
2023/08/04 14:22:59.321443455 (Micd x R0-0)[1]:	(class-second second) (second) (second second
2023/00/04 14:22:09.02100000 (9000 x x0-0)[1]:	(clime-occm-makes) (bill); (note); NNC 2000.3055.000 (lime translation both in provide of a control of the state of the st
2023/00/04 14:24:27.210000021 (MICO_R_WO-0)(1):	(classo occorse) (losso): nove: new: sete sete sete sete sete sete sete set
2023/00/04 14:24:27.919097444 (Whed_R_W0-0)(1):	(acting labeled) (note); note; see, appendix association success, Alb 33, Roaming = inte, who = sales, if = inte, is = inte rate toam = inte
2023/00/04 14:24:27.321332523 (whed x k0-0)(1):	[client-occh-sen] [lsis]; note; nuc; isto soustor belete monitor payload sent for modulo due wir mac; vont, dada, dav sict ld; a
2023/00/04 14:24:27.3227/6547 [MRCd_X_K0=0][1]:	(clentworch*state) [Isile]: (note): nwc: 2000.3590.3001 Clent state transition: 5 CO kuk => 5 CO LL AVIR 18 PAGARAS
2023/08/04 14:24:27.525405164 [whed_x_R0+0][1]:	[client-auth] [1510]: (note): RAC: 2045.3595.8001 ADD HUBILE sent. Client state flags: 0x71 BSSID: RAC: 00df.1ddd.a010 capwap IFID: 0x9000000e, Add mobiles sent: 1
2023/08/04 14:24:27.931808871 (Whed_N_R0-0)(1):	[client-orch-sm] [15210]: (note): NAC: 2008.3590.5007 Hobilty discovery triggered. Client mode: Local
2023/08/04 14:24:27.931511962 (wned_x_R0-0)(1):	[client-orch-state] [15210]: (note): MAC: 206D.3550.500f Client state transition: S_CO_L2_AUTH_IN_PROGRESS -> S_CO_MOBILITY_DISCOVERY_IN_PROGRESS
2023/08/04 14:24:27.931569952 (wncd_x_R0=0){1}:	[mm=client] [15210]: (note): MAC: 204b.3590.500f Mobility Successful. Roam Type None, Sub Roam Type MM_SUB_ROAM_TYPE_INTRA_INSTANCE, Previous BSSID MAC: 00df.1ddd.7d30 Client IFID: 0xa0000003, Client Role:
Local PoA: 0x9000000e PoP: 0x0	
2023/08/04 14:24:27.531861935 {wncd_x_R0-0}{1}:	(client-auth) [15210]: (note): MAC: 206b.3530.500f ADD MOBILE sent. Client state flags: 0x76 BSSID: MAC: 00df.1ddd.a018 capwap IFID: 0x5000000e, Add mobiles sent: 1
2023/08/04 14:24:27.931913122 (wned_x_R0-0)(1):	(client-orch-state) [15210]: (note): NMC: 206D.3590.500f Client state transition: S_CO_MOBILITY_DISCOVERY_IN_PROGRESS -> S_CO_DPATH_PLUMB_IN_PROGRESS
2023/08/04 14:24:27.933100190 (wned_x_R0+0)(1):	[client-orch-state] [15210]; (note): MAC: 206D.3590.500f Client state transition: S_CO_DPATH_PLUMB_IN_PROGRESS -> S_CO_IP_LEARN_IN_PROGRESS
ANALYSING THE REPORT OF ANALYSING THE PARTY OF THE PARTY	Internet Internet Internet, Mar. and, and and diver serve secondary of the

#### NetGear A8000

WPA3-Enterprise n'est pas pris en charge sur ce client.

Pixel 6a

Connexion OTA avec accent sur les informations RSN du client :

No	Time	Delta Source	Destination	Protocol	Length C	nannel Signal stri	: Info	) Frame Sub1 261 bytes on sure (2008 5115), 261 bytes captures (2008 5115) on Diterrace Universet (2005/2008-2008-4008-4008-4018-2008-4008-4008-4008-4008-4008-4008-400
	878 1.460897	0.102322 Cisco_dd:a0:18	Broadcast	802.11	428	69 -37 dBn	Beacon frame, 59+3682, FN+0, Flags+C, 81+380, SSID+"w1	) Ethernet II, Srci Cisco_drivia/ (Weilibuid/W/a/), Ost Universa_Drictions (esississib/icties)
	889 1.562867	0.101970 Google_72:8a:66	Broadcast	802.11	284	69 -29 dBn	Probe Request, SNv1030, FNv0, Flags+C, SSID+"wifi60_te	) internet protocol version 4, Src1 102.184.1.15, Ost1 102.186.1.121
	898 1.563362	0.000405 Cisco_dd:a0:18	Broadcast	882.11	428	60 -37 dBe	Beacon frame, SN+3683, FN+8, Flags+C, 81+100, SSID+"wi	> User Detagram Protocol, Src Port: 5555, Oit Port: 5000
	892 1.564878	0.000716 Cisco_dd:a0:18	Broadcast	802.11	374	69 -37 dlm	Probe Response, SN+108, FN+0, Flags+C, BI+100, SSID+"w	> Alroweek/Umineek encapsulated ILLE 862.11
	928 1.675576	0.111498 Cisco_dd:a0:18	Broadcast	882.11	428	60 -37 dBH	Beacon frame, SN+3685, FN+0, Flags+C, 81+100, SSID+"wi	) BUCLE PRODUCTION
	921 1.675899	0.000233 Google_72:8a:66	Cisco_dd:a0:18	882.11	398	69 -34 dlm	Authentication, SN-1011, FN+0, Flags+C	) Ittl 802.11 Association Request, Flags:C
	922 1.675809	0.000000 192.168.1.15	192.168.1.121	882.11	75	69 - 37 dBm	Acknowledgement, Flags+C	<ul> <li>IEE 802.11 kireless Ranagement</li> </ul>
	023 1.679651	0.003842 Cisco_dd;a0:18	Google_72:8a:66	892.11	208	69 -37 dim	Authentication, SN+14, FN+0, Flags+C	> Fixed parameters (4 bytes)
	924 1.679651	0.000000 192.158.1.15	192,168,1,121	882.11	76	69 -34 dBH	Acknowledgement, Flags,C	✓ Tagged parameters (167 bytes)
100	925 1.681281	0.001610 Goorle 7218a166	Cisco dd:a0:18	892.11	261	40 - 14 dim	Association Request, SNe1812, Field, Flagse,C. SAID-"wif	) Tag: SSID parameter set: "wifi66_test"
12	926 1.681281	0.000000 102.168.1.15	192.168.1.121	892.11	26	60 +17 dille	Arknadadoment, Flams,C	) Tag: Supported Rates 6(8), 9, 12(8), 18, 24(8), 36, 48, 54, [Mbit/sec]
18	939 1, 205251	8 923928 Fisco ditabile	Google 72:8a:66	882.11	35.2	60 -17 dla	Association Resonants Shill Hall Flatter /	> Tag: Power Capability Min: -7, Max: 19
	011 1 200203	0 000000 100 100 1 15	102 148 5 123	887.55	76	40.12.00	Achen-Antennet Plants /	> Tag: Supported Channels
10	022 1 210200	8 995879 Flace 44:40:12	foodle Tribriff	CAD	100	40 - 17 dim	Bassart Identity	<ul> <li>Tag: ROW Enformation</li> </ul>
10	736 2.720500	0.000000 500 500 1 10	100 148 1 118	1007 11		40 17 400	Idea defended films r	Tag Number: KSN Information (48)
	933 1.710280	0.000000 192.108.1.15	192.108.1.121	540.11		50 - 31 COM	Accrossingement, Flags	Tag Length: 26
	999 1.747377	e.es/es/ Google_/218a166	C15C0_00180138	EAP	11/	69 -33 088	Response, Identity	RSN Version: 1
12	960 1.76/3//	0.000000 192.108.1.15	192.108.1.121	8802.11	28	69 -37 don	Acknowledgement, Flagsv	> Group Cipher Suite: 00:0fiac (leve 802.11) ALS (CON)
121	942 1.758424	0.011047 C1sco_05:80:18	Google_7218a066	EAP	110	69 - 37 (598	Request, Protected EAP (EAP-PEAP)	Patrolise Cipher Suite Court: 1
18	943 1.758424	0.000000 192.168.1.15	192.168.1.121	802.11	76	69 -31 dlin	Acknowledgement, FlagswC	> Patricke Cipher Suite List 90-96'ar (Jeen M2 31) AFS (CDM)
180	945 1.768096	0.009672 Cisco_dd:a0:18	Broadcast	882.11	428	69 -37 dBH	Beacon frame, SN+3686, FN+8, Flags+C, 81+188, SSID+"wi	both You Management (AM) Gotta County 1
181	946 1,768484	0.000388 Google_72:8a:66	Broadcast	LLC	334	69 -37 dim	1, N(R)=26, N(S)=7; DSAP Bx68 Individual, SSAP NetWare Respons	And An Annual (And Line Shifting (Tenn Shift) II) IT man 1978 Shifting
2	949 1.779457	0.010973 Google_72:8a:66	Cisco_dd:a0:18	7L5v1.2	241	69 -48 dBt	Client Hello	and any comparison (and that when an (are when all the same set of the
83	050 1.779457	0.000000 192.168.1.15	192.168.1.121	802.11	76	69 -37 dim	Acknowledgement, Flags+C	<ul> <li>Auto May Paragement (AM) Suite: 00:01:36 (Long Ros.11) F1 OVER LEE 802.14</li> </ul>
	956 1.794520	0.015063 Cisco_dd:a0:18	Google_72:8a:66	EAP	1116	69 -37 dBm	Request, Protected EAP (EAP-PEAP)	Auth Key Ranagement (ADV) OUI: WI:0Fisc (Seee 802.11)
	957 1.794520	0.000000 192.168.1.15	192.168.1.121	882.11	76	60 -40 dbs	Acknowledgement, Flags+C	Auth Key Management (ARM) type: FT over IEEE 882.1X (3)
13	958 1.797858	0.002538 Google_72:8a:66	Cisco_dd:a0:18	EAP	110	60 -39 dBm	Response, Protected EAP (EAP-PEAP)	<ul> <li>RSN Capabilities: exempts</li> </ul>
	959 1.797058	0.000000 192,168,1,15	192.168.1.121	802.11	76	60 -37 dlm	Acknowledgement, FlagsC	0 = RSN Pre-Auth capabilities: Transmitter does not support pre-authentication
	960 1.801714	0.004656 Cisco dd:a0:18	Google 72:8a:66	TL5v1.2	382	69 - 37 dBm	Imored Unknown Record	
18	961 1.891714	0.000000 192.168.1.15	102.168.1.121	882.11	76	60 - 39 dlm	Arknowledgement, Flags+C	00 = HSN PTKSA Replay Counter capabilities: 1 replay counter per PTKSA/GTKSA/STAKeySA (0x8)
10	963 1.820671	a atesto Goorle 72:Bar66	Cisco ditabile	TLSv1.2	235	60 - 10 die	Client Key Exchange, Change Cinher Sour, Encrypted Handshake B	
18	068 1 830673	0.000000 201 162 1 15	102 168 1 121	887.11	16	40	Arizon defensent filmen (	
1	065 1 834900	a apairit? (Then detailed	Coorda 72-Ba-66	D Set 2	363	40 - 17 die	Change Finham Soury Encounted Handshalos Bassana	1
13.5	044 1 014000	0.000000 101 100 1 15	100 100 1 101	000 11		40 - 30 - Min	Action Andreased (Trans. /	
1	200 1.044000	0.000000 171.100.1.15	172.100.1.124	002.11	20	00 - 39 000	sconstruggenent, rangerttint	
	000 4.040409	econcer dogue_relation	C1500_00100148			10 - 10 cam	helpende, molecule (demole)	
12	989 1.829289	0.000000 192,158,1.15	192,108.1.121	802.11	75	69 - 17 058	Acknowledgement, Flags+	PRED Count: 0
	971 1.833178	0.001969 C15C0_00:80:18	Google_72:88:66	TLSV1.2	244	69 -17 dim	Application Data	PNID List
12.	972 1.853178	0.000000 192.158.1.15	192.168.1.121	882.11	76	69 - 39 dBe	Acknowledgement, Flags+C	) Group Management Clober Suite: 00:0fiac (Lees 880.11) BIP (128)
	073 1.837328	0.004150 Google_72:8a:66	Cisco_dd:a0:18	n.sv1.2	152	69 -39 dile	Application Data	) Tar: RM Enabled Camabilities (5 octets)
12	974 1.837486	0.000078 192.168.1.15	192.168.1.121	882.11	75	69 - 37 dBm	Acknowledgement, FlagsvC	h Tar: Webliry Downin
181	976 1.840705	0.003299 Cisco_dd:a0:18	Google_72:8a:66	TLSv1.2	373	69 -37 dBm	Application Data	The Constraint Discription Planner
	977 1.848705	0.000000 192.168.1.15	192.168.1.121	882.11	76	69 -39 dBm	Acknowledgement, flags+C	7 Ing. ongoin the open stang cancers
18.	978 1.845522	0.004817 Google_7218a166	Cisco_dd:a0:28	TLSv1.2	286	69 -39 dBH	Application Data	/ Tag. Statistic conductation (at sector)
	979 1.845522	0.000000 192.168.1.15	192.168.1.121	802.11	75	69 -37 dBm	Acknowledgement, FlagsvC	2 Dat long, the conjunctions
10	984 1.864594	0.019072 Cisco_dd:a0:18	Google_72:8a:66	TL5v1.2	290	69 -37 dBm	Application Data	> Ext ing: HL & ME bard Capacities
12	985 1.864752	0.000158 192.168.1.15	192.168.1.121	882.11	76	60 - 39 dBm	Acknowledgement, Flags+C	<ul> <li>tag: vendor specific: erabotin</li> </ul>
1.	986 1.866887	0.002135 Google_72:8a:66	Cisco_dd:a0:28	TLSv1.2	345	69 -48 (88	Application Data	Tag number: Vendor Specific (221)
1	987 1.856887	0.000000 192,168.1.15	192.168.1.121	802.11	76	69 -37 dBm	Acknowledgement, FlagsvC	Tag Length: 10
12	988 1,870658	0.003771 £1scp dd:a0:18	Broadcast	882.11	428	69 - 37 dBe	Beacon frame, SN-3687, FN-8, FlagsrC, 81+188, SSID="vd	OUI: 00:18:18 (Broadcon)
181	989 1.87M58	0.000000 Cisco dd:a0:18	Google 72:8a:66	TL5v1.2	343	69 -37 dBm	Application Data	Vendor Specific OUE Type: 2
18.	998 1.878658	0.000000 197.168.1.15	192,168,1,121	892.11	76	60 . 10 (50)	Arknowlednesent, FlatteC	Vendor Specific Data: 0200001000000
180	992 1 877128	8 006470 (coorle 72:8a:66	Circo dd:ail-18	EAD	110	40	Basecone Destarted EAD (FAD.DEAD)	> Tag: Vendor Specific: Microsoft Corp.: WMVWME: Information Element
181	003 1 877128	8 000000 192 168 1 15	192 168 1 121	892.11	26	40 . 17 .00	Arknayladamant Flams. C	set and a set of the s
180	006 1 030065	a adjust firm disality	Consta 77-Re-66	EAD	100	40 - 17 dis	Corrests	
18	007 1 010005	0.000000 103 148 3 15	102 148 1 121		200	40 - 10 day	Arbon datasent flama (	
11	000 3 000005	0 000000 first discusio	franks Thereff	Cables .	70	10 - 17 con	And Amazon a set al	
	AAA 7100000	0.000000 115C0_00180118	uogan_72:83066	DALCE.	223	80 - 37 000	Ney (ressage 1 of 4)	
1	999 1.920065	0.00000 197.168.1.15	192.108.1.121	802.11	20	07 - 77 OBe	According to the second s	
	1000 1.925255	e.eesiie Google_72188166	C15C0_00140128	LAPOL	346	ev -48 das	key (message 2 of 4)	
	1801 1.925255	0.000000 192.168.1.15	192.168.1.121	802.11	75	69 -37 dBm	Acknowledgement, Flags+C	
	1004 1.926677	0.001422 Cisco_dd:a0:18	Google_7218a166	EAPOL	423	69 -37 dBs	key (Message 3 of 4)	
18	1005 1.926677	0.000000 192.168.1.15	192.168.1.121	802.11	76	69 -39 dBm	Acknowledgement, Flags+C	
	1006 1.928886	0.002209 Google_72:8a:66	Cisco_dd:a0:38	EAPOL	299	69 -39 dBe	Key (Message 4 of 4)	
	1007 1.928885	0.000000 192.168.1.15	192.168.1.121	882.11	76	69 -37 dBm	Acknowledgement, FlagsvC	

Association WPA3 Enterprise 802.1x + FT Pixel6a

#### Détails du client dans le WLC :

Cisco Ca	talyst 9800-CL Wireless Controller	Welcome admin Langest this take and the second seco
O. Scools Mineral Trans.	Monitoring * > Wireless * > Clients	Client
CC - SHOP ST - HIGHLE HERHE	Clients Sleeping Clients Excluded Clients	360 View General QOS Statistics ATF Statistics Mobility History Call Statistics
Dashboard		Client Properties AP Properties Security Information Client Statistics QOS Properties EoGRE
( Monitoring	× Delete C	Re-Authentication Timeout 1800 sec (Remaining time: 267 sec)
	Selected Direct of 2 Clients	Client State Servers None
Configuration >		Client ACLs None Client ACLs 1626 eccentr
(c) Administration	Clent MAC Address T IPV6 Address AP Name	Policy Type WPA3
	0429.2ec9.e371 / 192.168.1.160 fe80::6a20.34e8.ab1b:6332 AP01_RC_9136_F80C	Encryption Cipher CCMP (AES)
C Licensing	□ 2495.2172.8a66  # 192.168.1.162  Ne80::b13:f107:7c5f:a7e0  AP01_RC_9136_F80C	Authentication Key Management FT-802.1x
3 Co martine	10 · 10 ·	EAP Type PEAP
* Iroubleshooting		Session Timeout 1800

Détails sur le client WPA3 Enterprise 802.1x + FT Pixel6a

Concentrez-vous sur le type d'itinérance 802.11R sur les ondes, où vous pouvez voir le type d'itinérance 802.11R :

il an										_					
Q. Sparsh Manu tarma	Monito	ring * > Wireless * >	Client	5			CI	lient							*
-	Clients	Sleeping Clients	Exc	cluded Clients			38	60 View General	QOS Statis	tics	ATF Statistics	Mobility H	listory	Call Statistics	
Dashboard	-														
Monitoring	, 📖	0						Recent associal	ion history:					1	$\frown$
Configuration	Selec	ted 0 out of 2 Clients						AP Name	BSSID T	AP Y Slot	Assoc Time	T Instance	Mobility T Role	Run Latency (mr)	T Roam T Type
	0	Client MAC Address	T P	Pv4 Address	Y IPv6 Address	AP Name		AP01_RC_9136_F800	00dl.1ddd.a018	з	07/12/2023 11:46:16	0	Local	7	802.11R
	' 0	0429.2ec9.e371	× 11	97,168.1.160	fe80;:6a20;34e8;ab1b;6337	z AP01_RC_9136_F80C		AP9136_5C.F524	00df.1ddd.7d38	3	07/12/2023	0	Local	3161	N/A
		A 154 A140 ALES	18 10	07.168.1.167	6-80-6-13-13-07-7-55-67-60	ADDA DO ATRE EROC	1								

### Samsung S23

Connexion OTA avec accent sur les informations RSN du client :

98       98.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9.000       9	No.	Time	Delta So	urce	Destination	Protocol	Length C	hannel Signal stre	Info	> Frame 5136: 357 bytes on wire (2856 bits), 357 bytes captured (2856 bits) on Interface \Device\MP_[D4578085-2908-4856-8C33-C3431
111       111       111       111       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0		4874 9 739729	0.102309 014	sen det-ad-18	Broadcast.	887.11	478	60 -35 dbs	Baseve frame, Welton, Dud. Flams, C. Studio, 5005-54	> Ethernet II, Src: Cisco_d2:97:47 (74:11:b2:d2:97:47), Dst: Universa_b7:cf:06 (00:3a:88:b7:cf:06)
U11       U111       U11       U11		5120 9.830173	0.000555 5am	mund cital:71	Cisco dital:18	882.11	211	69 - 19 dila	Probe Request, Sheld's, Flag, Flags, C. SSIDe"ud-F16E to	> Internet Protocol Version 4, Src: 192.168.1.15, Dst: 192.168.1.121
111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       111       1111       111       111		5121 9.830173	0.000000 193	2.168.1.15	197, 168, 1, 121	882.11	76	69 - 35 (88)	Arkenuladoment, Flama, C	> User Datagram Protocol, Src Port: 5555, Dst Port: 5000
1000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.0000       0.00000       0.00000       0.00000		5122 9.830955	0.000232 014	sco dd:air:18	Samural (9:e3:71	882.11	174	60 -36 das	Probe Response, 94-207, Field, Flagss,, C. Blattel, SSIDeTw	> AiroPeek/OmiPeek encapsulated IEEE 802.11
UNINE       Lange:		\$122 0 EMONS	0.0000000 102	2 168 1 16	192 168 1 121	802.11	24	60 - 30 dila	International Plans C	> 802.11 radio information
1110111011101111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111 <th< td=""><td></td><td>5118 9 828952</td><td>0.007007 530</td><td>monti cicali 71</td><td>Flace details 19</td><td>997.11</td><td></td><td>60 -10 (80</td><td>Arthurtication 96/2077 Build Flams /</td><td>&gt; IEEE 882.11 Association Request, Flags:C</td></th<>		5118 9 828952	0.007007 530	monti cicali 71	Flace details 19	997.11		60 -10 (80	Arthurtication 96/2077 Build Flams /	> IEEE 882.11 Association Request, Flags:C
11111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111<		5149 9.839054	0.007097 58	a see a se	100 048 1 101	001.11		00 - 50 com	Advantation, Security Pres, Pagarining	✓ IEEE 802.11 wireless Management
111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111111		5122 0 0430032	0.000000 114	4-400-4-45 225 Ad-10-10	APA-200.2-244	002.11		40 - 15 dim	Basen Lesse OL-2001 DL-8 Chart- / 97-508 CC05-5-4	) Fixed parameters (4 bytes)
<ul> <li>111 1 4 2027 0 0000 1 2018:11</li> <li>112 1011</li> <li>112 1011<!--</td--><td></td><td>5152 9-942012</td><td>0.003200 CIS</td><td>SC0_00180118</td><td>ercaucast.</td><td>002.11</td><td></td><td>69 - 33 000</td><td>bescon trame, serson, reve, range</td><td>✓ Tagged parameters (263 bytes)</td></li></ul>		5152 9-942012	0.003200 CIS	SC0_00180118	ercaucast.	002.11		69 - 33 000	bescon trame, serson, reve, range	✓ Tagged parameters (263 bytes)
<ul> <li>11.10</li> <li>12.10</li> <li></li></ul>		5133 9.842237	0.000225 111	5C0_00:30:18	Samurge_creation	802.11	2	69 - JS CON	Autoentication, Series, Pres, Plags	> Tag: SSID parameter set: "wdfi6E_test"
<ul> <li>1. 10. 10. 4000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000</li></ul>	-	5154 7.842257	0.000000 192	2.100.1.15	192.108.1.121	862.11	10	60 -40 00m	According to the second s	) Tag: Supported Rates 6(8), 9, 12(8), 18, 24(8), 36, 48, 54, [Mbit/sec]
1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       11111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       1111       11111       1111       1111	100	5230 9.855638	0.003901 530	under cocentra	C1500_00186118	802.33	357	69 -61 (200	Association request, Several, ree, Fingle	> Tag: Power Capability Min: 8, Max: 16
		5137 9,845838	0.000000 192	2.168.1.15	192.168.1.121	862.11	76	69 -36 dille	Acknowledgement, Flags+C	the: Supported Channels
<ul> <li>11.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1</li></ul>		5243 9-8/0/22	0.024884 015	sco_03:30118	Sansungs_cv:e3:75	882.11	313	69 -36 cam	Association Response, SWW, PNeW, Flags	Y Tag: KN Information
<ul> <li>11.100</li> <li>11.000</li> <li>11.0000</li> <li>11.0000</li> <li>11.0000</li> <li>11.0000</li> <li>11.0000</li> <li>11.0000</li> <li>11.0000</li> <li>11.0000</li> <li>11.00000</li> <li>11.00000</li> <li>11.00000</li> <li>11.00000</li> <li>11.00000</li> <li>11.000000</li> <li>11.000000</li> <li>11.000000</li> <li>11.00000000000000000000000000000000000</li></ul>	1	5144 9.878722	0.000000 192	2.168.1.15	192.168.1.121	882.11	76	69 -41 dBm	Acknowledgement, Flags+C	Tag Number: HSW Information (48)
<ul> <li>11 10 10 10 10 10 10 10 10 10 10 10 10 1</li></ul>		5145 9.878538	0.007815 C1s	sco_dd:a0:18	SansurgE_c91e3175	EAP .	109	69 -36 dBm	Request, Identity	Tar Jacoth: 26
<ul> <li>1111 1990. 6-4803 Sample (-1997)</li> <li>1121 0-4-00 Kong, Lamity</li> <li>112 0-4-00 Kong, Lamity</li> <li>1121 0-4-00 Kong, Lamity</li> <li>1121 0-400 Kong, Lamity&lt;</li></ul>	82	5146 9.878538	0.000000 192	2.168.1.15	192.168.1.121	882.11	76	69 -41 dBm	Acknowledgement, FlagssC	IN Version 1
<ul> <li>111 19 1071 6 4000 19 10.141.13</li> <li>121 10.1.13</li> <li>121 10 10.141.13</li> <li>121 10.1.13</li> <li>121 10.1</li></ul>	1	5150 9.897013	0.018475 San	msungE_c9ce3:71	Cisco_dd:a0:18	(AP	337	69 -42 dBm	Response, Identity	<ul> <li>Jonom Problem Scittar: (0):00: sr (Tase 10):111 M/S ((7)0)</li> </ul>
	8	5151 9,897013	0.000008 192	2.168.1.15	192.168.1.121	892.11	76	69 -36 dBm	Acknowledgement, Flags+C	Delegita Caber Softe Courts 1
<ul> <li>1113 19.1077 0.00001 [2012.01.1.3]</li> <li>1121 19.10.1.3</li>     &lt;</ul>		5157 9.983463	0.006450 Cls	sco_dd:a0:38	SansungE_c9:e3:71	EAP	110	69 -36 d8m	Request, Protected EAP (EAP-PEAP)	Defender Control Control Annual Control Contro
5100       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000	81	5158 9.983774	0.000311 192	2.168.1.15	192.168.1.121	882.11	76	69 -43 d8m	Acknowledgement, Flags=C	2 Field New Appendix Josef (2010) Content (and Content) His (Cont)
1013       51.002       0.00000       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33       102.101.1.33	10	5166 9,926800	0.023026 Sat	msungi_ckte3:71	Cisco_dd:a0:18	TLSv1.2	273	69 -43 dBm	Encrypted Handshake Message	And May Paragement (Aboy Sales Codet - 2
117 9.308400       0.000000       0.000000       0.000000       0.000000       0.000000       0.000000       0.000000       0.000000       0.000000       0.000000       0.000000       0.000000       0.000000       0.000000       0.000000       0.000000       0.0000000       0.0000000       0.0000000       0.0000000       0.0000000       0.0000000       0.00000000000000000000000000000000000	20	5167 9.926800	0.000000 192	2.168.1.15	192.168.1.121	882.11	76	69 -35 dBm	Acknowledgement, Flags=C	Anth Key Nanagement (AMA) List Wolver at (1999 B02-11) Fr Over 1112 B02-14
111       9.93800       0.00001       92.181.13       90.101       76       0       0       400004       Monoclappent, Lique,	10	5173 9.930440	0.003540 C1s	\$2:54:10_032	SansungE_c91e3171	EAP	1116	69 -36 d8m	Request, Protected EAP (EAP-PEAP)	<ul> <li>Autri My Paragement (AM) Sutter deterrac (see ad. 11) Fi over 1111 ad. 14</li> </ul>
117       9.34370       0.80000       72.441.13       002.41.13       112       0.9       0.9       113       0.9       0.9       113       0.9       0.9       113       0.9       0.9       113       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9       0.9	1	5174 9.938440	0.000000 193	2.168.1.15	192.168.1.121	802.11	76	69 -43 dBm	Acknowledgement, Flags+C	Auth Key Hangement (AUH) GULI (001011) (Lees 302,11)
1117       9.51379       0.7.95.1171       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       102.16.1.13       1	1	5175 9.934701	0.004261 San	mungt_chie3:71	Cisco_dd:a0:18	EAP	110	69 -42 dBm	Response, Protected EAP (EAP-PEAP)	Auto Key Recognised (ARR) Type: F1 Over Litt B02.18 (3)
1511       9.03879       0.03808       0.0341241       Subscripted instabilities, increasing, i	1	\$176 9.934701	0.000000 192	2.168.1.15	192.168.1.121	802.11	76	69 -36 dBm	Acknowledgement, Flags+C	<ul> <li>FSN Capabilities: execce</li> </ul>
1512 9.08079       0.08060 010.051.15       201.81.121       00.11       76       0.4.000       Anondegener, flage	12	5181 9.938770	0.004060 Cis	sco_dd:a0:18	Samsungt_c9:e3:71	TLSv1.2	382	69 -36 dBm	Encrypted Handshake Message, Encrypted Handshake Message, Encry	
1117 3-344.34       0.00000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       000000       0000000       0000000       00000000000       000000000000000000000000000000000000	100	5182 9.938770	0.000000 193	2.168.1.15	192.168.1.121	882.11	76	69 -42 dim	Acknowledgement, FlagsC	
<ul> <li>15.18 9.46/19</li> <li>9.48029</li> <li>9.48029</li> <li>9.48029</li> <li>9.48029</li> <li>9.48029</li> <li>9.48029</li> <li>9.4802</li> <li>9.48029</li> <li>9.48029</li></ul>	1	5187 9.944434	0.005664 Cis	sco dd:a0:18	Broadcast	892.11	428	69 -36 dBm	Beacon frame, SN+3283, FH+0, Flags+C, BI+100, 551D+"vd	00 = PSN PTKSA Replay Counter capabilities: 1 replay counter per PTKSA/GTKSA/STAKeySA (0x0)
<ul> <li>1519 9.460%</li> <li>9.60%</li> <li>9.20%</li> <li>9.60%</li> <li>9.60%</li></ul>		\$188 9.944784	0.000270 5at	mungi cital:71	Cisco dd:a0:18	TL5v1.2	236	69 -43 dim	Encrypted Handshake Message, Change Clohen Spec, Encrypted Han	
1510       9.40430       0.004304       Sampd_(-0+17)       Postost       Lif       0       9.40930       Lift       0.0013       Lift       0       9.40930       Lift       0.0013       Lift       0       9.40930       Lift       0.0013       Lift       0       0.0013       Lift       0.0013       Lift       0       0.0013       Lift       0.0013       Lift       0       0.0013       Lift       Use Distribution       Use Distribution       Lift       Use Distribution		5189 9,944784	0.000000 192	2.168.1.15	192.168.1.121	892.11	76	60 -36 dBm	Acknowledgement, FlagsC	3 = Management Frame Protection Required: True
1519       9.0072       0.0021       Cites_defined       Sinseqt_000017       Sinseqt_0000017       Sinseqt_0000017       Sinseqt_0000017       Sinseqt_000000000000000000000000000000000000	81	5290 9.944850	0.000146 Sam	mungl cice3:71	Broadcast	LLC	114	69 -36 dBm	I. N(R)+7, N(S)+87; DSAP ExF2 Individual, SSAP Banyan Vines Co	I I = Management Frame Protection Capable: True
1518 5,96804       0.00002 102,196,1.31       302,186,1.31       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131       802,131		5193 9.948782	0.003232 Cis	sco dd:a0:18	Samurat c9:e3:71	TL5y1.2	161	69 -36 d8m	Change Clober Spec, Encrypted Handshake Nessage	@ = Joint Multi-band KSMA: False
1315 5.95021       0.00137 Samped_c90271       Ciscq_dtramB1       00       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0       -0	10	\$194 9.948964	0.000082 192	2.168.1.15	192.168.1.121	882.11	76	60 -44 dBm	Arknadedement, Flams,	
1519       9.9023       0.90243       92.186.1.12       80.11       76       0       96       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       40010       4	80	\$195 9.953021	0.003157 5am	munet closh-71	Cisco dd:a0:18	EAP	118	69 -44 day	Response, Protected EIP (EIP-PERP)	+ Extended Key ID for Individually Addressed Frames: Not supported
1315       95.95800       0.000380       1100.0426/0418       Semingly, 0.96171       100.1.2       106       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.958       0.9588       0.958       0.9588	82	\$196 0.051255	0.000234 193	2, 168, 1, 15	192 168 1 121	887.11	26	60 - 16 dite	Arkenuladament Flans, F	PMCID Count: 0
Size 9:9999       9:09999       9:02:09:10:13       9:12:08:11       9:0:10       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:0:099       9:	82	5100 0 056805	0.001550 (1)	sen dd-ab-18	Semanel (Seal-71	TI 5v1 2	144	60 - 16 dile	Ambigation Data	PMKID List
1333       59.95959       0.00313       Samped_c.591271       Ciscq.Mcm211       Tiol - 2       132       0       -0       Base Application Date         1508       5.9605       0.00003       Sign.Mcm211       Sign.Mcm2111	8	5300 0.056205	0.000000 102	2.168.1.15	192 168 1 121	882.11	76	60 -41 dis	Advandadament Flants F	> Group Hanagement Cipher Suite: 80:0ff:ac (Leee M02.11) BIP (128)
13:30 9.0000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000       0.00000 </td <td>1</td> <td>\$302 9 950476</td> <td>0.001101 5at</td> <td>mont clical-71</td> <td>Cisco de al·18</td> <td>TI 5v1 2</td> <td>152</td> <td>60 .41 (0)</td> <td>Application Data</td> <td>&gt; Tag: RM Enabled Capabilities (5 octets)</td>	1	\$302 9 950476	0.001101 5at	mont clical-71	Cisco de al·18	TI 5v1 2	152	60 .41 (0)	Application Data	> Tag: RM Enabled Capabilities (5 octets)
1338       9.00000       00.00013       Cisc.gdraw11       100.11       17       00       -0.0000       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001       00.0001 <td< td=""><td>1.</td><td>Field in DEDUTE</td><td>0.000000.101</td><td>1 166 1 15</td><td>107 168 1 113</td><td>991 11</td><td></td><td>60 . Ja day</td><td>Arkendadament Elana C</td><td>&gt; Tag: Mobility Dosain</td></td<>	1.	Field in DEDUTE	0.000000.101	1 166 1 15	107 168 1 113	991 11		60 . Ja day	Arkendadament Elana C	> Tag: Mobility Dosain
Size 9, 000000       00,200000       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,13       00,21,26,1,26,1,26,22       00,26,26,26,27       00,26,26,27       00,26,26,27       00,26,26,27       00,26,26,27       00,26,26,27       00,26,26,27	1	ENM O DENKE	0.000100 /1-	ten dd-all-TH	Compared edital 171	110.5.2	172	40 - 16 dBe	Application Data	> Tag: Supported Operating Classes
S207 9.9822       0.00034 Samper0.2017       Size_distants       Total       No       0.0004 0.0004       Size_distants       Total       No       0.0004 0.0004       Size_distants       Size_distants <td>10</td> <td>5105 0 041667</td> <td>0.0003278 0.25</td> <td>3 369 3 35</td> <td>107 168 1 171</td> <td>007.11</td> <td></td> <td>40 - 42 dis</td> <td>Arbon Jadamant Dama C</td> <td>) Tag: Extended Capabilities (3 octets)</td>	10	5105 0 041667	0.0003278 0.25	3 369 3 35	107 168 1 171	007.11		40 - 42 dis	Arbon Jadamant Dama C	) Tag: Extended Capabilities (3 octets)
Size 9.0022       0.00000 902.001.13       Size 1.00000 902.001.13       Size 1.000000 902.001.13       Size 1.000000 902.001.13       Size 1.0000000 902.001.13       Size 1.000000000000000000000000000000000000	10	5387 9 966778	0.000161 5.0	and pleaser	Citer Atrabili	Ti fut 3	100	65 -43 dile	Application Data	> Ext Tag: HE Capabilities
318       308.000       10.100.11.01       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11       10.100.11	1	5207 9.906228	0.003502 530	a seg a se	CASCO_GOLDBIAN	16393.4		607 -43 5000	Apparation onto	) Ext Tag: HE 6 GHz Band Capabilities
1312       2,0000       0.0000       102,000,110       0.0100       100,000       102,000,110       0.0100       100,000       102,000,110       0.0100       100,000       102,000,110       0.0100       100,000       102,000,110       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100,000       100	1	5200 9.900220	0.000000 151	2.100.1.15	192.100.1.121	2004.11	100	69 - 36 com	According to the second s	> Tag: Vendor Specific: Microsoft Corp.: WMY/WE: Information Element
The second structure         The last structure         The last structure         The last structure         The last structure           Still 5, 00000         6, 4255         Structure         Month Structure	1.5	FILL P. P. P. STANDA	0.000103 013	1 140 1 15	100 100 1 101	HARD ST.	100	10 10 100	Alter Astronom Flags P	V Tag: Vendor Specific: Qualcom Inc.
State Sensel       0.4223       Simple Control       1.010 (1.111)       1.01       1.01       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41       0.41 </td <td>85</td> <td>5212 9.976391</td> <td>0.000000 191</td> <td>2.158.1.15</td> <td>192.158.1.121</td> <td>802.13</td> <td>- 10</td> <td>60 -43 008</td> <td>Acknowledgement, Flagskinning</td> <td>Tag Number: Vendor Specific (221)</td>	85	5212 9.976391	0.000000 191	2.158.1.15	192.158.1.121	802.13	- 10	60 -43 008	Acknowledgement, Flagskinning	Tag Number: Vendor Specific (221)
Construction         Construction<	1	5445 9,988046	0.022525 58	1 169 1 16	51500_00/mei18	11.073.12	245	69 -43 OBB	Application sets	Tag length: 11
Shift 9 200003       0.000000       Shift 9000000       0.000000       Shift 9000000       0.000000       Shift 9000000       Shift 9000000000000000000000000000000000000	13	5216 9.986916	0.000000 191	2.108.1.15	192.108.1.121	802.11		69 -36 COM	Acknowledgement, Flags	QUI: 8c:fd:f0 (Qualcome Inc.)
S119 (2000)       0.00000       S02, 100, 1013       102, 103, 113       101, 11       100       04, 000       102, 103, 113       102, 113       101, 11       101       04, 000       102, 103, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113       101, 113	10	5217 9.986916	0.000000 C15	500_00100138	Samsunge_corest/r	TLSV2-2	243	69 -36 GBH	Application pata	Vendor Specific OUI Type: 1
Shift 9,00005       0.000000       Smingle_CP10171       Liklo_0010113       DP       110       0P       400       Responses       Smingle_CP10171       Liklo_0010113       DP       110       0P       400       Responses       Smingle_CP10171       Liklo_0010113       DP       110       0P       400       Responses       Smingle_CP10171       Liklo_0010113       DP       110       DP       400       Responses       Responses       Smingle_CP10171       Liklo_0010113       Smingle_CP10171       DP       110       DP       -30       Smingle_CP10171       Liklo_0010113       Smingle_CP10171       DP       -30       Smingle_CP101711       DP       -30 </td <td>10</td> <td>5218 9.986916</td> <td>0.000000 192</td> <td>2.168.1.15</td> <td>192.168.1.121</td> <td>862.11</td> <td>76</td> <td>69 -64 dan</td> <td>Acknowledgement, Flags+C</td> <td>Vendor Specific Data: 0101020100020101</td>	10	5218 9.986916	0.000000 192	2.168.1.15	192.168.1.121	862.11	76	69 -64 dan	Acknowledgement, Flags+C	Vendor Specific Data: 0101020100020101
S127 9.00016       0.00000       122 9.00016       0.00000       122 9.00016       0.00000       122 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00016       120 9.00000000000000       120 9.00016	15	5221 9,986916	0.000000 Sar	esungs_corest/1	C15C0_00140118	DAV	110	69 -44 (888	Response, Protected EAP (EAP-PEAP)	✓ Tar: weder Specific: Samuel Electronics (oitd)
5227 9770788       0.00008       16.00008       15.000       1001       5000       1001       5000       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       1001       10011       1001       10011	10	5222 9.986915	0.000000 193	2.108.1.15	192.168.1.121	882.11	76	69 -35 dan	Acknowledgement, FlagtsC	Tar Number: Vender Specific (221)
5129       9.00016       0.00005       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.108.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33       102.118.1.33	1	5227 9.997806	0.010890 Cli	sco_00100:18	SansungE_C91e3171	EAP.	108	69 -36 d8m	Success	Jag length: 11
S127 97,99864         0.000051 (Stoc_difficulti         Samingt_off-0177         64/06.         221         00 -36 dim key (Message 10 / 4)            S129 97,99864         0.000051 (Stoc_difficulti         Samingt_off-0177         Stoc_difficulti         Samingt_off-0178         Samingt_off-01788         Samingt_off-0178         Samingt_of		5228 9.997886	0.000000 193	2.168.1.15	192.168.1.121	802.11	76	69 -43 dBm	Acknowledgement, Flags+C	OUI: 00:00:f0 (Samure Electronics C
S129 9,09664       0.000009 102.146.1.121       202.146.1.121       202.11       76       04-01 dBe       Activation (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1000-014711 (11,11)       1		5229 9.998664	0.000858 C1s	sco_65:00:18	SansungE_c9:e3:71	EAPOL	221	69 -36 dBm	Key (Message 1 of 4)	Window Soverfifer Citil Turner 16
Size         Bit 80,00005         #0,00015         Example_(j=0:12)T         Listo_(hit 0:11118)         LPAX         366         #0         400         Hold         Hold <td></td> <td>5230 9.998664</td> <td>0.000000 193</td> <td>2.168.1.15</td> <td>192.168.1.121</td> <td>802.11</td> <td>76</td> <td>69 -43 d8m</td> <td>Acknowledgement, Flags+C</td> <td>Window Searcific Data: 2008/0400000001</td>		5230 9.998664	0.000000 193	2.168.1.15	192.168.1.121	802.11	76	69 -43 d8m	Acknowledgement, Flags+C	Window Searcific Data: 2008/0400000001
State 18.000000     State 0.00000     State 0.000000     State 0.000000     State 0.000000     State 0.000000     State 0.000000     State 0.0000000     State 0.0000000     State 0.00000000     State 0.00000000000000000000000000000000000		5234 10.007005	0.008341 San	msungE_c9:e3:71	Cisco_dd:#0:18	EAPOL	346	69 -43 dBm	Key (Message 2 of 4)	Tat: Veder Sectific: Secure Electronics (c. 11d
Style         Dis. 08:0643         #. 04:02:05         Clico_ddf:20:173         SeesungE_C:07:02:07         L4AOX         423         00 - 3o: dite         key (Nexpected of the Activace of t		5215 10.007005	0.000000 193	2.168.1.15	192.168.1.121	82.11	. 76	69 -36 dBm	Acknowledgement, Flags+C	
Str. D #.005401         0.000000         192.1464.1.32         182.1.192         180.1.1         No         60         4.0         182         18.05307         1.0         1.0         1.0         6.0         4.0         182         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0 <th1.0< th="">         1.0         1.0</th1.0<>		5236 18.009443	0.002438 C11	sco_dd:a0:18	Samsungt_c9:e3:71	EAPOL	423	69 -36 dBm	Key (Message 3 of 4)	
5. S22 10.855/87 8.08225 Samuel_c1+0217 Listo_65219118 E4/O. 199 80 -46.dim key (Heads and K) - S24 10.45519 8.08029 10.41.315 20.118.111 80.11 7x 80 -5x 6th Advandagement, JaganC	E.	5237 20.009443	0.000000 192	2.168.1.15	192.168.1.121	902.11	.76	69 -43 dim	Acknowledgement, Flags+C	
5240 18.015078 0.000000 192.168.1.121 192.168.1.121 192.11 76 69 -16 die Acknowledgement, FlagsC	5	5239 10.015678	0.005235 San	mungE_cRie3:71	Cisco_dd:a0:18	EAPOL	199	60 -44 dBn	Key (Message 4 of 4)	
		5240 20.015678	0.000000 193	2.168.1.15	192.168.1.121	802.11	76	69 -36 dBm	Acknowledgement, Flags+C	

Événement d'itinérance FToTA S23

#### Détails du client dans le WLC :

Cisco Cisco Cata	lyst 9800-CL Wireless Controller	Welcome admin Lating contracts searce A to the Control of the Cont
1	Monitoring *> Wireless *> Clients	Client *
Dashboard	Ctients Sleeping Clients Excluded Clients	360 View General QOS Statistics ATF Statistics Mobility History Call Statistics
Monitoring >	< Delater C	Client Properties         AP Properties         Security Information         Client Statistics         QOS Properties         EoGRE           Re-Authentication Timeout         1800 sec (Remaining time: 798 sec)         *         *         *           Client State Servers         None         *         *         *         *
Configuration      Administration	Client MAC Address     T     Pv4 Address     T     Pv6 Address     AP Name     T     0429.2ec9.x371     F192.168.1.160     100:56/20.34e83ab1b:6332     AP01_RC_9136_H80C	Client ACLs None Client Entry Create Time 1003 seconds Policy Type WPA3
<ul> <li>Licensing</li> <li>Troubleshooting</li> </ul>	2495.2772.8a66         ▶ 192.168.1.162         te80::b13:1107.7c5fta7e0         AP01.RC_9136.F80C           =         1         =         10         •	Encryption Clipher CCMP (AES) Authentication Key Management FT-802.1x EAP Type PEAP Cristic Transf

Propriétés du client S23

Concentrez-vous sur le type d'itinérance 802.11R sur les ondes, où vous pouvez voir le type d'itinérance 802.11R :

Cisco Cata	alyst 9800-CL Wireless Controller		Welcome admin	* * 4	8036	0 0 -	APs and Charms	(a Feedback) 🖉
A ferret black base	Monitoring * > Wireless * > Clients		Client					×
Dashboard	Clients Sleeping Clients Excluded Clients		360 View General	QOS Statisti	cs ATF Statistic	s Mobility	History Call Statist	ics
Monitoring >	× Certrito		Recent association	on history:				$\bigcirc$
2. Configuration	Selected 0 out of 2 Clients		AP Name T	BSSID T	AP T Slot. Assoc Time	T Instance	Mobility Y Run Role Latency	(ms) Type
2 construction 2	Client MAC Address T IPv4 Address T IPv6 Address AP Name	т	AP01_RC_9136_FR0C	00dt.1ddd.a018	3 07/12/2023	ō	Local 12	802.11R
Of Administration	0 0429.2ec9.e371 / 192.168.1.160 fe80::6a20:34e8:ab1b:6332 AP01_RC_91	16_F80C	AP9136_5C.F524	00dt 1ddd.7d38	3 07/12/2023	0	Local 4536	N/A
C Licensing	Q 2495.2172.8a66	16, F80C			11.44.37			
Y Troubleshooting	H H 1 P H 10 V							

S23 Itinérance de type 802.11R

Ce client a également été testé à l'aide de FT sur le DS et a pu se déplacer à l'aide de 802.11r :

N	o. Time	Delta Source	Destination	Protocol	Length C	hannel Signal stre	Info	2	Frame 1265: 485 bytes on wire (3880 bits), 485 bytes captured (3880 bits) on interface \Device\APF_[D4578005-2
	1246 8.299585	0.102333 Cisco_dd:a0:18	Broadcast	882.11	364	69 -39 dBn	Beacon Frame, SN+305, FN+0, Flags+C, 81+100, SSID+"wif	12	Ethernet II, Src: Cisco_d2197147 (74:11:b2:d2:97147), Ost: Universa_D7:cf:06 (08:3a:88:b7:cf:06)
	1247 8.401955	0.102370 Cisco dd:a0:18	Broadcast	802.11	364	69 -40 dBm	Beacon frame, SN=306, FN=0, Flags=C, BI=300, SSID="wiff		Internet Protocol Version 4, Src: 192.168.1.15, Dst: 192.168.1.121
	1248 8.504375	0.102420 Cisco_dd:a0:18	Broadcast	882.11	364	69 -39 dBs	Beacon frame, SN=307, FN=0, Flags=C, 81=100, SSID="wiff	2	User Datagram Protocol, Src Port: 5555, Dst Port: 5888
	1249 8.686814	0.102439 Cisco_dd:a0:18	Broadcast	882.11	364	69 -48 dBm	Beacon frame, SN+308, FN+0, Flags+C, BI+100, SSID+"wif	2	AiroPeek/OtniPeek encapsulated IEEE 882.11
	1251 8.612759	0.005945 Cisco_dd:a0:18	Broadcast	882.11	312	69 -48 dBt	Probe Response, SN=459, FN=0, Flags=C, BI=100, SSID="w		BK2.11 radio information
	1258 8.709133	0.096374 Cisco_dd:a0:18	Broadcast	882.11	364	69 -39 dBm	Beacon frame, SN+310, FN+0, Flags+C, 81+100, SSID+"wif		IEEE 802.11 Reassociation Request, Flags:C
	1268 8.786412	0.077279 SansungE_c9:e3:71	Cisco_dd:a0:18	882.11	235	69 -48 dBm	Authentication, SN-09, FN+0, Flags+C	v	Ittt 882.11 Wireless Management
	1261 8.786412	0.000000 192.168.1.15	192.168.1.121	882.11	76	69 -39 dBm	Acknowledgement, FlagsC		> Fixed parameters (10 bytes)
	1262 8.798571	0.004159 Cisco dd:a0:18	SansungE_c9:e3:71	882.11	247	69 -39 dBs	Authentication, SN+118, FN+0, Flags+C		<ul> <li>Tagged parameters (S85 bytes)</li> </ul>
	1263 8.798571	0.000000 192.168.1.15	192.168.1.121	882.11	76	69 -47 dBs	Acknowledgement, FlagsC		> Tag: SSID parameter set: "wifi66_test"
102	1265 8,796439	0.005868 Samungt c9:e3:71	Cisco dd:a0:18	882.11	485	69 -48 dBm	Reassociation Request, SN+100, FD+0, Flags+C. SSID+"bd		> Tag: Supported Rates 6(8), 9, 12(8), 18, 24(8), 36, 48, 54, [Pbit/sec]
T	1266 8.796439	0.000000 192.168.1.15	192.168.1.121	802.11	76	69 -39 dBm	Acknowledgement, FlagsC		> Tag: Power Capability Min: 8, Max: 16
	1268 8.806078	0.009639 Sansungt_c9:e3:71	Broadcast	LLC	114	69 -39 dBm	S, Func+REJ, N(R)+57; DSAP Bola Group, SSAP Boat Command		> Tag: Supported Channels
L	1269 E.887948	0.001862 Cisco dd:a0:18	Sansungt_c9:e3:71	802.11	433	69 - 39 dBm	Reassociation Response, SN+0, FN+0, Flags+C		> Tag: RM Enabled Capabilities (5 octets)
	1270 8.807940	0.000000 192.168.1.15	192.168.1.121	882.11	76	69 -48 dBm	Acknowledgement, Flags=C		> Tag: RSN Information
	1271 8.887948	0.000000 Samurgi c9:e3:71	Broadcast	LLC	120	69 - 39 dBn	I P. N(R)+11, N(S)+19: DSAP this Individual, SSAP this Response		<ul> <li>Tag: Mobility Domain</li> </ul>
	1272 8.811521	0.003581 Cisco dd:a0:18	Broadcast	882.11	364	69 - 39 dBm	Beacon Frame, SN+311, FN+0, Flags+C, 81+100, SSID+"wiff		Tag Number: Mobility Domain (54)
	1273 8.832754	0.021233 Cisco Sc:f8:0c	SansungE_c9:e3:71	LLC	183	69 -49 dBm	U, Func+DISC; DSAP Bidla Group, SSAP Bie2 Command		Tag length: 3
	1274 8.832754	0.000000 192,168,1.15	192.168.1.121	882.11	76	69 -58 dBs	Acknowledgement, Flags+C		Mobility Domain Identifier: 0xef27
	1275 8,832754	0.000000 Cisco Sc:f8:0c	SansungE c9:e3:71	LLC	183	69 -49 dBm	U, Func-Unknown: DSAP Texas Instruments Group, SSAP 8x28 Respo		<ul> <li>FT Capability and Policy: 0x01</li> </ul>
	1276 8.832817	0.000063 192.168.1.15	192.168.1.121	882.11	26	69 -58 dBn	Acknowledgement, Flags+C		= Fast 855 Transition over D5: 0x1
	1277 8,988548	0.067723 SamsungE c9:e3:71	Broadcast	LLC	144	69 -46 dBm	5 F. Func-REJ, N(R)+32: DSAP Bk26 Individual, SSAP Bkd4 Respon		
	1278 8,900540	0.000000 192.168.1.15	192.168.1.121	882.11	76	69 -40 dBn	Acknowledgement, Flags=C		0000 00 = Reserved: 0x00
	1288 8,984143	0.003603 Cisco dd:a0:18	SansungE c9:e3:71	882.11	118	69 -40 dBn	Action, SN+1, FN+8, Flags+.0C		<ul> <li>Tag: Fast BSS Transition</li> </ul>
	1281 8,984143	0.000000 192.168.1.15	192.168.1.121	882.11	76	69 -47 dBm	Acknowledgement, Flags+C		Tag Number: Fast BSS Transition (SS)
	1282 8.994803	0.000660 Samounet c9:e3:71	Cisco dd:a8:18	882.11	115	69 -47 dBe	Action, SNeD, FNeD, Flagse.pC		Tag Length: 96
	1283 8,994883	0.000000 192.168.1.15	192.168.1.121	882.11	76	69 -40 dBn	Acknowledgement, FlagsC		> MIC Control: Exelose
	1284 8.986878	0.000075 Alticela SetS9:af	Samurat (9:e3:71	LLC	197	60 -50 dBr	1 P. N(R)+25. N(5)+68: DSAP Bule Individual. SSAP Bulla Command		MIC: 0f814df7fe156ad6e4cf658aa53a4aca
	1286 8.913912	0.007034 Cisco dd:a0:18	Broadcast	882.11	364	69 -41 dBt	Beacon frame, Six313, FN+0, FlagssC. 81+100, SSID+"wiff		ANonce: d514fb17ab7fa885b7fd75e5b5d5a74e882cf4ec50fbd1f492e13889fb1a869ca
	1287 8,958493	0.036581 192.168.1.15	192.168.1.121	882.11	76	69 - 19 dBr.	Acknowledgement, FlagsC		5Nonce: 00172e455c738aa1b8cfe6fd142b425970879eb5cce3fa11283f566d849bb2c9
	1322 8.975553	0.025050 192.168.1.15	192,168,1,121	882.11	76	69 - 19 dlin	Acknowledgement, FlagssC		<ul> <li>Subelement: PMK-R1 key holder identifier (R104-ID)</li> </ul>
	1372 9,016519	0.000066 Cisco dd:a0:18	Broadcast	892.11	364	69 -38 dBr	Beacon frame, Shelld, Hiell, FlagtsC. Histon, SSIDs"wif		Subelement ID: PMK-R1 key holder identifler (RIKH-ID) (1)
	1471 0.118683	0.180164 (isco dd:a0:18	Broadcast	802.11	364	60 - 10 dila	Bearon Frame, Stivits, Hu-R. Flagts. C. 81+100, 5510+"vd-F		Length: 6
	1600 9.176814	0.058131 192.168.1.15	192,168,1,121	802.11	26	69 -48 dBa	Acknowledgement, Flague,C		PMK-R1 key holder identifier (R1KH-ID): d4807b497a4b
	1702 9.221145	0.044111 Cisco dd:a0:18	Broadcast	892.11	364	69 - 19 dlin	Beacon Frame, SN+316, FN+0, Flags+C. 81+100, SSID+"vdF		✓ Subelement: PMK-R0 key holder identifier (R0KH-ID)
	1933 9.324107	8.180962 Cisco ddra8:18	Broadcast	897.11	364	69 - 10 dBs	Bearon Frame, Skell7, Flieb, Flames, C. 81+100, SSIDe"wiff		Subelement ID: PMK-90 key holder identifier (R000-ID) (3)
	1937 9.425938	0.181811 Cisco dd:a8:18	Broadcast	892.11	364	69 -40 dim	Beacon Frane, SNe318, Flieb, FlagseC. Ble100, SSIDe"wiff		Length: 4
	1939 9,528463	0.102525 Cisco dd:a0:18	Broadcast	882.11	364	69 +38 dBs	Beacon Frame, SN+319, FN+8, Flags+C, 81+100, SSID+"wif		090C-00 key holder identifier (800H-1D): 082055a2
	1945 9.631028	0.100557 Clisco dd:a0:18	Renadcast	892.11	364	69	Reacon Frame, SkelOB, Fluid, Flams, C. RI+100, SSID="wiff		> Tag: Supported Operating Classes
	1946 9.733295	0.182275 Cisco dd:a0:18	Broadcast	882.11	364	63 - 30 dBa	Beacon Frame, Stek21, Flieb, FlagssC. 81+100, SSIDe"wiff		> Tag: Extended Capabilities (11 octets)
	1958 9,835864	0.182569 Cisco dd:a0:18	Broadcast	882.11	364	63 -48 dBt	beacon frame, SNx322, FNx8, Flags+,C, 81×108, SSID="wiff		> Tag: Vendor Specific: Microsoft Corp.: WMM/WME: Information Element
	1951 9,925036	0.090072 SamsungE c91e3171	Cisco dd:a0:18	882.11	122	69 -45 dBa	Action, SN=4, FN=0, Flags=, oTC		> Ext Tag: HE Capabilities
	1952 0.925936	0.000000 192.168.1.15	192.168.1.121	882.11	26	60 -40 dbs	Acknowledgement, Flags,C		> Ext Tag: HE 6 GHz Band Capabilities
	1953 9,926893	0.000957 192.168.1.15	192,168,1,121	882.11	76	69 -48 dBn	Acknowledgement, flags		> Tag: Vendor Specific: Qualcomm Inc.
	1954 9.917895	0.811092 Cisco dd:a0:18	Broadcast	882.11	364	62 -40 654	Search frame, Ski321, Floid, Flams,C. 81s100, 553Ds"wiff		> Tag: Vendor Specific: Samsung Electronics Co.,Ltd
	1955 9.942343	0.004448 192.168.1.15	192,168,1,121	882.11	26	62 -48 dBn	Acknowledgement, Flags,C		> Tag: Vendor Specific: Samsung Electronics Co.,Ltd
			No. of the second s				· · · · · · · · · · · · · · · · · · ·		

Paquets FToDS itinérants S23

# WPA3-Enterprise + chiffrement GCMP128 + SUITEB-1X

Configuration de la sécurité WLAN :

# Edit WLAN

		010) 1090		
ayer2 Layer3	ААА			
O WPA + WPA2	O WPA2 + WPA3	WPA3	O Static WEP	O None
MAC Filtering	D			
Lobby Admin Acce	ess O			
WPA Parameters	12553 6-294	Fast	Transition	
WPA O	WPA2 O	State	US	Disabled 🔻
GTK O	WPA3	Ove	r the DS	0
Transition <b>O</b> Disable	1	Reas	ssociation Timeout *	20
WPA2/WPA3 Enc	rvotion			
AES(CCMP128)		Auth	Key Mgmt	
GCMP128	GCMP256 O		onebena C	
Protected Manage	ement Frame			
PMF	Required			
	back Timer* 1			
Association Comet				
Association Comet	200			
Association Comet	200			
Association Comet	200			

×

WPA3 Enterprise SuiteB-1X Configuration de la sécurité



Remarque : FT n'est pas pris en charge dans SUITEB-1X

\$ 5

Affichage sur l'interface graphique utilisateur WLC des paramètres de sécurité WLAN :

wifi6E_test

[WPA3][SUITEB-1X][GCMP128]

Vérification des balises OTA :

wif6E_test

0

Ο

No.	Time	Delta	Source	Destination	Protocol	Length	Channel	Signal stre	Info	> Frame 375261 355 bytes on wire (2848 bits), 355 bytes captured (2848 bits) on interface \Device\MPF_(D45/8085-2998-4856-8C3
	37376 59,169776	0.02048	2 Cisco dd:a0:18	Broadcast	882.11	312		-40 (04	Probe Response, SN-2002, FN-0, FlagsC. 81-100, SSID-"	) Ethernet II, Src: Cisco_d2:97:47 (74:11:b2:d2:97:47), Dst: Universa_b7:cf:06 (08:1a:88:b7:cf:06)
	17385 59.190316	0.02054	@ Cisco dd:a0:18	Broadcast	882.11	332	60	-17 dlin	Probe Response, SN=2003, FN=0, Flags=C, BI=100, SSID="	) Internet Protocol Version 4, Src: 192.168.1.15, Dst: 192.168.1.121
	37396 59.238799	0.02055	3 Cisco dd:a0:18	Broadcast	882.11	355	60	-37 dile	Beacon frame, Stic2004, Filed, FlamsvC. 81+100, 5510e"wd	) User Datagram Protocol, Src Port: 5555, Dst Port: 5000
	17414 59.271261	0.02046	2 Cisco ddraitr18	Broadcast	882.11	352		-18 dist	Probe Response, 99-2005, FN-0, FlamsC. 81-100, 5520-7	> AiroPeek/OmiPeek encapsulated IEEE 802.11
	17424 59.251733	0.02047	Z Cisco dd:a0:18	Broadcast	892.11	312	60	-40 dbs	Probe Resconse, SW-2006, FN+0, FlactsC. 81+100, 5520+"	> 802.11 radio information
	13417 59.272258	0.02053	7 Claro ditabile	Broadcast	882.11	312		-18 (50)	Probe Response Sha2007 Flags C. Riwing Stiller	> IEEE 802.11 Beacon frame, flags:C
	13447 50 307703	0.0005.6	2 Class ddiabill	Bennetrast	887.11	353		17.40	Decks Research Ok 2000 Blob Flame / 87-100 0070-1	V IEEE 892.11 kireless Management
	17460 50 371214	0.03057	2 Claro ddrab:19	Encode and	892.33	266	2	-24 -554	Reacon Arran Olivial Mad Flams / 91-100 5575-5-1	> fixed parameters (12 bytes)
	11430 10 10340	0.02002	Cisco de se 10	Broadcast.	100.44	353			Deaks Researce (R. 200) (Red. Cases ( R. 100, (CD. 5)	✓ Tagged parameters (25) bytes)
	17470 59-111049	0.02030	6 Cisco_dd:a0:18	Broadcast	002.11	344		- 22 000	Probe Response, Second, Party Pages	) Tag: SSID parameter set: "hdfi66_test"
	37480 39,334143	0,02052	5 01500_00:00:18	or caucast	902.11	312		-37 006	Probe Response, Swatell, Hard, Flags	> Tag: Supported Rates 6(8), 9, 12(8), 18, 24(8), 36, 48, 54, [Mbit/sec]
	37489 59,375487	0.02154	2 C15C0_00180:18	Broadcast	902.11	342		-38 088	Probe Response, SW-JELL, PS-0, FlagsC, 81-100, SS10-1	) Tag: Traffic Indication Map (TIM): OTIM 0 of 1 bitmap
	37499 59.395135	0.01962	9 C1100_00180:18	Broadcast	882.11	312		-37 086	Probe Response, SNe2813, FNe8, FlagseC, B1×100, SS10+1	> Tag: Country Information: Country Code na, Environment Global operating classes
	37520 59.425733	0.02061	7 C15C0_05:30:18	Broadcast	882.11	355		-37 (00)	Beacon Frame, SNx2814, FNx8, Flags+C, B1×100, SS10+'vG	> Tag: Power Constraint: 6
	37519 59.436888	0.02034	7 Cisco_05:80:18	Broadcast	882.11	312	60	-37 dbm	Probe Response, SNe2815, Piele, FlagsC, B1=100, S51De'	) Tar: IDC Report Transmit Power: 16. Link Margin: 0
	37532 59.457236	0.02119	6 Clsco_d5:a0:18	Broadcast	882.11	322	- 60	-37 dBs	Probe Response, SW-2016, PN+0, Flags+C, BI+100, SSID+"	V lar: RN Information
	37539 59.476989	0.01975	3 Cisco_dd:a0:18	Broadcast	882.11	332	60	-37 d8e	Probe Response, SN+2017, FN+0, Flags+C, 81+100, SSID+1	Tax Nature 193 Information (28)
	37552 59,497448	0.02045	0 Clsco_65:00:18	Broadcast	882.11	352	61	-37 dBs	Probe Response, 59+2018, FN+8, Flags+C, 81+100, 5510+1	The Interest of the
	37565 59.517993	0.02054	5 Cisco_dd:a0:18	Broadcast	882.11	355	60	-37 dim	Beacon frame, SNv2019, FNv0, Flags+C, BI+100, SSID+"sd	Tang Antigura, and
	37574 59.538423	0.82843	0 Cisco_65:a0:18	Broadcast	882.11	332	60	-37 dBH	Probe Response, SN-2828, FN+8, Flags+C, BI+100, SSID+*	The second
	37585 59.558965	0.02054	2 Cisco_dd:a0:18	Broadcast	882.11	352	60	-37 dile	Probe Response, SN+2021, FN+0, Flags+C, 81+100, SSID+"	2) who caper state: whereas a second se
	37596 59.579439	0.82847	4 Cisco_dd:a0:18	Broadcast	882.11	312	61	-37 dBm	Probe Response, SN+2822, FN+0, Flags+C, BI+100, SSID+"	Particle Coper sale Court a
	37616 59.599940	0.02050	1 Cisco_dd:a0:18	Broadcast	882.11	312	60	-37 dim	Probe Response, SN+2023, FN+0, Flags+C, BI+100, SSID+"	> Pairwise Cipher Suite List Witerisc (leee 802.11) GOP (128)
	37626 59.628421	0.02548	1 Cisco_dd:a0:18	Broadcast	882.11	355	61	-38 dBH	Beacon frame, SN-2824, F9+8, Flags+C, BI+100, SSID+'ad	Auth Key Management (ADM) Suite Count: 1
	37641 59.648984	0.02055	3 Cisco_dd:a0:18	Broadcast	882.11	332	60	-38 dBH	Probe Response, SN+2825, FN+0, Flags+C, 81+100, SSID+7	<ul> <li>Auth Key Management (AOM) List V0:001ac (leve SK2.11) MPA (SHA256-SuiteS)</li> </ul>
	37652 59.661337	0.02035	3 Cisco dd:a0:18	Broadcast	882.11	312	60	-38 dBe	Probe Response, 59+2826, Ph+0, Flags+C, 81+100, 552D+*	<ul> <li>Auth Key Management (A00) Suite: 00:00fiac (Leee 802.11) WMA (SM256-Suite0)</li> </ul>
	37668 59.681765	0.02042	8 Cisco dd:a0:18	Broadcast	882.11	332	. 61	-38 dBe	Probe Response, SN-2827, FN+0, Flags+C, B1+100, 552D+7	Auth Key Management (AOM) OUI: 08:0f:ac (Leee 882.11)
	17687 59.782467	0.02070	2 Cisco dd:a8:18	Broadcast	882.11	312		-38 dist	Probe Response, SN-2028, FN-0, Flags+C. 81+100, SSID+"	Auth Key Management (ARM) type: MPA (SH4256-Suite8) (11)
	37696 59.722867	0.02040	e Cisco dd:ab:18	Broadcast	882.11	355	80	-38 dbs	Beacon Frane, 99-2829, FN+0, Flags+C, 81+100, SS10+"will	> PSN Capabilities: 0x00e8
	37784 59.243472	0.02055	Cisco ddiabill	fireadcast	882.11	312	60	-38 dile	Probe Retorne, Shu2010, Bird, Flams, C. 61+100, SCIDe"	PMCID Count: @
	17739 59.261721	0.02024	4 Claro detabrill	Repair ast	882.11	332	1.1	- 18 (84	Probe Resource, Studiol, Flags,	PRID List
	17713 50 784540	0.02082	Cinco dd-ab-18	Broadcast	887.11	352		- 10 - 10	Probe Response Okalight Dian Flame / Blatch COllar	> Group Management Cipher Suite: 00:00fiac (Ieee 802.11) BIP (GMAC-128)
	TTTRE NO MARKO	8.03011	a clara de al 18	Ecology and	882.11	15.2		- 18 - 694	Probe Responde, Statistic Plant, C. Statistic Statistics	> Tag: QBS Load Element BK2.11e CCA Version
	17749 59 815168	0.02060	1 Clara dd:ab:18	Broadcast	682.11	355		-10 -000	Bearing frame Obc2014, Dial Planta, C. Blatte Stille Scille Sci	> Tag: MM Enabled Capabilities (5 octets)
	ATTTS IN RALLIN	0.03000	1 Class ddunk 18	Restances and	887.11	22.2	1.2	11.00	Depley Recently Division (New Control of States)	> Tag: Extended Capabilities (11 octets)
	37703 50 964335	0.02050	a Clara ddiale18	Broadcast	882.44	395		-17.000	herbe Response, Skiblid, Biol, Flame, C. 61-100, SSED-5	> Tag: Tx Power Envelope
	STORE SPERGER	0.02050	e croco_ourae:as	OF CARGE ANY	DOL-AA			- 37 000	Probe Response, Swideob, Filme, Falgartter, C. Birton, South	> Tag: Tx Power Envelope
	17889 59,687882	0.02168	1 (1100_00:30:18	prosocast	002.11	342		-38.005	Probe Response, Securit, Pare, Fings+	) Ext Tag: Multiple BiSID Configuration
	37814 59.907513	0,01951	1 C1500_00180:18	broadcast	862.11	314		-37 008	Proce Response, Severals, Faire, Flags	> Ext Tag: HE Capabilities
	37822 59.927666	0.02034	/ C1500_00:30:18	Broadcast	862.11	100		-38 088	seacon trate, switers, raid, riags	1 > Ext Tag: HE Operation
	37833 59.948858	0.02039	e cisco_00180:18	Broadcast	882.11	312	80	-38 008	Probe Response, SN=2040, FN=0, Flags=C, B1=100, SSID=1	> Ext Tag: Soutial Reuse Parameter Set
	37841 59.966540	0.020029	e C1500_00:30:18	eroadcast	802.11	312		-38 088	Probe Response, Stealers, Phile, FlagsC, 81×100, 5510+1	> Ext Tar: MJ EXA Parameter Set
	37857 59.985499	0.02055	@ C15C0_05:80:18	Broadcast	882.11	312	60	-38 :088	Probe Response, SN+2042, FN+0, Flags+C, BI+100, 551D+7	> Ext Tac: HE 6 GHz Band Catabilities
	37864 68.013692	0.02458	2 Cisco_dd:a0:18	Breadcast	802.11	312	- 40	-37 dbs	Probe Response, SN+2043, FN+0, Flags+C, BI+100, SSID+1	) Tar: Vendor Specific: Athenos Comunications, Inc.: Unknown
	37868 60.030192	0.01650	8 Cisco_dd:a0:18	Broadcast	882.11	355	60	-38 dbm	Beacon frame, SN+2044, FN+0, Flags+C, B1+100, 5512+"wd	) Tar: Vender Starifir: Hirmsoft Com. : JMR/JMF: Danameter Flamant
	37881 60.058489	0.02929	7 Cisco_dd:a0:18	Broadcast	882.11	352	- 61	-38 dBm	Probe Response, SN+2045, FN+0, Flags+C, BI+100, SSID+"	A Taxy Mander Sparific: First Austant Inc. Almost Filet BD Stablad
	37887 68.071057	0.02056	8 Cisco_dd:a0:18	Broadcast	892.11	332	60	-38 dBr	Probe Response, SN+2046, FN+0, Flags+C, BI+100, SSID+1	5 Tasi Moder Sarifi's Close Systems, Bri Mennet CY working - 5
	37897 60.001896	0.02083	9 Cisco_dd:a0:18	Broadcast	882.11	392	61	-38 dBs	Probe Response, SN+2047, FN+0, Flags+C, 81+100, SSID+*	5. They bandwe Gard Bir - First Starting, Dr Managet Bandwe Add
	37988 68.111976	0.02008	8 Cisco_dd:a0:18	Broadcast	882.11	312	60	-38 dBt	Probe Response, SN+2048, FN+0, Flags+C, 81+100, SSID+*	<ul> <li>The base period of based based based of the based of the</li></ul>
	37917 68.133414	0.02043	8 Cisco_dd:a0:18	Broadcast	882.11	355	65	-37 (584	Beacon frame, SN+2049, FN+0, Flags+C, BI+100, SSID+"wi	- og. most dectact case dates, are strong contact (11) (11)
	37928 60.153047	0.02063	3 Cisco_dd:a0:18	Broadcast	882.11	332	60	-37 dBm	Probe Response, 59x2050, F8x0, Flags+C, 81x100, 5510+"	
	37936 68.173314	0.02026	7 Cisco_dd:a0:18	Broadcast	882.11	312	60	-38 dBm	Probe Response, SN=2051, FN=0, Flags=C, 81=100, SSID="	
	37943 60.293778	0.02946	4 Cisco_dd:a0:18	Broadcast	882.11	312	60	-37 dlm	Probe Response, 5942052, F8+0, Flags+C, 81+100, 5510+"	
	37949 68.214369	8.82852	1 Cisco_65:a0:18	Broadcast	882.11	312	65	-37 dBm	Probe Response, SN=2053, FN=0, Flags=C, 81=100, SSID="	
	WHERE AD ADDRESS	a branch	A distant distant and	and the second second	100 11		1.44	1 mm	Record Arrest PRODUCT PLAN PLAN A PLAN AND AND A	

WPA3 Enterprise SuiteB-1X Beacon

Aucun des clients testés n'a pu se connecter au WLAN à l'aide de SuiteB-1X, ce qui confirme qu'aucun d'entre eux ne prend en charge cette méthode de sécurité.

WPA3-Enterprise + chiffrement GCMP256 + SUITEB192-1X

Configuration de la sécurité WLAN :

# Edit WLAN

Security	Advanced Add to P	UICY 1895		
/er2 Layer3	AAA			1 ¹
O WPA + WPA2	O WPA2 + WPA3	WPA3	O Static WEP	O None
MAC Filtering	0			
Lobby Admin Acce	ess O			
WPA Parameters		Fast	Transition	
WPA O	WPA2 O	Stat	us	Disabled
GTK O	WPA3	Ove	r the DS	0
Transition Disable	Policy	Rea	ssociation Timeout *	20
WPA2/WPA3 Encr	yption	Auth	Key Mamt	
AES(CCMP128)	CCMP256 C GCMP256 C	SI 1)	JITEB192- ☑	
Protected Manage	ement Frame			
PMF	Required	•		
	ack Timest			

Paramètres de sécurité WPA3 Enterprise SUITEB192-1x

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Remarque : FT n'est pas pris en charge avec GCMP256+SUITEB192-1X.

#### WLAN sur WLC GUI Liste des WLAN :



WLAN utilisé pour les tests

Vérification des balises OTA :

No. Time	Delta Source	Destination	Protocol	Length Chi	annel Sinual str	r Info	> Frame 8: 355 bytes on wire (2600 bits), 355 bytes captured (2600 bits) on interface \Device\UPF_(26053005-2000-A556-8C3)-C361366A3000), 55 0
1.0.01110	# 200000 Clara At at 18	Broadcast	802.31	112	10.40.00	Broke Bannonna Okuldi Blad Flama / Blaile COlu-Sciller Aust"	) Ethernet II, Sec: Cisco_d2:97:47 (14:11:02:02:97:47), Det: Undwersa_b7:cf:06 (06:3a:08:07:cf:06)
3 4 431734	d statut fines directly	Benneticart	mail 11	13.7		Darke Researce (No.37) Ded Flame / Rishe (175-5-4614 Rest"	> Internet Protocol Version 4, Src: 102.168.1.15, Dst: 102.168.1.121
5 0 052144	a property finds of sector	Benadicast	1007 11	117	415 -410 dite	Bode Barroome Shills Date Flame, F. States COlumbul Columbus	> User Datagram Protocol, Src Port: 5555, Ost Port: 5000
T & ATELAS	0 STREET Class divisition	Beneficies.		12.2		broke Assessed (B-10) (Bod Flows / State (Flow)	> Abroheek/OeniPeek encapsulated IEEE 882.11
7 4.474543	a granti fince directs	Brought and	and 11	144	10 100 000	Bearing Strates, Marchall, Park, Parker, P. Barten, Strate, State, Strate, Str	> 802.11 radio information
10.0.111.000	a statut diam distant	Freedown	Dist. 11	11.2		hashe formate (0.01) the line of state (0.00 hashed to be	> 1000 802.11 Beacon frame, flags:C
30 0.119095	0.000035 01000_00100128	aroaccars.	004.55	144		Proce Response, Security Pares, Farger,	V 1018 802.11 Mireless Nanagement
11 0.130040	6.628545 C1500_00180118	prosocalit	902.11	344	10 -40 005	Probe Response, Serves, Hee, Flags+	> Fixed parameters (1) bytes)
34 0.330004	6.820524 CLSC0_00148128	Broadcast.	B04-24	244	10 -40 004	Proce Response, Second, Field, Falgor,	<ul> <li>Tagged parameters (25) bytes)</li> </ul>
13 0.170948	0.020200 C1500_00:00:10	proaocast	802.11	112	89 -39 034	Probe Response, Sevice, Hee, Flags	> fag: SSD parameter set: "wified text"
14 @.197835	0.020687 C1sco_0010018	Broadcast	892.11	155	10 - 39 (894	Beacon Arane, SN-251, HWR, FingsrC, 81+100, 3310+"https://test-	5 Tar: Supported Bates 6(8), 9, 12(8), 18, 24(8), 36, 48, 54, DRD(1/sec)
15 0.217922	0.020287 Claco_6d:a0:18	Broadcast	802.11	112	80 -30 dBs	Probe Response, 99+252, Ph+0, Flags+C, 82+380, 5512+"\df166_test"	) Tax: Traffic Indication Nan (TIN): DTIN 8 of 1 bitson
16 @.238469	0.020547 Cisco_0d:s0:18	Broadcast	802.11	912	80 - 39 dBr	Probe Response, SN+253, FN+0, Flags+C, H1+100, 5510+"vdF165_test"	> far: Country Information: Country Code na. Environment (Schula countries classes
17 0.258874	0.020405 C1sto_65140138	Broadcast	882.11	112	87 - 32 (004	Probe Response, Sh-254, FM-0, Flags+C, H2+380, SSID+"sd-FM6_test"	1 Taki Disart Constraint 8
38 0.279342	0.020468 Cisco_6d:a0:18	Broadcast	802.11	312	49 -39 dBe	Probe Response, SH-255, FN+0, Flags+C, 81+100, SS12+"wdf1sE_test"	) tag in the second reasons in the second
19 0.308564	0.029222 Cisco_dd:s0:18	Broadcast	992.11	355	10 -39 dBs	Beacon frame, 58-256, F8-0, Flags=C, 81-100, 5510+"wd/168_test"	A lar BM Identities
28 0.320245	0.051681 Cisco_6d:a0:18	Broadcast	802.11	312	89 -39 dBe	Probe Response, SH-257, FM-0, Flags+C, H1+300, SSID+"wifist_test"	The barboni diffe Teleposition (199)
23 0.348738	0.020493 Cisco_dd:a0:18	Broadcast	802.11	312	80 -39 dBm	Probe Response, 59+258, F9+0, Flags+	The factors for an enternation (ve)
22 4.361383	0.020645 Cisco_01:a0:18	Broadcast	382.11	312	80 -40 (88	Probe Response, SH-259, Fb-0, Flags+C, H1+100, SSID="wif166_test"	The arright and the second sec
23 0.381740	0.020357 Cisco_dd:a0:18	Broadcast	802.11	10.2	80 -40 dbs	Probe Response, SH+260, FM+8, Flags+C, 81+300, SSID+"wdfi66_test"	New Version: a
24 0.482483	0.020663 Cisco_6d:a0:18	Broadcast	802.11	255	80 -40 d8e	Beacon frame, SNe261, FNe8, Flags+C., 81+100, SSID+"wifi66_test"	<ul> <li>Wood Lipher State Winnik (Leek WALL) WWW (200)</li> </ul>
28 0.422652	0.620249 Claro_6f:a0:18	Broadcast	802.13	312	80 -48 dbs	Probe Response, S8+262, F0+0, Flags+	valuate caper sate cont: 1
29 0.443274	0.020622 Cisco_dd:a0:18	Broadcast	802.11	312	40 -40 dbs	Probe Response, SH4263, FM+0, Flags+	> FRINCISE CLIPPER Solide List WORTER: (Lees 002.11) 007F (256)
32 @.463768	0.020486 Cisco_6f:a0:18	Broadcast	882.11	332	10 -40 dbs	Prote Response, SN+264, FM+8, Flags+C, 81+100, SSID+"wifiel_test"	Auth Key Religement (ARV) Suite Court: 1
33 0.486632	0.829672 Cisco_dd:a0:18	Broadcast	802.11	322	80 -40 dbs	Probe Response, SH+265, FH+0, Flags+	<ul> <li>Activities Residence Canal Life Activity of Life Activity and Constant Contract.</li> </ul>
34 0.586328	0.800456 Cisco 6d:a0:18	Broadcast	882.11	255	60 -41 dBe	Beacon frame, SN-256, FN+0, Flags+C, 81+100, SSID+"wif16E test"	<ul> <li>Auth tay Recognent (ADR) Softe: 00:01:sc (Lees B02.11) and (SH2BE-SofteB)</li> </ul>
15 @.525123	0.020139 Claco_6d(a0)18	Broadcast	802.11	112	80 -41 dist	Probe Response, Di+267, File0, Flags+	Auth Key Management (A0%) Oul: 00:0Fiac (leve M02.11)
36 0.545728	0.020607 Cisco 6d:a0:18	Broadcast	802.11	322	80 -40 dbs	Probe Response, Shubik, Floid, Flags+	Auth Key Management (ARM) type: MMA (SMARM-Suited) (12)
37 (8.566216	0.000488 Cisco di a8:18	Broadcast	982.11	812	80 -40 dist	Probe Resource, 50x260, Flad, FlagssC. 81x100, 5512x"vified test"	V MSA Capabilities: exemes
18 0.165754	0.020538 Claco 6f:a0:18	Broadcast	802.11	112	80 -60 dbs	Frobe Response, Sky270, Field, Flags+	
10 0.687115	0.000361 Cisco dd:a0:18	Broadcast	892.11	155	40 -40 the	Bearry frame, 50x271, FileR, Flamis,C, 81x100, 5510x"hd fi5E test"	
48 8.627611	0.000006 Claco dd:a0:18	Broadcast	897.11	112	80 - 30 dbs	Prote Response, 98+272, Field, Flags	10 + KSN PTKSA Replay Counter capabilities: A replay counters per PTKSA/GTKSA/STAKeySA (Br2)
43 8.642908	0.000187 Clara df:ai:18	Broadcast	882.11	312	10 -40 101	Probe Rennorme, Sky271, Floid, Flagss	
41 9.666633	0.000633 Cisro 64:a0:18	Broadcast	882.11	112	40 - 40 dbs	Probe Renounce, Mo274, Flore, Flagss	Management Frame Protection Required: Inver
44 0 688057	8.809126 Claro di al:18	Broadcaut	802.53	11.2	412 - 112 cline	Proba Sannonca, Shally, Phill, Flama, f. 21-100, CCDs,"ud-Fiel taut"	
45 8 781471	0 000514 Clars 41-ab-18	Broadcast	882.51	045	40	Baseros deune Sho235, Bladt Flames, C. Bladdb, SSIDa Solditiet tast"	
46. 0. 730006	8.80805 Clara At al:18	Broadcast	802.11	817	60 - 10 dist	Dube Bannotes Sho777 Blad. Flams. 7. El-100. Ulth"-offici tast"	
47 0.750003	a sonie? Claro di al la	Broadcast	802.55	112	10 - 10 dia	Probe Batacone, Sho778, Had, Flarts,	
48 0.730000	8.639436 Clara ddia8-18	Bonadicant	802.11	112	#12 - 10 dbs	Drobe Bernstein Oliv770 Hild Flame / Bl-100 UCh-"office Bert"	PMSD Count ( 0
49.0.204.000	a station frace directly	Bassadraut	Mark 14	24.4	ALC - 102 - 100	Books Resources On-Nill Days Planes, P. 87-540 1070-5-52122 Reset	P9820 L5st
AN ALLEY	a source class do shift	prosocars.		100	10 10 10	From Reporter, Second, range, range, rest, Barano, Soure atrans, test	> Group Ranagement Cipher Suite: 00:0fiac (Ieee 802.11) 81P (GWC-256)
50 0.8119/2	a scales field at white	Broadcast.	802.11	255	10 -10 cm	Beach vise, sector, ree, rager	7 THE LEGIS CHEF EXHIBIT BELTER ON WESTER
54 0.03122	e.easible claco_incaecia	BP GROCARS	100x - 2.2	244	NO - 29 COM	Proce Response, Server, read, rings	> Tag: HM Enabled Capabilities (5 octets)
55 0.852936	a compare classe do ato 18	STOROLETT.	802.22	144	42 - 32 554	Prior Response, Small, Park, Finger	> Tag: Extended Capabilities (11 octets)
54 0.873536	0.020000 C15C0_00100115	BPOACCEIT	802.11	312	89 - 39 004	Probe Response, SH-284, Field, FlagsC, 82+380, 5520+'957286_test'	> Tag: Tx Power Envelope
55 0.893960	e.euess cisco_dd:a0138	prostosist	802.11	512	10 -40 004	Probe Response, SW-285, Party, Flags+C, 82+100, 553D+"x6F166_fest"	> tag: tx Power Envelope
58 @.934556	e.euener cisco_dd:a0:18	Broadcast	802.11	155	ep -as das	Beacon Frame, SMedBh, FRAME, Flags+C, Bl+100, SSID+"w1F16E_text"	> but tag: Multiple BSSD Configuration
57 -0.934957	w.wwww.cisco_dd:a#:18	Broadcalit	892.11	512	10 -40 dbs	Probe Response, SHV267, FRed, FlagsC, 81+380, 5510-"x57166_5est"	> but lar: HE Ganabilities
58 0.955226	e.eueuee cisco_6d:a0:18	Broadcast	802.11	312	80 -40 dbs	Probe Response, 39+288, FIHH, Flags+C, 82+380, SSID="sdf166_test"	) full fact till Diversifian
68 0.975699	0.020473 Cisco_dd:a0:18	Broadcast	802.11	322	80 -68 dbs	Probe Response, 59+289, FM+0, Flags+C, 82+180, 5530+"wdF182_text"	> Drt Tag: Spatial Boune Parameter Set
65 0.996193	0.020404 Cisto_6f:00:18	Broadcast	882.11	312	89 -40 084	Probe Response, SN+200, FM+0, Flags+C, 82+100, SSI2+"x6F166_test"	b. dut Tarr Hi ITCA Parameter Set
62 1,017136	0.020543 Cisco_dd:a0:18	Broadcast	802.11	255	80 -40 dbt	Beacon Frame, SW-251, FW-0, Flags+C, 81+100, SSID+"wifist_test"	> for fair H & for Bod Conditing

WPA3 Enterprise SUITEB192-1x balises

# Ici, nous pouvons observer les clients Wi-Fi 6E associés :

#### Intel AX211

Connexion OTA avec accent sur les informations RSN du client :

No.	Time	Delta	Source	Destination	Protocol	Length Cha	nnel Signal strength	BSS 1d	Info	> Frame 17873: 116 bytes on wire (BUB bits), 115 bytes captured (BUB bits) on interface 'Device'
	17760 13:51:37.057843	0.0151	72 IntelCor_98:58:04	Broadcast	802.11	216	64 -39 dlin	#:#:#:#:#:#	Probe Request, S0+352, F8+0, Flags+C, S520+"hdf56E_text"	> Ethernet II, Src: Cisco_d2:97:47 (74:11:b2:d2:97:47), Dst: Universa_b7:cf:06 (00:5a:00:b7:cf:06)
	17780 11:51:37.332635	0.2753	02 192.168.1.15	192.368.1.121	882.11	76	69 -44 dlim		Clear-to-tend, #lagsC	Intervet Protocol Version 4, Sec: 192,168.1.15, Ost: 192,168.1.121
	17801 13:51:37.355711	0.023	76 IntelCor 98:58:00	Cisco dd:a0:18	882.11	26	60 -44 dBm	00:df:1d:dd:a0:10	Authentication, SN+7, FN+8, Flags	> User Datagram Protocol, Src Port: 5555, Dot Port: 5000
	17632 13:51:37, 355711	0.000	00 192.168.1.15	192.168.1.121	882.11	76	69 -37 dBe		Acknowledgement, FlagsC	> ASroheek/OmSheek encapsulated DEEL 882.11
	17833 13:51:37.359876	0.0041	65 Cisco dd:a0:10	IntelCor 98:58:0f	882.11	96	69 - 57 dBm	00-df:1d-dd:a0:18	Authentication, SN+20, FN+0, FlamsC	> 882.11 radio information
	17615 11151-17. 100482	0.000	in IntelCor IN-Sales	Claro Atlanta	882.11	252	60 -45 dla	minute 14-bit alt-18	Association Respect, One. High Flares	✓ 1882 802.11 QoS Data, Flags:F.C
	17KM 11151-17 Mang2	0.000	107 108 1 15	202 168 1 121	887.11	26	60 -17 dla		Arizonal element flast, f	Type/Subtype: QoS Data (8x00028)
	17638 11151117, 100129	0.000	AT Intelfor 98 No.64	Broadcast	LLE	114	60 -17 dla	00-6615-641-00-10	T.R. MURL-MR. MUSL-221 DIAR BUIL Genon. CORP. Build Residence	> Frame Control Field: 0x8802
	17820 13151-17.177544	0.007	05 Flace disal-18	Intalfor DEISEDF	807.11	211	60 -17 dla	all AFTA AT AT AT	Association Response Old Blad Flams	.000 0000 0100 1100 - Duration: 76 microseconds
	17841 33-53-17 175444	0.000	100 100 100 1 15	200 100 1 100	NOC 13	24.7	60 - 17 clas	eeror isonoo teetse	housest to and flam.	Receiver address: IntelCor_98:58:0F (28:6b:35:98:58:0F)
	Then an or other	0.000	No line divisit	IntelCon Strate	500-11	200	60 - 17 day	40-40-54-64-64-54	headen for sense and the	Transmitter address: Cisco_dd:a0:18 (00:df:ld:dd:a0:18)
	ATOMA ANTINATION AND A	0,000	No Casco do de la	First divisiti	CARD .	200		Mercer - percent allerand	The second	Destination address: IntelCor_98:58:07 (28:00:35:98:58:07)
	ATTEN ANTICAL AT AMOUNT	10.000	and and the 1 he	200.001.001.001.00	BACK 23		40 - 11 - Mar.	101.017.120.001.00.00	Alan Asland Plant C	Source address: Clsco_dd:a0:18 (40:df:1d:dd:a0:18)
	1/948 13151137.4006/8	0.000	00 102.108.1.15	192.168.1.121	882.11		609 -317 CBM		acondutegenere, Flagov	BSS Id; Cisco dd;a0:18 (00:df;3d;dd:a0:18)
	1/849 13:51:37.489431	0.001	53 102.168.1.15	192.168.1.111	802.11	84	69 -37 clim		Request-to-send, Flags+	STA address: IntelCor 98:58:0F (28:66:35)98:58:0F)
	1/851 13:51:37.408572	0.000	A1 C15c0_00:M0:18	14041C0r_98:58:04	LAP	209	69 -37 clast	00007120000180128	Request, Loentity	
	17855 13:51:37.425798	0.017	26 IntelCor_98:58:84	Cisco_dd:a0:38	LAP	137	69 -49 dBm	00:df:1d:dd:80:18	Response, Identity	0000 0000 0011 + Sequence surber: 3
	17856 13:51:37.425798	0.000	00 192.188.1.15	192.168.1.121	882.11	76	69 -37 dBe		Acknowledgement, Flags+C	Frame check sequence: 0x000000000 [unverified]
	17858 13(51)37,425952	0.0003	54 IntelCor_98:58:0f	C1sco_03:30:38	LAP	137	69 -48 dbm	00009134008138	Response, Identity	1075 Stature (Insertified)
	17859 13151137,425952	0.000	00 192.168.1.15	192,168.1.121	882.11	76	69 -37 000		Acknowledgement, Flags+C	Day Control : Bullet
	17861 13:51:37.458271	0,032	19 192.168.1.15	192.368.1.121	882.11	82	69 -37 dbs		Request-to-send, Flags+C	A logical stak fractional
	17863 13:51:37.458271	0.000	00 Cisco_dd:a0:18	IntelCor_98:58:0f	EAP-	110	69 -37 dbs	000dFr3doddra0158	Request, TLS EAP (EAP-TLS)	W Net Carl Carl
	17866 13:51:37.469689	0.035	18 192.168.1.15	292.168.1.121	882.11	76	69 -48 dbs		Clear-to-send, FlagswC	
	17868 13:51:37.486723	0.0255	02 192.168.1.15	192.168.1.121	802.11	76	69 -37 clim		Acknowledgement, Flags+C	provide proc. In previous street and a street street and a street
	17869 13:51:37.487783	0,005	62 IntelCor_98:58:84	C1sco_dd:a0:18	TL5v1.2	365	60 -48 d8m	00:df:16:dd:a0:18.	Client Wello	110 110 10 10 10 10 10 10 10 10 10 10 10
	17870 13:51:37.487783	0.000	00 102.168.1.15	192.168.1.121	802.11	76	69 -37 dim		Acknowledgement, Flags+C	) 550° (940° (840)
	17971 13:51:37.497138	0.0093	55 192.168.1.15	192.168.1.121	802.13	82	69 -37 dBm		Request-to-send, Flags+C	Control Field 0, Func-ol (Wells)
	17973 13:51:37.498652	0.0055	14 Cisco dd:a0:18	IntelCor_98:58:0f	ENP	3336	60 -37 dBn	00:df:1d:dd:a0:18	Request, TLS EAP (EAP-TLS)	(NN, NY, = Command) Unumbered Enformation (doub)
	17875 13:51:37.500459	0.003	07 IntelCor 98:58:04	Clisco dd:a0:38	EAP	110	69 -48 dBm	00:df:1d:dd:a0:18	Response, TLS EAP (EAP-TLS)	
	17876 13:51:37,580459	0,000	00 192.168.1.15	292.168.1.121	802.11	76	60 -37 d8m		Acknowledgement, Flags+C	organization code: de:de:de (D+Ficially Xerox, but
	17877 13:51:37.504792	0,002	88 192.168.1.15	292.168.1.121	802.11	82	69 -17 dbs		Request-to-send, FlagsC	Type: B02.1X Authentication (Bx888e)
	17879 13:51:37.585493	0.000	W1 Cisco ddia0:18	IntelCor 98:58:0F	TLSv1.2	489	60 -17 dbs	001dF1581d81a8158	Ignored Unknown Record	<ul> <li>BE2.1X Authentication</li> </ul>
	17883 13:51:37.518581	0.0110	88 IntelCor 98:58:0F	Cisco dd:a0:18	EAP .	116	69 -48 dBe	001dF11d1d1a0118	Response, TLS (AP (EAP-TLS)	Version: 802.1X-2010 (3)
	17884 13:51:17.518581	0.000	00 192,168,1,15	192.168.1.121	892.11	76	60 -17 dla		Acknowledgement, Flague,	Type: LAP Packet (8)
	17885 13:51:37.522955	0.000	74 192, 168, 1, 15	192,368,3,121	802.11	82	60 -18 dla		Request-to-send, Flags,	Length: 1813
	17887 13:51:37.522955	0.000	OR Ciaco ddia8:18	IntelCor 98:55:64	EAP	110	60 -37 dla	Wedfeldeden 10	Request, TLS LEP (LEP-TLS)	✓ Extensible Arthentication Protocol
	17889 13:51-17.523974	0.003	to IntelCor SE-NE-M	Claro di all'18	D.5v5.2	0.04	60 -48 dla	Widdrid-Minking	Cartificate: Client Key Euchanne, Cartificate Verify, Channe Cinher Sner, En	Code: Request (1)
	17000 11-51-57 579074	0.000	NO 102 142 1 15	190 168 1 171	887.11	- 26	60 . X7 dile		Arizon Jacksmark (Tartin C	14: 98
	17003 11-51-17 570030	0.000	He 107 168 1 15	200 248 2 271	847.73	82	60 - 17 dile		Report to and Dates /	Length: 3852
	17000 110111 57000	0.000	OS Class de altra	Tate Tree Division	TLOWD D	141	40 - 17 dila	ALC: 10121-0121-0121-012	Change Cables Test, Encounted Standalation Manager	Type: TLS EAP (EAP-TLS) (23)
	THE STREET	0.000	10 101 108 1 10	101 148 1 111	887.77		400 - 200 ulder	00.07.20.00.00.20	Arban Johnson Dates /	✓ LAP-TLS Flags: 0xc0
	1000 1101 1100000	0.000	AN AND AND A AT	172.100.1.1e1	000.00				floor to used bloom of	1
	1/899 13:51:37.539457	0,000	4/ DV-106-1-15	192.100.1.141	002.11	10	69 -46 000		Canar-to-seno, Fangosconte	.1 + More Fragments: True
	1/041 13(51)3/150003/	0.01/0	88 192-198-1-19	392-108-1-141	802.33	10	10 - 38 000		ActionLeagueent, Flagsvilling	
	1/342 13(51)37,556624	0.0000	st inteacor_seiserer	£1500_000.80128	Ler	220	50 -40 000	WORK (20000 (20) 25	sesponse, it's the (the-it's)	EAP-TLS Length: 1383
	17983 13:51:37.556624	0.000	60 192.168.1.15	192.168.1.121	862.11	29	69 -38 dBn		Acknowledgement, FlagseC	
	17986 13:51:37.586732	0.030	88 192.148.1.15	192.168.1.121	802.11	79	69 -38 dBH		Acknowledgement, Flags+C	
	17948 13151137.592524	0.000	92 192,168,1.15	192.168.1.121	802.11	- 79	60 -18 d8n		Clear-to-send, FlagueC	
	17965 13:51:37.688659	0.8175	35 192.168.1.15	192.168.1.121	802.11	76	69 -38 dBn		Acknowledgement, Flags+C	
	17967 13:51:37.618008	0.001	49 192.168.1.15	192.168.1.121	802.11	82	69 -38 dBn		Request-to-send, FlagsC	
	17969 13:51:37.638472	0.000	64 Cisco_dd:a0:18	IntelCor_98:58:0f	ENP	288	69 -38 dBe	00:df:1d:dd:a0:18	Success	
	17971 13:51:37,611308	0.000	06 192.168.1.15	192.168.1.121	882.11	82	69 +37 dBm		Request-to-send, Flags+C	
	17973 13:51:37.611446	0.0003	38 Cisco_66:80:18	IntelCor_98:58:0f	ENVOL	221	69 +37 d8m	00:df:1d:dd:a0:18	Key (Message 1 of 4)	
	17975 13:51:37.621381	0.000	05 IntelCor_98:58:84	Cisco_061a0138	ENKL	346	69 -49 dBm	00:0f:1d:0d:00:18	Key (Message 2 of 4)	
	17976 13151:37.621381	0.000	00 192.168.1.15	292.168.1.121	802.11	76	69 -38 dBn		Acknowledgement, Flags+C	
	17900 13151:37.630913	0,009	32 192.168.1.15	392.168.1.121	882.11	82	69 -17 dBs		Request-to-send, Flags+C	
	17982 13:51:37.631510	0.000	07 Cisco_dd:a0:18	IntelCor_98:58:0f	EAVOL	423	69 -17 dBs	001dF13d1dd1a8138	Key (Nessage 1 of 4)	
	17994 13:51:37.632421	0.0001	11 IntelCor_98:58:04	Cisco_dd:a0:18	ENVOL	299	69 -49 dBs	00:df:1d:dd:a0:18	Key (Hessage 4 of 4)	
	17985 13:51:37.632421	0.000	00 192.168.1.15	292.168.1.121	802.11	76	69 -37 dBs		Acknowledgement, FlagsvC	

WPA3 Enterprise avec association EAP-TLS avec client Intel AX211 et informations RSN

### Et l'échange EAP-TLS :

No.	Time	Delta Source	Destination	Protocol	Length Channel	Signal strength	BSS 1d	Info	Frame 17875: 110 bytes on wire (#00 bits), 110 bytes captured (#00 bits) on interface 'Device'/09F_0
	17768 11:51:37.057843	0.015572 IntelCor 98:58:0F	Broadcast	802.11	236 6	4 -10 dis	H:H:H:H:H:H	Probe Request, SN-352, FN-0, FlagsC, 5510+"wifing test"	) Ethernet II, Src: Class_d2:97:47 (74:11:b2:d2:97:47), Out: Universa_b7:cf:06 (08:1a:88:b7:cf:06)
	17780 11:51:17.332635	0.275592 192.168.1.15	\$92.168.1.121	802.11	26 6	9 -44 dis		Clear-to-send, Flags+C	1 > Internet Protocol Version 4, Src: 192.168.1.15, Dit: 192.168.1.121
	17831 13:51:37.355711	0.023076 IntelCor 50:58:0F	Cisco dd:a0:18	802.11	56 6	9 -44 dim	Windfildidd:a0:10	Authentication, S0+7, F0+0, FlagssC	> User Datagram Protocol, Src Port: 5555, Dat Port: 5880
	17812 13:51:37.855711	0.000000 192.158.1.15	192.168.1.121	882.11	75 6	9 -37 dBm		Acknowledgement, FlagssC	> AbroPeek/OmtSPeek encapsulated IEEE 882.11
	17853 13:51:37.359876	0.004165 Cisco_dd:a0:18	IntelCor_SH:SH:M	882.11	36 6	9 -37 dBe	00:df:1d:dd:a0:18	Authentication, SN+20, FN+0, Flags+C	> M2.11 ratio internation
	17835 11:51:37.368682	0.000006 IntelCor_96:58:00	Cisco_dd:a0:18	882.11	252 6	9 -45 d84	00:df:1d:dd:a0:18	Association Request, SN+8, FN+9, Flags+C, SSID+"wif166_test"	> INE MULTI QOS DATA, Flags:TC
	17836 13:51:37.360682	0.000000 192.158.1.15	192.168.1.121	882.11	76 8	9 -37 dBH		Acknowledgement, FlagsC	<ul> <li>Logical-Link Control</li> </ul>
	17838 13:51:37.369329	0.008647 IntelCor_98158:0F	Broadcast	LLC	334 6	9 -37 dBH	0000F13d0ddsa0c38	1 P, N(8)=48, N(5)=21; DSAP Bc36 Group, SSAP BxF2 Response	CSAP: SNP (eca)
	17839 13:51:37.371564	0.002235 Cisco_dd:a0:18	intelCor_98:58:04	882.11	32.5 4	9 -37 dBs	001dF11d1d1a0118	Association Response, SN+0, FN+0, Flags+C	Data bit. • Swe Swe
	17841 11:51:17.371564	0.000000 192.168.1.15	192.168.1.121	802.11	82 6	0 -37 dim		Request-to-send, Flags+C	
	17843 11:51:37.371564	0.000000 Cisco_dd:a0:18	IntelCor_SH:58:04	EAP .	109 6	0 -37 dim	00:df:3d:dd:a0:18	Request, Identity	3 354FT SNP (BUB)
	17847 13:51:37,406678	0.035114 IntelCor_90:58:00	Cisco_dd:a0:18	LAPOL	385 6	9 -46 dim	00:df:10:dd:a0:18	Start	Control F1915: 0, Funceus (Meet)
	17648 13:51:37.486678	0.000000 192.158.1.15	192.168.1.121	892.11	76 8	9 -37 dim		Acknowledgement, Flags+C	det, etc., e construct or promotion (control
	17840 13:51:37.408431	0.001753 192.108.1.15	192.168.1.121	882.11	12 6	0 -37 dbm		Request-to-send, Flags+C	Contract of the second se
	17851 13:51:37.408572	0.000141 Cisco_dd:a0:18	IntelCor_98:58:0f	L/P	189 6	9 -37 dBm	00:df:10:dd:a0:18	Request, Identity	Time with the second control (second control of the second control
	17855 13:51:37.425798	0.017226 DrtelCor_98158:00	Cisco_dd:a0:18	EAP	137 6	9 -49 088	001df13d1dd100138	Response, Identity	1 Martin Martin Martin (Martin (Martin)
	37856 13:51:37.425798	0.000000 192.168.1.15	292.168.1.121	882.33	26 6	9 +37 dBe		Acknowledgement, Flags+C	United and the state of the sta
	17658 13:51:37.425952	0.000154 IntelCor_98:58:0F	Claco_Ad:a0:18	EAP	137 6	9 -48 dbs	00:0F13d:dd:a0:38	Response, Identity	Toras (AP Defast (A)
	17859 13:51:37.425952	0.000000 192.168.1.15	292.168.1.121	802.33	28 4	9 -37 dBe		Acknowledgement, Flags+C	Leasth's 6
	17861 13:51:37.458271	0.032319 192.168.1.15	292.168.1.121	802.13	82 6	9 -37 dile		Request-to-send, Flags+C	Fotostille Adhestication Protocol
	17863 13:51:37.458271	0.000000 Cisco_dd:a0:18	IntelCor_98:58:04	ENP	138 6	9 -37 dBm	00:df:1d:dd:a0:10	Request, TLS EAP (EAP-TLS)	Code: Response (2)
	17956 13:51:37.469889	0.011618 192.168.1.15	192.168.1.121	882.11	76 6	9 -48 dBe		Clear-to-setd, FlagsC	101 102
	17868 13:51:37.486721	0.035832 192.158.1.15	192.168.1.121	882.11	76 6	9 -37 dBH		Acknowledgement, Flags+C	Learth: 6
	17869 13:51:37,467763	0.002052 IntelCor_S8:58:0F	Cisco_dd:a0:18	1L5v1.2	365 6	9 -48 088	00000110000108	Client Hello	Type: 115 EAP (EAP-TUS) (21)
	17870 13:51:37.467783	0.000000 192.188.1.15	192.168.1.321	882.11	78 4	9 -37 084		Acknowledgement, Flags+C	✓ £49-115 \$1am: 0x00
	17871 13:51:37.497138	0.069355 192.168.2.15	192.168.1.121	882.11	12 1	9 -37 (898	101100-000-000-0	Request-to-send, Flags+C	0 = Length Included: False
	1/8/3 15:51:37.4/8652	0.001514 C1500_00140118	1006100-38198184	LAP	1136 6	9 -17 200	00009120000180128	Repett, ILS DP (DP-ILS)	.0., = Nore fragments: False
	1/8/5 11:51:37.500499	0.001007 Intelcor_perserve	CLSCO_00139718	DP	120 0	9 -48 000	00000110000180018.	Response, ILS EAP (EAP-ILS)	Start: False
	ATRIC ASSALST. SEARCH	0.000000 102.108.1.15	100 Log 1 515		12 3	0 17 000		Reconcilent and Press of	
	17879 10:51:37.598/92	B BERTH Cites dealers	192.199.1.121 TakeVier 08:18:64	Dig. 14	400	0 - 37 000	00-01-04-04-08-19	Tational Universe Record	
	VIEW INCOME.	a stimul totaline della del	Class disk 18	100	116	5 - 10 - 10e	BRIDE TRIAL BRIDE	Barranan TIS 640 (140.TIS)	
	VIEW ADDALOT STREET	a annun 101 144 1 15	101 168 1 111	887 11		0	And a calculation of the case	trino defensant Pass.	
	17885 11/51/37.521955	8.083174 107.168.1.15	282.368.3.321	882.11	10	0 -10 -00		Report to send. Flags	
	17887 11:51:17.521965	8.000000 Cisco ddiabil8	Intelfor OK:58:04	142	138 6	0 -37 dile	0010613-0101-00128	Request, TLS FAP (FAP-TLS)	
	17689 11:51:37.523934	0.000010 intelior 10:58-07	Cisco ddtail:18	RISV1.2	938 6	9 -48 (8)	0010F13d1dd1a8-18	Certificate, Client Key Exchange, Certificate Verify, Change Clober Spec. In	
	17890 11:51:17.521976	0.000000 192.168.1.15	292,168,1,121	882.11	75. 4	9 -17 dim		Acknowledgement, Flags	
	17893 13:51:37.528808	0.000056 192.158.1.15	592.368.3.321	802.11	82 6	9 -37 dBm		Request-to-send, Flags+C	
	17895 13:51:37.528355	0.000025 Cisco dd:a0:18	IntelCor 98:58:07	7L5v1.2	161 6	9 -37 dBm	00:df:1d:dd:a0:18	Change Cloher Spec, Encrypted Handshake Hessage	
	17898 13:51:37.554858	0.006455 192.168.1.15	192.168.1.121	882.11	26 4	9 -38 dBe		Acknowledgement, Flags+C	
	17899 13:51:37.539457	0.004647 192.168.1.15	192.168.1.121	862.33	26 6	0 -48 dBe		Clear-to-send, Flags+C	
	17905 13:51:37.556537	0.017080 192.168.1.15	292.168.1.121	892.11	26 6	9 -38 484		Acknowledgement, Flags+C	
	17902 13:51:37.556634	0.000087 IntelCor_98158:0F	\$5.900_dd(a0):18	LAP	138 6	0 -49 -084	0016F156168108128	Response, TLS EAP (EAP-TLS)	
	17903 13:51:37.556624	0.000000 192.168.1.15	292.168.1.121	882.11	26 4	-18 dim		Acknowledgesent, Flags+C	
	17906 13:51:37,586732	0.030108 192.168.1.15	392.168.3.121	882.11	76 6	9 +38 dBm		Acknowledgement, Flags+C	
	17908 11:51:37.591524	0.000792 192.168.1.15	292.168.1.321	882.33	76 6	9 -38 dBm		Clear-to-send, FlagssC	
	17965 11:51:17.608659	0.017135 192.168.1.15	192.168.1.321	882.33	76 6	9 -38 dBm		Acknowledgement, FlagsC	
	17967 13:51:37.610408	0.001749 192.168.1.15	192.168.1.121	882.13	#2 6	0 -38 dBe		Request-to-send, Flags+C	
	17969 13:51:37.610472	0.000064 Cisco_6d:a0:18	IntelCor_98:58:0f	EAP .	186 6	9 -38 dBH	00:df:10:60:00:18	Success	
	17971 13:51:37.611308	0.000036 192.168.1.15	292.168.1.121	892.15	82 6	9 -37 488		Request-to-send, Flags+C	
	17973 13:51:37.611446	0.000138 C1sco_dd(#0:18	IntelCor_98:58:64	EAPOL.	225 4	9 -37 d8#	00145134104148138	Key (Message 1 of 4)	
	17975 13:51:37.621381	0.009935 IntelCor_98158:04	C16(0_601a0/18	LAPOL	346. 6	9 -49 (88	00107130100138	Key (Ressage 2 of 4)	
	17976 13:51:37.621381	0.000000 102.168.1.15	332.168.1.121	862.13	75 6	9 -38 088		Acknowledgement, Flags+C	
	17980 13:51:37.630913	0.000532 102.558.1.15	292.168.1.121	802.33	82 8	9 -37 038		Request-to-send, Flags*	
	17982 13:51:37.631530	0.000507 Clsco_dd:a0:18	2nte2Cor_98:58:64	DAPOL.	421 6	9 -37 038	00:07:15:dd:a0:18	Key (Ressage 3 of 4)	
	1/986 13:51:37.652621	W. MARYLL LINE SLOP_98:58:38	C1500_00:30:18	LANCE	114 6	9 -40 Cash	Mecor:10:00180:18	key (ressage e of e)	
	1/980 13:51:57.652421	0.000000 102.168.1.15	192.100.1.121	B02.11		0 -37 000		According to and them of	
	17900 13:31:37.500L/0	a papaga first beide br	Taxalfor, DE-DE-DE	110	102			C August - 10- 1000, Fangle - 1111 Mar Musicana - 1000, 1000, Barthara	
	17900 12:51:37.0401/0	a append there being the	Intel/or SECORD	110	182		Minder School and State	5. F. Suprather billion (1996) war an met mendement uroup, sow war hesponse	
	12004 12-53137 471538	0.011110 101 100 1 15	102.168.1.121	607 11		0 -17 dbs		Arizonal educator (Tama /	
	And And And And And Address				2010	000000000			

WPA3 Enterprise avec association EAP-TLS avec client Intel AX211 et EAP-TLS Focus

#### Détails du client dans le WLC :

Cisco Cisco Cata	yst 9800-CL Wireless Controller	Welcome admin 🛛 🕷 📽 🛕	Search APs and Clients
Q. Search Menu Items	Monitoring * > Wireless * > Clients	Client	
Dashboard	Clients Sleeping Clients Excluded Clients	360 View General QOS Statistics	s ATF Statistics Mobility History Call
Monitoring	× Delos	Client Properties AP Properties	1800 sec (Remaining time: 1172 sec)
Configuration	Selected 0 out of 1 Clients	Client State Servers Client ACLs	None None
€ Administration	Client MAC Address T IPv4 Address T IPv6 Address AP Name T SSD T WLAN D T Client Type	Client Entry Create Time Policy Type	628 seconds WPA3
C Licensing	O         2866.3598.5807         ≠         192.168.1.159         N/A         AP01_RC_9136_F80C         withEl_Next         5         WLAN           H         1         >         H         10         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         • <th>Encryption Cipher</th> <th>CCMP (AES)</th>	Encryption Cipher	CCMP (AES)
Y Troubleshooting		EAP Type	EAP-TLS
		Session Manager	1800
		Point of Attachment	capwap_9000000e
		IF ID Authorized	0x9000000E TRUE
		Common Session ID	0F01A8C00000001BC0D80D64
		Acct Session ID Auth Method Status List	0x0000000
		Method	Dot1x
		SM State SM Bend State	AUTHENTICATED
		Level Pelleles	The form

Détails du client WPA3 Enterprise avec EAP-TLS

#### NetGear A8000

WPA3-Enterprise n'est pas pris en charge sur ce client.

#### Pixel 6a

À la date de rédaction de ce document, ce client n'était pas en mesure de se connecter à WPA3 Enterprise à l'aide d'EAP-TLS.

Il s'agissait d'un problème du côté du client sur lequel on travaille et, dès qu'il sera résolu, le présent document sera mis à jour.

#### Samsung S23

À la date de rédaction de ce document, ce client n'était pas en mesure de se connecter à WPA3 Enterprise à l'aide d'EAP-TLS.

Il s'agissait d'un problème du côté du client sur lequel on travaille et, dès qu'il sera résolu, le présent document sera mis à jour.

Conclusions sur la sécurité

Après tous les essais précédents, voici les conclusions qui en résultent :

Protocol	Chiffrement	AKM	Chiffrement AKM	Méthode EAP	FT- OverTA	FT- OverDS	Intel AX211	Samsung/ Android
DEVOIR	AES- CCMP128	DEVOIR	S. O	S. O	S. O.	S. O.	Pris en charge	Pris en ch
SAE	AES- CCMP128	SAE (H2E uniquement)	SHA256	S. O	Pris en charge	Pris en charge	Prise en charge : H2E uniquement et FT-oTA	Pris en cha H2E uniqu Échec de Échec de oDS.
Entreprise	AES- CCMP128	802.1x- SHA256	SHA256	PEAP/FAST/TLS	Pris en charge	Pris en charge	Prise en charge : SHA256 et FT- oTA/oDS Non pris en charge : EAP-FAST	Prise en cl SHA256 e oTA, FT-o (S23) Non pris e charge : E FAST, FT- (Pixel6a)
Entreprise	GCMP128	Suite B-1x	SHA256- SuiteB	PEAP/FAST/TLS	Non pris en charge	Non pris en charge	Non pris en charge	Non pris e charge
Entreprise	GCMP256	Bureau B- 192	SHA384- Suite B	TLS	Non pris en charge	Non pris en charge	NA/À déterminer	NA/À déte

# Dépannage

Le dépannage utilisé dans ce document est basé sur le document en ligne :

## Dépannage des AP COS

La ligne directrice générale pour le dépannage est de collecter la trace RA en mode de débogage à partir du WLC en utilisant l'adresse mac du client en s'assurant que le client se connecte en utilisant l'adresse mac du périphérique et non une adresse mac randomisée.

Pour le dépannage Over the Air, la recommandation est d'utiliser AP en mode sniffer capturant le trafic sur le canal du client desservant AP.



Remarque : reportez-vous à <u>Informations importantes sur les</u> commandes <u>de débogage</u> avant d'utiliser les commandes de débogage.

# Informations connexes

Qu'est-ce que le Wi-Fi 6E ?

Qu'est-ce que le Wi-Fi 6 et le Wi-Fi 6E ?

Wi-Fi 6E en quelques mots

Wi-Fi 6E : le prochain grand chapitre du livre blanc sur le Wi-Fi

<u>Cisco Live : concevoir un réseau sans fil de nouvelle génération avec des points d'accès Wi-Fi 6E</u> <u>Catalyst</u>

Guide de configuration du logiciel du contrôleur sans fil Cisco Catalyst 9800 17.9.x

Guide de déploiement WPA3

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