

2 ةقبطال نام Wi-Fi 6E WLAN ناما نيوكت هنم ققحتلاو

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ةمدقملا

نوبز يل عقوقتم وه امو نام 2 ةقبطال Wi-Fi 6E WLAN لكشي ناما فيك ةقيثواذه فصيفي
فلتخم.

ةيساسال تابلطتملا

تابلطتملا

ةيلاللا عيضاوملاب ةفرعم كيدل نوكت نام Cisco يصوصت:

- Cisco 9800 (WLC) ةيكل لسان ل LAN ةكبش في مكحتل تادحو
- Cisco 6E Wi-Fi معةت يتل Cisco نم (APs) لوصول طاقن
- IEEE 802. 11ax راي عم
- 4.0.6 رادصل ال Wireshark : تاودال

ةمدختس مل تانوك مل

ةيلال ةي دام ل تانوك مل او جم ارب ل تارادصل ال دننتس مل اذه في ةدراول تامول عمل دننتس:

- WLC 9800-CL عم IOS® XE 17.9.3.
- APs C9136 و CW9162 و CW9164 و CW9166.
- ءالمع Wi-Fi 6e:
 - Lenovo X1 Carbon Gen11 عم AX211 Wi-Fi 6 و 6E لوجم عم رادصل 22.200.2(1).
 - NetGear A8000 Wi-Fi 6 و 6E لغيشت جم انرب عم v1(0.0.108)؛
 - Mobile Pixel 6a عم Android 13 لغيشت ل ماظن عم؛
 - Samsung S23 لوجم ل فاهل ل Android 13 لغيشت ل ماظن عم

ةصاخ ةي لم عم ةئي ب في ةدوجوم ل ةزهجال نم دننتس مل اذه في ةدراول تامول عمل عاشن ا م تنك اذ ا. (يضا رت ف ا) حوس مم نيوك تب دننتس مل اذه في ةمدختس مل ةزهجال عي مج تادب رم ا يال لم تحم ل ري ثات ل ل كم هف نم دكات ف ، لغيشت ل دي ق ك تكبش

ةيساس ا تامول عم

وه لب ، امامت اديج اراي عم سي ل Wi-Fi 6E نأ وه هت فرع م بجي يذال يسي ئرل ا عي ش ل (802. 11ax) Wi-Fi 6 ةيكل ل لاصلت ال راي عم ل ادادت ما اهتدعاق في Wi-Fi 6E ةكبش دع . دادت ما زتره اجي 6 غل بي يذال وي دارل ددرت يدم في (11ax).

Wi-Fi 6E ةزهجال نكلو ، Wi-Fi راي عم نم ليج ثدح ا دع يذال Wi-Fi 6 ل ع Wi-Fi 6E دم تعت زتره اجي 6 تاجوم يدم في لم عمل اهنكم في طقف Wi-Fi تاق يبطت و

امام Wi-Fi 6e

(OWE) يزاهت نا يكل سال ري فشت و (WPA3) Wi-Fi Protected Access 3 عم اني مات Wi-Fi 6E رفوي WPA2 و Open ني مات عم في ف ل خ قفاوت دجوي الو

ةراد ا راط ا Wi-Fi 6E بل طتي امك Wi-Fi 6e دام تعال نال ني مازل ل نسحم ل Open نام او WPA3 دع ي عمال عمل او لوصول ةطقن نم لك في (PMF) يحم

اهت يبلت بجي ةني عم نام تابل طتم دجوت ، زتره اجي 6 ددرت ب SSID نيوك دنع

- WPA3 L2 عم OWE او SAE او 802.1x-SHA256 نام ا
- ةي محم ل ةراد ل راط ا ني كم ت ؛
- نكم م طلت تخم عضو دجوي ال ي ، رخ ا L2 ني مات بولس ا ي ا ب حم سي ال

WPA3

امم WPA2، ربع لضعفأ ةقداصم نيكمت لال خ نم Wi-Fi نيمأت نيسحتل WPA3 ميمصت مت ةساسحلا تاكبشلا ةنورم نم ديزيو ةعسوم ريفشت ةوق رفوي.

WPA3 ل ةيسئيرلا تازيملا نمضتت

- تاراطل ريفشتب موقيو ثبل او يداحأل ثبل ةرادل تاراطل (PMF) يمحمل ةرادل راطل يمحلي للستل عنمو يكلسال للستل فاشتك ةمظنأ نأ ينعي اذهو. يداحأل ثبل ةرادل ليمعلا تاسايس ضرفل ةمشاغل ةوقل بيلاسأ نم لقأ ردقب زيمتت يكلسالل رورملا ةملك ىل ةدنتسملا ةقداصملا (SAE) نئيفاكتمل ةنمازتملا ةقداصملا حيتت ةمشاغل ةوقل تامجه نم يمحلي اذهو. ةساسأل ةيقافتال ةيلاو ال نذلءالمعلا ليصوتل WPA2 مادختس نكمي طلتخم عضو وه يلاقتنال عضولا WPA3 نوديؤي.

ليغشتلا ةيلباق كلذكو نيرمتسملا نينمأل قفاوتل او ريوطتل لوح WPA3 رودي ينبل.

تاعومجم ةطساوب WPA3 فيرعت متي. (WPA2 لثم) WPA3 نيعي تامولعم رصنع دجوي ال AKM/Cipher Suite/PMF.

كنكمي ةفلتخم WPA3 ريفشت تايمزراوخ 4 كيدل، 9800 مقر WLAN ةكبش نيوكت في اهامدختس.

زمر لوكوتورب عم دادعلا عضوو (GCMP) Galois (GCMP) يسكعلا عضولا لوكوتورب ىل دنستت GCMP128 و CCMP256 و AES (CCMP128) و (CCMP) ريفشتل ةلسلستملا لئاسرلا ةقداصم GCMP256 و:

WPA2/WPA3 Encryption

AES(CCMP128)	<input checked="" type="checkbox"/>	CCMP256	<input type="checkbox"/>
GCMP128	<input type="checkbox"/>	GCMP256	<input type="checkbox"/>

WPA2/3 ريفشت تارايج

دشحل

PMF نيكمت دنع WLAN ةكبش ىل ع PMF طيشنت متي.

نم ةيمحم نوكت ال يلاتلابو اهيلع قدصم ريغ 802.11 ةرادل تاراطل نوكت، يضا رتفا لكشب ةردقب (PMF) ةيمحمل ةرادل تاراطل (MFP) ةساسأل ةينبل ةرادل ةيامح راطل. لاحتنال 802.11w تامجهلا هذه لثم دض ةيامحل رفوت.

Protected Management Frame

PMF

Required

Association Comeback Timer*

1

SA Query Time*

200

PMF تاراڭخ

قداصملا حاتفم قرادا

17.9.x رادصا يف قحاتملا AKM تاراڭخ يه هذه

Auth Key Mgmt

SAE FT + SAE

OWE FT + 802.1x

802.1x-
SHA256

Anti Clogging Threshold*

Max Retries*

Retransmit Timeout*

PSK Format

PSK Type

Pre-Shared Key*

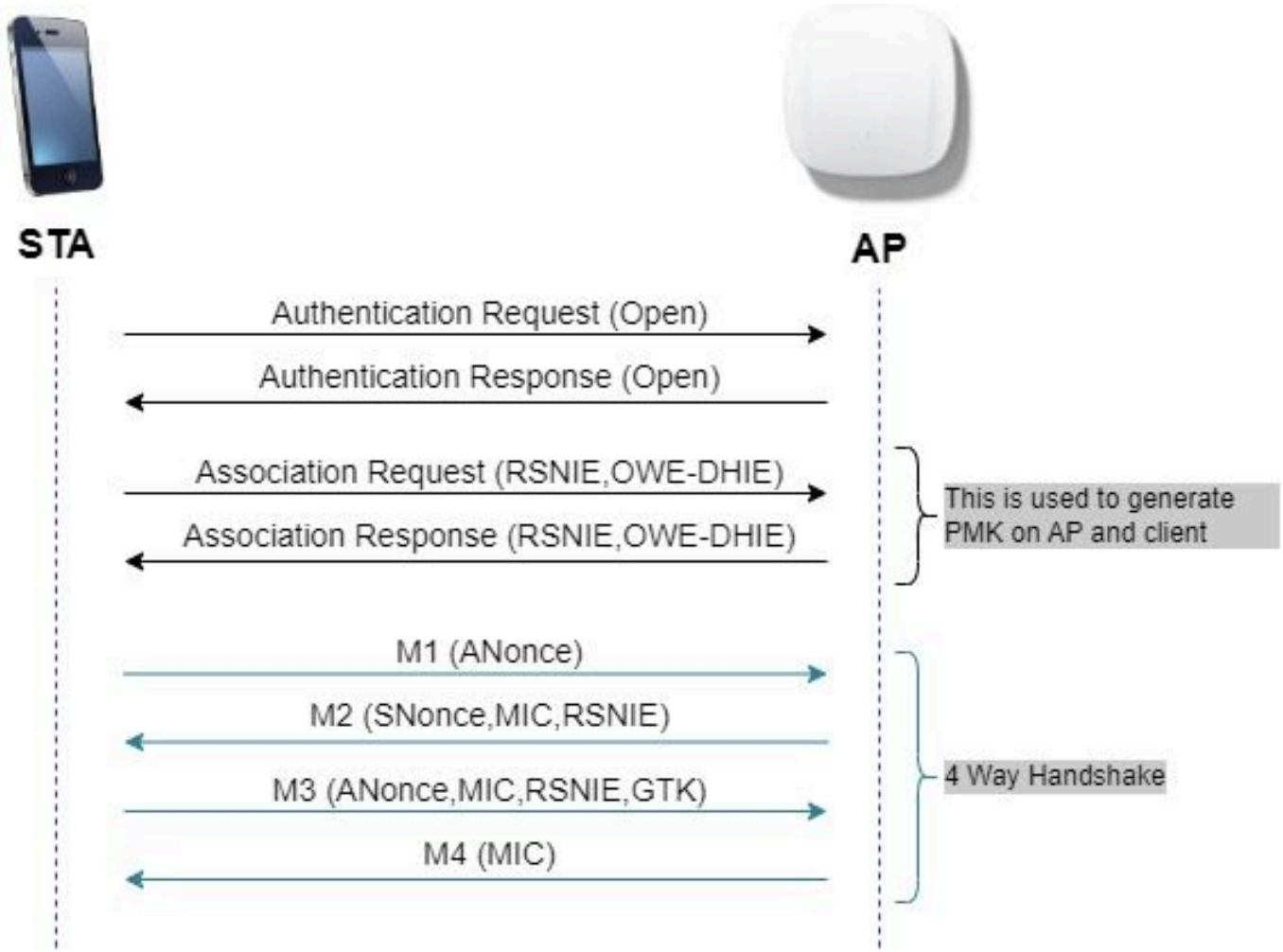
SAE Password Element 

AKM تاراڭخ

نن اداست

ري فشت ر فوي يذلا IEEE 802. 11 راي عمل دادتما وه (OWE) يزاهت نالاي كل سالال ري فشت لا بنجت وه OWE لى اذ ننت سمل ا قدا صملا نم ضرغلا ن ا (IETF RFC 8110) ي كل سالال طيسول ا مئاق ري فشت OWE مدختسي . ا لم عمل او لوصول ا طاقن ني ب نم آ ريغ ي كل سالال لاصتا حتف لي عمل موقوي ، OWE لال خ نم . ي كل سالال ري فشت لا دادع ا Diffie-Hellman تايمزراوخ لى ع ا حتفملا مادختسا او لوصول ا عارج ا نثا Diffie-Hellman حيتافم لدا بتب لوصول ا عطقنو OWE مادختسا يدوي . ا حتا ل ا ع ا برلا حفا صملا عم كل ذنع حتانلا (PMK) عم كحلل يسيئرلا

تاكبشالارشن اهيف متي يتالارشنالارشي لملعمل ةيكلسالال ةكبشالارنام انيسحت لىل
 لىل PSK. ةدنتسملال ةكرتشمال و ا ةحوتفملا



نويديل تاراطل لدابت

سفن

ةنمازتملال ةقداصلمال يمست ةديج حيتافم ةرادا ةيلا ةديج ةقداصلم WPA3 مدختسي
 (H2E) رصنع لىل SAE ةئجت مادختسلا لالخنم رثك ا ةيلا الال هذ زيزعت متي و .نبيواسملا

SAE م H2E ل يمازلل WPA3 و Wi-Fi 6E.

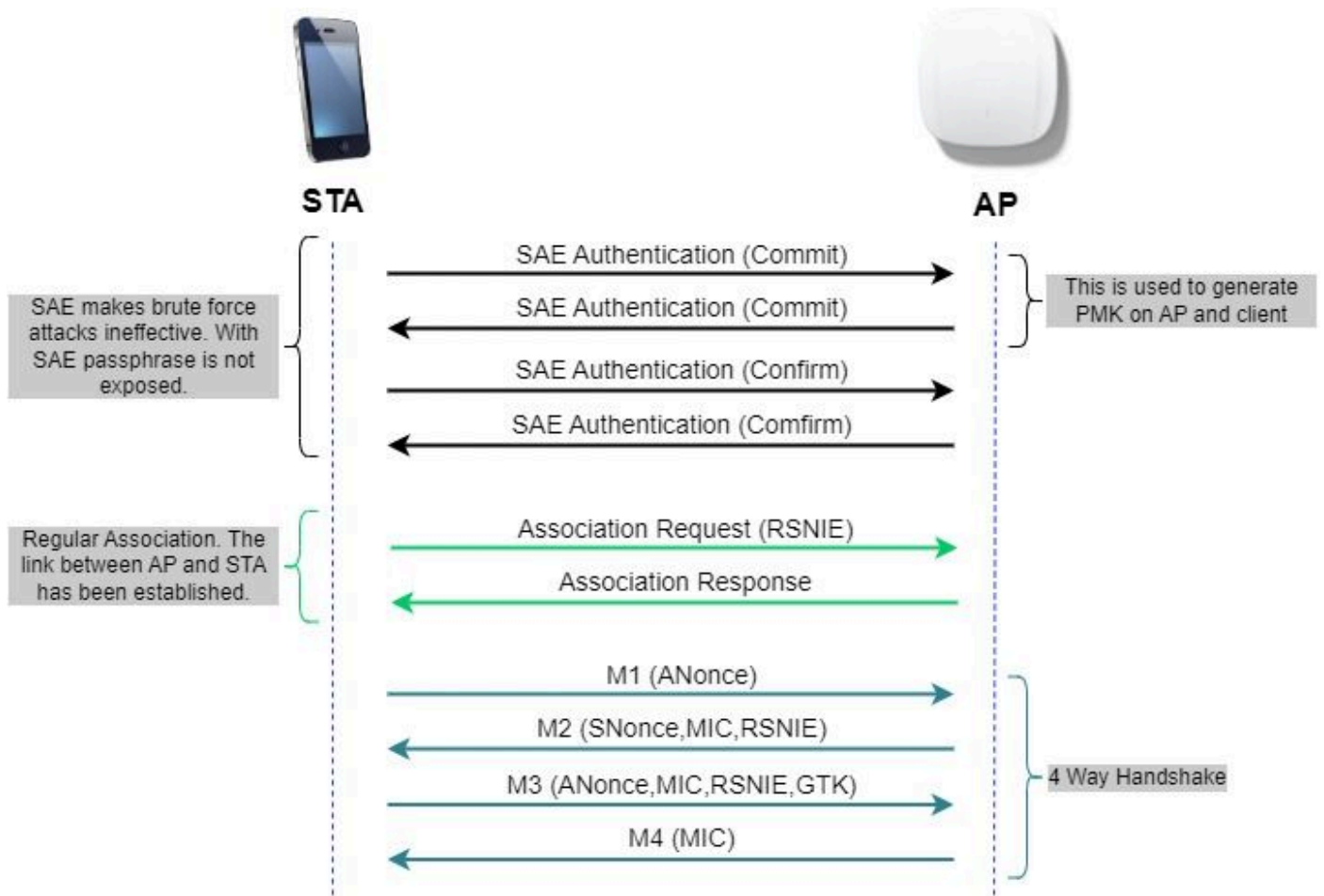
ةقداصلمال لىل يدوت ةقيرطب لاعف لدابت اعراجل لصفنم متيراغول ريفشت SAE مدختست
 لاصتاناود سوماقلا موجهل ةمواقم نوكت دق رورم ةملك مادختساب ةلدابتملال

رورم ةملك ديدحت مصخ هيف لواحي يذال ناكلمال وه تنرتنللاب لاصتاناود سوماقلا موجه
 ةكبشالارم لعافتال نم ديزملا نودب ةنكمملا رورملا تاملك ةلواحم قيرطنع ةكبشالار

لك ئشنتاهنإف ،تحنن اذو .SAE الدابت يرحي هنإف ،لوصولا ةطقنبل ليمعلا لصت يامدنع
 لوصولا ةطقنول ليمعلا لخدي .هنم ةسلجلال حاتفم قاقتشا متي يذلاو ،يوق رفشم حاتفم
 نادكؤي مامزتلالال لحرمل لىل ياساسلكشبل

ةرم لك يفي ديكأتلالتالاح لىل لاقتنالال لوصولا ةطقنول ليمعلا نكمي ،مازتالادوجو درجمبو
 نكمتي شيح هيجوتلال ةداعال ةيرسلا قيرطلال هذ مدختستو .ةسلجلال حاتفم عاشن ا هيف متي

يخبرنا كيف يتم الاتصال بين STA و AP.



SAE تاراطل لدابت

(H2E) رصنع ىلى ةئزجت

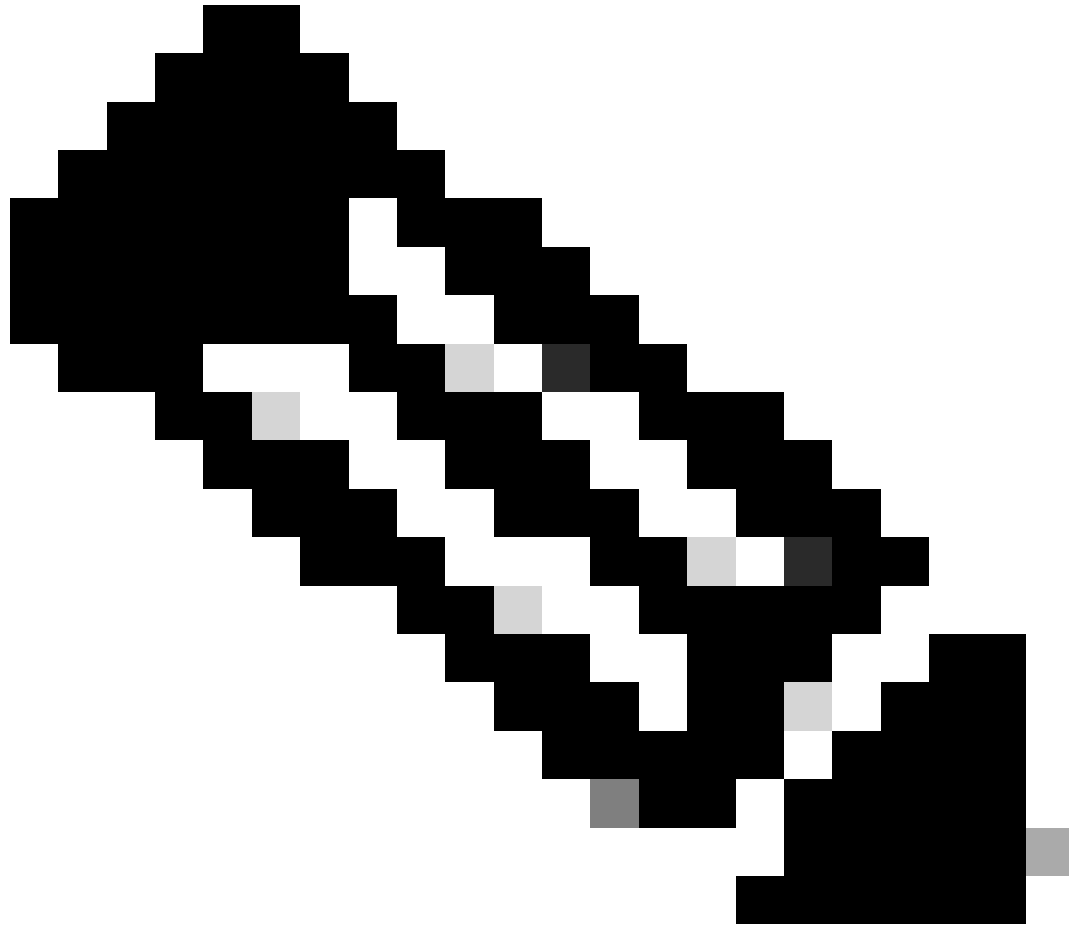
ةقيرطال هذه يف (PWE) ديدج SAE رورم ةملك رصنع ةقيرط يه (H2E) رصنع ال ىلى ةئزجت ال رورم ةملك نم SAE لوكوتورب يف مدختسمل يرسل ال PWE عاشن متي.

تناك اذا امم ققحتت اهناف، AP مادختساب SAE ةئيه تب H2E معدت (STA) ةطحم موقت ام دنع PWE صالختس ال H2E مدختست لوصول ةطقن ناف، معدن ةباج ال تناك اذا H2E معدت AP SAE Commit ةلاس ر يف اثيدح ةفرعمل ةلحال زمر ةميق مادختساب.

نود لمالك لاب SAE لدابت ةي لمع لظتس ف (HNp) رقن لاو ديصل ةزيم مدختس ي STA ناك اذا ريريغت.

تانوكم ال هذه ىلى PWE قاقتشا مسقي، H2E مادختس دنع:

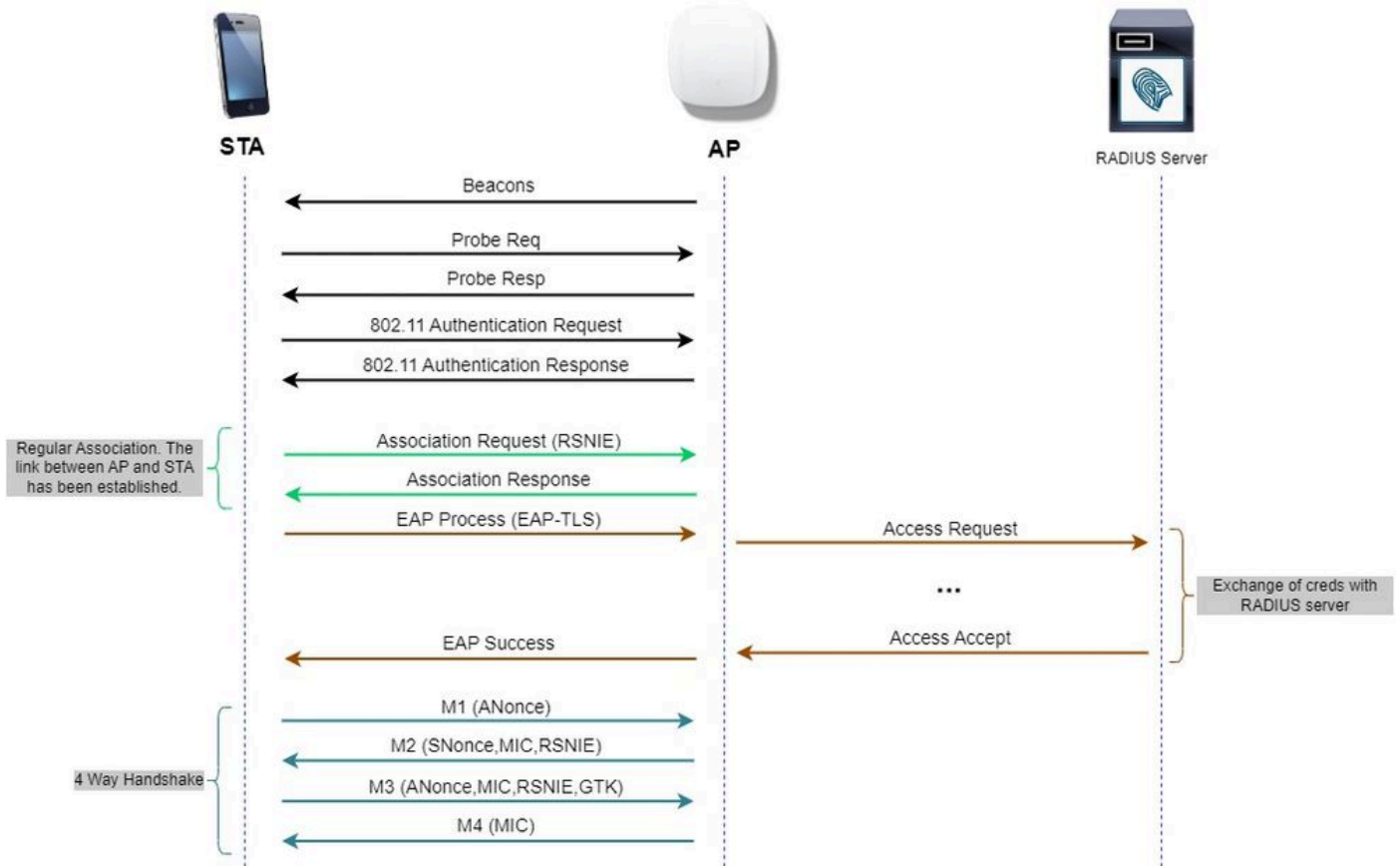
- ام دنع لاصتا نود اذه ذيفنت نكمي. رورم ال ةملك نم (PT) يرستس ورصنع قاقتشا ةدمتعم ةومجم لكل زاغال ىلى ةيادبل يف رورم ال ةملك نيوك متي.
- اهيلع ضوافت ال متي ال ةومجم ال ىلى كل ذدمتعي. ننخمل ال pt نم PWE قاقتشا SAE لدابت ءانثا يقي قح ال تقول يف اذه ذيفنت متي. نارق ال اب ةصال ال MAC نيوانعو.



PWE. رصنعلال ىلإ ةئزجتلا نم SAE بولسأ طقف معدت زتره ايج 6: ةظحالم

WPA-Enterprise 802.1x مساب فورعملال

ىلإ ةفاضلإاب مدختسم مسأ مدختسي و WPA3 نم انام أ رثكألا رادصلإا وه WPA3-Enterprise ،
ىضارتفا لكش ب. RADIUS مداخل عم مدختسملا ةقداصل مل 802.1X عم ةبكرم رورم ةملك
تب-192 ريفشت ةوق ريفشت ريفشت اضيأ مدقي هنكل ، تب-128 ريفشت WPA3 مدختسي
ةساسح تانايب لسرت ةكبش يأل ةفاضلإا ةيامح يطعي يذلاو ، ايرايخا نيوكتلل لباق



WPA3 ةسسؤم ل ل يطي طخ ت ل م س ر ل ا ق ف د ت

WPA3 ءاضو أ : ت ا ي و ت س م ل ا ة و م ج م





- يصخش- WPA3
 - طق ف يصخش ل ل- WPA3 ءضو
 - ب ب ع ش ل ا د ش ح ل ا ت ا و ق ر ف و ت م ز ل ي
 - يصخش ل ل- WPA3 ل ا ق ت ن ا ل ا ءضو
 - ا ض ي أ ب ج ي ، يصخش- WPA2 ن ي ك م ت د ن ع ، ل و ص و ل ا ة ط ق ن ي ل ع : ن ي و ك ت ل ا د ع ا و ق ه ز و ا ج ت م ت ي م ل ا م ، ي ض ا ر ت ف ا ل ك ش ب WPA3- Personal ل ا ق ت ن ا ل ا ءضو ن ي ك م ت ط ق WPA2- Personal ءضو ي ف ل م ع ل ل ل و و س م ل ا ل ب ق ن م ح ي ر ص ل ك ش ب
- ةسسؤم- WPA3
 - طق ف ةسسؤم- WPA3 ءضو
 - WPA3 ت ا ل ا ص ت ا ة ي م ج ل P M F ي ل ع ض و ا ف ت ل ا م ت ي
 - WPA3-Enterprise ل ا ق ت ن ا ل ا ءضو
 - WPA3 ل ا ص ت ا ل P M F ي ل ع ض و ا ف ت ل ا م ت ي
 - WPA2 ل ا ص ت ا ل ي ر ا ي ت خ ا P M F
 - ي م و ق ل ا ن ا م أ ل ا ة ي م ز ر ا و خ ع م ق ف ا و ت م ل ا "192-bit" WPA3-Enterprise Suite-B ءضو ل ا ي ر ا ج ت ل ا (CNSA)
 - ة ي ل ا ر د ي ف ل ا ة م و ك ح ل ا د ر ج م ن م ر ث ك أ
 - ئ ط ا خ ل ا ن ي و ك ت ل ا ب ن ج ت ل ا ة ق س ا ن ت م ل ا ر ي ف ش ت ل ا ة ر ف ش ت ا ء و م ج م
 - (SHA384) ل ض أ ل ا ة ئ ز ج ت ل ا و ر ي ف ش ت ل ا ف ئ ا ط و ل E C C P و G C M P ة ا ض ا
 - ب ب ع ش ل ا د ش ح ل ا ت ا و ق ر ف و ت م ز ل ي

- لك ىلع تاداهش بلطتي امم ، EAP-TLS ل ايرصح تب-192 WPA3 ني مأت نوكي رADIUS مداخو ىطعمل نم
- مدختست نأ بجي ، ةسسؤملا يوتسم ىلع تب 192 رادصلإا WPA3 مادختسال اها: حومسمل EAP تارفش دحأ RADIUS مداخو

TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384
 TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384
 TLS_DHE_RSA_WITH_AES_256_GCM_SHA384

نم WLAN تاكبش يف WPA3 ذيفنت لوح ةيوليصفتلا تامولعمل لوح ديزملا ةفرعمل [ليدل](#) نم ققحتلا ةيرحب عاتمتسال ايجري ، لي عمل نامأ قفاوت ةفوفصم كلذ يف امب ، Cisco ، [WPA3](#) رشن

Cisco Catalyst Wi-Fi 6E APs لوصول طاقن

Ideal for Small to Medium-sized deployments	Best In Class, Flexibility		Mission Critical, Performance
 <p>CW9162</p> <ul style="list-style-type: none"> • 2x2 + 2x2 + 2x2 • 2.5 Gbps mGig • Power Options: PoE, DC Power • IoT ready + Bluetooth 5.x • Partial iCAP • USB - 4.5 W <p><small>Available with IOS-XE 17.9.2</small></p>	 <p>CW9164</p> <ul style="list-style-type: none"> • 2x2, 4x4, 4x4 • 2.5 Gbps mGig • Power Options: PoE, DC Power • IoT Ready + Bluetooth 5.x • Partial iCAP • USB- 4.5 W 	 <p>CW9166</p> <ul style="list-style-type: none"> • 4x4 + 4x4 + 4x4 (XOR 5/6) • 5 Gbps mGig • Power Options: PoE, DC Power • IoT ready + Bluetooth 5.x • Environmental Sensor • Full Packet Capture (iCAP) • Zero-Wait DFS* • USB - 4.5W 	 <p>C9136</p> <ul style="list-style-type: none"> • 4x4, 8x8, 4x4 (or) 4x4, 4x4+4x4, 4x4 • Dual 5 Gbps mGig, active fail over • PoE Redundancy • IoT ready • Bluetooth 5.x • Environmental Sensor • Full Packet Capture (iCAP) • Zero-Wait DFS* • USB - 9W <p><small>*Available in Future</small></p>
Full radio capability (6 GHz @ LPI) on single 30W PoE+			
Dedicated Radio for CleanAir Pro	Same Bracket, Industrial Design	AP Power Optimization	USB

Wi-Fi 6e لوصول طاقن

ءالمعمل ةم و عدمل نامأل تاداعإ

بيو ةحفص [تاجت نم ثحاب](#) مادختساب WPA3-Enterprise معدي يذلا جتنملا ىلع روثعلا كنكمي WiFi فلاحتل

رمأل مادختساب لوحمل اهمعدي يتل ني مأتلا تاداعإ نم ققحتلا كنكمي Windows ةزهجأ يف netsh wlan show drivers".

Intel نم AX211 زارط نيزختلا تافيفص جارخا ىلع عالطال كنكمي انه

Interface name: A8000_NETGEAR

```
Driver : NETGEAR A8000 WiFi 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 Driver
Radio types supported : 802.11b 802.11a 802.11g 802.11n 802.11ac 802.11ax
FIPS 140-2 mode supported : Yes
802.11w Management Frame Protection supported : Yes
Hosted network supported : No
Authentication and cipher supported in infrastructure mode:
      Open          None
      Open          WEP-40bit
      Open          WEP-104bit
      Open          WEP
      WPA-Enterprise TKIP
      WPA-Enterprise CCMP
      WPA3-Personal  CCMP
      OWE            CCMP
      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: [00]
IHV extensibility DLL path: C:\WINDOWS\system32\mtknhvux.dll
IHV UI extensibility CLSID: {00000000-0000-0000-0000-000000000000}
IHV diagnostics CLSID : {00000000-0000-0000-0000-000000000000}
Wireless Display Supported: Yes (Graphics Driver: Yes, Wi-Fi Driver: Yes)
```

لېم ع ل ل NetGear A8000s ج ل NetSH WLAN show driver_ ج Windows ج ا ر خ

6a: ل س ك ي ب د ي و ر د ن أ



None

Enhanced Open

WEP

WPA/WPA2-Personal

WPA3-Personal

WPA/WPA2-Enterprise

WPA3-Enterprise

WPA3-Enterprise 192-bit



CIF



ساي سا ل م ادخت سا ب ر ق ن لا و دا ي ط ص ا ل ا ب ح و م س م ر ي غ ه ن ا ك ر ا ب ت ع ا ي ف ع ض : 6 ة ع ر س ب ط ق ف W L A N ة ك ب ش ن ي و ك ت ب م و ق ت ا م د ن ع . ز ت ر ي ه ا ج ي ج 6 د د ر ت ب ة ي ك س ا ل ا ل ا H2E SAE روم ة م ل ك ر ص ن ع د ي د ح ت ك ي ل ع ب ج ي ، ز ت ر ه ا ج ي ج .

WLAN: نام ا ت ا د ا ع ا ب ة ص ا خ ا ل ا (GUI) ة ي م و س ر ل م د خ ت س م ل ة ه ج ا و ي ل ع ع ر ض

WPA3 SAE Beacons

ن و ط ب ر ي ن ذ ل ا W i - F i 6 e ا ل م ع د ه ا ش ن ا ن ك ن ي ا ن ه Intel AX211 ح ن ا ش ا ة ع و م ج

ل ي م ع ل ا م R S N ت ا م و ل ع م ر ي ل ع ز ي ك ر ت ا ل م ا ع O T A ل ا ص ت ا ل ا

WLC في ليعم الال لاصفات

NetGear A8000

ليعم الال نم RSN تامولوعم ىلع زيكرتال مع OTA لاصتال

WLC في ليعم الال لاصفات

6a لسكيب

ليعم الال نم RSN تامولوعم ىلع زيكرتال مع OTA لاصتال

Wireshark capture showing IEEE 802.11 wireless management frames. The interface is eth0. The capture shows a sequence of frames including Authentication Request, Association Request, and various acknowledgment frames. The right pane shows the details of the selected frame, including IEEE 802.11 radio information and IEEE 802.11 wireless management details.

WLC في ليم عمل ال لي صافات

Cisco Catalyst 9800-CL Wireless Controller interface. The 'Monitoring' tab is active, showing a list of clients. The selected client is 2495.2f72.8a66, with IP address 192.168.1.162 and AP name AP6849_9253_CA50. The right pane shows the 'Security Information' for this client, including Client State Servers, Client ACLs, Policy Type (WPA3), Encryption Cipher (CCMP (AES)), and Session Manager details.

23 س ا ج ن و س م ا س

لي عمل ال ن م ر S N م و ل م ع ل ع ز ي ك ر ت ال ال ص ا ل ا ل ا

Wireshark capture showing IEEE 802.11 wireless management frames. The interface is eth0. The capture shows a sequence of frames including Authentication Request, Association Request, and various acknowledgment frames. The right pane shows the details of the selected frame, including IEEE 802.11 radio information and IEEE 802.11 wireless management details.

WLC في ليم عمل ال لي صافات

Cisco Catalyst 9800-CL Wireless Controller

Welcome admin

Search APs and Clients

Feedback

Monitoring > Wireless > Clients

Clients Sleeping Clients Excluded Clients

Delete

Selected 0 out of 12 Clients

	Client MAC Address	IPv4 Address	IPv6 Address	AP Name
<input type="checkbox"/>	0012.17e1.dd57	192.168.1.33	fe80::212:17ff:fee1:dd57	AP03_Sotao_9548
<input type="checkbox"/>	0012.17e2.4856	192.168.1.37	fe80::212:17ff:fee2:4856	AP05_OutdoorB_220
<input type="checkbox"/>	0012.17e2.4b40	192.168.1.31	fe80::212:17ff:fee2:4b40	AP04_OutdoorF_3DC
<input type="checkbox"/>	0429.2ec9.e371	192.168.1.160	fe80::6a20:34e8:ab1b:6332	AP6849.9253.CA50
<input type="checkbox"/>	0c8b.9509.3518	192.168.1.129	N/A	AP03_Sotao_9548
<input type="checkbox"/>	34ea.e702.6240	192.168.1.70	N/A	AP6849.9253.CA50
<input type="checkbox"/>	60fb.008b.0e66	N/A	N/A	AP01_RC_9136_F80
<input type="checkbox"/>	84d8.1b0f.294f	192.168.1.91	N/A	AP03_Sotao_9548
<input type="checkbox"/>	9669.5a28.a115	192.168.1.138	fe80::9469:5aff:fe28:a115	AP02_Suite_1084
<input type="checkbox"/>	a810.87bb.b833	192.168.1.94	fe80::aa10:87ff:febb:b833	AP03_Sotao_9548

Client

360 View General QOS Statistics ATF Statistics Mobility History Call Statistics

Client Properties AP Properties Security Information Client Statistics QOS Properties EoGRE

Client State Servers None

Client ACLS None

Client Entry Create Time 78 seconds

Policy Type WPA3

Encryption Cipher CCMP (AES)

Authentication Key Management SAE

EAP Type Not Applicable

Session Timeout 86400

Session Manager

Point of Attachment capwap_90000010

IF ID 0x90000010

Authorized TRUE

Common Session ID 000000000000FB1B0A58F78

Acct Session ID 0x00000000

Auth Method Status List

Method SAE

WPA3-ش-ي صخش - AES(CCMP128) + SAE + FT

WLAN ناماً ني وكت

⚠ Changing WLAN parameters while it is enabled will result in loss of connectivity for clients connected to it.

General **Security** Advanced Add To Policy Tags

Layer2 Layer3 AAA

WPA + WPA2 WPA2 + WPA3 WPA3 Static WEP None

MAC Filtering

Lobby Admin Access

WPA Parameters

WPA Policy WPA2 Policy
 GTK Randomize WPA3 Policy
 Transition Disable

Fast Transition

Status ▾
 Over the DS
 Reassociation Timeout *

WPA2/WPA3 Encryption

AES(OCMP128) CCMP256
 GCMP128 GCMP256

Auth Key Mgmt

SAE FT + SAE
 OWE FT + 802.1x
 802.1x-SHA256
 Anti Clogging Threshold*
 Max Retries*
 Retransmit Timeout*
 PSK Format ▾
 PSK Type ▾
 Pre-Shared Key*
 SAE Password Element ⓘ ▾

Protected Management Frame

PMF ▾
 Association Comeback Timer*
 SA Query Time*

No.	Time	Delta	Source	Destination	Protocol	Length	Channel	Signal	Info
1	2023-06-12 18:34:49.285337	0.000000	Cisco_13:180:e7	Eurocast	802.11	588	5	-36 dBm	Beacon frame, S/W=22, F/W=, Flags=.....C, B=100, SSID="wifi6e"
2	2023-06-12 18:34:49.427544	0.182287	Cisco_13:180:e7	Eurocast	802.11	588	5	-36 dBm	Beacon frame, S/W=27, F/W=, Flags=.....C, B=100, SSID="wifi6e"
3	2023-06-12 18:34:49.589867	0.182323	Cisco_13:180:e7	Eurocast	802.11	588	5	-37 dBm	Beacon frame, S/W=23, F/W=, Flags=.....C, B=100, SSID="wifi6e"
4	2023-06-12 18:34:49.623332	0.182465	Cisco_13:180:e7	Eurocast	802.11	588	5	-37 dBm	Beacon frame, S/W=27, F/W=, Flags=.....C, B=100, SSID="wifi6e"
5	2023-06-12 18:34:49.791804	0.096872	Metgear_48:70:35	Cisco_13:180:e7	802.11	360	5	-49 dBm	Probe Request, S/W=8, F/W=, Flags=.....C, SSID="wifi6e_test"
6	2023-06-12 18:34:49.791804	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-37 dBm	Acknowledgment, Flags=.....C
7	2023-06-12 18:34:49.791356	0.000152	Metgear_48:70:35	Cisco_13:180:e7	802.11	360	5	-49 dBm	Probe Request, S/W=1, F/W=, Flags=.....C, SSID="wifi6e_test"
8	2023-06-12 18:34:49.791427	0.000071	192.168.1.15	192.168.1.121	802.11	76	5	-37 dBm	Acknowledgment, Flags=.....C
9	2023-06-12 18:34:49.794933	0.003066	Cisco_13:180:e7	Eurocast	802.11	588	5	-37 dBm	Beacon frame, S/W=22, F/W=, Flags=.....C, B=100, SSID="wifi6e"
10	2023-06-12 18:34:49.812822	0.015789	Metgear_48:70:35	Cisco_13:180:e7	802.11	360	5	-49 dBm	Probe Request, S/W=1, F/W=, Flags=.....C, SSID="wifi6e_test"
11	2023-06-12 18:34:49.812822	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-37 dBm	Acknowledgment, Flags=.....C
12	2023-06-12 18:34:49.874951	0.064469	Metgear_48:70:35	Cisco_13:180:e7	802.11	194	5	-49 dBm	Authentication, S/W=, F/W=, Flags=.....C
13	2023-06-12 18:34:49.874951	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-37 dBm	Acknowledgment, Flags=.....C
14	2023-06-12 18:34:49.896563	0.021812	Cisco_13:180:e7	Metgear_48:70:35	802.11	194	5	-37 dBm	Authentication, S/W=54, F/W=, Flags=.....C
15	2023-06-12 18:34:49.896563	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-49 dBm	Acknowledgment, Flags=.....C
16	2023-06-12 18:34:49.904966	0.000043	Cisco_13:180:e7	Eurocast	802.11	588	5	-37 dBm	Beacon frame, S/W=27, F/W=, Flags=.....C, B=100, SSID="wifi6e"
17	2023-06-12 18:34:49.904966	0.000000	Metgear_48:70:35	Cisco_13:180:e7	802.11	130	5	-49 dBm	Authentication, S/W=, F/W=, Flags=.....C
18	2023-06-12 18:34:49.904966	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-37 dBm	Acknowledgment, Flags=.....C
19	2023-06-12 18:34:49.904966	0.000000	Metgear_48:70:35	Metgear_48:70:35	802.11	130	5	-37 dBm	Authentication, S/W=7, F/W=, Flags=.....C
20	2023-06-12 18:34:49.904966	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-48 dBm	Acknowledgment, Flags=.....C
21	2023-06-12 18:34:49.904966	0.000000	Metgear_48:70:35	Cisco_13:180:e7	802.11	216	5	-49 dBm	Association Request, S/W=, F/W=, Flags=.....C, SSID="wifi6e_test"
22	2023-06-12 18:34:49.904966	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-36 dBm	Acknowledgment, Flags=.....C
23	2023-06-12 18:34:49.911474	0.005188	Cisco_13:180:e7	Metgear_48:70:35	802.11	262	5	-36 dBm	Association Response, S/W=, F/W=, Flags=.....C
24	2023-06-12 18:34:49.911474	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-49 dBm	Acknowledgment, Flags=.....C
25	2023-06-12 18:34:49.911719	0.000245	Metgear_48:70:35	Eurocast	LLC	114	5	-37 dBm	u, func:unknown; DSAP 0x12 Individual, SSAP 0x02 Command
26	2023-06-12 18:34:49.911719	0.000000	Metgear_48:70:35	Eurocast	LLC	114	5	-36 dBm	u, func:unknown; DSAP 0x7a Individual, SSAP 0x0a Response
27	2023-06-12 18:34:49.922346	0.016247	Cisco_13:180:e7	Metgear_48:70:35	EAPOL	221	5	-36 dBm	Key (Message 1 of 4)
28	2023-06-12 18:34:49.922346	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-49 dBm	Acknowledgment, Flags=.....C
29	2023-06-12 18:34:49.999581	0.077235	Cisco_13:180:e7	Eurocast	802.11	588	5	-36 dBm	Beacon frame, S/W=22, F/W=, Flags=.....C, B=100, SSID="wifi6e"
30	2023-06-12 18:34:50.104510	0.104029	Cisco_13:180:e7	Eurocast	802.11	588	5	-36 dBm	Beacon frame, S/W=27, F/W=, Flags=.....C, B=100, SSID="wifi6e"
31	2023-06-12 18:34:50.204600	0.100000	Cisco_13:180:e7	Eurocast	802.11	588	5	-48 dBm	Beacon frame, S/W=22, F/W=, Flags=.....C, B=100, SSID="wifi6e"
32	2023-06-12 18:34:50.211615	0.007815	Metgear_48:70:35	Cisco_13:180:e7	EAPOL	226	5	-55 dBm	Key (Message 2 of 4)
33	2023-06-12 18:34:50.211615	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-42 dBm	Acknowledgment, Flags=.....C
34	2023-06-12 18:34:50.211615	0.000000	Metgear_48:70:35	Eurocast	LLC	114	5	-48 dBm	Key (Message 3 of 4)
35	2023-06-12 18:34:50.211615	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-58 dBm	Acknowledgment, Flags=.....C
36	2023-06-12 18:34:50.214554	0.000978	Metgear_48:70:35	Cisco_13:180:e7	EAPOL	199	5	-56 dBm	Key (Message 4 of 4)
37	2023-06-12 18:34:50.214554	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-42 dBm	Acknowledgment, Flags=.....C
38	2023-06-12 18:34:50.214554	0.000000	Metgear_48:70:35	Eurocast	LLC	114	5	-48 dBm	Key (Message 4 of 4)
39	2023-06-12 18:34:50.220721	0.006367	192.168.1.15	192.168.1.121	802.11	76	5	-42 dBm	Acknowledgment, Flags=.....C
40	2023-06-12 18:34:50.220489	0.003128	192.168.1.15	192.168.1.121	802.11	119	5	-44 dBm	Trigger Buffer Status Report Poll (BSRP), Flags=.....C
41	2023-06-12 18:34:50.220489	0.000000	Metgear_48:70:35	Metgear_48:70:35	LLC	221	5	-44 dBm	u, func:unknown; DSAP 0x0b Group, SSAP 0x0b Response
42	2023-06-12 18:34:50.220489	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-54 dBm	Acknowledgment, Flags=.....C

WPA3 SAE + EAPOL

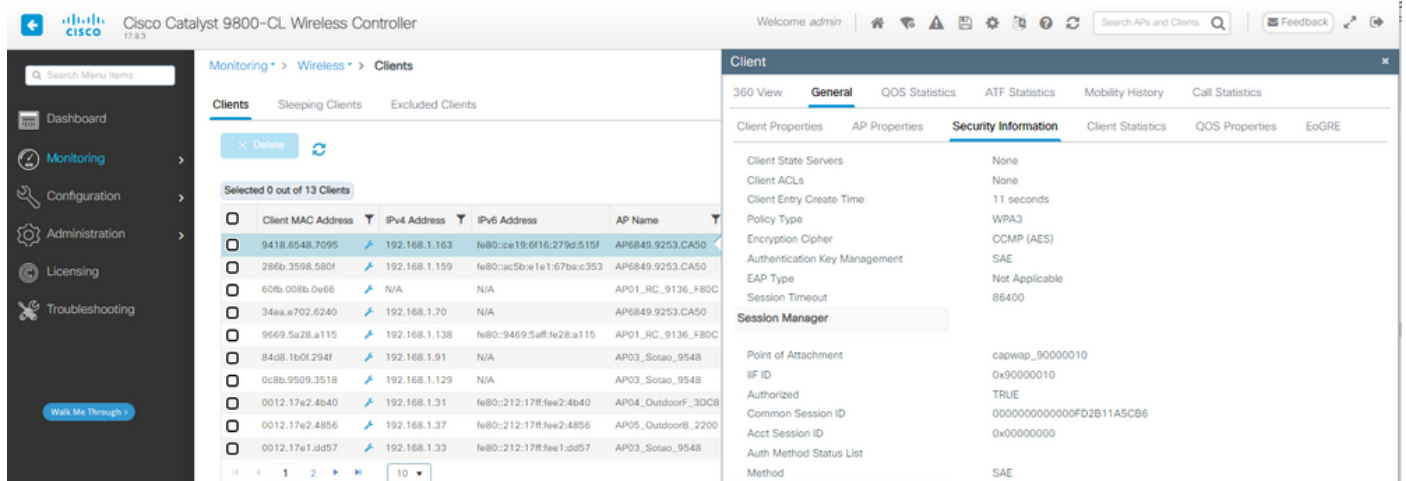
نو و ط ب ر ي ن ي ذ ل و ا ل م ع د ه ا ش ن ا ن ك ن م ي ا ن ه

Intel AX211 حائرش ل و ا ع و م ج م

ل م ع ل ا ن م RSN ت ا م و ل و ع م ر ل ع ز ي ك ر ت ل ا ع م O T A ل ا ص ت ل ا

No.	Time	Delta	Source	Destination	Protocol	Length	Channel	Signal	Info
1811	2023-06-12 18:51:39.249793	0.017337	IntelCor_38:53:0f	Cisco_13:180:e7	802.11	194	5	-42 dBm	Authentication, S/W=, F/W=, Flags=.....C
1812	2023-06-12 18:51:39.249793	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-36 dBm	Acknowledgment, Flags=.....C
1813	2023-06-12 18:51:39.254827	0.007834	Cisco_13:180:e7	IntelCor_38:53:0f	802.11	194	5	-36 dBm	Authentication, S/W=59, F/W=, Flags=.....C
1814	2023-06-12 18:51:39.254827	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-42 dBm	Acknowledgment, Flags=.....C
1815	2023-06-12 18:51:39.259394	0.000000	IntelCor_38:53:0f	Cisco_13:180:e7	802.11	130	5	-48 dBm	Authentication, S/W=, F/W=, Flags=.....C
1816	2023-06-12 18:51:39.259394	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-36 dBm	Acknowledgment, Flags=.....C
1817	2023-06-12 18:51:39.263479	0.004285	Cisco_13:180:e7	IntelCor_38:53:0f	802.11	130	5	-36 dBm	Authentication, S/W=50, F/W=, Flags=.....C
1818	2023-06-12 18:51:39.263479	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-42 dBm	Acknowledgment, Flags=.....C
1819	2023-06-12 18:51:39.263479	0.000000	IntelCor_38:53:0f	Cisco_13:180:e7	802.11	250	5	-46 dBm	Association Request, S/W=2, F/W=, Flags=.....C, SSID="wifi6e_test"
1820	2023-06-12 18:51:39.263479	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-36 dBm	Acknowledgment, Flags=.....C
1821	2023-06-12 18:51:39.271442	0.018463	IntelCor_38:53:0f	Eurocast	LLC	114	5	-36 dBm	I, N(X)=7, N(Y)=12; DSAP 0x0a Group, SSAP 0x0a Response
1822	2023-06-12 18:51:39.271442	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-43 dBm	Acknowledgment, Flags=.....C
1823	2023-06-12 18:51:39.277402	0.001240	Cisco_13:180:e7	IntelCor_38:53:0f	802.11	262	5	-36 dBm	Association Response, S/W=, F/W=, Flags=.....C
1824	2023-06-12 18:51:39.277402	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-43 dBm	Acknowledgment, Flags=.....C
1825	2023-06-12 18:51:39.281817	0.000795	Cisco_13:180:e7	Eurocast	802.11	517	5	-36 dBm	Beacon frame, S/W=71, F/W=, Flags=.....C, B=100, SSID="wifi6e_test_02"
1826	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-36 dBm	Acknowledgment, Flags=.....C
1827	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-36 dBm	Acknowledgment, Flags=.....C
1828	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-36 dBm	Acknowledgment, Flags=.....C
1829	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-52 dBm	Clear-to-send, Flags=.....C
1830	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-36 dBm	Acknowledgment, Flags=.....C
1831	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-37 dBm	Beacon frame, S/W=76, F/W=, Flags=.....C, B=100, SSID="wifi6e_test_02"
1832	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	76	5	-53 dBm	Clear-to-send, Flags=.....C
1833	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	82	5	-38 dBm	Request-to-send, Flags=.....C
1834	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	82	5	-36 dBm	Request-to-send, Flags=.....C
1835	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	82	5	-36 dBm	Request-to-send, Flags=.....C
1836	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	82	5	-36 dBm	Request-to-send, Flags=.....C
1837	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	82	5	-36 dBm	Request-to-send, Flags=.....C
1838	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	82	5	-36 dBm	Request-to-send, Flags=.....C
1839	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	82	5	-36 dBm	Request-to-send, Flags=.....C
1840	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	82	5	-36 dBm	Request-to-send, Flags=.....C
1841	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	82	5	-36 dBm	Request-to-send, Flags=.....C
1842	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	82	5	-36 dBm	Request-to-send, Flags=.....C
1843	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	82	5	-36 dBm	Request-to-send, Flags=.....C
1844	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	82	5	-36 dBm	Request-to-send, Flags=.....C
1845	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	82	5	-36 dBm	Request-to-send, Flags=.....C
1846	2023-06-12 18:51:39.281817	0.000000	192.168.1.15	192.168.1.121	802.11	82	5	-36 dBm	Request-to-send, Flags=.....C

WLC: في ليمع ال لي صافات



6a لسكيب

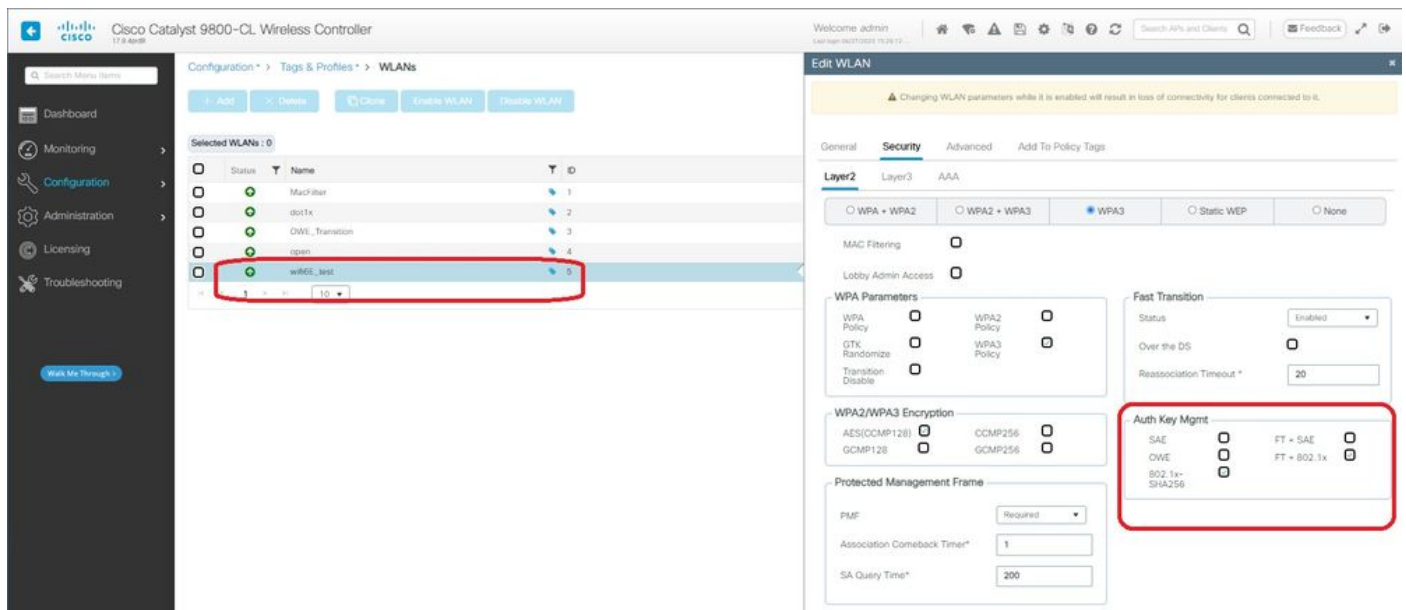
FT. نيكمت دنع لوجت ال زاهاج ال يلع رذعت

23 سا جنوسماس

FT. نيكمت دنع لوجت ال زاهاج ال يلع رذعت

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

WLAN نام أ نيوكت:



FTWLAN نام أ نيوكت + WPA3 Enterprise 802.1x-SHA256

WLAN نام أ تاداعاب ة صاخا (GUI) ة يموسرلا مدخت سمل ةه جاو يلع ضرع



ةادأ لك نم مداق قدصي ل رهظي ة عرس سايقم لچس ISE Live ال تي أ رعي طتسي انه

Time	Status	Details	Repeat	Identity	Endpoint ID	Endpoint Profile	Authenticat...	Authorizati...	Authorizati...	IP Address	Network Device
Jun 27, 2023 01:52:38.130 PM	Success		0	tantunes	04:29:2E:C9:E3:71		WirelessDot...	WirelessDot...	PermitAccess		
Jun 27, 2023 01:52:38.130 PM	Success		0	tantunes	04:29:2E:C9:E3:71		WirelessDot...	WirelessDot...	PermitAccess		eWLC-9800-01
Jun 27, 2023 01:51:53.850 PM	Success		0	tantunes	24:95:2F:72:8A:66	Unknown	WirelessDot...	WirelessDot...	PermitAccess		
Jun 27, 2023 01:51:53.850 PM	Success		0	tantunes	24:95:2F:72:8A:66	Unknown	WirelessDot...	WirelessDot...	PermitAccess		eWLC-9800-01
Jun 27, 2023 01:50:58.679 PM	Success		0	tantunes	94:18:65:48:70:95	Netgear-Device	WirelessDot...	WirelessDot...	PermitAccess		
Jun 27, 2023 01:50:58.679 PM	Success		0	tantunes	94:18:65:48:70:95	Netgear-Device	WirelessDot...	WirelessDot...	PermitAccess		eWLC-9800-01
Jun 27, 2023 01:50:43.883 PM	Success		0	tantunes	94:18:65:48:70:95	Netgear-Device	WirelessDot...	WirelessDot...	PermitAccess		eWLC-9800-01
Jun 27, 2023 01:50:42.877 PM	Success		0	tantunes	28:6B:35:98:58:0F	Intel-Device	WirelessDot...	WirelessDot...	PermitAccess		
Jun 27, 2023 01:50:42.877 PM	Success		0	tantunes	28:6B:35:98:58:0F	Intel-Device	WirelessDot...	WirelessDot...	PermitAccess		eWLC-9800-01

قرش ابل ايسه تالاجس

اذكه ودبت OTA تارانملا

No.	Time	Delta	Source	Destination	Protocol	Length	Channel	Signal stre	Info
324	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	428	59	-38 dBm	Probe Request, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
325	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Probe Response, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
326	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Probe Response, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
327	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	428	59	-38 dBm	Beacon Frame, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
328	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	76	59	-38 dBm	Clear-to-send, Flags=.....C
329	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Probe Response, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
330	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Authentication, STA=04:29:2E:C9:E3:71, Flags=.....C
331	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Association Request, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
332	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Probe Response, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
333	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Authentication, STA=04:29:2E:C9:E3:71, Flags=.....C
334	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Association Response, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
335	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Probe Response, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
336	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Probe Response, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
337	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Association Request, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
338	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Probe Response, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
339	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Probe Response, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
340	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Association Response, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
341	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Probe Response, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
342	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
343	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Identity
344	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Probe Response, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
345	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Probe Response, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
346	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
347	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Identity
348	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Beacon Frame, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
349	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Probe Response, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
350	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
351	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Client-to-send, Flags=.....C
352	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Probe Response, STA=04:29:2E:C9:E3:71, Flags=.....C, SSID="WiFi6_test", SSID+Mgmt=Broadcast
353	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
354	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
355	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
356	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
357	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
358	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
359	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
360	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
361	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
362	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
363	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
364	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
365	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
366	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
367	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
368	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
369	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
370	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
371	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
372	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
373	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
374	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
375	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
376	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
377	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
378	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
379	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
380	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
381	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
382	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
383	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
384	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
385	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
386	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
387	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
388	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
389	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
390	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
391	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
392	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
393	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
394	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
395	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
396	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
397	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
398	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)
399	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request-to-send, Flags=.....C
400	0.000000	0.000000	Cisco_05:0a:08:18	Broadcast	802.11	374	59	-38 dBm	Request, Protected EAP (EAP-PSK)

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> Frame 327: 428 bytes on wire (3424 bits), 428 bytes captured (3424 bits) on interface DeviceVFP_04578900-2998-4056-8C13-CA1316A00000, 32 #
> Ethernet II, Src: Cisco_05:0a:08:18 (08:00:0c:29:2e:c9:e3:71), Dst: Unknown/05:0a:08:18:00:00:00:00:00 (08:00:0c:29:2e:c9:e3:71)
> Internet Protocol Version 4, Src: 192.168.1.15, Dst: 192.168.1.121
> User Datagram Protocol, Src Port: 5555, Dst Port: 59000
> Aloha/Dot11Beacon encapsulated IEEE 802.11
> IEEE 802.11 radio information
> IEEE 802.11 beacon frame, Flags: .....C
> IEEE 802.11 wireless management
> Fixed parameters (12 bytes)
> Tagged parameters (20 bytes)
> Tag: SSID parameter set: "WiFi6_test"
> Tag: Supported Rates (80, 9, 180, 18, 240, 36, 48, 54, 60, 66, 72, 84, 96, 108, 120, 132, 144, 150, 162, 180)
> Tag: Traffic Indication Map (TIM) Bitmap of 3 Bitmaps
> Tag: Country Information: Country Code: us, Environment Global operating classes
> Tag: Power Constraint: 6
> Tag: Report Request Power: 25, 15m Region 0
> Tag: RSN Information
Tag Number: RSN Information
```


No.	Time	Delta	Source	Destination	Protocol	Length	Channel	Signal	Info
878	1.408897	0.263322	Cisco_08:00:18:18	Broadcast	802.11	428	69	-17	dm Beacon frame, SN=3662, PWR=, Flags=.....C, BI=100, SSID=W
880	1.409207	0.143776	Cisco_72:8a:96	Broadcast	802.11	204	69	-17	dm Probe Request, SN=3662, PWR=, Flags=.....C, SSID=W
882	1.409362	0.000405	Cisco_08:00:18:18	Broadcast	802.11	428	69	-17	dm Beacon frame, SN=3662, PWR=, Flags=.....C, BI=100, SSID=W
884	1.409518	0.000716	Cisco_08:00:18:18	Broadcast	802.11	374	69	-17	dm Probe Response, SN=3662, PWR=, Flags=.....C, BI=100, SSID=W
928	1.479576	0.113498	Cisco_08:00:18:18	Broadcast	802.11	428	69	-17	dm Beacon frame, SN=3662, PWR=, Flags=.....C, BI=100, SSID=W
932	1.479829	0.000209	Cisco_08:00:18:18	Broadcast	802.11	308	69	-14	dm Authentication, SN=0111, PWR=, Flags=.....C
934	1.479889	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-17	dm Acknowledgment, Flags=.....C
936	1.479951	0.000382	Cisco_08:00:18:18	Broadcast	802.11	108	69	-17	dm Authentication, SN=14, PWR=, Flags=.....C
938	1.479951	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-14	dm Acknowledgment, Flags=.....C
940	1.480282	0.000000	Cisco_08:00:18:18	Broadcast	802.11	204	69	-14	dm Association Request, SN=0002, PWR=, Flags=.....C, SSID=W
942	1.480318	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-17	dm Acknowledgment, Flags=.....C
944	1.480511	0.023978	Cisco_08:00:18:18	Broadcast	802.11	313	69	-17	dm Association Response, SN=0, PWR=, Flags=.....C
946	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
948	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
950	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
952	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
954	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
956	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
958	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
960	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
962	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
964	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
966	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
968	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
970	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
972	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
974	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
976	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
978	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
980	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
982	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
984	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
986	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
988	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
990	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
992	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
994	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
996	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
998	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
1000	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
1002	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
1004	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
1006	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
1008	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C
1010	1.480521	0.000000	192.168.1.121	192.168.1.121	802.11	76	69	-13	dm Acknowledgment, Flags=.....C

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> frame 925: 261 bytes on wire (2088 bits), 261 bytes captured (2088 bits) on interface DeviceWPF_04578005-2998-4006-8C33-C3A13
> Ethernet II, Src: Cisco_02:19:47 (14:11:1b:02:19:47), Dst: Intelersa_07:c9:06 (08:00:0c:07:c9:06)
> Internet Protocol Version 4, Src: 192.168.1.15, Dst: 192.168.1.121
> User Datagram Protocol, Src Port: 5555, Dst Port: 5000
> AiroPcap/OSintPcap encapsulated IEEE 802.11
> IEEE 802.11 radio information
> IEEE 802.11 Association Request, Flags: .....C
> Tagged parameters (167 bytes)
> Fixed parameters (4 bytes)
> Tag: SSID parameter set: "wifi6_test"
> Tag: Supported Rates (8): 9, 12(0), 18, 24(0), 36, 48, 54, [Mbit/sec]
> Tag: Power Capability Mtr: 7, Max: 29
> Tag: Supported Channels
> Tag: RSN Information
Tag Number: RSN Information (48)
Tag Length: 28
RSN Version: 1
> Group Cipher Suite: 00:0f:ac (See IEEE 802.11 AES (CCM))
Pairwise Cipher Suite Count: 1
Pairwise Cipher Suite List: 00:0f:ac (See IEEE 802.11 AES (CCM))
Auth Key Management (AKM) Suite Count: 1
Auth Key Management (AKM) List: 00:0f:ac (See IEEE 802.11 FT over IEEE 802.1X)
Auth Key Management (AKM) OUI: 00:0f:ac (See IEEE 802.11)
Auth Key Management (AKM) type: FT over IEEE 802.1X (1)
> RSN Capabilities: 00:00
.....0 = RSN Pre-Auth capabilities: Transmitter does not support pre-authentication
.....0 = RSN No Pairwise capabilities: Transmitter can support MP default key @ simultaneously wdt
.....0 = RSN PTKSA Replay Counter capabilities: 1 replay counter per PTKSA/PTKSA/STakeySA (0x0)
.....0 = RSN GTKSA Replay Counter capabilities: 1 replay counter per PTKSA/PTKSA/STakeySA (0x0)
.....1 = Management frame Protection Required: True
.....1 = Management frame Protection Capable: True
.....0 = 32bit MIC11-band RSN: false
.....0 = Perkey Enabled: false
.....0 = Extended key ID for Individually Addressed Frames: Not supported
PNVID Count: 0
PNVID List:
> Group Management Cipher Suite: 00:0f:ac (See IEEE 802.11 RIP (128))
> Tag: W Enabled Capabilities (5 octets)
> Tag: Mobility domain
> Tag: Supported Operating Classes
> Tag: Extended Capabilities (20 octets)
> Ext Tag: W Capabilities
> Ext Tag: W 4-0 Band Capabilities
> Tag: Vendor Specific: Broadcom
Tag Number: Vendor Specific (221)
Tag Length: 30
OUI: 00:13:00 (Broadcom)
Vendor Specific OUI Type: 2
Vendor Specific Data: 0000000000000000
> Tag: Vendor Specific: Microsoft Corp.: WPA/WPA2 Information Element
  
```

نارتقالا WPA3 Enterprise 802.1x + FT Pixel6a

WLC لي عمل لى صافات:

WPA3 Enterprise 802.1x + FT Pixel6a لي عمل لى صافات

802.11R: عون اونك م ي شيح عاوهال ربع لاونتال عون لى زك:

23 س اونوس ماس

لي عمل لى صافات RSN تامولوم لى زك لى صافات ال OTA لى صافات ال:

Edit WLAN

⚠ Changing WLAN parameters while it is enabled will result in loss of connectivity for clients connected to it.

General **Security** Advanced Add To Policy Tags

Layer2 Layer3 AAA

WPA + WPA2
 WPA2 + WPA3
 WPA3
 Static WEP
 None

MAC Filtering

Lobby Admin Access

WPA Parameters

WPA Policy WPA2 Policy
GTK Randomize WPA3 Policy
Transition Disable

WPA2/WPA3 Encryption

AES(CCMP128) CCMP256
GCMP128 GCMP256

Protected Management Frame

PMF

Association Comeback Timer*

SA Query Time*

Fast Transition

Status

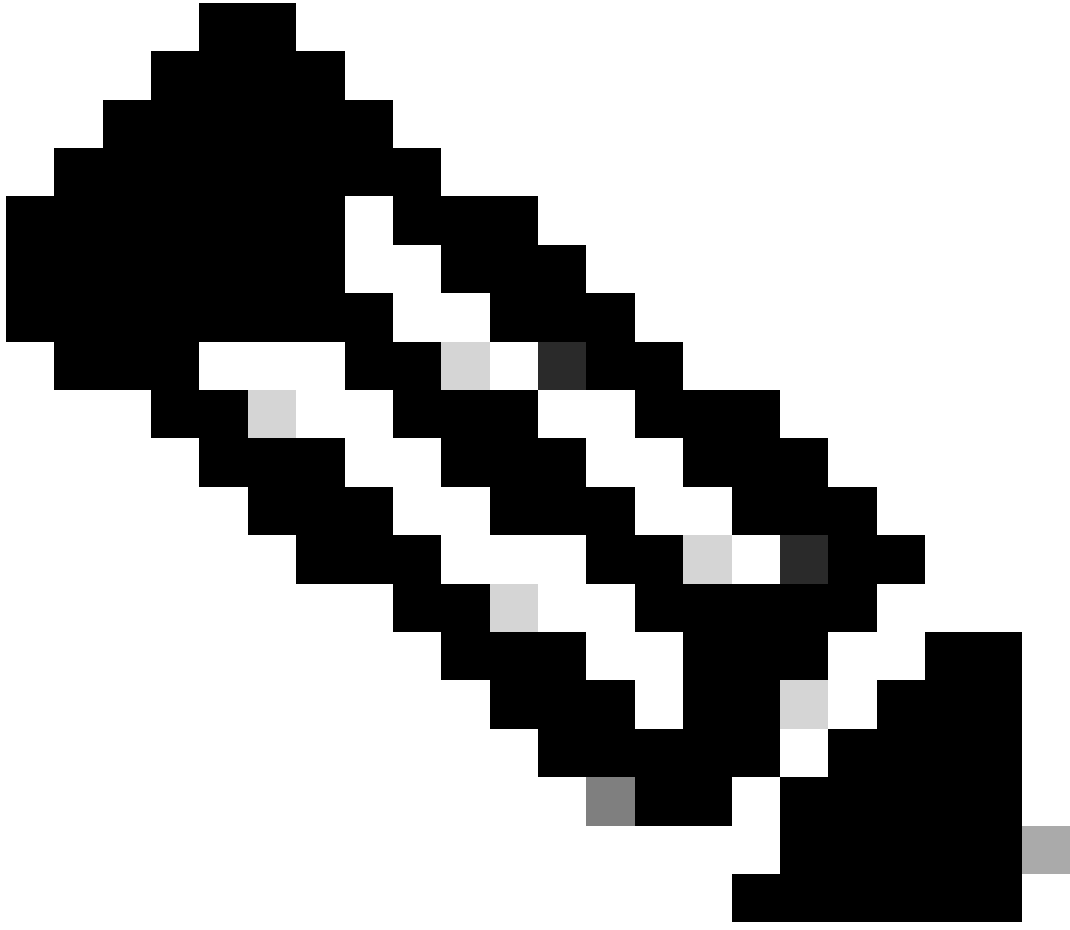
Over the DS

Reassociation Timeout *

Auth Key Mgmt

SUITEB-1X

WPA3 Enterprise SuiteB-1X نامأل نڤوكت



SUITEB-1X في ft معد متي ال :ةظحال م

WLAN نام أ تادادعإب ةصاخال (GUI) ةيموسرلا مدختسملا ةهجاو ىلع ضرع

□ ● w66E_test

5

w66E_test

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

OTA داشرالا ةزهجأ نم ققحتلا

No.	Time	Delta	Source	Destination	Protocol	Length	Channel	Signal	Info
37376	59.189776	0.820482	Cisco_06:00:18	Broadcast	802.11	312	69 -48 dbm	Probe Response, S/W:2002, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> frame 37326: 355 bytes on wire (2840 bits), 355 bytes captured (2840 bits) on interface 'Device\NPF_{04576965-2998-4456-8C33-C4} (NIC\{80:00:00:00:00:00})'
37385	59.190516	0.820488	Cisco_06:00:18	Broadcast	802.11	312	69 -17 dbm	Probe Response, S/W:2003, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Ethernet II, Src: Cisco_02:00:07 (78:11:3a:02:07:07), Dst: Unknown_07:c7:c7:0e (08:00:00:07:c7:0e)
37396	59.191790	0.820483	Cisco_06:00:18	Broadcast	802.11	355	69 -17 dbm	Beacon frame, S/W:2004, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Internet Protocol Version 4, Src: 192.168.1.15, Dst: 192.168.1.121
37414	59.193261	0.820462	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2005, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> User Datagram Protocol, Src Port: 5555, Dst Port: 5000
37424	59.193713	0.820472	Cisco_06:00:18	Broadcast	802.11	312	69 -48 dbm	Probe Response, S/W:2006, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> AlohaPdu/ControlPdu encapsulated IEEE 802.11
37437	59.194258	0.820457	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2007, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> IEEE 802.11 Beacon frame, Flags:C
37447	59.194792	0.820442	Cisco_06:00:18	Broadcast	802.11	312	69 -17 dbm	Probe Response, S/W:2008, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> IEEE 802.11 Wireless Management
37459	59.195334	0.820522	Cisco_06:00:18	Broadcast	802.11	355	69 -38 dbm	Beacon frame, S/W:2009, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Fixed parameters (12 bytes)
37470	59.196329	0.820399	Cisco_06:00:18	Broadcast	802.11	312	69 -39 dbm	Probe Response, S/W:2009, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tagged parameters (213 bytes)
37480	59.196445	0.820503	Cisco_06:00:18	Broadcast	802.11	355	69 -17 dbm	Beacon frame, S/W:2010, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag: SSID parameter set: "WPA3-Enterprise-SuiteB-1X-Beacon"
37489	59.197487	0.821342	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2012, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag: Supported Rates (6B), 9, 12(9), 18, 24(9), 36, 48, 54, [Mbit/sec]
37499	59.198116	0.821929	Cisco_06:00:18	Broadcast	802.11	312	69 -37 dbm	Probe Response, S/W:2013, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag: Traffic Indication Map (TIM): OPM # of 1 bitmap
37520	59.199388	0.820437	Cisco_06:00:18	Broadcast	802.11	312	69 -17 dbm	Probe Response, S/W:2015, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag: Country Information: Country Code na, Environment Global operating classes
37532	59.199726	0.821156	Cisco_06:00:18	Broadcast	802.11	312	69 -17 dbm	Probe Response, S/W:2016, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag: Power Constraint: 6
37539	59.199789	0.821751	Cisco_06:00:18	Broadcast	802.11	312	69 -37 dbm	Probe Response, S/W:2017, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag: TX Report Transmit Power: 36, Link Metric: 0
37552	59.199748	0.820459	Cisco_06:00:18	Broadcast	802.11	312	69 -17 dbm	Probe Response, S/W:2018, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag: RSN Information
37565	59.199793	0.820503	Cisco_06:00:18	Broadcast	802.11	355	69 -17 dbm	Beacon frame, S/W:2019, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag Number: RSN Information (64)
37574	59.198423	0.820438	Cisco_06:00:18	Broadcast	802.11	312	69 -17 dbm	Probe Response, S/W:2020, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag Length: 26
37585	59.198865	0.820542	Cisco_06:00:18	Broadcast	802.11	312	69 -17 dbm	Probe Response, S/W:2021, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> RSN Version: 1
37596	59.199439	0.820476	Cisco_06:00:18	Broadcast	802.11	312	69 -17 dbm	Probe Response, S/W:2022, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Group Cipher Suite: 00:0fac (IEEE 802.11) GCM (128)
37606	59.199949	0.820595	Cisco_06:00:18	Broadcast	802.11	312	69 -17 dbm	Probe Response, S/W:2023, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Pairwise Cipher Suite Count: 1
37626	59.202621	0.820481	Cisco_06:00:18	Broadcast	802.11	355	69 -38 dbm	Beacon frame, S/W:2024, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Pairwise Cipher Suite List: 00:0fac (IEEE 802.11) GCM (128)
37641	59.199894	0.820561	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2025, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Auth Key Management (AKM) Suite Count: 1
37652	59.196317	0.820351	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2026, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Auth Key Management (AKM) List: 00:0fac (IEEE 802.11) WPA (SHA256-SuiteB)
37668	59.198765	0.820428	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2027, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Auth Key Management (AKM) Suite: 00:0fac (IEEE 802.11)
37687	59.197047	0.820792	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2028, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Auth Key Management (AKM) Type: WPA (SHA256-SuiteB) (11)
37696	59.1972867	0.820480	Cisco_06:00:18	Broadcast	802.11	355	69 -38 dbm	Beacon frame, S/W:2029, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> RSN Capabilities: 0x0000
37704	59.193477	0.820430	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2030, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> PMKID Count: 0
37719	59.195721	0.820241	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2031, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> PMKID List
37733	59.194549	0.820628	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2032, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Group Management Cipher Suite: 00:0fac (IEEE 802.11) GCM (128)
37738	59.198659	0.820180	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2033, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag: QoS Class Identifier: 0
37749	59.192508	0.820495	Cisco_06:00:18	Broadcast	802.11	355	69 -38 dbm	Beacon frame, S/W:2034, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag: WPA Enabled Capabilities (5 octets)
37759	59.194621	0.820432	Cisco_06:00:18	Broadcast	802.11	312	69 -17 dbm	Probe Response, S/W:2035, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag: Extended Capabilities (1 octets)
37792	59.196621	0.820508	Cisco_06:00:18	Broadcast	802.11	312	69 -17 dbm	Probe Response, S/W:2036, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag: Tx Power Envelope
37809	59.197892	0.821583	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2037, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag: Tx Power Envelope
37814	59.197513	0.821521	Cisco_06:00:18	Broadcast	802.11	312	69 -17 dbm	Probe Response, S/W:2038, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Ext Tag: Multiple BSSID Configuration
37822	59.197968	0.820462	Cisco_06:00:18	Broadcast	802.11	355	69 -38 dbm	Beacon frame, S/W:2039, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Ext Tag: HE Capabilities
37833	59.194859	0.820398	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2040, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Ext Tag: HE Operation
37841	59.198548	0.820498	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2041, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Ext Tag: Spatial Reuse Parameter Set
37857	59.198908	0.820550	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2042, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Ext Tag: HE 4 GHz Band Capabilities
37864	59.193602	0.820462	Cisco_06:00:18	Broadcast	802.11	312	69 -17 dbm	Probe Response, S/W:2043, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Ext Tag: HE 6 GHz Band Capabilities
37868	59.198192	0.820508	Cisco_06:00:18	Broadcast	802.11	355	69 -38 dbm	Beacon frame, S/W:2044, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag: Vendor Specific: Atheros Communications, Inc.: Unknown
37881	59.199489	0.820297	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2045, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag: Vendor Specific: Microsoft Corp.: WPA/WPA2 Parameter Element
37887	59.197857	0.820568	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2046, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag: Vendor Specific: Cisco Systems, Inc.: Airont Client MFP Disabled
37897	59.192184	0.820839	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2047, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag: Vendor Specific: Cisco Systems, Inc.: Airont CCK version = 5
37908	59.192176	0.820880	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2048, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag: Vendor Specific: Cisco Systems, Inc.: Airont Unknown (64)
37927	59.192424	0.820438	Cisco_06:00:18	Broadcast	802.11	355	69 -37 dbm	Beacon frame, S/W:2049, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	> Tag: Vendor Specific: Cisco Systems, Inc.: Airont Unknown (11) (11)
37928	59.193867	0.820813	Cisco_06:00:18	Broadcast	802.11	312	69 -17 dbm	Probe Response, S/W:2050, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	
37936	59.193124	0.820827	Cisco_06:00:18	Broadcast	802.11	312	69 -38 dbm	Probe Response, S/W:2051, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	
37943	59.193778	0.820864	Cisco_06:00:18	Broadcast	802.11	312	69 -17 dbm	Probe Response, S/W:2052, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	
37949	59.194389	0.820893	Cisco_06:00:18	Broadcast	802.11	312	69 -17 dbm	Probe Response, S/W:2053, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	
37961	59.194873	0.820904	Cisco_06:00:18	Broadcast	802.11	355	69 -17 dbm	Beacon frame, S/W:2054, F/W:0, Flags:.....C, B1=100, SSID="WPA3-Enterprise-SuiteB-1X-Beacon"	

WPA3 Enterprise SuiteB-1X Beacon

SuiteB-1X WLAN مداخلت ساب WLAN ةكبش ب لاصت الال ن م ه راب تخ | ن ن ي ذل اء ال م ع ل ا ن م ي ن ك م ت ي م ل ه ذ ه ن ا م ا ل ا ة ق ي ر ط م ع د ي ع ي ش ال ن ا ذ ك و ي ا م م 1X

WPA3-Enterprise SuiteB-1X + GCMP256 + WPA3-Enterprise SuiteB-1X

WLAN نام ا ن و ك ت

⚠ Changing WLAN parameters while it is enabled will result in loss of connectivity for clients connected to it.

General **Security** Advanced Add To Policy Tags

Layer2 Layer3 AAA

WPA + WPA2
 WPA2 + WPA3
 WPA3
 Static WEP
 None

MAC Filtering

Lobby Admin Access

WPA Parameters

WPA Policy WPA2 Policy
 GTK Randomize WPA3 Policy
 Transition Disable

Fast Transition

Status ▾
 Over the DS
 Reassociation Timeout *

WPA2/WPA3 Encryption

AES(CCMP128) CCMP256
 GCMP128 GCMP256

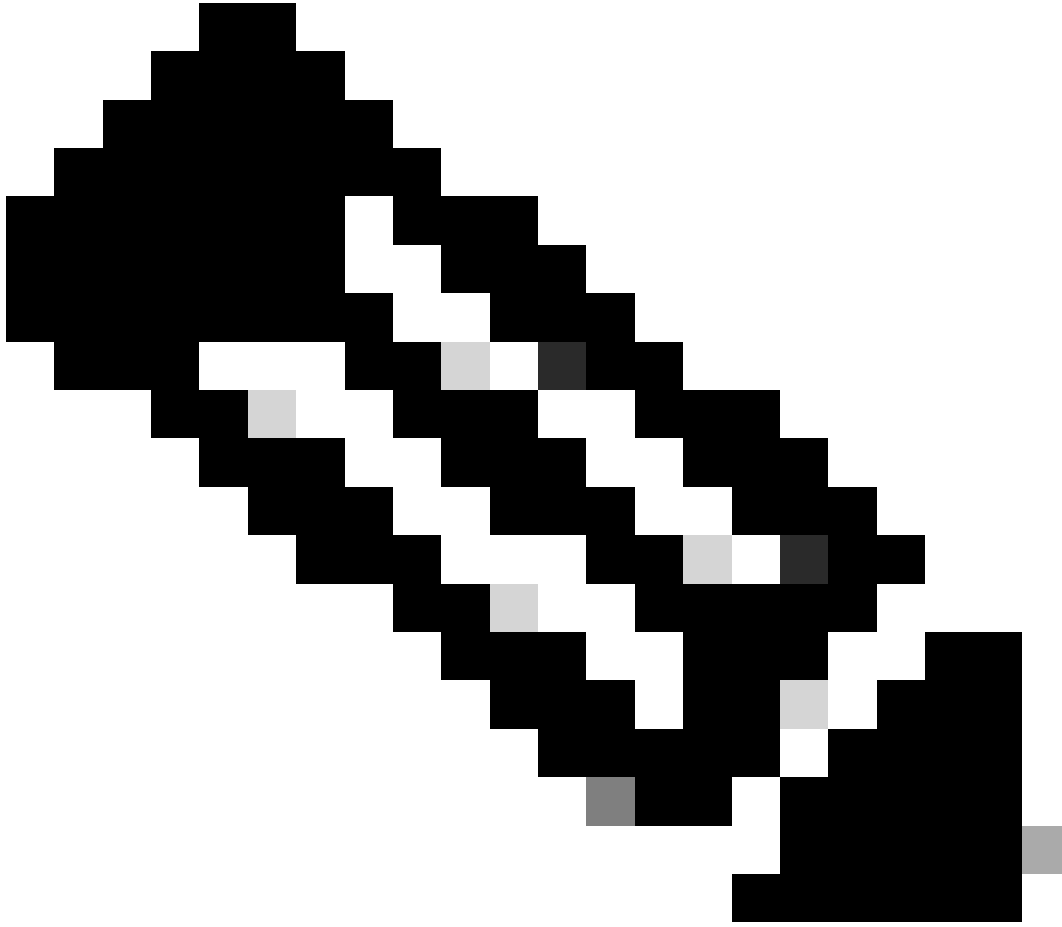
Auth Key Mgmt

SUITEB192-1X

Protected Management Frame

PMF ▾
 Association Comeback Timer*
 SA Query Time*

WPA3 Enterprise Suiteb192-1x نيمأت تادادع



GCMP256+SUITEB192-1X عم ft معد متي ال :ةظحالم

ةدحوب ةصاخلا (GUI) تاموسرلا مدختسم ةهجاوب ةصاخلا WLAN تاكبش ةمئاق ىلع WLAN
ة (WLC) ةيكلساللا ةيلحملا ةكبشلا يف مكحتلا

wf6E_test 5 wf6E_test [WPA3]SUITEB-192-1X[GCMP256]

تارابتخاللا ةمدختسملا WLAN

OTA داشرالا ةزهجأ نم ققحتلا

WPA3 Enterprise ب لاصتالال نم ليمعلا اذه نكم تي مل ،دنتسملا اذه ةباتك خيرات ي ف
EAP-TLS مادختساب

ةقوثولا هذه ثيدحت نيعتي ،اهلح درجم بو ،اهلح لمعلا يرجي ليمعلا بناج نم ةلسم هذهو

ةينمألا تاجاتنتسالا

ةجتانللا تاجاتنتسالا يه هذه ،ةقباسلا تارابتخالال لك دع

لوكوتوربلا	ري فشت	AKM	ةرفش AKM	EAP بولسأ	FT- OverTA	FT- overDS	ةومجم حئارشلا Intel AX211	جوج/جنوسماس ديوردنأ
ننادتست	AES- CCMP128	ننادتست	ريغ دوجوم	دوجوم ريغ	ريغ دوجوم	ريغ دوجوم	مومدم	مومدم
سفن	AES- CCMP128	SAE (H2E طقف)	SHA256	دوجوم ريغ	مومدم	مومدم	مومدم: H2E و طقف FT-OTA	H2E مومدم طقف FT لشف FT-oDS لشف
تاسسؤملا	AES- CCMP128	802.1x- SHA256	SHA256	PEAP/FAST/TLS	مومدم	مومدم	مومدم: SHA256 و FT- OTA/ODS ريغ مومدم: EAP- FAST	مومدم: SHA256 و FT-OTA و FT- ODS (S23) مومدم ريغ: EAP-FAST و FT-oDS (Pixel6a)
تاسسؤملا	GCMP128	SuiteB-1x	SHA256- SuiteB	PEAP/FAST/TLS	ريغ مومدم	ريغ مومدم	ريغ مومدم	مومدم ريغ
تاسسؤملا	GCMP256	تيسوس 192-ي	SHA384- SuiteB	TLS	ريغ مومدم	ريغ مومدم	NA/TBD	NA/TBD

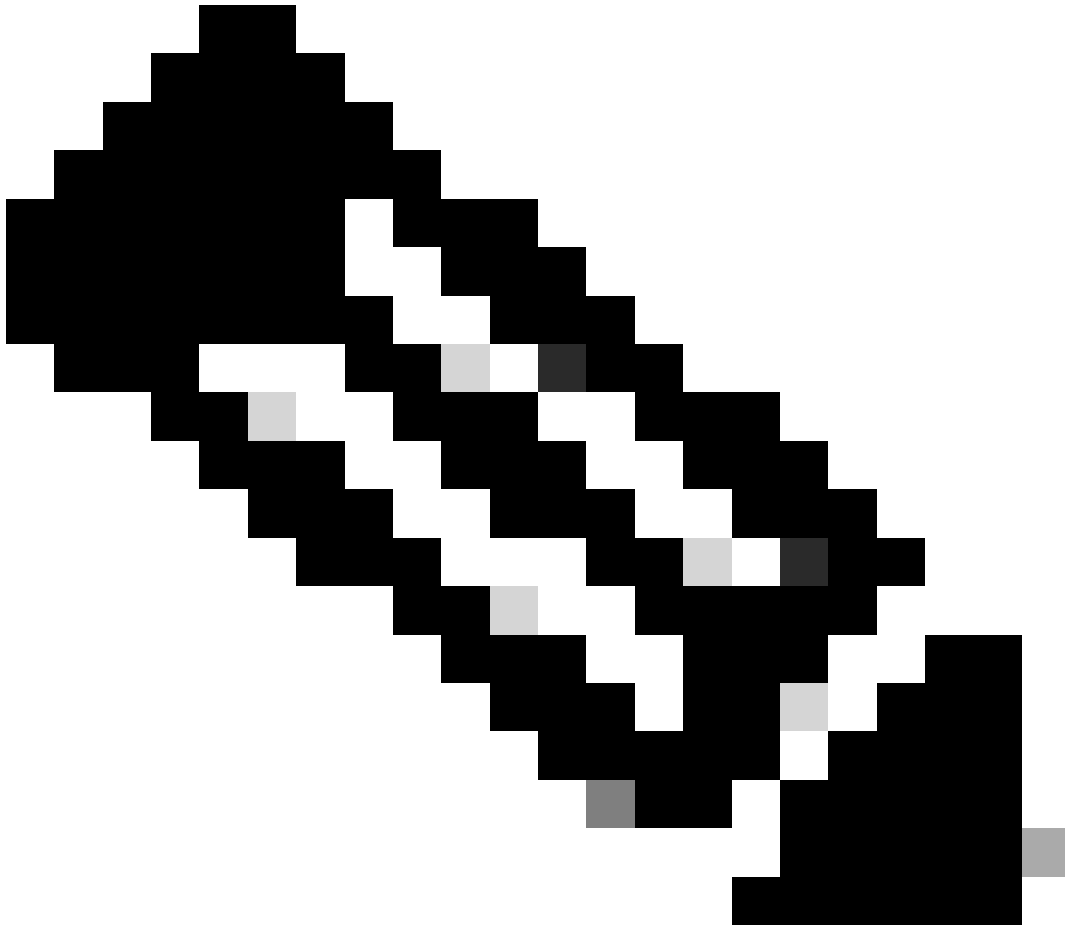
اهحالصإو ءاطخألأ فاشككسا

ر بع دننسسما لىل دننسسما اذف مءءسسما اءاخالصإو ءاطخألأ فاشككسا دننسسما
تننرئنا:

[اهخالصإو \(APs\) لوصولا طاقن ءاطخألأ فاشككسا](#)

ءىءصء ءضو ءى ف RA ءبءء ءىءء وه اءاخالصإو ءاطخألأ فاشككسا ل ماعل اءىءءوئال اءبم ل
MAC ناوع مءءسسما ب (WLC) ءىءللساللا ءىءللمل ءكبشلا ءى مءءلل رصنع نم ءاطخألأ
ءىءاوشع MAC ناوع سىل و MAC زاء مءءسسما ب لىمءل لاصءا نم ءكأءلل لىمءلل

ءىءو ءى ف لوصولا ءطقن مءءسسما ءىءوئال نوءء ، اءاخالصإو Air ءاطخألأ فاشككسا لىل
اهءمءءب لىمءل موقى ءىءل لوصولا ءطقن ءانق لىل ءاناىبل رورم ءكء طاقءل



رم او مءءسسما نأ لبق [ءاطخألأ ءىءصء](#) رم او [لوح ءمءمءءم](#) لىل ءءرا :ءظءالم
debug.

ةلص تاذا تامولعم

[ام Wi-Fi 6E؟ وه](#)

[ام Wi-Fi 6 لباقم Wi-Fi 6e؟ وه](#)

[Wi-Fi 6e ىلع ةعيرس ةرطن](#)

[ضيبالا Wi-Fi ريرقت يف يلاتلا عئارلا لصفلا: Wi-Fi 6e](#)

[Cisco Live - Catalyst Wi-Fi 6e لوصو طاقن مادختساب يلاتلا ليچلا نم ةيكلسال ةكبش عاشن |](#)

[Cisco Catalyst 9800 Series Wireless Controller Software، رادصلال 17.9.x](#)

[WPA3 رشن ليلا](#)

