

# Configurare Nexus Dashboard Orchestrator per eseguire la migrazione dell'endpoint da un controller di dominio a un altro

## Sommario

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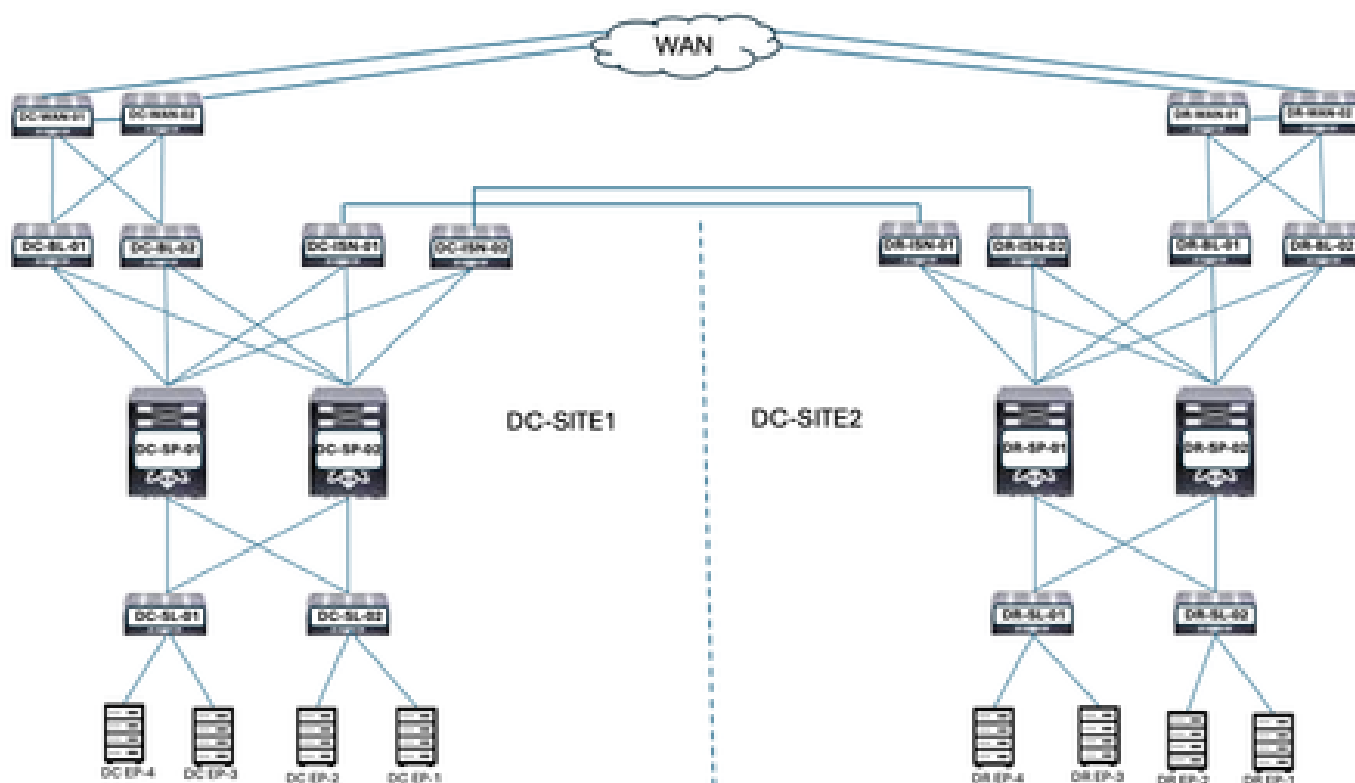
## Introduzione

In questo documento vengono descritte la progettazione e la configurazione delle modifiche necessarie per eseguire la migrazione di un endpoint da un data center a un altro.

## Topologia fisica

Nella figura 1 viene illustrata l'interconnettività di due centri dati.

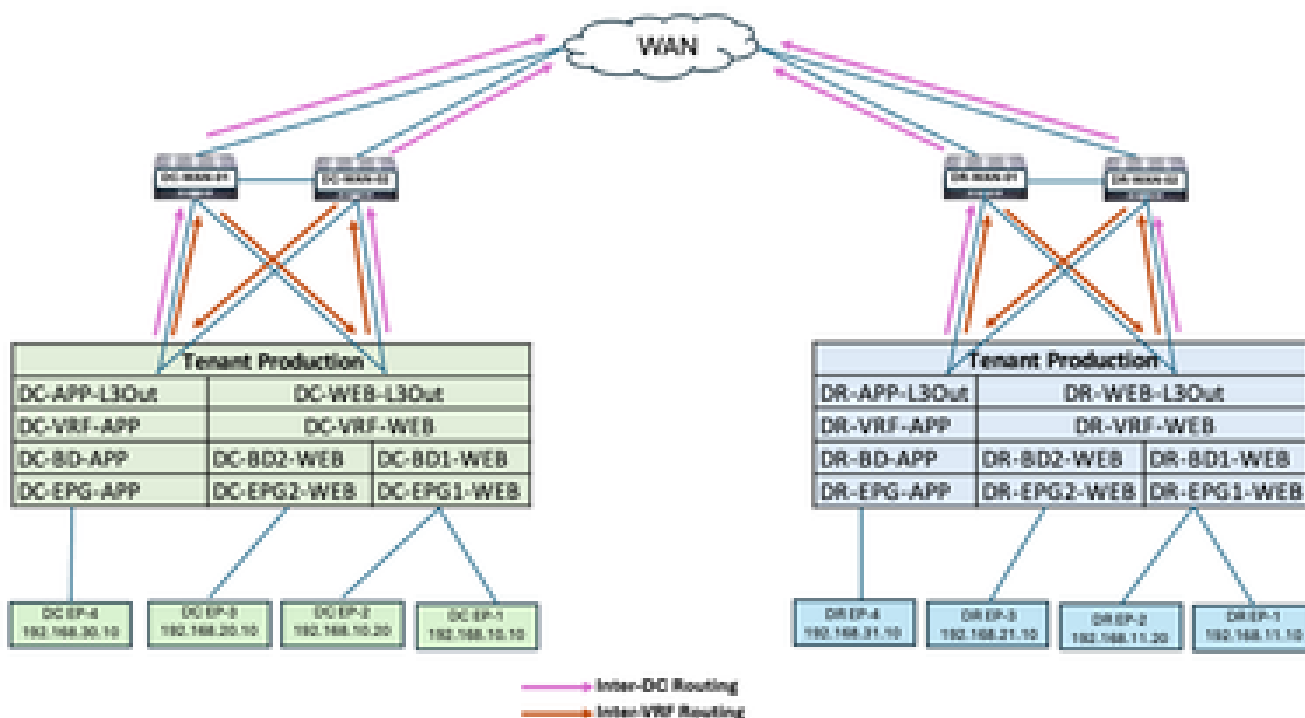
Figura 1: Topologia fisica



Le postazioni DC e DR dispongono dell'infrastruttura ACI (Application Centric Infrastructure). Le postazioni DC e DR dispongono di switch WAN, spartitraffico bordi, aculei, ISDN (Inter-Site Network Devices), spartitraffico server ed endpoint connessi.

# Topologia logica

Figura 2: Topologia logica



Oggetti logici configurati in entrambi i siti:

- La produzione tenant è configurata nei siti DC e DR.
- DC-VRF-WEB e DC-VRF-APP sono configurati in DC-SITE1. DR-VRF-WEB e DR-VRF-APP sono configurati in DR-SITE2.
- Ciascun VRF è configurato con L3Out locali su Border Leaf per gli switch WAN. Le route predefinite vengono configurate su Border Leaf per gli switch WAN.
- Gli switch WAN sono configurati con routing statico per la comunicazione tra VRF e tra DC.
- Entrambi i centri dati sono configurati con BD ed EPG locali. DC dispone di DC-BD1-WEB/DC-EPG1-WEB, DC-BD2-WEB/DC-EPG2-WEB e DC-BD-APP/DC-EPG-APP. DR dispone di DR-BD1-WEB/DR-EPG1-WEB, DR-BD2-WEB/DR-EPG2-WEB e DR-BD-APP/DR-EPG-APP.
- Sono presenti endpoint connessi in WEB e APP EPG.
- DC-SITE1 e DR-SITE2 vengono aggiunti in Nexus Dashboard Orchestrator.

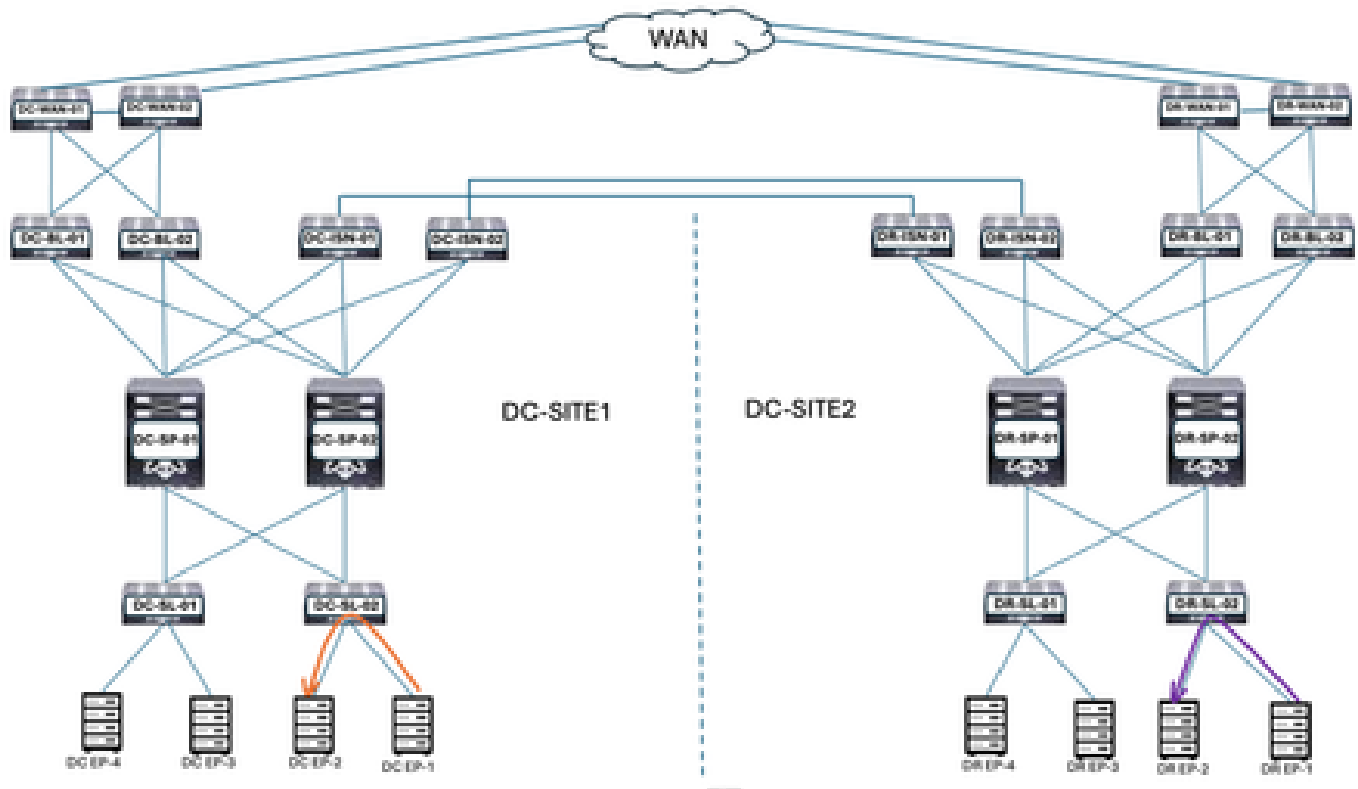
## Flusso del traffico prima della migrazione degli endpoint

Esistono diversi tipi di flusso del traffico nei centri dati:

- Flusso di traffico all'interno di EPG
- Flusso di traffico tra EPG
- Flusso di traffico tra VRF
- Flusso traffico tra controller di dominio

## Flusso di traffico all'interno di EPG

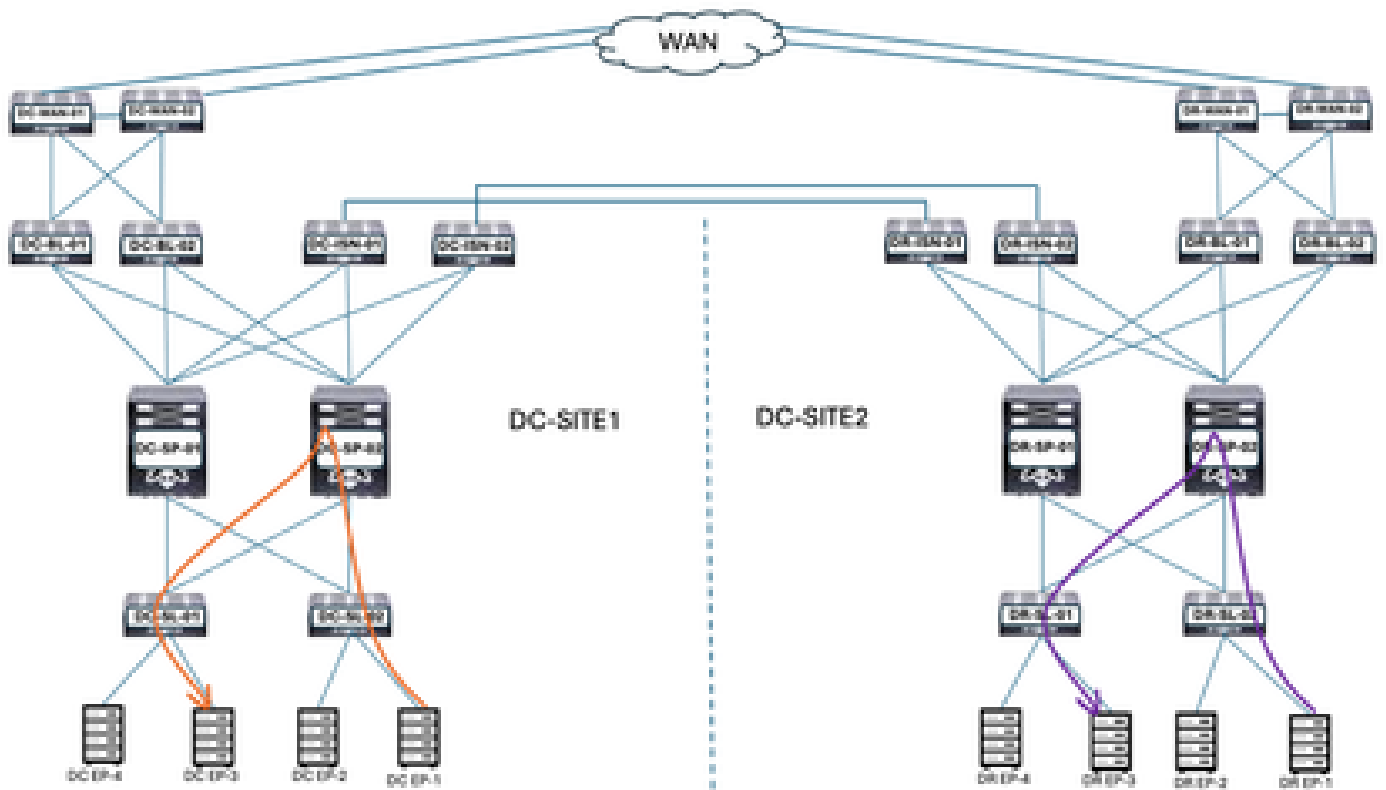
Figura 3: Flusso di traffico all'interno di EPG



La comunicazione tra DC-EP-1 e DC-EP-2 è una comunicazione intra-EPG, in quanto entrambi gli endpoint appartengono a DC-EPG1-WEB. La comunicazione tra DR-EP-1 e DR-EP-2 è una comunicazione intra-EPG, in quanto entrambi gli endpoint appartengono a DR-EPG1-WEB.

## Flusso del traffico tra EPG

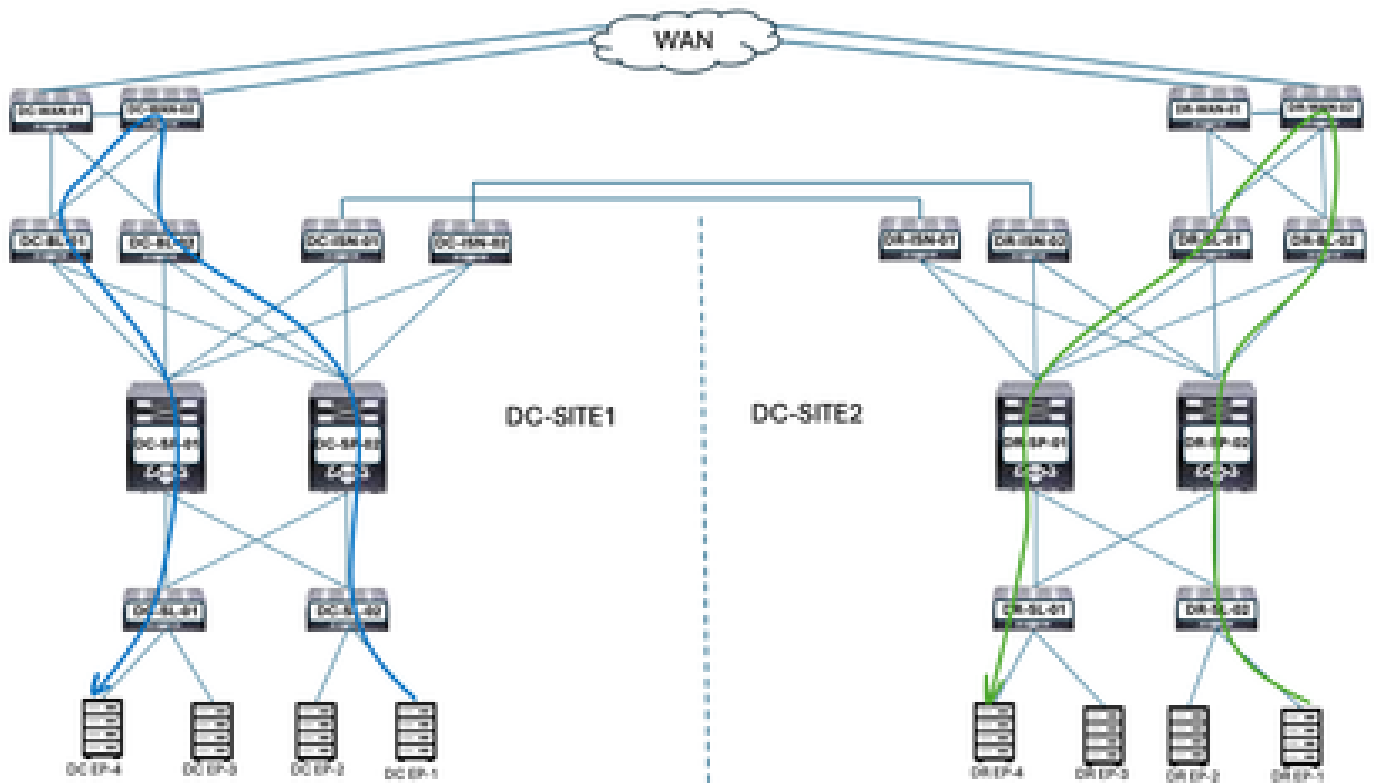
Figura 4: Flusso del traffico tra EPG



DC-EP-1 e DC-EP-3 fanno parte rispettivamente di DC-EPG1-WEB e DC-EPG2-WEB. La comunicazione tra questi due endpoint è un flusso di traffico tra EPG. DR-EP-1 e DR-EP-3 fanno parte rispettivamente di DR-EPG1-WEB e DR-EPG2-WEB. La comunicazione tra questi due endpoint è un flusso di traffico tra EPG.

### Flusso di traffico tra VRF

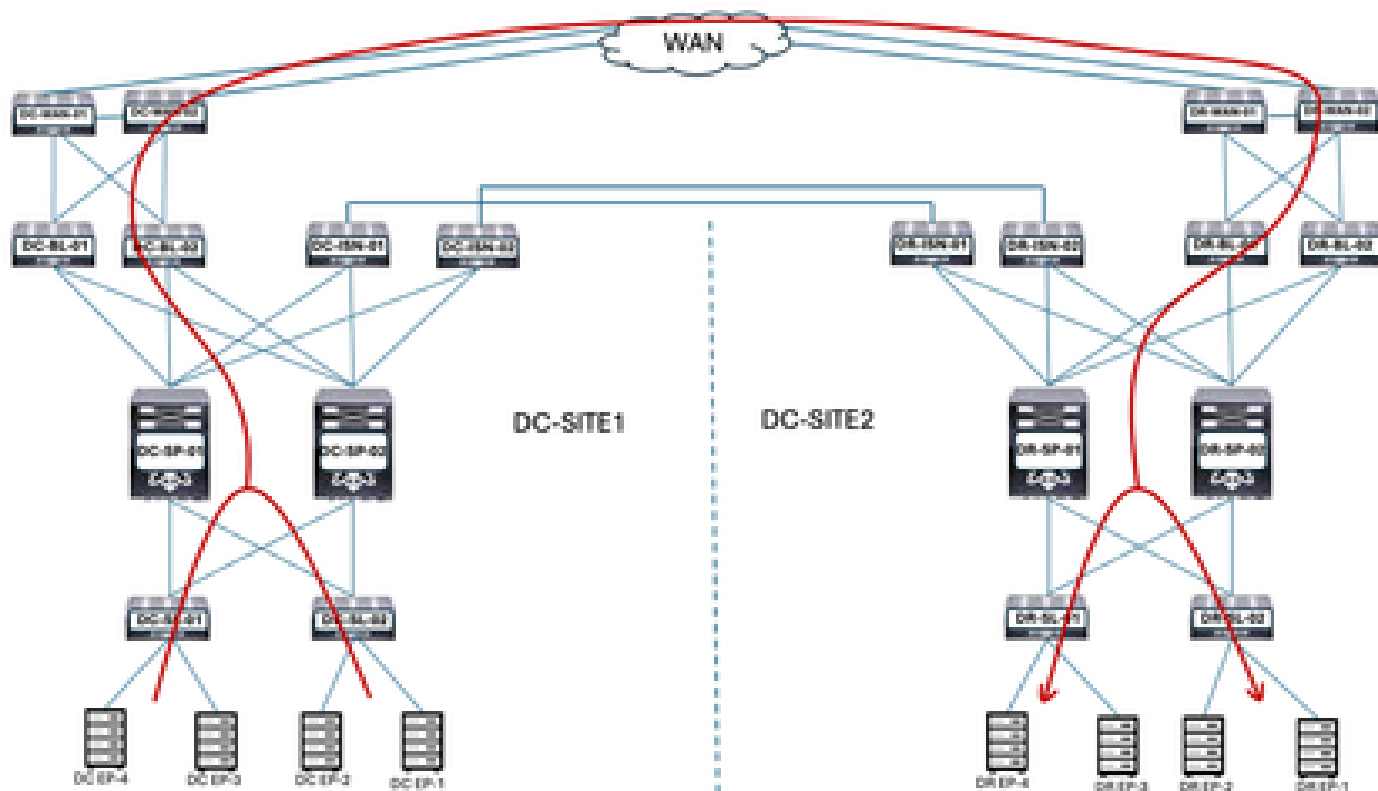
Figura 5: Flusso di traffico tra VRF



DC Border Leaf inoltra il traffico agli switch WAN DC per qualsiasi comunicazione tra VRF. Gli switch WAN DC sono utilizzati per la comunicazione tra VRF. DC-EP-1/EP-2 (VRF WEB) comunicano con DC-EP-4 (VRF APP) tramite switch WAN. DR Border Leaf inoltra il traffico agli switch WAN DR per qualsiasi comunicazione tra VRF. Gli switch WAN DR vengono utilizzati per la comunicazione tra VRF. DR-EP-1/EP-2 (VRF WEB) comunicano con DR-P-4 (VRF APP) tramite switch WAN.

## Flusso traffico tra controller di dominio

Figura 6: Flusso traffico tra controller di dominio



La comunicazione tra gli endpoint DC e gli endpoint DR viene inoltrata a Border Leaf. Border Leaf inoltra il traffico agli switch WAN. Gli switch WAN vengono utilizzati per la comunicazione tra DC.

## Piano di migrazione

Nexus Dashboard Orchestrator è utilizzato per creare il multisito tra entrambi i siti, EPG/BD estesi tra siti ed endpoint da migrare da DC-SITE1 a DR-SITE2,

### Creazione schema-1

Schema-1 creato tramite Nexus Dashboard Orchestrator.

Figura 7: Modello tenant - Aggiungi schema

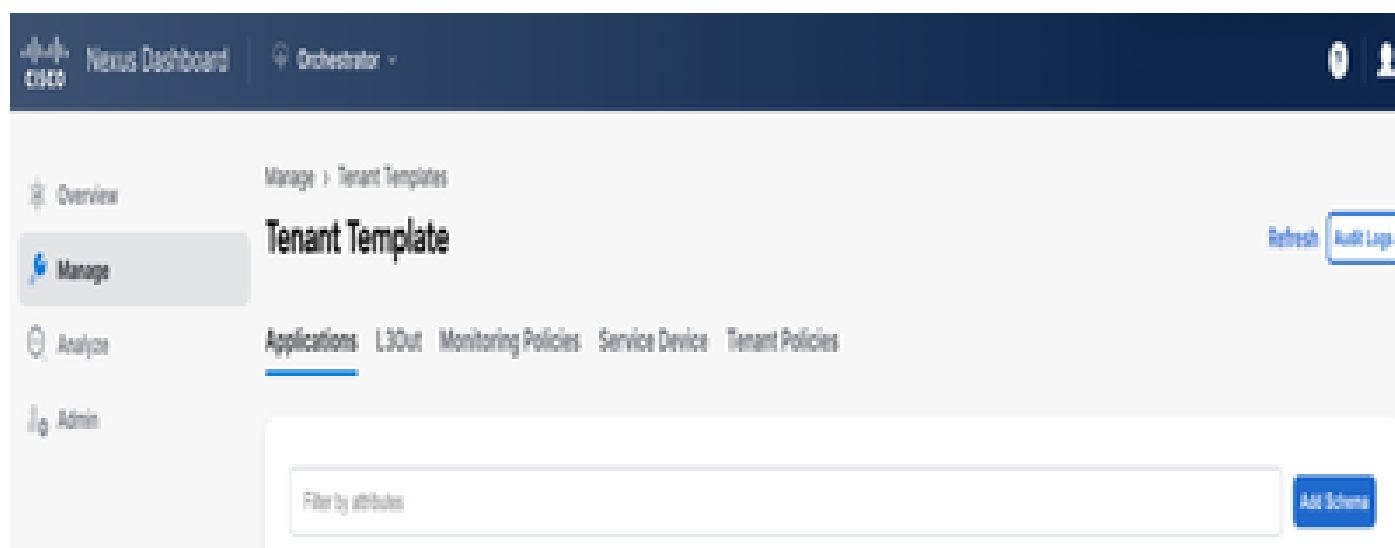
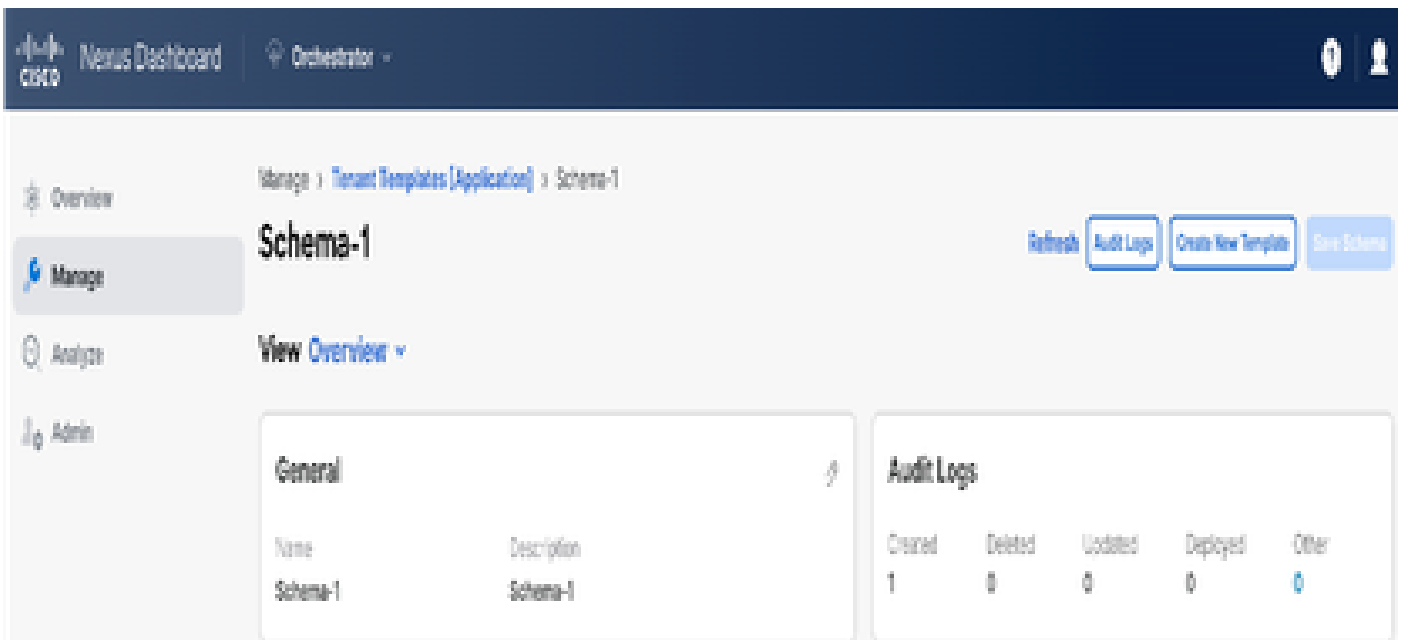


Figura 8: Aggiungi nome schema



## Creazione modello-VRF-Contract-Stretched

Template-VRF-Contract-Stretched creato all'interno di Schema-1. DC-SITE1 e DR-SITE2 devono far parte di questo modello e Tenant-Production devono essere associati allo stesso modello. Questo è un modello esteso. I VRF e i contratti devono far parte di un modello separato, in quanto questi oggetti sono condivisi tra altri BD/EPG. Questo modello può essere utilizzato per estendere il VRF DC-SITE1 e il contratto a DR-SITE2.

Figura 9: Aggiungi modello applicazione - Seleziona ACI Multi-Cloud

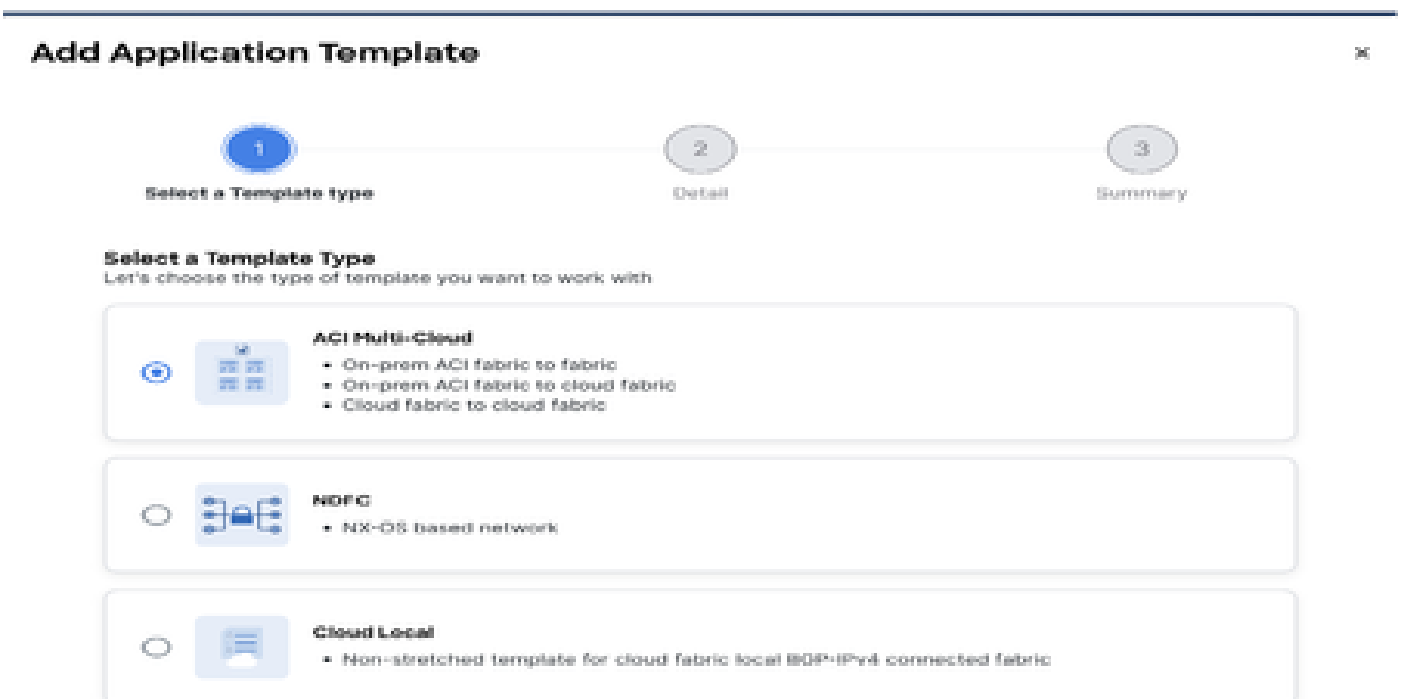


Figura 10: Aggiungi nome modello Template-WEB-VRF-Contract-Stretched, Seleziona produzione tenant

## Add Application Template

✕



### Details

Now name the template and select a tenant

**ACI Multi-Cloud**

- On-prem ACI fabric to fabric
- On-prem ACI fabric to cloud fabric
- Cloud fabric to cloud fabric

### GENERAL

Display Name \*

Template-WEB-VRF-Contract-Stretched

Internal Name: Template-WEB-VRF-Contract-Stretched

[Add Description](#)

Select a Tenant \*

Production

Deployment Mode

Multi-Fabric

Autonomous

[Cancel](#)

[Back](#)

[Next](#)

Figura 11: Dettagli Template-WEB-VRF-Contract-Stretched

## Add Application Template

✕



### Summary

**ACI Multi-Cloud**

- On-prem ACI fabric to fabric
- On-prem ACI fabric to cloud fabric
- Cloud fabric to cloud fabric

### Details

Template name  
Template-WEB-VRF-Contract-Stretched

Deployment Mode  
Multi-Fabric

Tenant  
Production

[Cancel](#)

[Back](#)

[Continue to template](#)

Importa VRF-Contract in Template-VRF-Contract-Stretched

Importa DC-VRF-WEB e DC-VRF-WEB-Contract da DC-SITE1. I contratti vengono creati per la comunicazione tra EPG e la comunicazione tra EPG e L3Out.

Figura 12: Fare clic su Importa e selezionare DC-SITE1



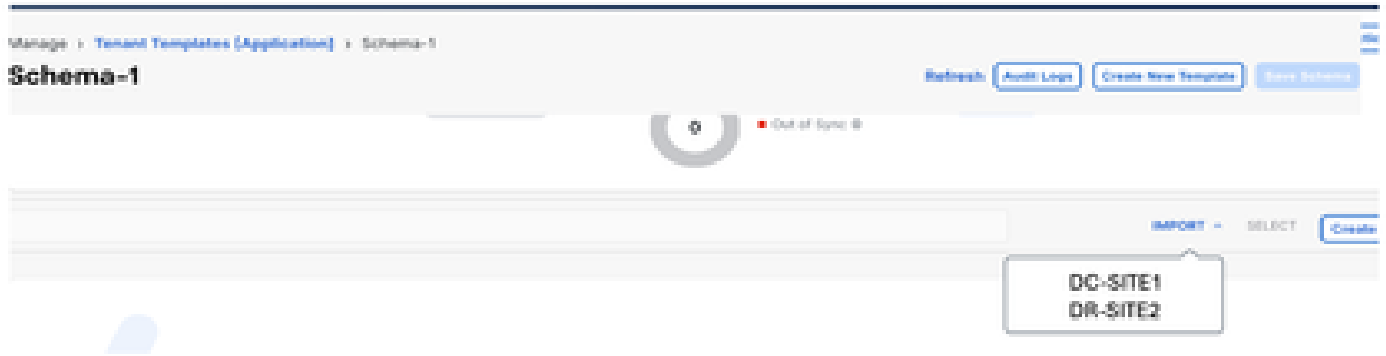


Figura 13: Seleziona contratto da DC-SITE1

Import from DC-SITE1			X
POLICY TYPE	<input type="checkbox"/> SELECT TO IMPORT	<input type="text"/>	IMPORT RELATIONS
APPLICATION PROFILE 0 out of 2	<input type="checkbox"/> DC-EPG-TO-EPG-APP-CON 1 FILTER		
EPG 0 out of 3	<input checked="" type="checkbox"/> DC-EPG-TO-EPG-WEB-CON 1 FILTER		<input checked="" type="checkbox"/>
EXTERNAL EPG 0 out of 2	<input type="checkbox"/> DC-EPG-TO-L3Out-APP-CON 1 FILTER		
<b>CONTRACT 2 out of 4</b>	<input checked="" type="checkbox"/> DC-EPG-TO-L3Out-WEB-CON 1 FILTER		<input checked="" type="checkbox"/>

Figura 14: Seleziona filtro da DC-SITE1

POLICY TYPE		<input type="checkbox"/> SELECT TO IMPORT	<input type="text"/>	IMPORT RELATIONS
APPLICATION PROFILE	0 out of 2	<input type="checkbox"/>	DC-EPG-TO-EPG-APP-FIL	
EPG	0 out of 3	<input checked="" type="checkbox"/>	DC-EPG-TO-EPG-WEB-FIL	
EXTERNAL EPG	0 out of 2	<input type="checkbox"/>	DC-EPG-TO-L3Out-APP-FIL	
CONTRACT	2 out of 4	<input checked="" type="checkbox"/>	DC-EPG-TO-L3Out-WEB-FIL	
FILTER		2 out of 4		

Figura 15: Selezionare VRF da DC-SITE1

POLICY TYPE		<input checked="" type="checkbox"/> SELECT TO IMPORT	<input type="text"/>	IMPORT RELATIONS
APPLICATION PROFILE	0 out of 2	<input type="checkbox"/>	DC-VRF-APP	
EPG	0 out of 3	<input checked="" type="checkbox"/>	DC-VRF-WEB	
EXTERNAL EPG	0 out of 2			
CONTRACT	2 out of 4			
FILTER	2 out of 4			
VRF		1 out of 2		

Figura 16: Template-WEB-VRF-Contract-Stretched con VRF e informazioni sul contratto

Manage > Tenant Templates (Application) > Schema-1

### Schema-1

Refresh Audit Logs Create New Template Edit Schema

**Template Summary**

Type: Application Tenant: Production Template Status: Out of Sync Associated Fabrics: 2 (1 In Sync, 1 Out of Sync) Last Action: Updated Deployment Mode: Multi-Fabric

Filter

Contracts

- DC-EPG-TD-EPG-WEB-COR
- DC-EPG-TD-L3Out-WEB-COR

VRFs

- DC-VRF-APP
- DC-VRF-WEB

Create Co Create

Distribuisci modello-VRF-Contract-Stretched

Fare clic su Deploy Template-VRF-Contract-Stretched e selezionare DC-SITE1 e DR-SITE2

Figura 17:aggiunta di fabric al modello VRF-Contract-Stretched

### Add Fabrics To Template-WEB-VRF-Contract-Stretched

- Name
- (DC-SITE1)
- (DR-SITE2)

Click

Figura 18: Distribuisci modelli di sincronizzazione

## Deploy Out of Sync Templates ✕

The following templates will be deployed in the specified order

### Out of Sync Templates

Template Name	Template Type	Associated Fabrics
Template-WEB-VRF-Contract-Stretched	Application	2

1 Items found Rows per page 5 < 1 >

Cancel
Deploy Out of Sync Templates

Figura 19: Implementazione completata

Manage > Tenant Templates (Application) > Schema-1

### Schema-1 Refresh Audit Logs Create New Template Edit Schema

View **Template-WEB-VRF-Contract-Stretched** ▾

Template Properties •(DC-SITE1) •(DR-SITE2)

#### Template Summary

Type Application	Tenant <b>Production</b>	Template Status <span style="background-color: #28a745; color: white; padding: 2px 5px; border-radius: 10px;">In Sync</span>	Associated Fabrics <span style="border: 2px solid #28a745; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">2</span> <span style="font-size: 8px; margin-top: 5px;"> <span style="color: #28a745;">■</span> In Sync 2  <span style="color: #dc3545;">■</span> Out of Sync 0         </span>	Last Action <span style="background-color: #28a745; color: white; padding: 2px 5px; border-radius: 10px;">Deployment Successful</span> Last Deployed: Jan 3, 2025 09:07 pm	<span style="border: 1px solid #ccc; padding: 2px 5px; margin-right: 5px;">Edit Template</span> <span style="border: 1px solid #ccc; padding: 2px 5px; margin-right: 5px;">Deploy Template</span> <span style="border: 1px solid #ccc; padding: 2px 5px;">Action</span>
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Filter IMPORT SELECT Create

Contracts ▾ Create Co

DC-EPG-TO-EPG-WEB-CON

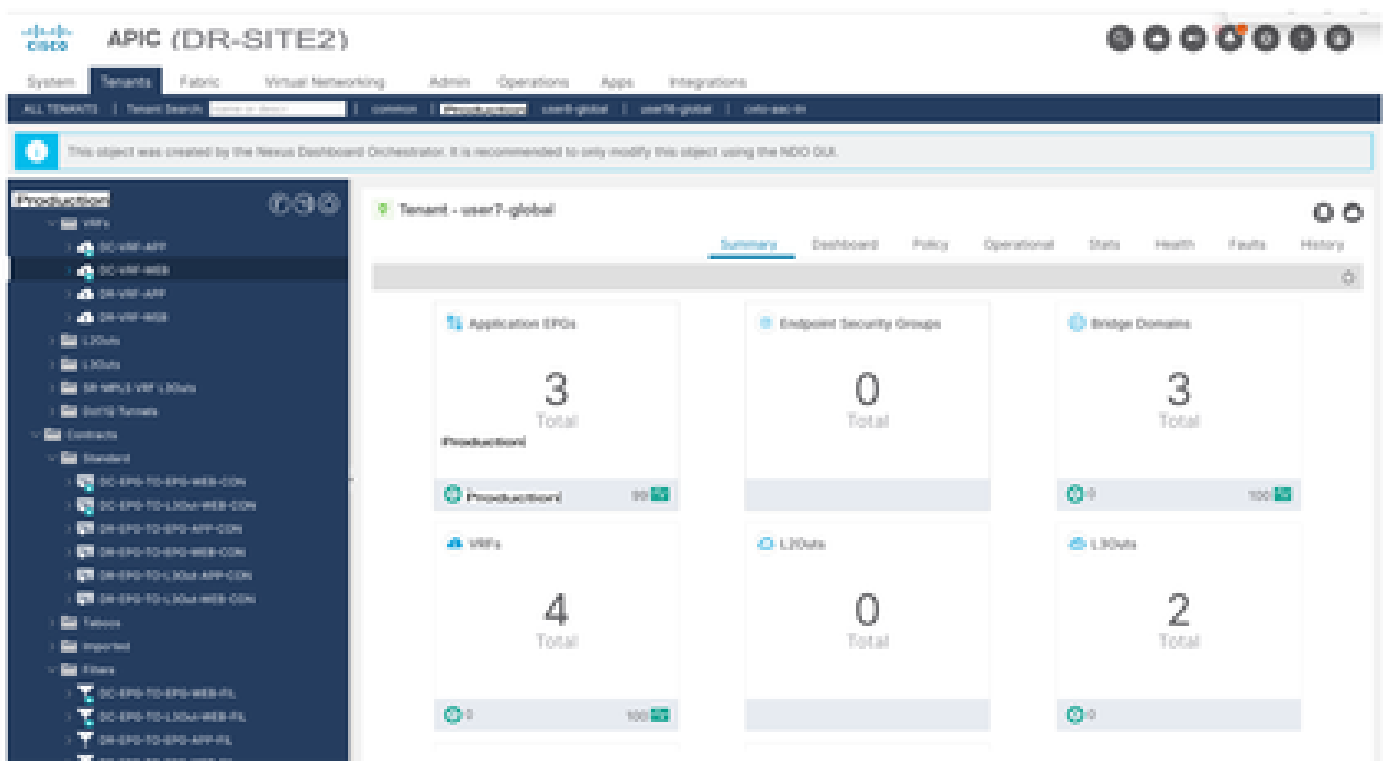
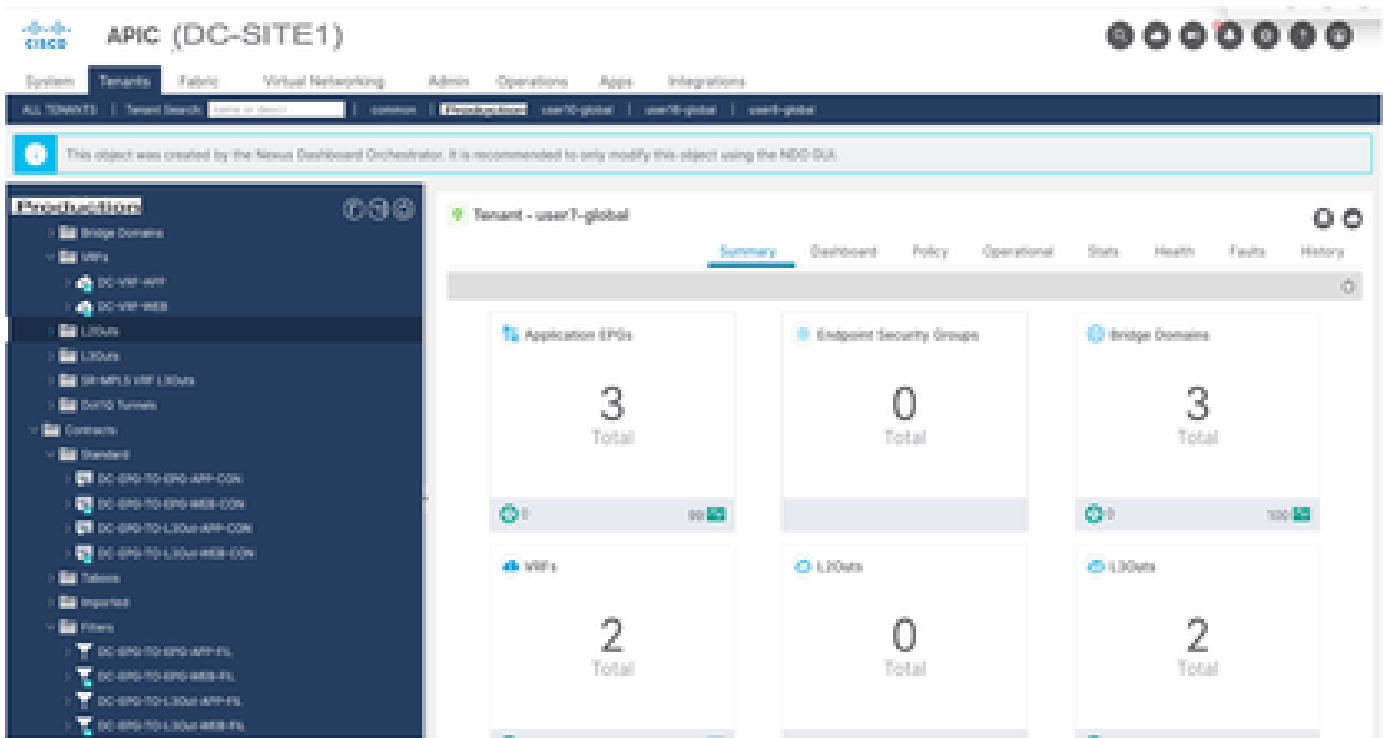
DC-EPG-TO-L3Out-WEB-CON

VRFs ▾ Crea

DC-VRF-APP

DC-VRF-WEB

Figura 20: Verifica VRF e contratti distribuiti su entrambi i siti



## Modello-EPG1-BD1-Stretched Creation

Template-EPG1-BD1-Stretched creato all'interno di Schema-1. DC-SITE1 e DR-SITE2 aggiunti a Template e Tenant-Production associati allo stesso Template. Questo è un modello esteso. Questo modello viene utilizzato per estendere DC-EPG1-WEB e DC-BD1-WEB a DR-SITE2.

Figura 21: Aggiungi modello applicazione - Seleziona ACI Multi-Cloud

## Add Application Template



1 Select a Template type      2 Detail      3 Summary

**Select a Template Type**  
Let's choose the type of template you want to work with

- ACI Multi-Cloud**
  - On-prem ACI fabric to fabric
  - On-prem ACI fabric to cloud fabric
  - Cloud fabric to cloud fabric
- NDPC**
  - NX-OS based network
- Cloud Local**
  - Non-stretched template for cloud fabric local BGP+IPv4 connected fabric

Figura 22: Aggiungi nome modello Template-EPG1-BD1-Stretched, Seleziona produzione tenant

## Add Application Template

1 Select a Template type      2 **Detail**      3 Summary

**Details**  
Now name the template and select a tenant

- ACI Multi-Cloud**
  - On-prem ACI fabric to fabric
  - On-prem ACI fabric to cloud fabric
  - Cloud fabric to cloud fabric

**GENERAL**

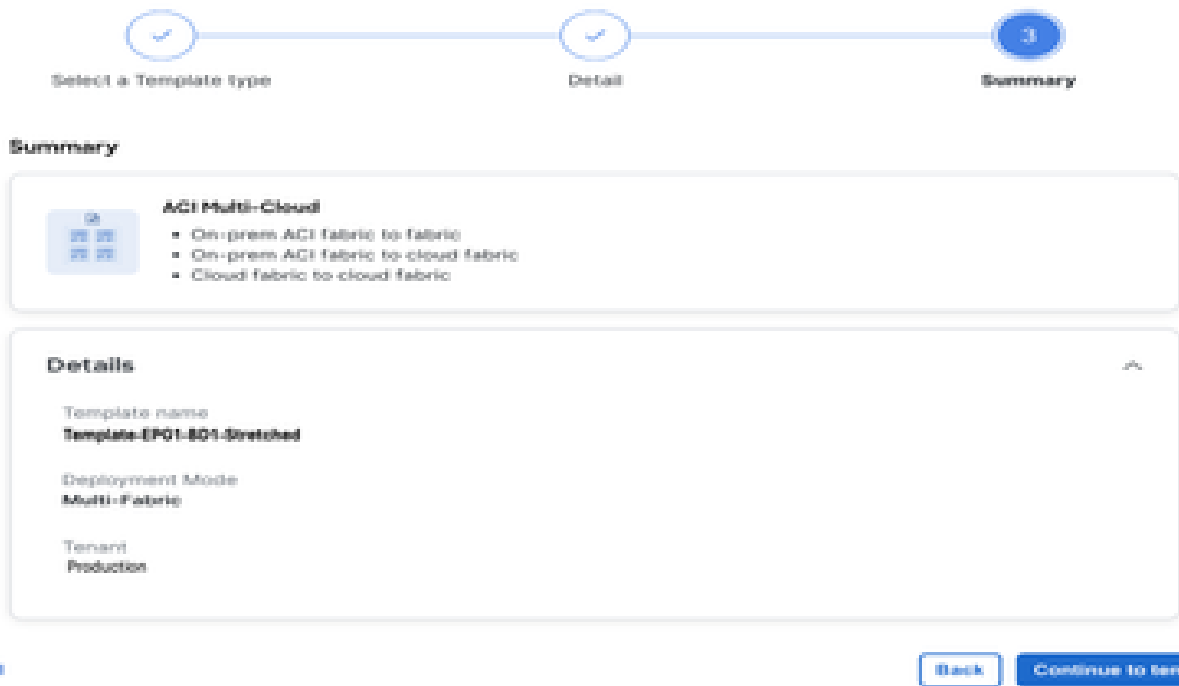
**Display Name:**   
Internal Name: Template-EPG1-BD1-Stretched [Add Description](#)

**Select a Tenant:**

**Deployment Mode:**  Multi-Fabric  Autonomous

[Cancel](#) [Back](#) [Next](#)

Figura 23: Template-EPG1-BD1-Dettagli allungati



Importare EPG1-BD1 in Template-EPG1-BD1-Stretched

Importare DC-EPG1-WEB e DC-BD1-WEB da DC-SITE1.

Figura 24: Fare clic su Importa e selezionare DC-SITE1

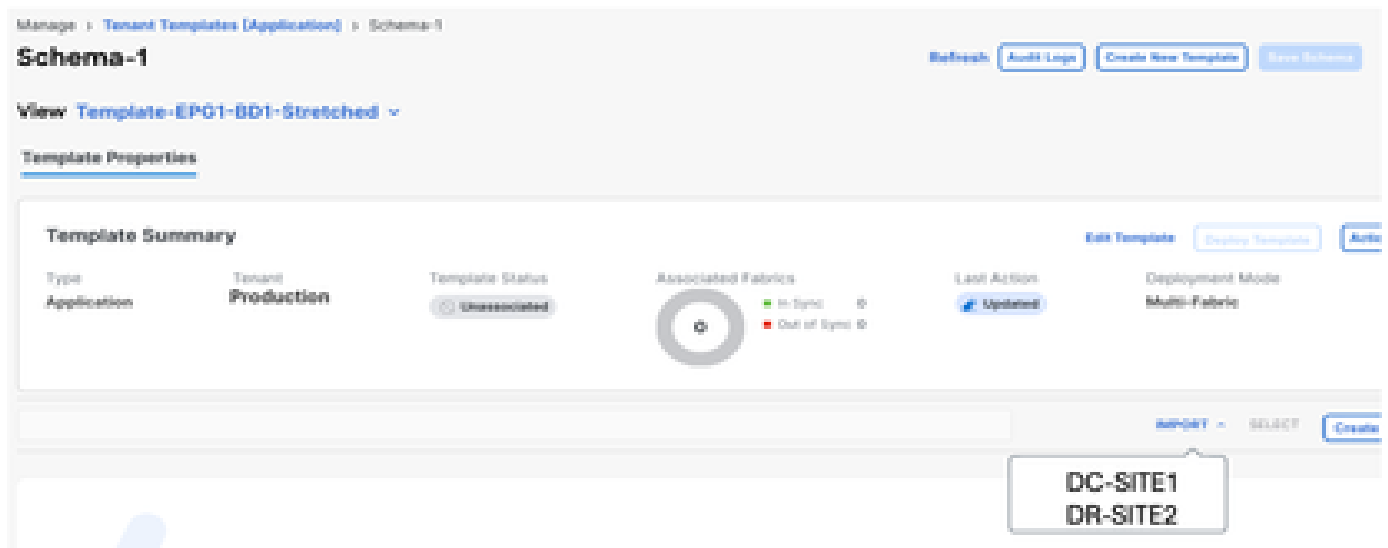


Figura 25: selezione di DC-EPG1-WEB da DC-SITE1

### Import from DC-SITE1 X







POLICY TYPE	<input type="checkbox"/> SELECT TO IMPORT	<input type="text" value=""/>	IMPORT RELATIONS
APPLICATION PROFILE <span>1 out of 2</span>	<input checked="" type="checkbox"/>  <b>DC-EPG1-WEB</b> 1 AP • 4 CONTRACT • 1 BD		<input checked="" type="checkbox"/>
<b>EPG</b> <span>1 out of 3</span>	<input type="checkbox"/>  <b>DC-EPG2-WEB</b> 1 AP • 4 CONTRACT • 1 BD		
EXTERNAL EPG <span>0 out of 2</span>	<input type="checkbox"/>  <b>DC-EPG-APP</b> 1 AP • 4 CONTRACT • 1 BD		

Figura 26: selezione di DC-BD1-WEB da DC-SITE1

### Import from DC-SITE1 X

POLICY TYPE	<input type="checkbox"/> SELECT TO IMPORT	<input type="text" value=""/>	IMPORT RELATIONS
APPLICATION PROFILE <span>1 out of 2</span>	<input checked="" type="checkbox"/>  <b>DC-BD1-WEB</b> 1 VRF		<input type="checkbox"/>
EPG <span>1 out of 3</span>	<input type="checkbox"/>  <b>DC-BD2-WEB</b> 1 VRF		
EXTERNAL EPG <span>0 out of 2</span>	<input type="checkbox"/>  <b>DC-BD-APP</b> 1 VRF		
CONTRACT <span>0 out of 4</span>			
FILTER <span>0 out of 4</span>			
VRF <span>0 out of 2</span>			
<b>BD</b> <span>1 out of 3</span>			



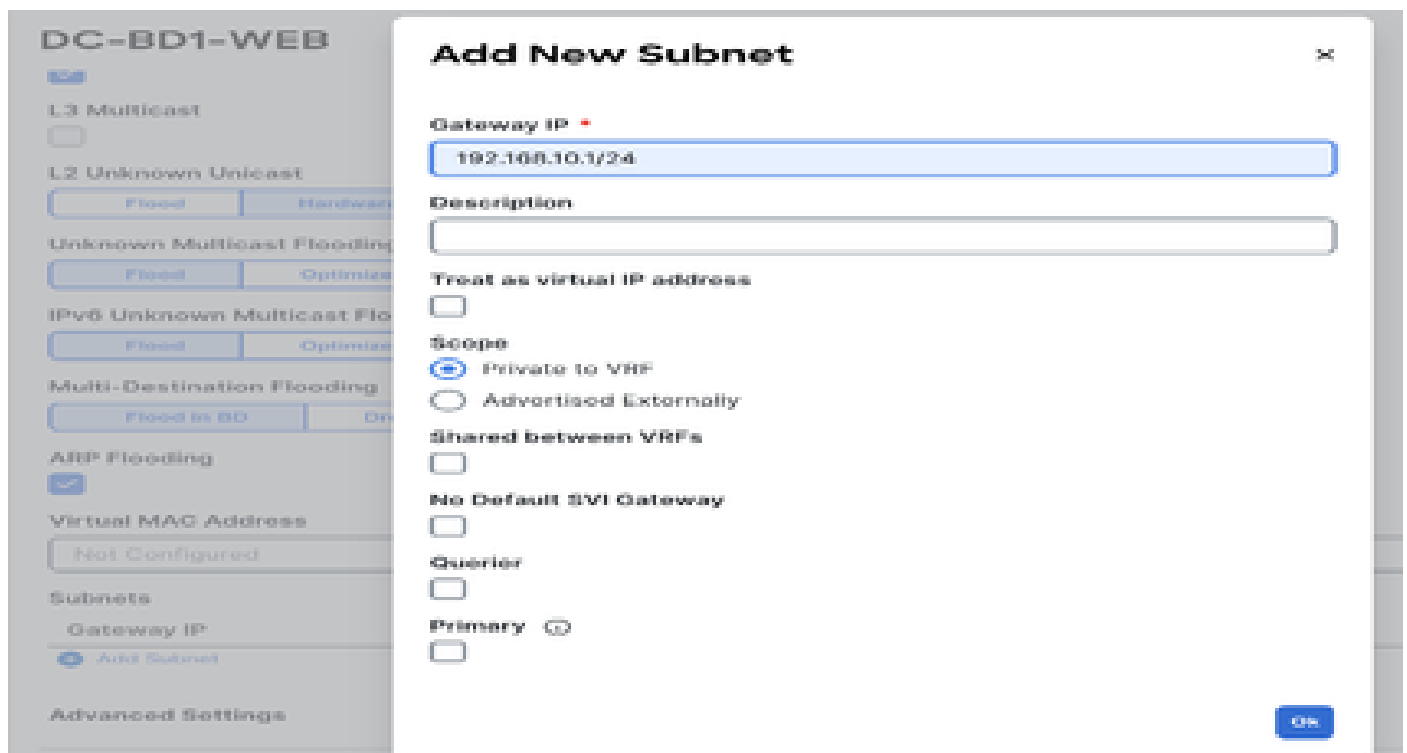
## Modificare l'impostazione di BD in Template-EPG1-BD1-Stretched

Abilitare l'estensione L2 nelle impostazioni DC-BD1-WEB e aggiungere l'indirizzo IP del gateway. Questo modello viene utilizzato per estendere BD nel sito e per il gateway anycast configurato in DC-SITE1 e DR-SITE2.

Figura 27: Selezionare l'estensione L2 in DC-BD1-WEB



Figura 28: Aggiungi IP/subnet gateway



Distribuisce modello-EPG1-BD1-Stretched

Fare clic su Deploy Template-EPG1-BD1-Stretched e selezionare DC-SITE1 e DR-SITE2

Figura 29: Aggiunta di fabric al modello EPG1-BD1-Stretched



Figura 30: Distribuisci modelli di sincronizzazione

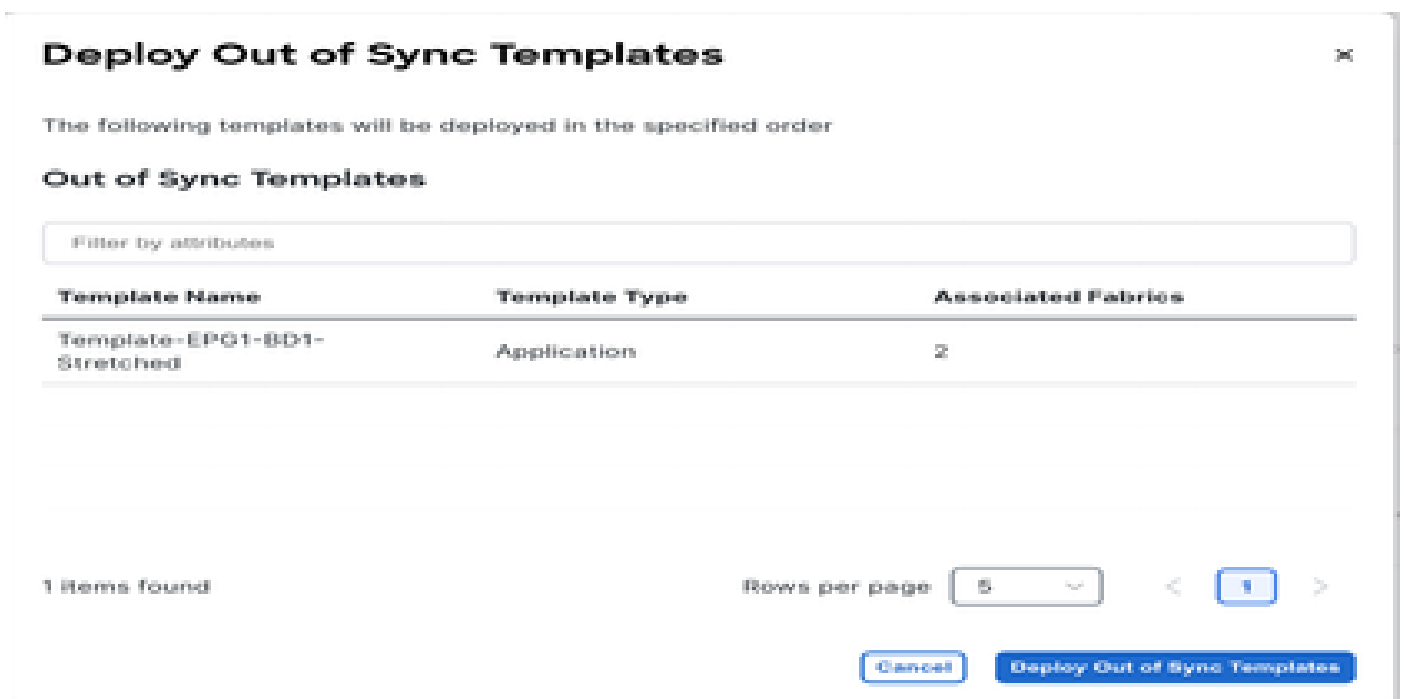
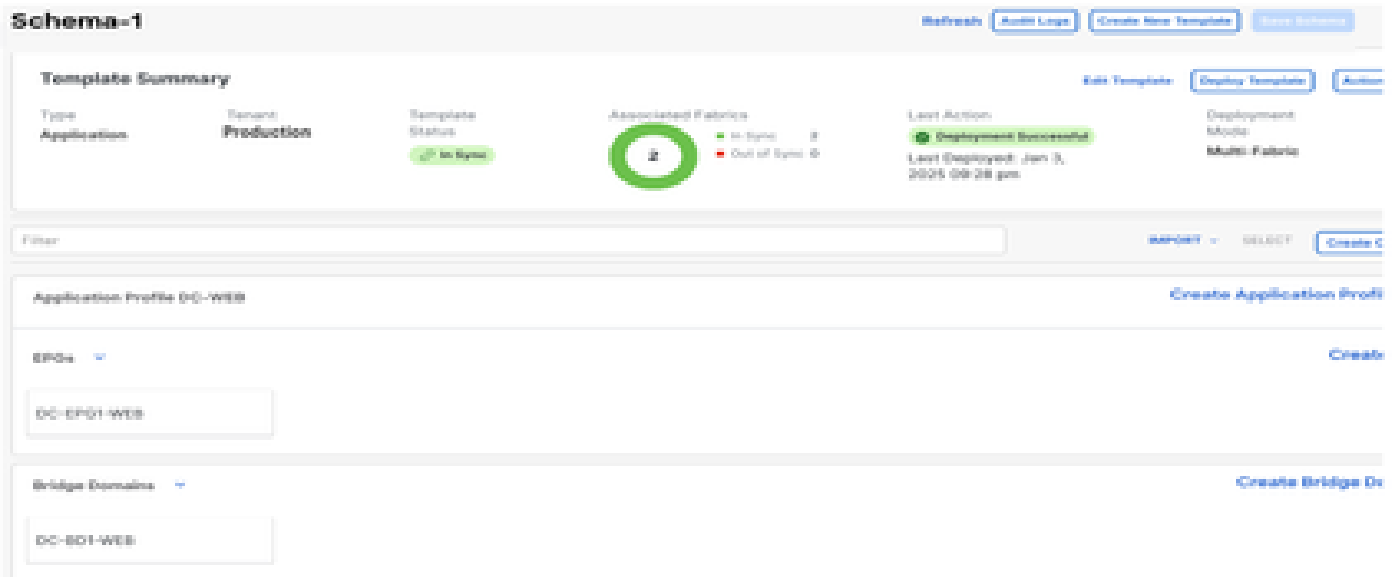


Figura 31: Implementazione completata



## Migrazione di DC-EP-1 da DC-SITE1 a DR-SITE2

Configurare il binding statico in DR-SITE2 in DC-EPG1-WEB e associare il dominio fisico DR-SITE2. Migrare DC-EP-1 da DC-SITE1 a DR-SITE2.

Figura 32: DC-EP-1 attualmente appreso in DC-SITE1

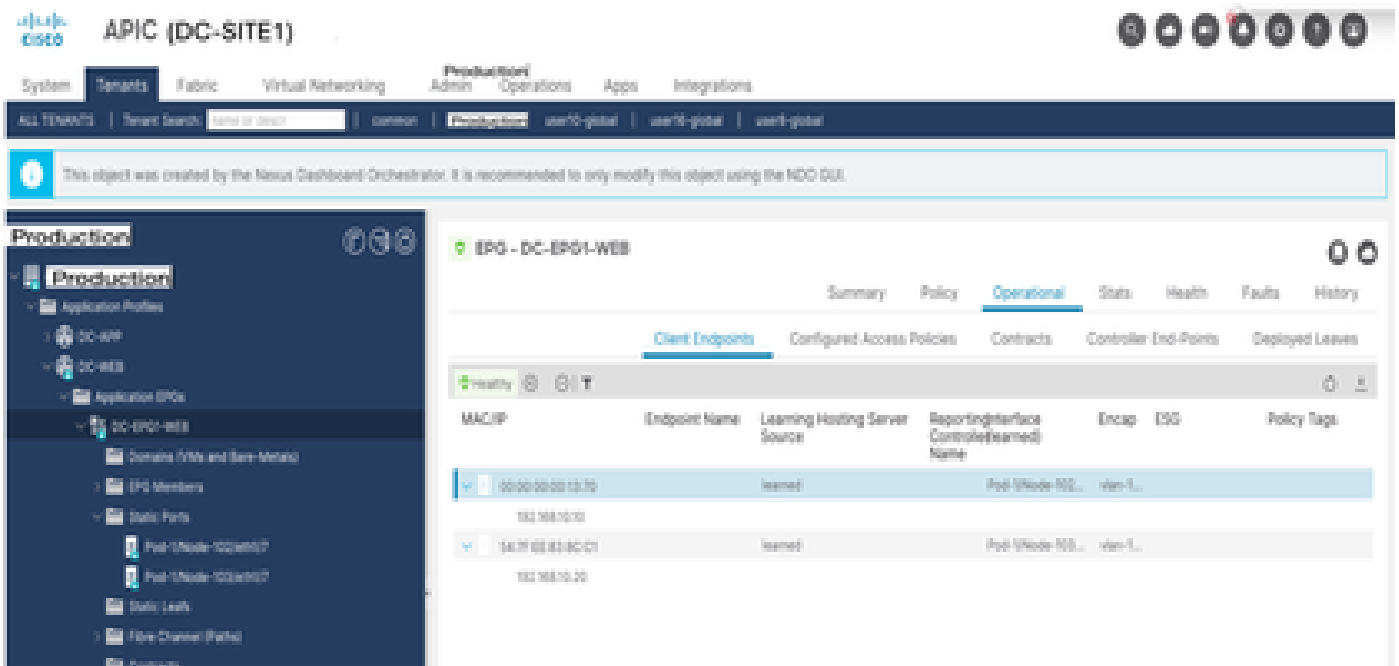


Figura 33: DC-EP-1 rimosso da DC-SITE1

APIC (DC-SITE1)

System | **Tenants** | Fabric | Virtual Networking | Admin | Operations | Apps | Integrations

ALL TENANTS | Tenant Search:  | common | **Production** | user1-global | user2-global | user3-global

This object was created by the Nexus Dashboard Orchestrator. It is recommended to only modify this object using the NDO GUI.

**Production**

- Production
  - Application Profiles
    - DC-APP
    - DC-WEB
  - Application EPGs
    - DC-EPG1-WEB**
      - Domains (VFs and Bare-Metals)
      - EPG Members
      - Static Ports
        - Port (Node-1024007)
      - Static Leafs
      - Flow-Channel (Path)
      - Contracts
      - Static Endpoints
      - Subnets
      - LA-L7 Virtual IPs
      - LA-L7 IP Address Pool

**EPG - DC-EPG1-WEB**

Summary | Policy | **Operational** | Stats | Health | Faults | History

Client Endpoints | Configured Access Policies | Contracts | Controller End-Points | Deployed Leases

Healthy

MAC/IP	Endpoint Name	Learning/Hosting Server Source	Reporting Interface (Controller/Server Name)	Encap	ESG	Policy Tags
54:7F:65:83:8C:C3 102.108.10.20	learned		Port-Node-102...	vlan-1...		

Figura 34: Aggiunta del dominio fisico in DR-SITE2

APIC (DR-SITE2)

System | **Tenants** | Fabric | Virtual Networking | **Production** | Admin | Operations | Apps | Integrations

ALL TENANTS | Tenant Search:  | common | **Production** | user1-global | user2-global | user3-global

This object was created by the Nexus Dashboard Orchestrator. It is recommended to only modify this object using the NDO GUI.

**Production**

- Production
  - Application Profiles
    - DC-WEB
      - Application EPGs
        - DC-EPG1-WEB**
          - Domains (VFs and Bare-Metals)
          - EPG Members
          - Static Ports
            - Static Leafs
            - Flow-Channel (Path)
            - Contracts
            - Static Endpoints
            - Subnets
            - LA-L7 Virtual IPs
            - LA-L7 IP Address Pool

**Domains (VFs and Bare-Metals)**

Domain	Type	Deploys	Resoluto	Allow Micro-Segment	Primary VLAN	Port Encap	Switching Mode	Encap Mode	Cos. Value	Enhance Lag Policy	Custom EPG Name	MDX-T API Mode	IPAM Gateway Address	DHCP Server Address Override	IPAM Enabled
user2	Physic...						native	Auto	CoS0			Manag...	0:0:0	0:0:0	False

Figura 35: Aggiunta del binding statico in DR-SITE2

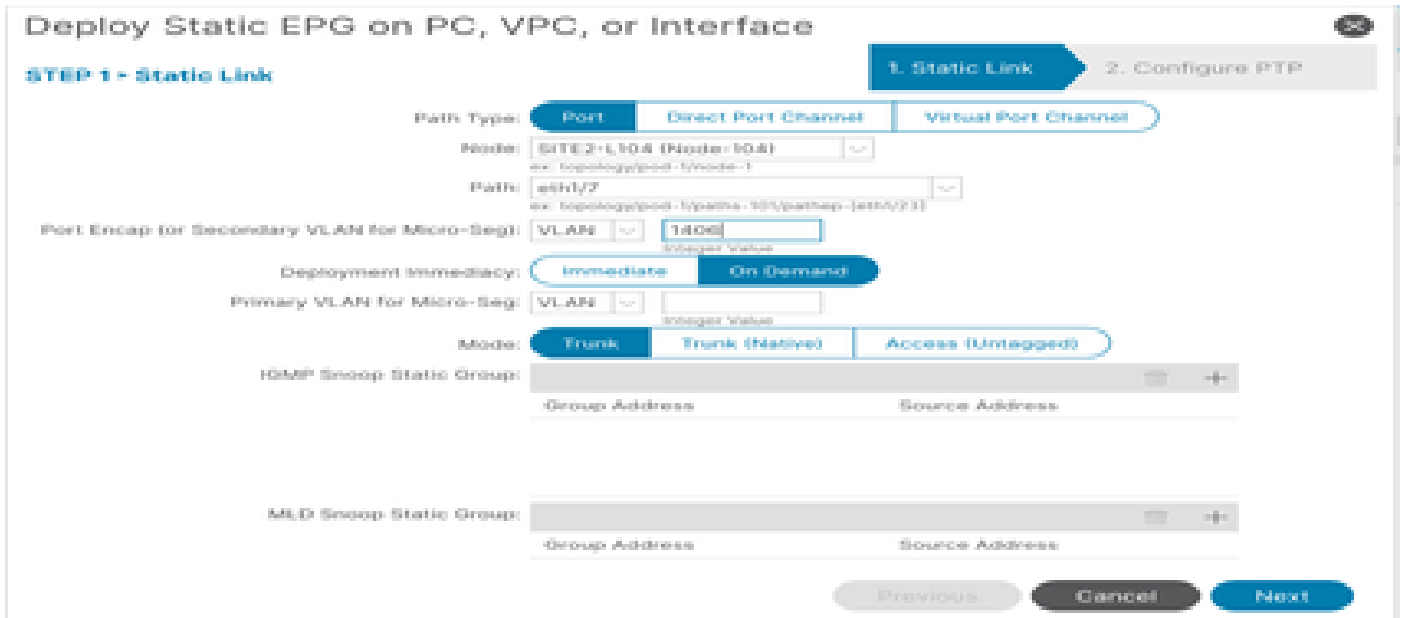
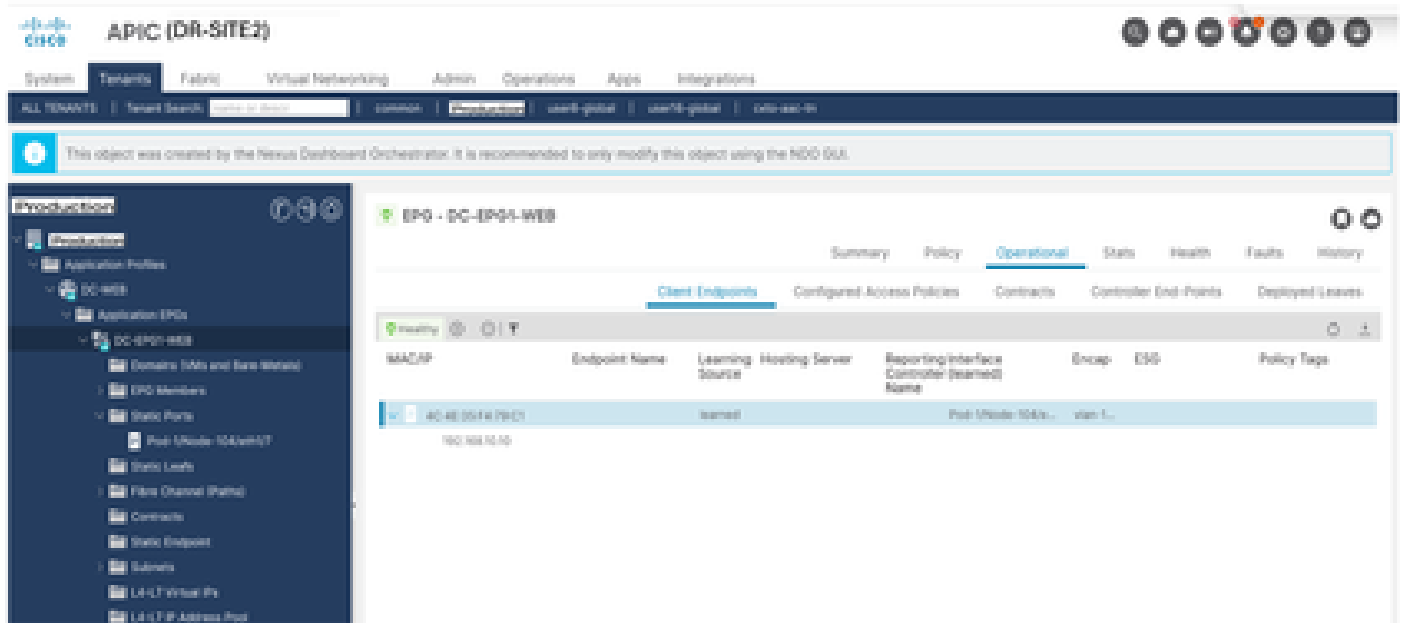


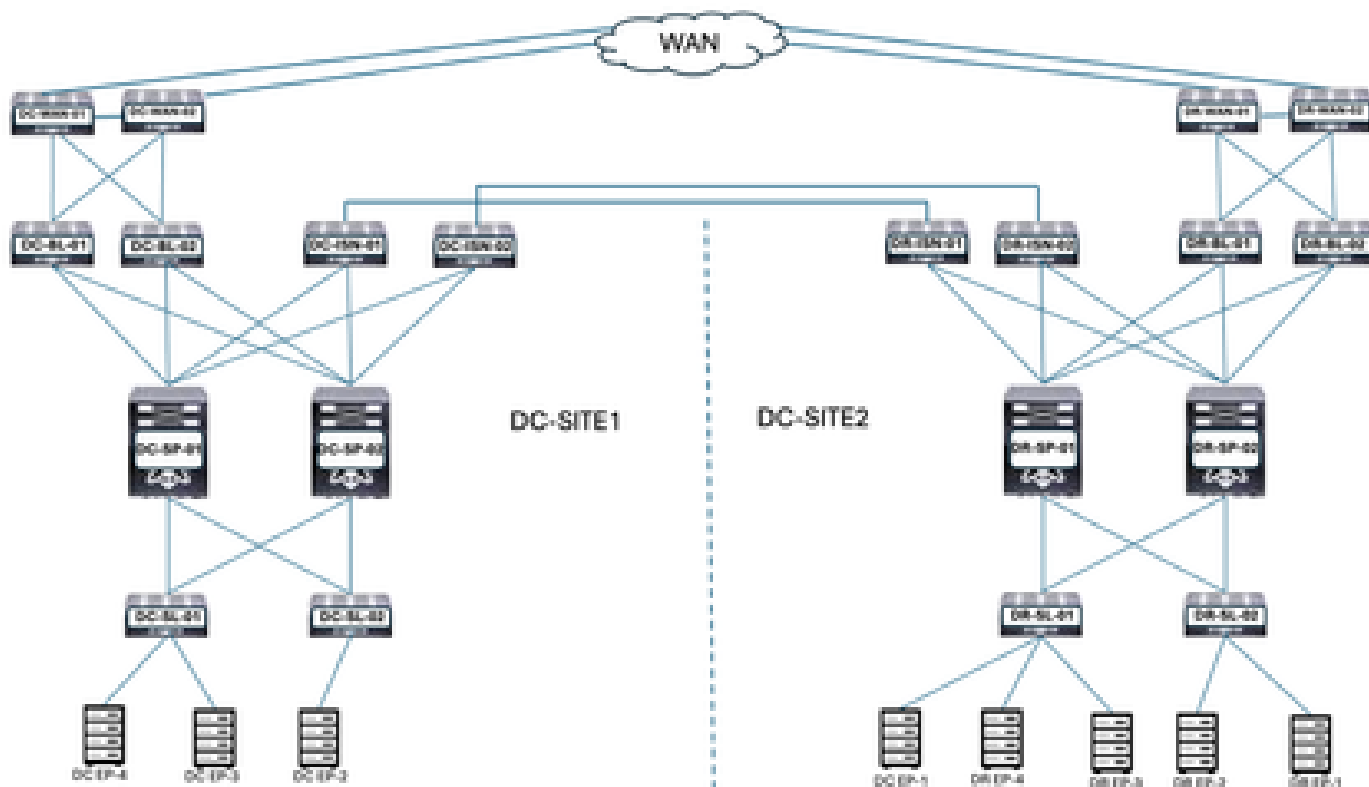
Figura 36: DC-EP-1 appreso in DR-SITE2



Progettazione fisica dopo la migrazione di DC-EP-1

DC-EP-1 è collegato a DR-SITE2 Server Leaf.

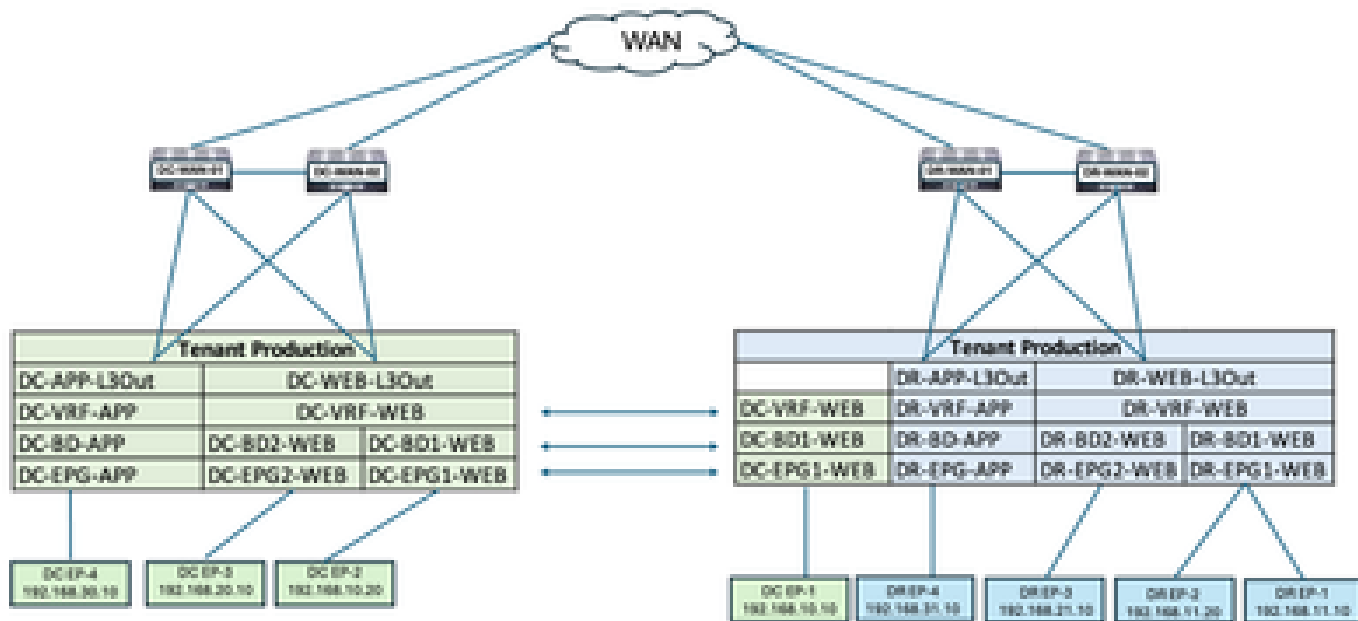
Figura 37: Progettazione fisica dopo la migrazione di DC-EP-1



Progettazione logica dopo la migrazione di DC-EP-1

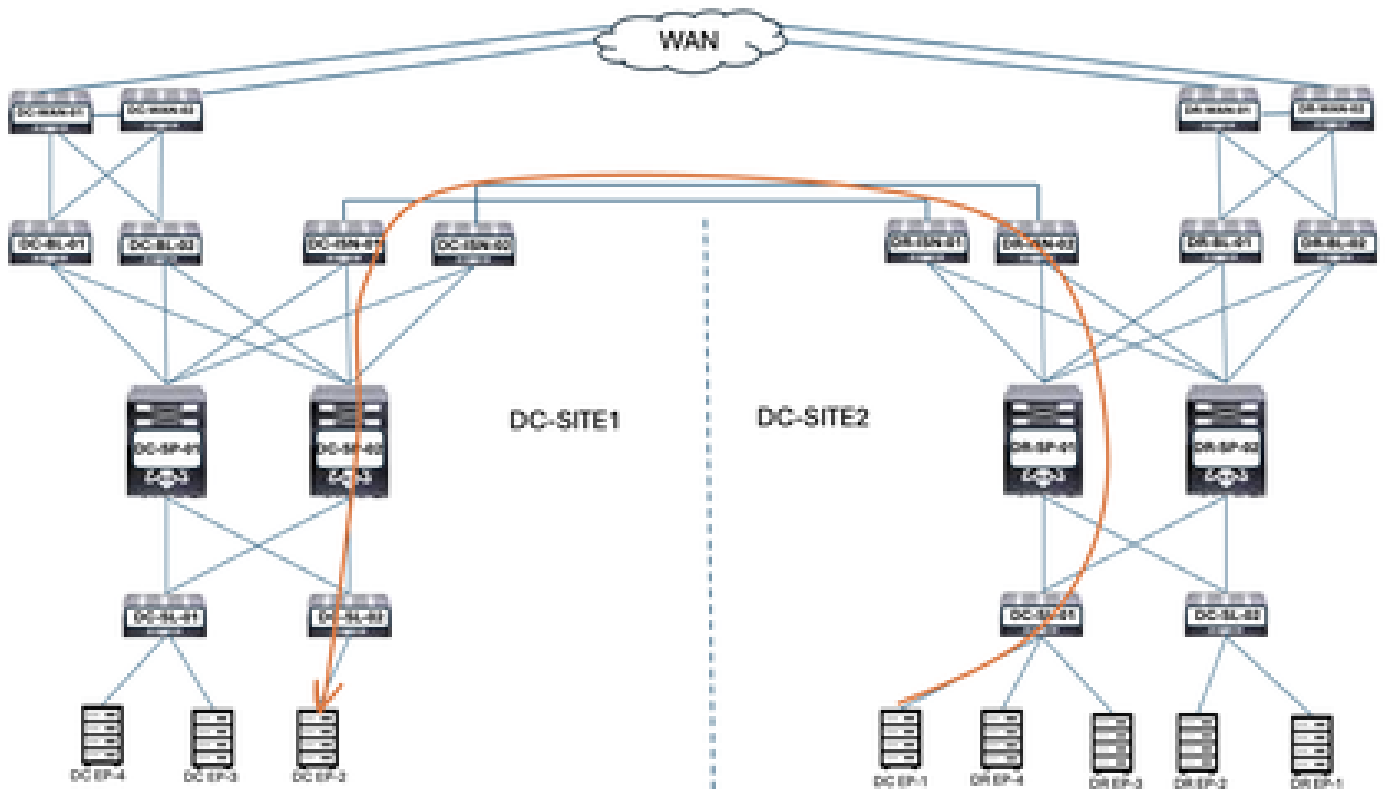
DC-EP-1 è collegato a DR-SITE2 Server Leaf. DC-EPG1-WEB, DC-BD1-WEB e DC-VRF-WEB si estendono tra DC-SITE1 e DR-SITE2.

Figura 38: Progettazione logica dopo la migrazione di DC-EP-1



Flusso di traffico tra EPG dopo la migrazione DC-EP-1

Figura 39: Flusso di traffico tra EPG dopo la migrazione DC-EP-1



La comunicazione tra DC-EP-1 e DC-EP-2 è una comunicazione intra-EPG, in quanto entrambi gli endpoint appartengono a DC-EPG1-WEB. Questa comunicazione avviene tramite DC ISDN su collegamenti multipli/sovrapposti ISDN.

Risposta ping tra DC-EP-1 e DC-EP-2

Figura 40: Risposta ping tra DC-EP-1 e DC-EP-2

```
# ping 192.168.10.20 source 192.168.10.10 vrf site-1
PING 192.168.10.20 (192.168.10.20) from 192.168.10.10: 56 data bytes
64 bytes from 192.168.10.20: icmp_seq=0 ttl=254 time=2.592 ms
64 bytes from 192.168.10.20: icmp_seq=1 ttl=254 time=1.931 ms
64 bytes from 192.168.10.20: icmp_seq=2 ttl=254 time=1.89 ms
64 bytes from 192.168.10.20: icmp_seq=3 ttl=254 time=2.063 ms
64 bytes from 192.168.10.20: icmp_seq=4 ttl=254 time=1.909 ms

--- 192.168.10.20 ping statistics ---
5 packets transmitted, 5 packets received, 0.00% packet loss
round-trip min/avg/max = 1.89/2.092/2.592 ms
```

Tabella di routing da dorsali

DC-EP-1 appreso in DC-SP-01/DC-SP-02 da DR-SP-01/DR-SP-02.

Figura 41: Tabella di routing da dorsali

DC-EP-1 viene appreso in DC-SITE1-SP-01 da DR-SITE2-SP-01

```
DC-SITE1-SP-01# show bgp l2vpn evpn vrf overlay-1

Route Distinguisher: 1:49985577
*->e[2]:[0]:[0]:[48]:[4c4e.35f4.79c1]:[0]:[0.0.0.0]/216
      172.16.0.13      0 65002 1
*->e[2]:[0]:[0]:[48]:[4c4e.35f4.79c1]:[32]:[192.168.10.10]/272
      172.16.0.13      0 65002 1
```

DR-SITE2-SP-01 Sovrapposizione IP passaggio Unicast

```
DR-SITE2-SP-01# show ip int vrf overlay-1

lo5, Interface status: protocol-up/link-up/admin-up, iod: 86, mode: dci-ucast
IP address: 172.16.0.13, IP subnet: 172.16.0.13/32
IP broadcast address: 255.255.255.255
IP primary address route-preference: 0, tag: 0
```

### Creazione modello-EPG2-BD2-Site1

La comunicazione tra EPG tra DC-EP-1 e DC-EP-3 avviene una volta che DC-EPG2-WEB e DC-BD2-WEB fanno parte di Nexus Dashboard Orchestrator.

Template-EPG2-BD2-Site1 creato all'interno di Schema-1. DC-SITE1 aggiunto a Template e Tenant-Production associato allo stesso Template. Questo è un modello specifico del sito. Modello utilizzato per importare il modello EPG2-BD2-Site1 per la comunicazione tra DC-EP-1 e DC-EP-3.

La comunicazione DC-EP-1 e DC-EP-3 richiede che DC-EPG2-BD2 faccia parte di Nexus Dashboard Orchestrator.

Figura 42: Impossibile comunicare tra DC-EP-1 e DC-EP-3

```
# ping 192.168.20.10 source 192.168.10.10 vrf site-1
PING 192.168.20.10 (192.168.20.10) from 192.168.10.10: 56 data bytes
Request 0 timed out
Request 1 timed out
Request 2 timed out
Request 3 timed out
Request 4 timed out

--- 192.168.20.10 ping statistics ---
5 packets transmitted, 0 packets received, 100.00% packet loss
```

Figura 43: Aggiungi modello applicazione - Seleziona ACI Multi-Cloud



## Add Application Template

X

1 Select a Template type      2 Detail      3 Summary

**Select a Template Type**  
Let's choose the type of template you want to work with

- ACI Multi-Cloud**
  - On-prem ACI fabric to fabric
  - On-prem ACI fabric to cloud fabric
  - Cloud fabric to cloud fabric
- NDPC**
  - ND-OS based network
- Cloud Local**
  - Non-stretched template for cloud fabric local BGP/IPv4 connected fabric

Figura 44: Aggiungi nome modello Template-EPG2-BD2-Site1, Seleziona produzione tenant

## Add Application Template

X

1 Select a Template type      2 **Detail**      3 Summary

**Details**  
Now name the template and select a tenant

- ACI Multi-Cloud**
  - On-prem ACI fabric to fabric
  - On-prem ACI fabric to cloud fabric
  - Cloud fabric to cloud fabric

**GENERAL**

**Display Name \***  
Template-EPG2-BD2-Site1  
Internal Name: Template-EPG2-BD2-Site1 [Add Description](#)

**Select a Tenant \***  
Production

**Deployment Mode** ⓘ  
 Multi-Fabric  
 Autonomous

[Cancel](#) [Back](#) [Next](#)

Figura 45: Dettagli su Template-EPG2-BD2-Site1

## Add Application Template



Progress bar: 1. Select a Template type (checked), 2. Detail (checked), 3. Summary (active)

### Summary

**ACI Multi-Cloud**

- On-prem ACI fabric to fabric
- On-prem ACI fabric to cloud fabric
- Cloud fabric to cloud fabric

**Details**

Template name  
**Template-EPG2-BD2-Site1**

Deployment Mode  
**Multi-Fabric**

Tenant  
**Production**

[Cancel](#) [Back](#) [Continue to template](#)

Importa EPG2-BD2 nel modello EPG2-BD2-Site1

Importare DC-EPG2-WEB e DC-BD2-WEB da DC-SITE1.

Figura 46: Fare clic su Importa e selezionare DC-SITE1

### Schema-1

View **Template-EPG2-BD2-Site1**

Template Properties

Type: Application	Tenant: Production	Template Status: <a href="#">Message</a>	Associated Fabric: <span>0</span> (0 In Sync, 0 Out of Sync)	Last Action: <a href="#">Updated</a>	Last Deployed: Jan 8, 2025 09:57 pm	Deployment Mode: Multi-Fabric
-------------------	--------------------	--	--	--------------------------------------	-------------------------------------	-------------------------------

Filter:  [IMPORT](#) [SELECT](#) [Create](#)

**DC-SITE1**  
**DR-SITE2**

Figura 47: selezione di DC-EPG2-WEB da DC-SITE1

## Import from DC-SITE1

POLICY TYPE	<input type="checkbox"/> SELECT TO IMPORT	<input type="text"/>	IMPORT RELATIONS
APPLICATION PROFILE 1 out of 2	<input type="checkbox"/>	DC-EPG1-WEB 1 AP • 4 CONTRACT • 1 BD	
<b>EPG 1 out of 3</b>	<input checked="" type="checkbox"/>	DC-EPG2-WEB 1 AP • 4 CONTRACT • 1 BD	<input checked="" type="checkbox"/>
EXTERNAL EPG 0 out of 2	<input type="checkbox"/>	DC-EPG-APP 1 AP • 4 CONTRACT • 1 BD	

Figura 48: selezione di DC-BD2-WEB da DC-SITE1

## Import from DC-SITE1

POLICY TYPE	<input type="checkbox"/> SELECT TO IMPORT	<input type="text"/>	IMPORT RELATIONS
APPLICATION PROFILE 1 out of 2	<input type="checkbox"/>	DC-BD1-WEB 1 VRF	
EPG 1 out of 3	<input checked="" type="checkbox"/>	DC-BD2-WEB 1 VRF	<input checked="" type="checkbox"/>
EXTERNAL EPG 0 out of 2	<input type="checkbox"/>	DC-BD-APP 1 VRF	
CONTRACT 0 out of 4			
FILTER 0 out of 4			
VRF 0 out of 2			
<b>BD 1 out of 3</b>			

Import

Figura 49: I contratti associati a DC-EPG2-WEB vengono importati

## DC-EPG2-WEB [View Relationship](#)

**Common Properties**

**Display Name**  
  
Deployed Name: DC-EPG2-WEB

**Description**

**Annotations**

Key	Value
<a href="#">Create Annotations</a>	

**Contracts**

Name	Type	Actions
<a href="#">DC-EPG-TO-L3Out-WEB-COM</a>	provider	<a href="#">edit</a> <a href="#">delete</a>
<a href="#">DC-EPG-TO-EPG-WEB-COM</a>	provider	<a href="#">edit</a> <a href="#">delete</a>
<a href="#">DC-EPG-TO-L3Out-WEB-COM</a>	consumer	<a href="#">edit</a> <a href="#">delete</a>
<a href="#">DC-EPG-TO-EPG-WEB-COM</a>	consumer	<a href="#">edit</a> <a href="#">delete</a>

Distribuisi modello-EPG2-BD2-Site1

Fare clic su Distribuisi modello-EPG2-BD2-Site1 e selezionare DC-SITE1

Figura 50: aggiunta di fabric al modello EPG2-BD2-Site1

### Add Fabrics To Template-EPG2-BD2-Site1 x

Name

---

**DC-SITE1**  
6.0(5)

---

**DR-SITE2**  
6.0(5)

[Ok](#)

Figura 51: Distribuisi modelli di sincronizzazione

## Deploy Out of Sync Templates ✕

The following templates will be deployed in the specified order

### Out of Sync Templates

Filter by attributes

Template Name	Template Type	Associated Fabrics
Template-EPG2-BD2-Site1	Application	1

1 items found Rows per page: 5 < 1 >

Cancel
Deploy Out of Sync Templates

Figura 52: Implementazione completata

### Schema-1 Refresh Audit Logs Create New Template Edit Settings

Template Properties • (DC-SITE1)

#### Template Summary

Type <b>Application</b>	Tenant <b>Production</b>	Template Status <span style="color: green;">✔ In Sync</span>	Associated Fabrics <div style="display: flex; align-items: center;"> <div style="border: 2px solid green; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin-right: 5px;">1</div> <div> <p style="font-size: 8px; margin: 0;"> <span style="color: green;">■</span> In Sync: 1  <span style="color: red;">■</span> Out of Sync: 0           </p> </div> </div>	Last Action <span style="color: green; font-weight: bold;">✔ Deployment Successful</span> Last Deployed: Jan 3, 2025 10:28 pm	Edit Template <span style="margin-left: 10px;">Deploy Template</span> <span style="margin-left: 10px;">Auto</span> Deployment Mode <b>Multi-Fabric</b>
----------------------------	-----------------------------	---	---	---	--

Filter IMPORT SELECT Create

Application Profile DC-WEB Create Application Prof

EPGs Create

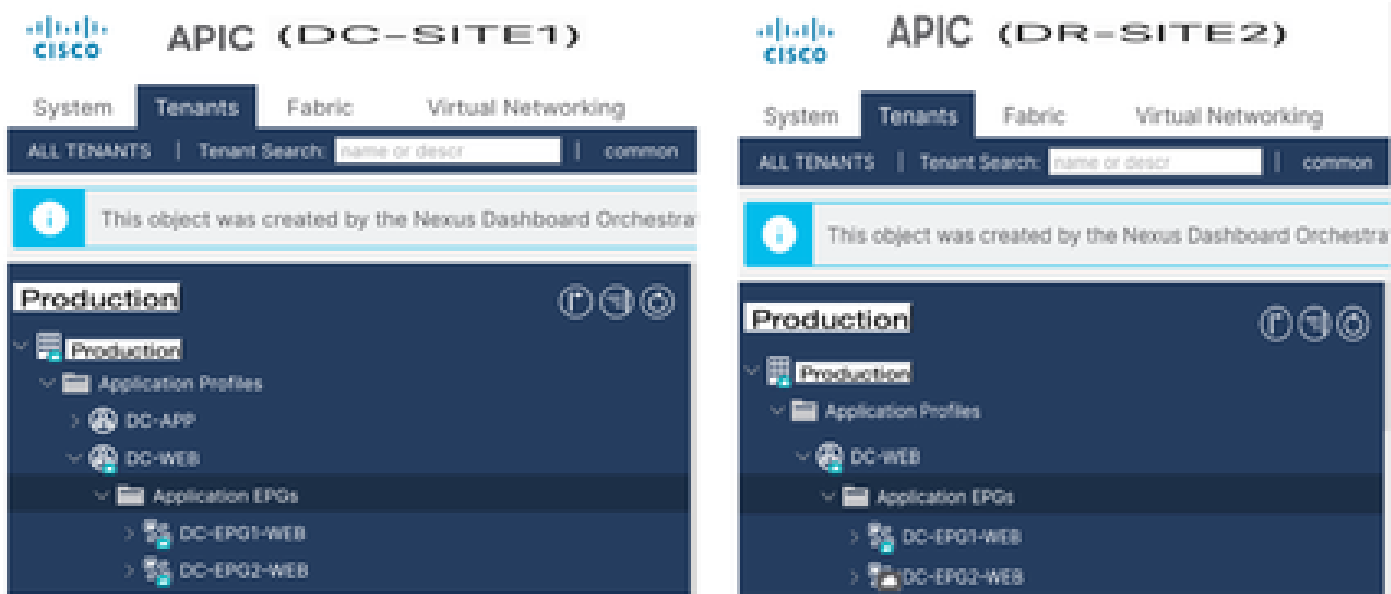
DC-EPG2-WEB

Bridge Domains Create Bridge D

DC-BD2-WEB

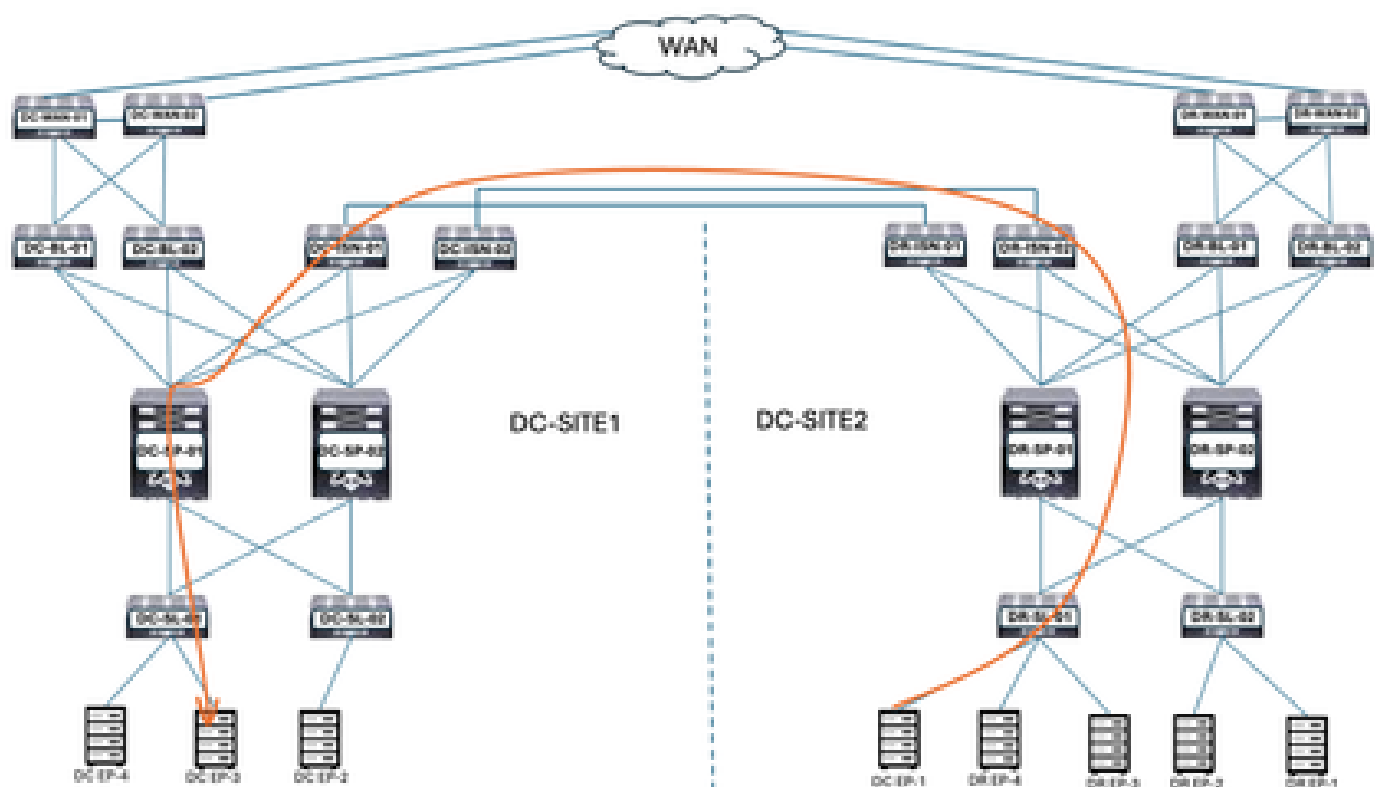
Figura 53: DC-EPG2-WEB è distribuito in entrambi i siti

EPG shadow per Web DC-EPG2 creato in DR-SITE2



## Flusso del traffico tra EPG dopo la migrazione EP-1

Figura 54: Flusso del traffico tra EPG dopo la migrazione EP-1



La comunicazione tra DC-EP-1 e DC-EP-3 è una comunicazione tra EPG, in quanto entrambi gli endpoint appartengono rispettivamente a DC-EPG1-WEB e DC-EPG2-WEB. Questa comunicazione avviene tramite DC ISDN a DR ISDN Multisito/Sovrapposti collegamenti.

## Risposta ping tra DC-EP-1 e DC-EP-3

Figura 55: Risposta ping tra DC-EP-1 e DC-EP-3

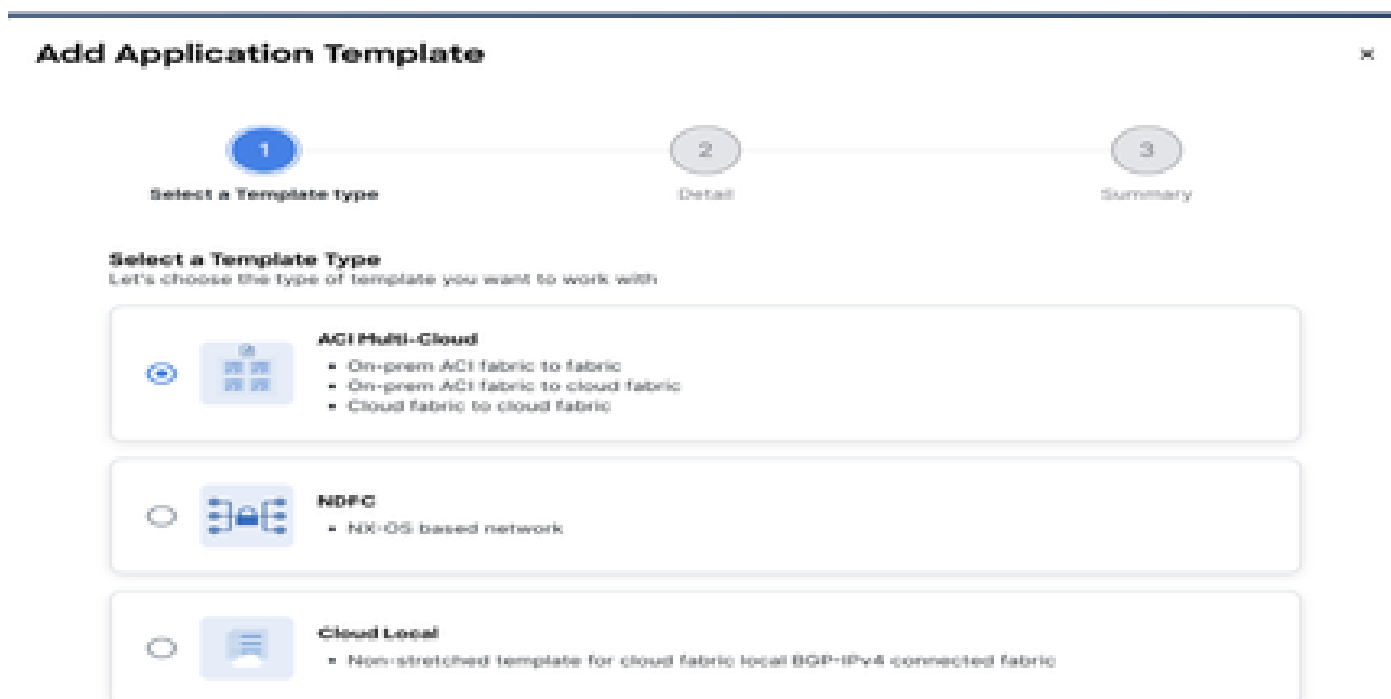
```
# ping 192.168.20.10 source 192.168.10.10 vrf site-1
PING 192.168.20.10 (192.168.20.10) from 192.168.10.10: 56 data bytes
64 bytes from 192.168.20.10: icmp_seq=0 ttl=252 time=1.498 ms
64 bytes from 192.168.20.10: icmp_seq=1 ttl=252 time=1.255 ms
64 bytes from 192.168.20.10: icmp_seq=2 ttl=252 time=1.129 ms
64 bytes from 192.168.20.10: icmp_seq=3 ttl=252 time=1.084 ms
64 bytes from 192.168.20.10: icmp_seq=4 ttl=252 time=1.537 ms

--- 192.168.20.10 ping statistics ---
5 packets transmitted, 5 packets received, 0.00% packet loss
round-trip min/avg/max = 1.084/1.3/1.537 ms
```

## Creazione modello-WEB-L3Out-Site1

Template-Web-L3Out-Site1 creato all'interno di Schema-1. DC-SITE1 aggiunto al modello e Tenant-Production associato allo stesso modello. Questo è un modello specifico del sito. Modello utilizzato per la comunicazione tra VRF e tra DC-EP-1.

Figura 56: Aggiungi modello applicazione - Seleziona ACI Multi-Cloud



### Add Application Template

1 Select a Template type      2 Detail      3 Summary

**Select a Template Type**  
Let's choose the type of template you want to work with

- ACI Multi-Cloud**
  - On-prem ACI fabric to fabric
  - On-prem ACI fabric to cloud fabric
  - Cloud fabric to cloud fabric
- NDPC**
  - NX-OS based network
- Cloud Local**
  - Non-stretched template for cloud fabric local BGP-IPv4 connected fabric

Figura 57: Aggiungi nome modello Template-WEB-L3Out-Site1, Seleziona produzione tenant

## Add Application Template

1 Select a Template type 2 **Detail** 3 Summary

**Details**

Now name the template and select a tenant.

**ACI Multi-Cloud**

- On-prem ACI fabric to fabric
- On-prem ACI fabric to cloud fabric
- Cloud fabric to cloud fabric

**GENERAL**

**Display Name** ⌵

Template-WEB-L3Out-Site1

Internal Name: Template-WEB-L3Out-Site1 [Add Description](#)

**Select a Tenant** ⌵

Production

**Deployment Mode** ⌵

Multi-Fabric

Autonomous

[Cancel](#) [Back](#) [Next](#)

Figura 58: Dettagli Template-WEB-L3Out-Site1

## Add Application Template

1 Select a Template type 2 Detail 3 **Summary**

**Summary**

**ACI Multi-Cloud**

- On-prem ACI fabric to fabric
- On-prem ACI fabric to cloud fabric
- Cloud fabric to cloud fabric

**Details** ⌵

Template name  
Template-WEB-L3Out-Site1

Deployment Mode  
Multi-Fabric

Tenant  
Production

[Cancel](#) [Back](#) [Continue to template](#)

Importa EPG e L3Out esterni in Template-WEB-L3Out-Site1

Importa EPG e L3Out esterni in Template-WEB-L3Out-Site1

Figura 59: Fare clic su Importa e selezionare DC-SITE1



**Schema-1** Refresh Audit Logs Create New Template Save Schema

Template Properties

**Template Summary** Edit Template Deploy Template Action

Type: Application    Tenant: Production    Template Status: Unassociated    Associated Fabrics: 0 (0 In Sync, 0 Out of Sync)    Last Action: Updated    Deployment Mode: Multi-Fabric

IMPORT SELECT Create

DC-SITE1  
DR-SITE2

Figura 60:Selezionare EXT-APP-EPG da DC-SITE1

**Import from DC-SITE1** X

POLICY TYPE	SELECT TO IMPORT	IMPORT RELATIONS
APPLICATION PROFILE 0 out of 2	<input type="checkbox"/> <b>EXT-APP-EPG</b> <input type="checkbox"/> ⚠️ DC-APP-L3OUT 2 CONTRACT • 1 VRF • 1 L3OUT	
EPG 0 out of 3	<input checked="" type="checkbox"/> ⚠️ <b>EXT-WEB-EPG</b> <input checked="" type="checkbox"/> ⚠️ DC-WEB-L3OUT 2 CONTRACT • 1 VRF • 1 L3OUT	<input checked="" type="checkbox"/>
<b>EXTERNAL EPG 1 out of 2</b>		

Figura 61: selezionare DC-APP-L3Out da DC-SITE1

### Import from DC-SITE1 ✕

**APPLICATION PROFILE** 0 out of 2

**EPG** 0 out of 3

**EXTERNAL EPG** 1 out of 2

**CONTRACT** 0 out of 4

**FILTER** 0 out of 4

**VRF** 0 out of 2

**BD** 0 out of 3

**L3-OUT** 1 out of 2

**DC-APP-L3Out**  
1 VRF

**DC-WEB-L3Out**  
1 VRF

[Import](#)

Figura 62: I contratti associati a EXT-WEB-EPG vengono importati

Ombreggiatura di EXT-WEB-EPG creata in DR-SITE2 con contratti DC applicati.

## EXT-WEB-EPG

Virtual Routing & Forwarding

DC-VRF-WEB

### Contracts

Name

DC-EPG-TO-L3Out-WEB-COH  
Type: provider

DC-EPG-TO-L3Out-WEB-COH  
Type: consumer

Add Contract

Select Fabric Type

ON-PREM CLOUD

### On-Premises Properties

#### L3Out

DC-WEB-L3Out

#### Subnets

Prefix/Prefix Length

0.0.0.0/0

Add Subnet

OK

Distribuisce modello-WEB-L3Out-Site1

Fare clic su Deploy Template-WEB-L3Out-Site1, quindi selezionare DC-SITE1

Figura 63: Aggiungi fabric a Template-WEB-L3Out-Site1

## Add Fabrics To Template-WEB-L3Out-Site1

Name

DC-SITE1  
LOCK

DR-SITE2  
LOCK

OK

Figura 64: Distribuire modelli di sincronizzazione

## Deploy Out of Sync Templates



The following templates will be deployed in the specified order

### Out of Sync Templates

Filter by attributes

Template Name	Template Type	Associated Fabrics
Template-WEB-L3Out-Site1	Application	1

1 items found

Rows per page 5 < 1 >

Cancel

Deploy Out of Sync Templates

Figura 65: Implementazione completata

### Schema-1

Refresh Audit Logs Create New Template Save Schema

View Template-WEB-L3Out-Site1

Template Properties CO-ARAC-LAB-SITE1

#### Template Summary

Type Application	Tenant Production	Template Status <span>In Sync</span>	Associated Fabrics <span>1</span>	Last Action <span>Deployment Successful</span>	Deployment Mode Multi-Fabric
---------------------	----------------------	---	--------------------------------------	---	---------------------------------

Filter IMPORT SELECT Create

#### External EPGs

EXT-WEB-EPG Create External

#### L3Outs

DC-WEB-L3Out Create

Verificare le route nella foglia del server DR per DC-VRF-WEB

Route statiche installate in Foglia server DR per DC-VRF-WEB.

Figura 66: Verificare le route nella foglia del server DR per DC-VRF-WEB

```

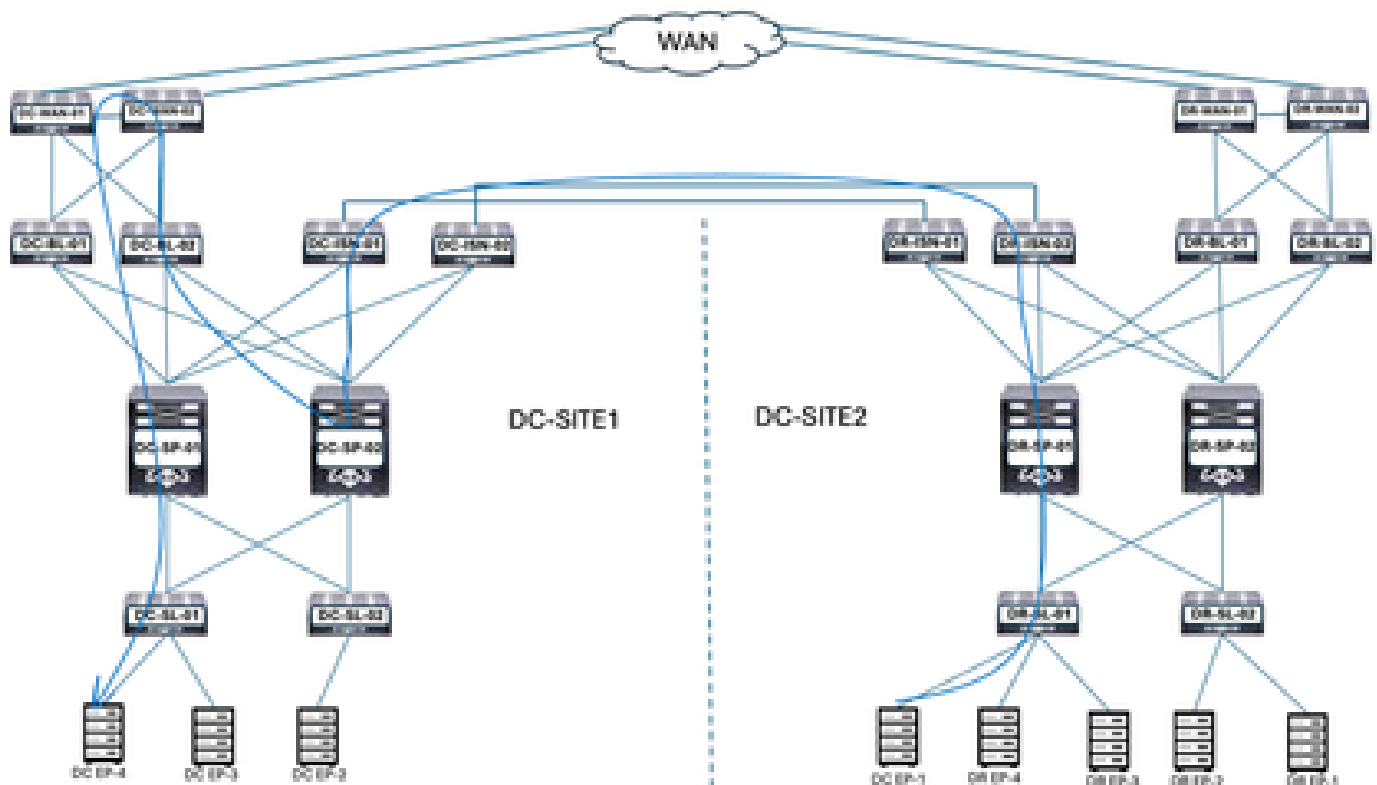
DR-SL-01# show ip route vrf Production:DC-VRF-WEB
IP Route Table for VRF "Production:DC-VRF-WEB"
'*' denotes best ucast next-hop
 '**' denotes best mcast next-hop
 '[x/y]' denotes [preference/metric]
 '%<string>' in via output denotes VRF <string>

0.0.0.0/0, ubest/mbest: 1/0
  *via 172.16.1.232%overlay-1, [200/0], 00:04:41, bgp-65002, internal, tag 65001, rVnId: vxlan-2883589

```

## Flusso di traffico tra VRF dopo la migrazione DC-EP-1

Figura 67: Flusso di traffico tra VRF dopo la migrazione DC-EP-1



DC-EP-1 utilizza DC-WEB-L3Out per comunicare con DC-EP-4. Il traffico scorre da DR-ISDN a DC-ISDN Multisite Links, da DC-ISDN a DC-SP-01/DC-SP-02 e da DC-SP a DC-BL. DC-BL-01/DC-BL-02 inoltra il traffico agli switch DC-WAN per il routing tra VRF.

## Risposta ping tra DC-EP-1 e DC-EP-4

Figura 68: Risposta ping tra DC-EP-1 e DC-EP-4

```

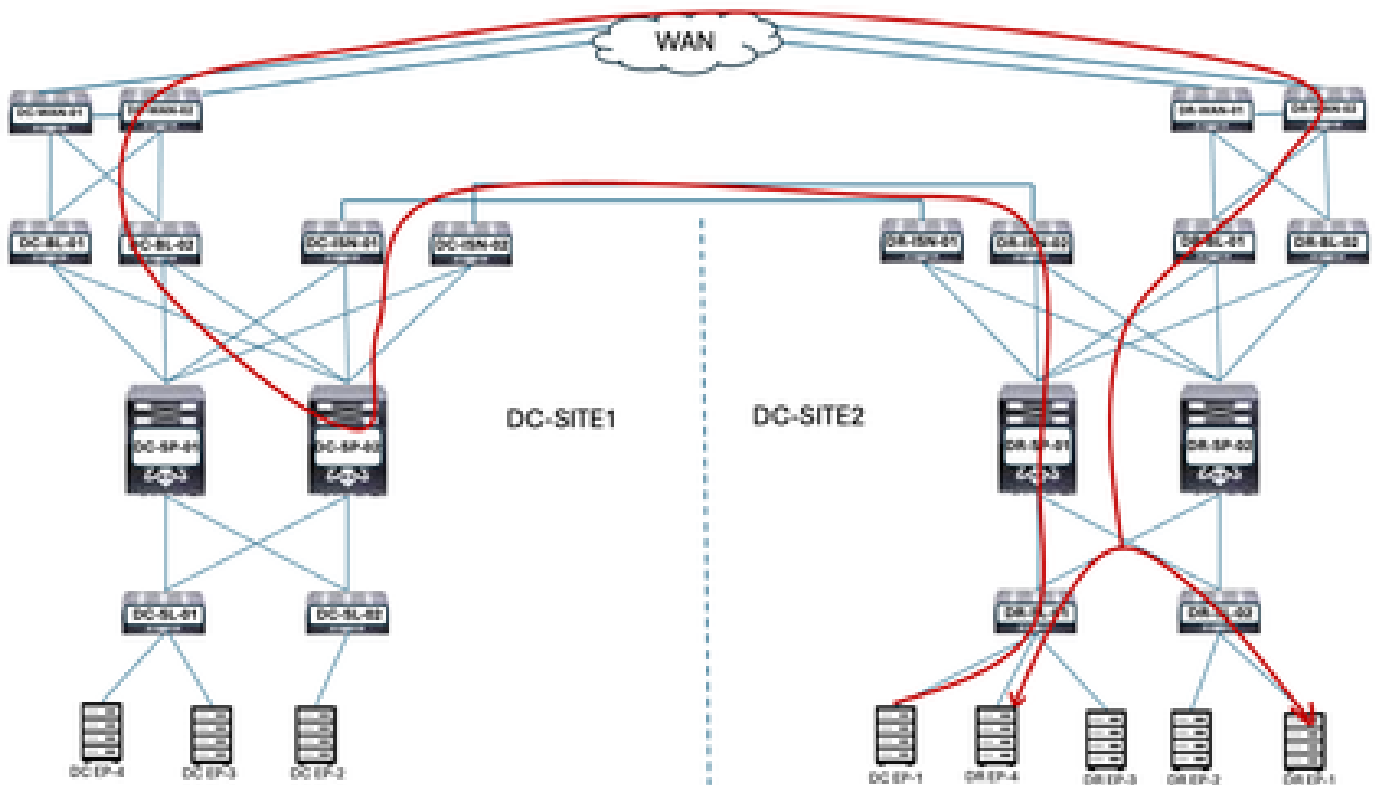
# ping 192.168.30.10 source 192.168.10.10 vrf site-1
PING 192.168.30.10 (192.168.30.10) from 192.168.10.10: 56 data bytes
64 bytes from 192.168.30.10: icmp_seq=0 ttl=249 time=1.781 ms
64 bytes from 192.168.30.10: icmp_seq=1 ttl=249 time=2.617 ms
64 bytes from 192.168.30.10: icmp_seq=2 ttl=249 time=1.288 ms
64 bytes from 192.168.30.10: icmp_seq=3 ttl=249 time=1.116 ms
64 bytes from 192.168.30.10: icmp_seq=4 ttl=249 time=1.135 ms

--- 192.168.30.10 ping statistics ---
5 packets transmitted, 5 packets received, 0.00% packet loss
round-trip min/avg/max = 1.116/1.587/2.617 ms
SITE2-EP1#

```

Flusso di traffico tra controller di dominio dopo la migrazione DC-EP-1

Figura 69: Flusso di traffico tra controller di dominio dopo la migrazione DC-EP-1



DC-EP-1 utilizza DC-WEB-L3Out per comunicare con gli endpoint DR. Il traffico scorre da DR-ISR-01 a DC-ISR-01 Multisite Links, da DC-ISR-01 a DC-SP-01/DC-SP-02 e da DC-SP a DC-BL. DC-BL-01/DC-BL-02 inoltra il traffico agli switch DC-WAN per gli endpoint DR.

Risposta ping tra DC-EP-1 e DR-EP

Figura 70: Risposta ping tra DC-EP-1 e DR-EP

```

SITE2-EP1A ping 192.168.11.10 source 192.168.10.10 vrf site-1
PING 192.168.11.10 (192.168.11.10) from 192.168.10.10: 56 data bytes
Request # timed out
64 bytes from 192.168.11.10: icmp_seq=1 ttl=249 time=2.245 ms
64 bytes from 192.168.11.10: icmp_seq=2 ttl=249 time=1.893 ms
64 bytes from 192.168.11.10: icmp_seq=3 ttl=249 time=1.725 ms
64 bytes from 192.168.11.10: icmp_seq=4 ttl=249 time=1.991 ms

--- 192.168.11.10 ping statistics ---
5 packets transmitted, 4 packets received, 20.00% packet loss
round-trip min/avg/max = 1.725/1.908/2.245 ms
SITE2-EP1A
SITE2-EP1A ping 192.168.11.20 source 192.168.10.10 vrf site-1
PING 192.168.11.20 (192.168.11.20) from 192.168.10.10: 56 data bytes
Request # timed out
64 bytes from 192.168.11.20: icmp_seq=1 ttl=249 time=1.714 ms
64 bytes from 192.168.11.20: icmp_seq=2 ttl=249 time=1.893 ms
64 bytes from 192.168.11.20: icmp_seq=3 ttl=249 time=1.245 ms
64 bytes from 192.168.11.20: icmp_seq=4 ttl=249 time=1.282 ms

--- 192.168.11.20 ping statistics ---
5 packets transmitted, 4 packets received, 20.00% packet loss
round-trip min/avg/max = 1.893/1.313/1.714 ms
SITE2-EP1A
SITE2-EP1A ping 192.168.31.10 source 192.168.10.10 vrf site-1
PING 192.168.31.10 (192.168.31.10) from 192.168.10.10: 56 data bytes
64 bytes from 192.168.31.10: icmp_seq=0 ttl=249 time=1.554 ms
64 bytes from 192.168.31.10: icmp_seq=1 ttl=249 time=1.163 ms
64 bytes from 192.168.31.10: icmp_seq=2 ttl=249 time=1.178 ms
64 bytes from 192.168.31.10: icmp_seq=3 ttl=249 time=1.255 ms
64 bytes from 192.168.31.10: icmp_seq=4 ttl=249 time=1.261 ms

--- 192.168.31.10 ping statistics ---
5 packets transmitted, 5 packets received, 0.00% packet loss
round-trip min/avg/max = 1.163/1.262/1.554 ms
SITE2-EP1A
SITE2-EP1A ping 192.168.31.10 source 192.168.10.10 vrf site-1
PING 192.168.31.10 (192.168.31.10) from 192.168.10.10: 56 data bytes
64 bytes from 192.168.31.10: icmp_seq=0 ttl=249 time=1.51 ms
64 bytes from 192.168.31.10: icmp_seq=1 ttl=249 time=1.31 ms
64 bytes from 192.168.31.10: icmp_seq=2 ttl=249 time=1.263 ms
64 bytes from 192.168.31.10: icmp_seq=3 ttl=249 time=1.275 ms
64 bytes from 192.168.31.10: icmp_seq=4 ttl=249 time=1.247 ms

--- 192.168.31.10 ping statistics ---
5 packets transmitted, 5 packets received, 0.00% packet loss
round-trip min/avg/max = 1.247/1.321/1.51 ms

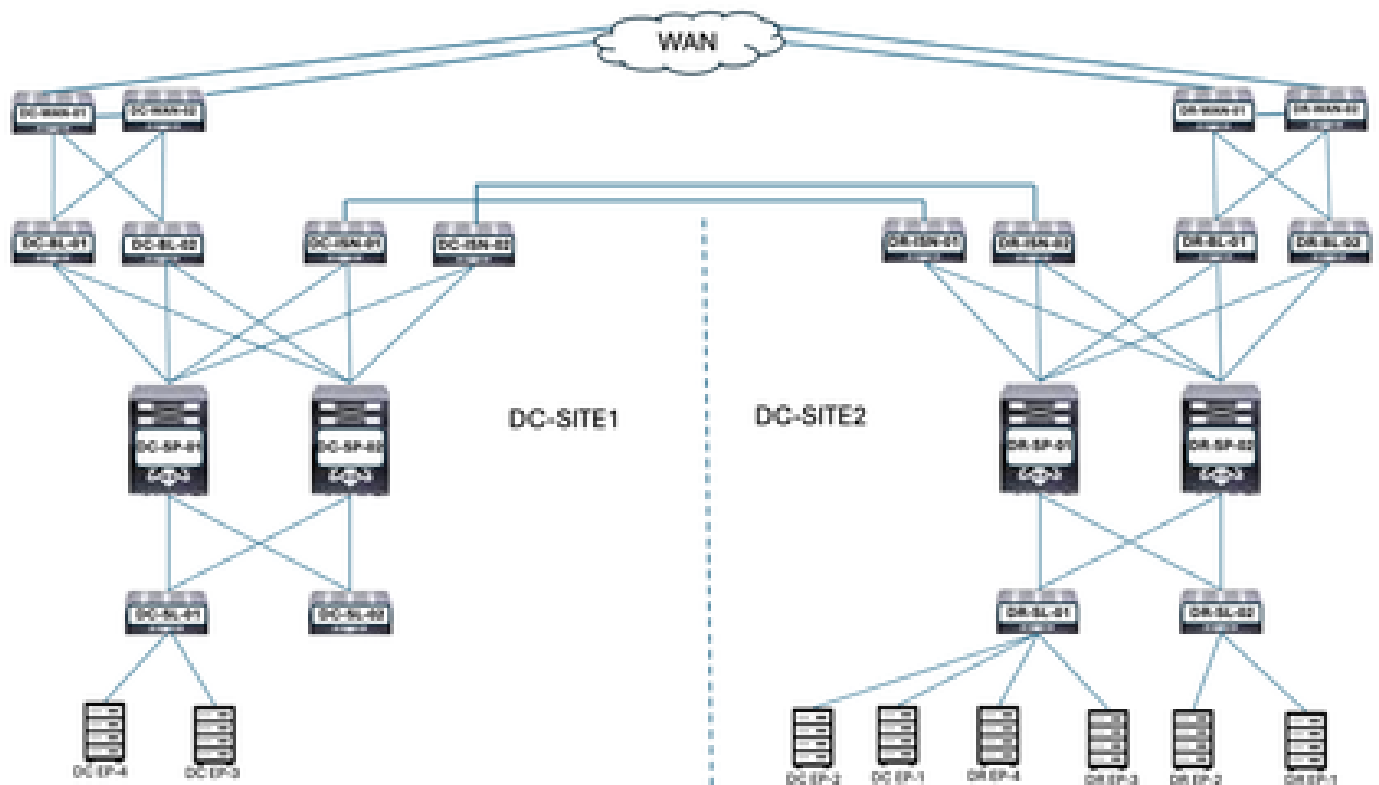
```

## Esegui migrazione degli endpoint rimanenti

### Progettazione fisica dopo la migrazione degli endpoint rimanenti

Dopo la migrazione degli endpoint rimanenti da DC a DR DC-EPG1-WEB, il diagramma fisico è cambiato di conseguenza.

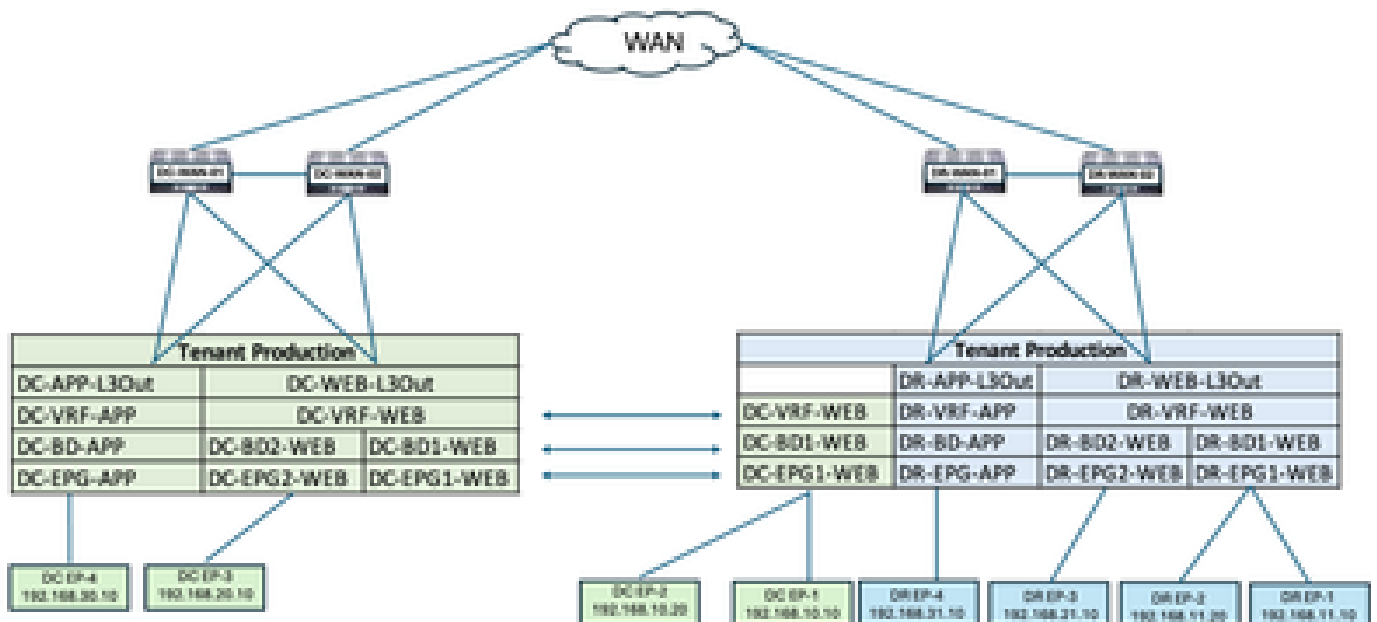
Figura 71: Progettazione fisica dopo la migrazione di tutti gli endpoint da controller di dominio a disaster recovery



Progettazione logica dopo la migrazione degli endpoint rimanenti

DC-EPG1-WEB, DC-BD1-WEB e DC-VRF-WEB sono già distribuiti tra i siti DC e DR. Gli endpoint rimanenti del controller di dominio sono stati migrati dal controller di dominio al sito DR.

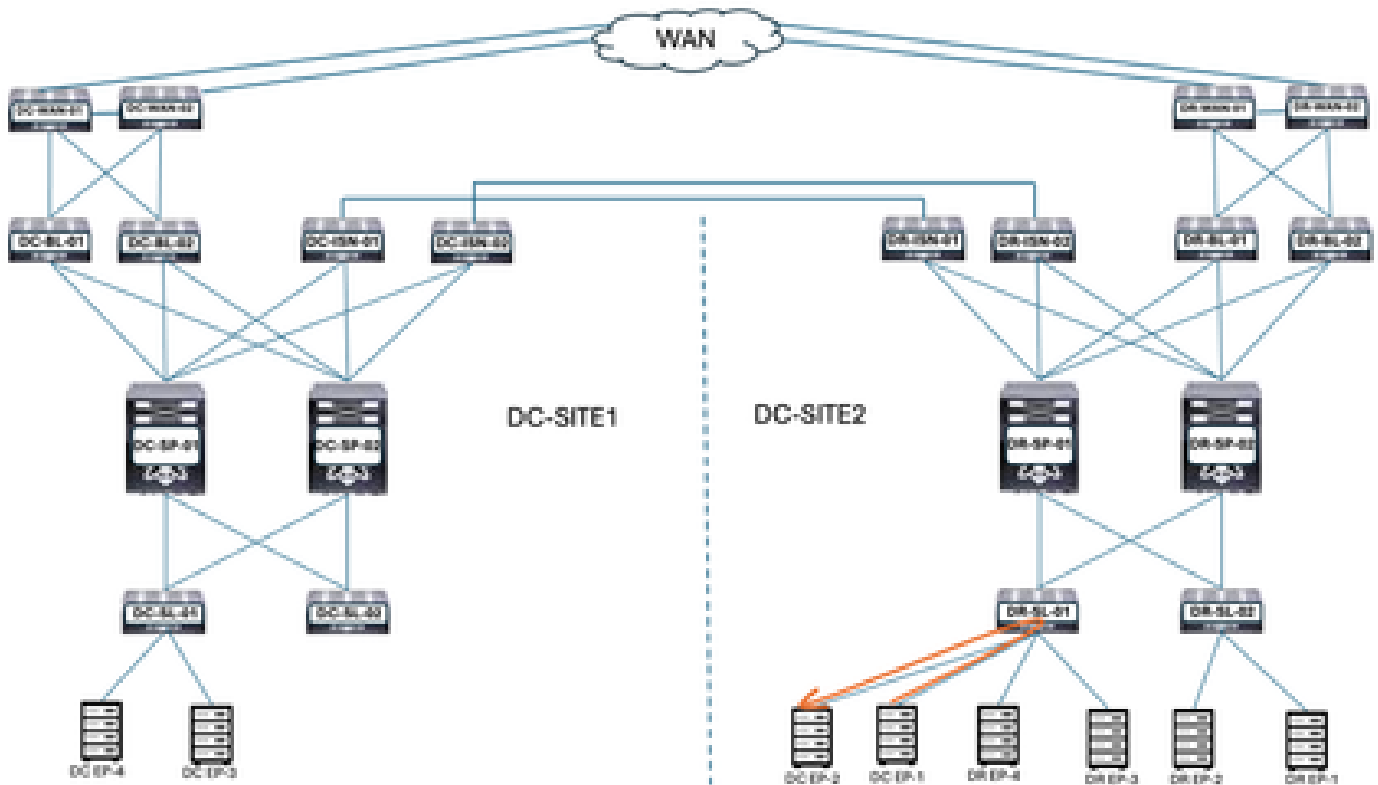
Figura 72: Progettazione logica dopo la migrazione degli endpoint rimanenti



Flusso di traffico all'interno di EPG dopo la migrazione degli endpoint rimanenti

Figura 73: Flusso di traffico all'interno di EPG dopo la migrazione degli endpoint rimanenti





La comunicazione tra DC-EP-1 e DC-EP-2 è una comunicazione intra-EPG, in quanto entrambi gli endpoint appartengono a DC-EPG1-WEB. Questa comunicazione avviene direttamente all'interno del sito DR.

I flussi di traffico tra EPG, tra VRF e tra DC rimangono simili alla migrazione DC-EP-1.

### Annulla distribuzione modello-EPG1-BD1-Stretched from DC Site

Tutti gli endpoint vengono migrati dal DC al sito DR per DC-EPG1-WEB. DC-EPG1-WEB e DC-BD1-WEB non sono richiesti nel sito DC. Annullare l'installazione del modello EPG1-BD1-Stretched dal sito DC, eliminando EPG e BD dal sito 1.

Figura 74: Fare clic su Annulla distribuzione modello

**Schema-1** Refresh Audit Logs Create New Template View Schema

View **Template-EPG1-BD1-Stretched**

Template Properties **DC-SITE1** **DR-SITE2**

**Template Summary**

Type Application	Tenant Production	Template Status <span>In Sync</span>	Associated Fabrics 2 <ul style="list-style-type: none"> <li>In Sync: 2</li> <li>Out of Sync: 0</li> </ul>	Last Action <span>Deployment</span>
				Last Deployed: 2025-05-07 pm

Filter

Application Profile DC-WEB

EPGs

DC-EPG1-WEB

Bridge Domains Create Bridge D

- Add/Remove Fabrics
- Disassociate Fabric
- Clone Template
- Undeploy Template
- Delete Template Warning
- View Deployed Configuration
- View Deployment Dependencies
- View Deployment Plan
- Reconcile Configuration Drifts
- View Version History
- Roll Back Version
- Tag

Figura 75: Selezionare DC-SITE1 e fare clic su Annulla distribuzione

### Undeploy Template-EPG1-BD1-Stretched

Warning Undeploying this template will permanently remove applied policies from selected fabric. Review and take measure to prevent any functionality loss.

Fabric: **DC-SITE1**

Plan

**DC-SITE1**

Legend: Created Deleted Modified Existing Shadow

View Payload Download Payload

```

graph LR
    Internet[Internet user7-global] --- epg[epg-DC-WEB]
    Internet --- bd[bd-DC-BD1-WEB]
    epg --- app[application-DC-EPG1]
    app --- domain[domain: domain]
    bd --- subnet[subnet: 192.168.10.1...]
  
```

Undeploy

Annulla associazione modello-EPG1-BD1-Stretched from DC Site

Questo passaggio consente di dissociare il modello EPG1-BD-Stretched dal sito DC.

Figura 76: Fare clic su Annulla associazione modello

**Schema-1** Refresh Audit Logs Create New Template Back Schema

View **Template-EP01-BD1-Stretched** ▾

Template Properties **DC-SITE1** **DR-SITE2**

**Template Summary**

Type Application	Tenant <b>Production</b>	Template Status <span style="color: orange;">Out of Sync</span>	Associated Fabrics <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 20px; border: 1px solid green; border-radius: 50%; margin-right: 5px;"></div> <span style="font-size: 10px;">in Sync 5</span> </div> <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 20px; border: 1px solid red; border-radius: 50%; margin-right: 5px;"></div> <span style="font-size: 10px;">Out of Sync 5</span> </div>	Last Action <span style="color: green;">Undeployed</span>
Last Deployed: 2023-05-11 pm				

Filter

Application Profile DC-WEB

EPGs ▾

DC-EP01-WEB

Bridge Domains ▾ Create Bridge E

**Add/Remove Fabrics** Add

- Disassociate Fabric**
- Clone Template
- Undeploy Template
- Delete Template ⚠
- View Deployed Configuration
- View Deployment Dependencies
- View Deployment Plan
- Reconcile Configuration Drifts
- View Version History
- Roll Back Version
- Tag

Figura 77: Deselezionare DC-SITE1

### Add Fabrics To Template-EPG1-BD1-Stretched

34

Name

---

**DC-SITE1**  
5 Out of Sync

---

**DR-SITE2**  
5 Out of Sync

Figura 78: DC-SITE2 - Parte del modello-EPG1-BD1-Stretched

**Schema-1** Refresh Audit Logs Create New Template Save Schema

View **Template-EPG1-BD1-Stretched**

Template Properties **DR-SITE2**

**Template Summary** Edit Template Deploy Template Active

Type Application	Tenant Production	Template Status In Sync	Associated Fabrics 1 In Sync 0 Out of Sync	Last Action Undeployment Successful Last Deployed: Jan 4, 2025 01:30 am	Deployment Mode Multi-Fabric
---------------------	----------------------	----------------------------	---	---	---------------------------------

Filter IMPORT SELECT Create

Application Profile DC-WEB Create Application Prof

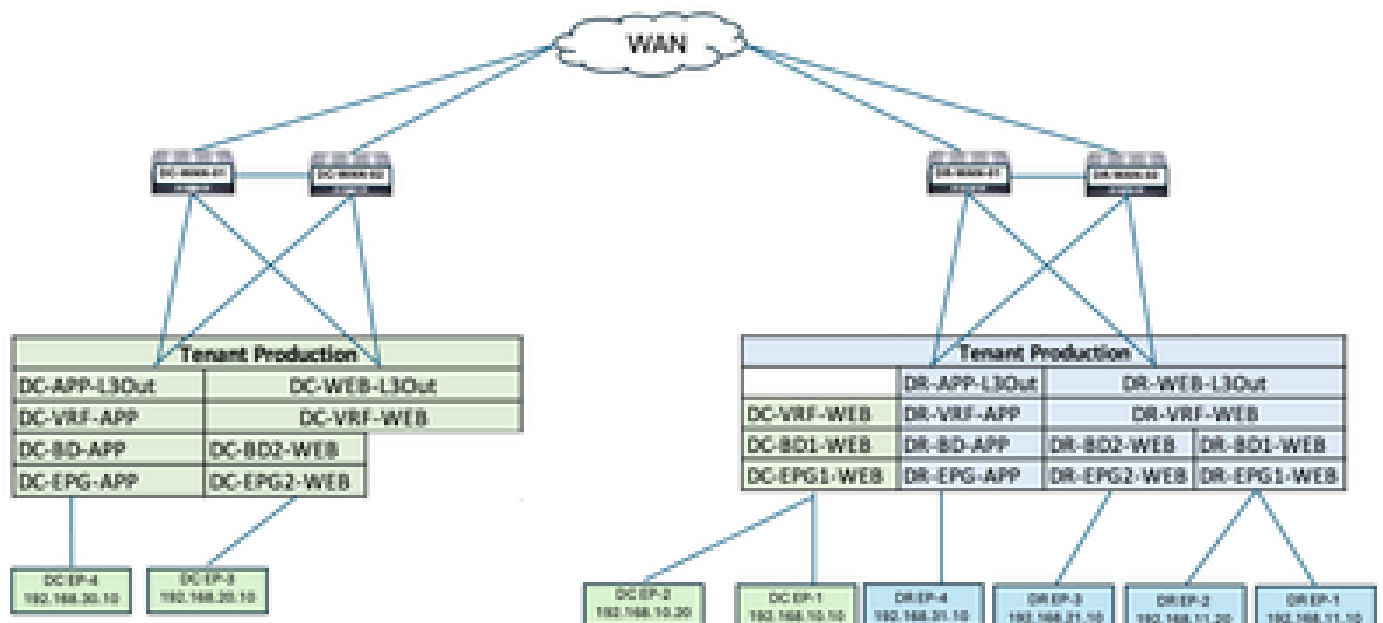
EPGs DC-EPG1-WEB Create

Bridge Domains Create Bridge D

Progettazione logica dopo la disinstallazione del modello-EPG1-BD1-Stretched from DC

DC-EPG1-WEB e DC-BD1-WEB non fanno parte di DC Site dopo la disinstallazione del modello.

Figura 79: Progettazione logica dopo l'annullamento della distribuzione del modello



## Creazione modello-VRF-Contract-Site2

Template-VRF-Contract-Site2 creato all'interno di Schema-1. DR-SITE2 aggiunto al modello e tenant-Production associato allo stesso modello. Questo è un modello specifico del sito. Modello utilizzato per associare VRF e contratto dal sito DR per DC-EPG1-WEB e DC-BD1-WEB.

Figura 80:Aggiungi modello applicazione - Seleziona ACI Multi-Cloud

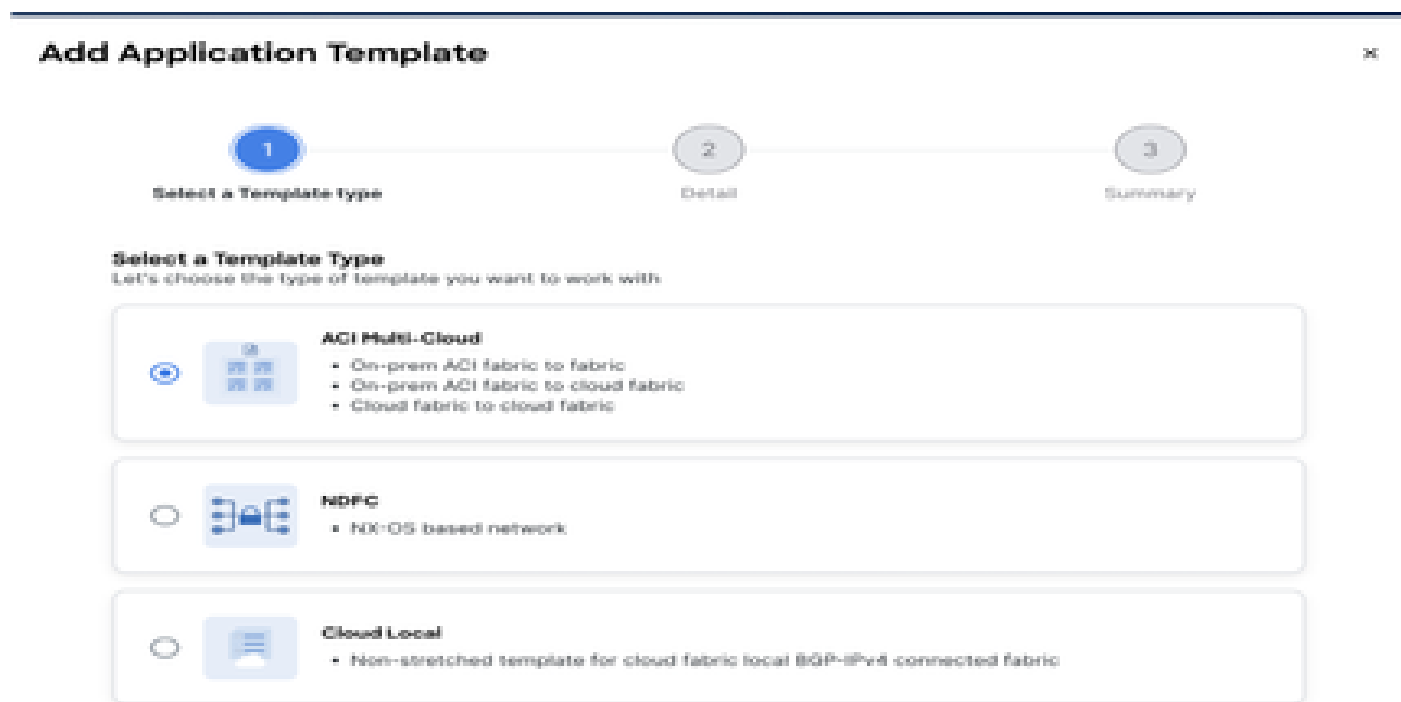


Figura 81: Aggiungi nome modello Template-VRF-Contract-Site2, Seleziona produzione tenant

## Add Application Template ✕

1 Select a Template type      2 **Detail**      3 Summary

### Details

Now name the template and select a tenant

ACI Multi-Cloud

- On-prem ACI fabric to fabric
- On-prem ACI fabric to cloud fabric
- Cloud fabric to cloud fabric

#### GENERAL

**Display Name \***

  
Internal Name: Template-VRF-Contract-Site2.  
[Add Description](#)

**Select a Tenant \***

✕ ▾

**Deployment Mode** ⓘ

Multi-Fabric

Autonomous


Cancel[Back](#) [Next](#)

Figura 82: Dettagli Template-VRF-Contract-Site2

# Add Application Template



## Summary



**ACI Multi-Cloud**

- On-prem ACI fabric to fabric
- On-prem ACI fabric to cloud fabric
- Cloud fabric to cloud fabric

### Details

Template name  
**Template-VRF-Contract-Site2**

Deployment Mode  
**Multi-Fabric**

Tenant  
**Production**

Cancel

Back

Continue to template

Importa VRF-Contract in Template-VRF-Contract-Site2

Importare DR-VRF-WEB e DR-VRF-WEB-Contract da DR-SITE2.

Figura 83:Fare clic su Import (Importa) e selezionare DR-SITE2

**Schema-1** Refresh Audit Logs Create New Template Save Schema

View **Template-VRF-Contract-Site2** ▾

Template Properties

**Template Summary** Edit Template Deploy Template Actions

Type Application	Tenant Production	Template Status Unassociated	Associated Fabrics 0	Last Action Updated	Deployment Mode Multi-Fabric
---------------------	----------------------	---------------------------------	-------------------------	------------------------	---------------------------------

In Sync: 0  
Out of Sync: 0

IMPORT ▾ SELECT Create Or

DC-SITE1  
DR-SITE2

Figura 84: Selezionare un contratto da DR-SITE2

**Import from DC-SITE1** ✕

FAULT TYPE		
APPLICATION PROFILE 0 out of 3	<input type="checkbox"/> ⚠ DC-EPG-TO-EPG-WEB-CON 1 FILTER	
EPG 0 out of 4	<input type="checkbox"/> ⚠ DC-EPG-TO-L3Out-WEB-CON 1 FILTER	
EXTERNAL EPG 0 out of 4	<input type="checkbox"/> DR-EPG-TO-EPG-APP-CON 1 FILTER	
<b>CONTRACT 2 out of 6</b>	<input checked="" type="checkbox"/> DR-EPG-TO-EPG-WEB-CON 1 FILTER	<input checked="" type="checkbox"/>
FILTER 2 out of 6	<input type="checkbox"/> DR-EPG-TO-L3Out-APP-CON 1 FILTER	
VRF 0 out of 4	<input checked="" type="checkbox"/> DR-EPG-TO-L3Out-WEB-CON 1 FILTER	<input checked="" type="checkbox"/>
ED 0 out of 4		
L3OUT 0 out of 4		

Import

Figura 85: Selezionare un filtro da DR-SITE2



## Import from DC-SITE1

X

APPLICATION PROFILE	0 out of 3	<input type="checkbox"/>	DC-EPG-TO-EPG-WEB-FIL	
EPG	0 out of 4	<input type="checkbox"/>	DC-EPG-TO-L3Out-WEB-FIL	
EXTERNAL EPG	0 out of 4	<input type="checkbox"/>	DR-EPG-TO-EPG-APP-FIL	
CONTRACT	2 out of 6	<input checked="" type="checkbox"/>	DR-EPG-TO-EPG-WEB-FIL	
<b>FILTER</b>	2 out of 6	<input type="checkbox"/>	DR-EPG-TO-L3Out-APP-FIL	
VRF	0 out of 4	<input checked="" type="checkbox"/>	DR-EPG-TO-L3Out-WEB-FIL	
BD	0 out of 4			
L3OUT	0 out of 4			

Import

Figura 86: Selezionare VRF da DR-SITE2

# Import from DC-SITE1

X

APPLICATION PROFILE	0 out of 3	<input type="checkbox"/>	DC-VRF-APP
EPG	0 out of 4	<input type="checkbox"/>	DC-VRF-WEB
EXTERNAL EPG	0 out of 4	<input type="checkbox"/>	DR-VRF-APP
CONTRACT	2 out of 6	<input checked="" type="checkbox"/>	DR-VRF-WEB
FILTER	2 out of 6		
<b>VRF</b>	<b>1 out of 4</b>		
BD	0 out of 4		
L3OUT	0 out of 4		

[Import](#)

Figura 87: Template-WEB-VRF-Contract-Site2 con informazioni VRF/contratto

### Schema-1

Refresh Audit Logs Create New Template Save Schema

1 Out of Sync 1

Filter

IMPORT SELECT Create

Contracts Create Co

DR-EPG-TO-EPG-WEB-CON DR-EPG-TO-L3Out-WEB-CON

VRFs Crea

DR-VRF-WEB

Filters Crea

DR-EPG-TO-EPG-WEB-FIL DR-EPG-TO-L3Out-WEB-FIL

Distribuisci modello-VRF-Contract-Site2

Fare clic su Deploy Template-VRF-Contract-Site2 e selezionare DR-SITE2

Figura 88: Aggiunta di fabric a Template-VRF-Contract-Site2

## Add Fabrics To Template-VRF-Site2

✕

Name

● DC-SITE1  
6.0(5h)

● DR-SITE2  
6.0(5h)

Figura 89: Distribuisce modelli di sincronizzazione

## Deploy Out of Sync Templates

✕

The following templates will be deployed in the specified order

### Out of Sync Templates

Filter by attributes

Template Name	Template Type	Associated Fabrics
Template-VRF-Contract-Site2	Application	1

1 items found

Rows per page

5

<

1


>

Cancel

Deploy Out of Sync Templates

Figura 90: Implementazione completata

**Schema-1** Refresh Audit Logs Create New Template Save Schema

Type Application	Tenant Production	Template Status	Associated Fabrics	Last Action	Deployment Mode
		In Sync	 In Sync: 1 Out of Sync: 0	Deployment Successful Last Deployed: Jan 4, 2025 01:57 am	Multi-Fabric

Filter REPORT SELECT Create

**Contracts** Create Co

DR-EPG-TO-EPG-WEB-CON DR-EPG-TO-L3Out-WEB-CON

**VRFs** Crea

DR-VRF-WEB

**Filters** Creab

DR-EPG-TO-EPG-WEB-FIL DR-EPG-TO-L3Out-WEB-FIL

## Associazione di DR-VRF-WEB a DC-BD1-WEB

Associare DR-VRF-WEB a DC-BD1-WEB dal modello EPG1-BD1-Stretched creato in precedenza. DC-BD1-WEB fa parte di DR-SITE2.


Figura 91: Fare clic su Template-EPG1-BD1-Stretched

**Schema-1** Refresh Audit Logs Create New Template Save Schema

**View** [Template-EPG1-BD1-Stretched](#)

**Template Properties** DR-SITE2

**Template Summary** Edit Template Deploy Template Actio

Type Application	Tenant Production	Template Status	Associated Fabrics	Last Action	Deployment Mode
		In Sync	 In Sync: 1 Out of Sync: 0	Deployment Successful Last Deployed: Jan 4, 2025 01:36 am	Multi-Fabric

Filter REPORT SELECT Create

**Application Profile DC-WEB** Create Application Prof

**EPGs** Creat

DC-EPG-WEB

**Bridge Domains** Create Bridge D

Figura 92: Associazione di DR-VRF-WEB a DC-BD1-WEB

**DC-BD1-WEB** [View Relationship](#)

Annotations

Key	Value
-----	-------

[Create Annotations](#)

Properties [^](#)

[On-Premises Properties](#)

Virtual Routing & Forwarding [^](#)

DR-VRF-WEB [X](#)

L3 Stretch

Inter-site BUM Traffic Allow

Optimize WAN Bandwidth

Unicast Routing

L3 Multicast

[Done](#)

## Applica DR-Contracts a DC-EPG1-WEB

Applicare DR-Contract a DC-EPG1-WEB che utilizza i contratti DR per la comunicazione da DC-EPG1-WEB per Inter-DC, Inter-VRF e Inter-EPG. DC-EPG1-WEB fa parte di DR-SITE2

Figura 93: Elimina DC-Contracts da DC-EPG1-WEB

**DC-EPG1-WEB** [View Relationship](#)

Common Properties [^](#)

Display Name [^](#)

DC-EPG1-WEB

Deployed Name: DC-EPG1-WEB

Description

Annotations

Key	Value
-----	-------

[Create Annotations](#)

Contracts

Name	Type	Actions
<a href="#">DC-EPG-TG-L3Out-WEB-COM</a>	provider	<a href="#">edit</a> <a href="#">delete</a>
<a href="#">DC-EPG-TG-EPG-WEB-COM</a>	provider	<a href="#">edit</a> <a href="#">delete</a>
<a href="#">DC-EPG-TG-L3Out-WEB-COM</a>	consumer	<a href="#">edit</a> <a href="#">delete</a>
<a href="#">DC-EPG-TG-EPG-WEB-COM</a>	consumer	<a href="#">edit</a> <a href="#">delete</a>

[Add Properties](#)

Figura 94: Aggiungi DR-Contracts in DC-EPG1-WEB

### DC-EPG1-WEB [View Relationship](#)

**Display Name** \*

Deployed Name: DC-EPG1-WEB

**Description**

**Annotations**

Key	Value
<a href="#">+ Create Annotations</a>	

**Contracts**

Name	Type	Actions
<a href="#">DR-EPG-TD-EPG-WEB-COM</a>	consumer	<a href="#">edit</a> <a href="#">delete</a>
<a href="#">DR-EPG-TD-EPG-WEB-COM</a>	provider	<a href="#">edit</a> <a href="#">delete</a>
<a href="#">DR-EPG-TD-L3Out-WEB-COM</a>	consumer	<a href="#">edit</a> <a href="#">delete</a>
<a href="#">DR-EPG-TD-L3Out-WEB-COM</a>	provider	<a href="#">edit</a> <a href="#">delete</a>

[+ Add Contract](#)

**EPG Type**

Application  Service

[OK](#)

Figura 95: Template-EPG1-BD1-Informazioni estese

### Schema-1 [Refresh](#) [Audit Logs](#) [Create New Template](#) [Save Schema](#)

**Template Properties** \* DR-SITE2

**Template Summary** [Edit Template](#) [Deploy Template](#) [Actions](#)

Type: Application	Tenant: Production	Template Status: <span style="background-color: yellow; border: 1px solid black; padding: 2px;">Out of Sync</span>	Associated Fabrics: <span style="border: 2px solid red; border-radius: 50%; padding: 5px; display: inline-block; text-align: center;">1</span> <span style="margin-left: 5px;">In Sync: 0</span> <span style="margin-left: 5px;">Out of Sync: 1</span>	Last Action: <span style="background-color: #007bff; color: white; padding: 2px;">Updated</span> Last Deployed: Jan 4, 2021 01:52 am	Deployment Mode: Multi-Fabric
-------------------	--------------------	--	--	---	-------------------------------

Filter  [IMPORT](#) [SELECT](#) [Create](#)

**Application Profile DC-WEB** [Create Application Profile](#)

**EPGs** [Create](#)

**Bridge Domains** [Create Bridge Do](#)

Figura 96: Distribuisce modelli di sincronizzazione

# Deploy Out of Sync Templates

x

The following templates will be deployed in the specified order

## Out of Sync Templates

Filter by attributes

Template Name	Template Type	Associated Fabrics
Template-EPG1-BD1-Stretched	Application	1

1 items found

Rows per page

5

<

1

>

Cancel

Deploy Out of Sync Templates

Figura 97: Implementazione completata

### Schema-1

Refresh Audit Logs Create New Template Save Schema

**Template Summary**

Type	Tenant	Template Status	Associated Fabrics	Last Action	Deployment Mode
Application	Production	In Sync	<div style="display: flex; align-items: center;"> <div style="border: 2px solid green; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin-right: 5px;">1</div> <div> <p>In Sync: 1</p> <p>Out of Sync: 0</p> </div> </div>	<p>Deployment Successful</p> <p>Last Deployed: Jan 4, 2025 02:02 am</p>	Multi-Fabric

Filter IMPORT SELECT Create

---

Application Profile DC-WEB Create Application Prof

EPOs Create

DC-EPO1-WEB

---

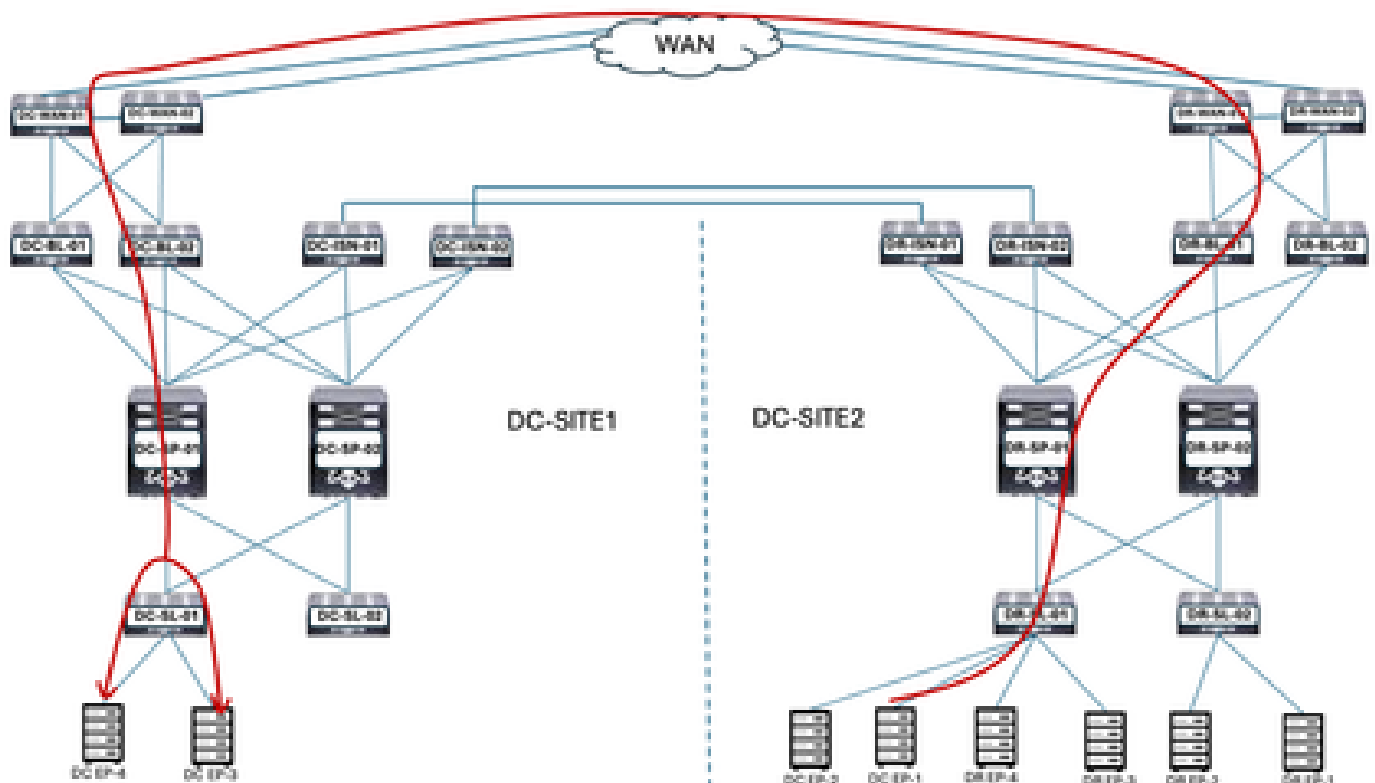
Bridge Domains Create Bridge E

DC-BD1-WEB

## Flusso di traffico DC-Endpoint-1

DC-Endpoint-1 inizia a utilizzare DR-L3Out-WEB per la comunicazione con gli endpoint DC. Questa comunicazione richiede le modifiche di routing necessarie sugli switch WAN.

Figura 98: Flusso di traffico DC-Endpoint-1





## Risposta ping tra DC-EP-1 e DC/DR-EP

Figura 99: Risposta ping tra DC-EP-1 e DC-EP-2

```

SITE2-EPI# ping 192.168.30.10 source 192.168.10.10 vrf site-1
PING 192.168.30.10 (192.168.30.10) from 192.168.10.10: 56 data bytes
64 bytes from 192.168.30.10: icmp_seq=0 ttl=249 time=2.486 ms
64 bytes from 192.168.30.10: icmp_seq=1 ttl=249 time=1.85 ms
64 bytes from 192.168.30.10: icmp_seq=2 ttl=249 time=1.863 ms
64 bytes from 192.168.30.10: icmp_seq=3 ttl=249 time=1.88 ms
64 bytes from 192.168.30.10: icmp_seq=4 ttl=249 time=0.987 ms

--- 192.168.30.10 ping statistics ---
5 packets transmitted, 5 packets received, 0.00% packet loss
round-trip min/avg/max = 0.987/1.317/2.486 ms
SITE2-EPI#
SITE2-EPI# ping 192.168.11.10 source 192.168.10.10 vrf site-1
PING 192.168.11.10 (192.168.11.10) from 192.168.10.10: 56 data bytes
Request 0 timed out
64 bytes from 192.168.11.10: icmp_seq=1 ttl=252 time=1.439 ms
64 bytes from 192.168.11.10: icmp_seq=2 ttl=252 time=0.993 ms
64 bytes from 192.168.11.10: icmp_seq=3 ttl=252 time=1.615 ms
64 bytes from 192.168.11.10: icmp_seq=4 ttl=252 time=1.187 ms

--- 192.168.11.10 ping statistics ---
5 packets transmitted, 4 packets received, 20.00% packet loss
round-trip min/avg/max = 0.993/1.208/1.615 ms
SITE2-EPI#
SITE2-EPI# ping 192.168.21.10 source 192.168.10.10 vrf site-1
PING 192.168.21.10 (192.168.21.10) from 192.168.10.10: 56 data bytes
64 bytes from 192.168.21.10: icmp_seq=0 ttl=252 time=1.491 ms
64 bytes from 192.168.21.10: icmp_seq=1 ttl=252 time=1.593 ms
64 bytes from 192.168.21.10: icmp_seq=2 ttl=252 time=1.816 ms
64 bytes from 192.168.21.10: icmp_seq=3 ttl=252 time=1.81 ms
64 bytes from 192.168.21.10: icmp_seq=4 ttl=252 time=1.848 ms

--- 192.168.21.10 ping statistics ---
5 packets transmitted, 5 packets received, 0.00% packet loss
round-trip min/avg/max = 1.81/1.231/1.593 ms
SITE2-EPI# ping 192.168.31.10 source 192.168.10.10 vrf site-1
PING 192.168.31.10 (192.168.31.10) from 192.168.10.10: 56 data bytes
64 bytes from 192.168.31.10: icmp_seq=0 ttl=249 time=1.353 ms
64 bytes from 192.168.31.10: icmp_seq=1 ttl=249 time=1.129 ms
64 bytes from 192.168.31.10: icmp_seq=2 ttl=249 time=1.814 ms
64 bytes from 192.168.31.10: icmp_seq=3 ttl=249 time=1.485 ms
64 bytes from 192.168.31.10: icmp_seq=4 ttl=249 time=1.347 ms

--- 192.168.31.10 ping statistics ---
5 packets transmitted, 5 packets received, 0.00% packet loss
round-trip min/avg/max = 1.814/1.265/1.485 ms
#####

```

## Informazioni su questa traduzione

Cisco ha tradotto questo documento utilizzando una combinazione di tecnologie automatiche e umane per offrire ai nostri utenti in tutto il mondo contenuti di supporto nella propria lingua. Si noti che anche la migliore traduzione automatica non sarà mai accurata come quella fornita da un traduttore professionista. Cisco Systems, Inc. non si assume alcuna responsabilità per l'accuratezza di queste traduzioni e consiglia di consultare sempre il documento originale in inglese (disponibile al link fornito).