Fehlerbehebung für FMC - HA

Inhalt

Einleitung

In diesem Dokument wird die Fehlerbehebung bei häufigen Synchronisierungsproblemen in einem Hochverfügbarkeits-Set für das FirePOWER Management Center (FMC) beschrieben.

Voraussetzungen

Anforderungen

Cisco empfiehlt, dass Sie über Kenntnisse in den folgenden Themen verfügen:

- FMC - HA-Konfigurationsanforderungen
- Grundkenntnisse der Linux-Shell.

Verwendete Komponenten

- FMCv für VMware in Version 7.2.8.

Die Informationen in diesem Dokument beziehen sich auf Geräte in einer speziell eingerichteten Testumgebung. Alle Geräte, die in diesem Dokument benutzt wurden, begannen mit einer gelöschten (Nichterfüllungs) Konfiguration. Wenn Ihr Netzwerk in Betrieb ist, stellen Sie sicher, dass Sie die möglichen Auswirkungen aller Befehle kennen.

Hintergrundinformationen

Die anfängliche Einrichtung des für dieses Dokument verwendeten Labors entspricht den

Anforderungen für die grundlegende Erstkonfiguration des FMC-HA.

- Zwei FMCs mit gleicher Kapazität oder Hardwareversion.
- Zwei FMCs mit derselben Softwareversion, Intrusion Rule Update, Vulnerability Database und Lightweight Security Package.
- Zwei FMCs mit den entsprechenden Lizenzen.

Vorbereitungen

- Stellen Sie sicher, dass der Administrator Zugriff auf beide FMCs hat.
- Stellen Sie sicher, dass der Administrator Zugriff auf die vom FMC verwalteten FTD-Geräte hat.

Befehle zur Fehlerbehebung

FMC-Befehle zur Fehlerbehebung.

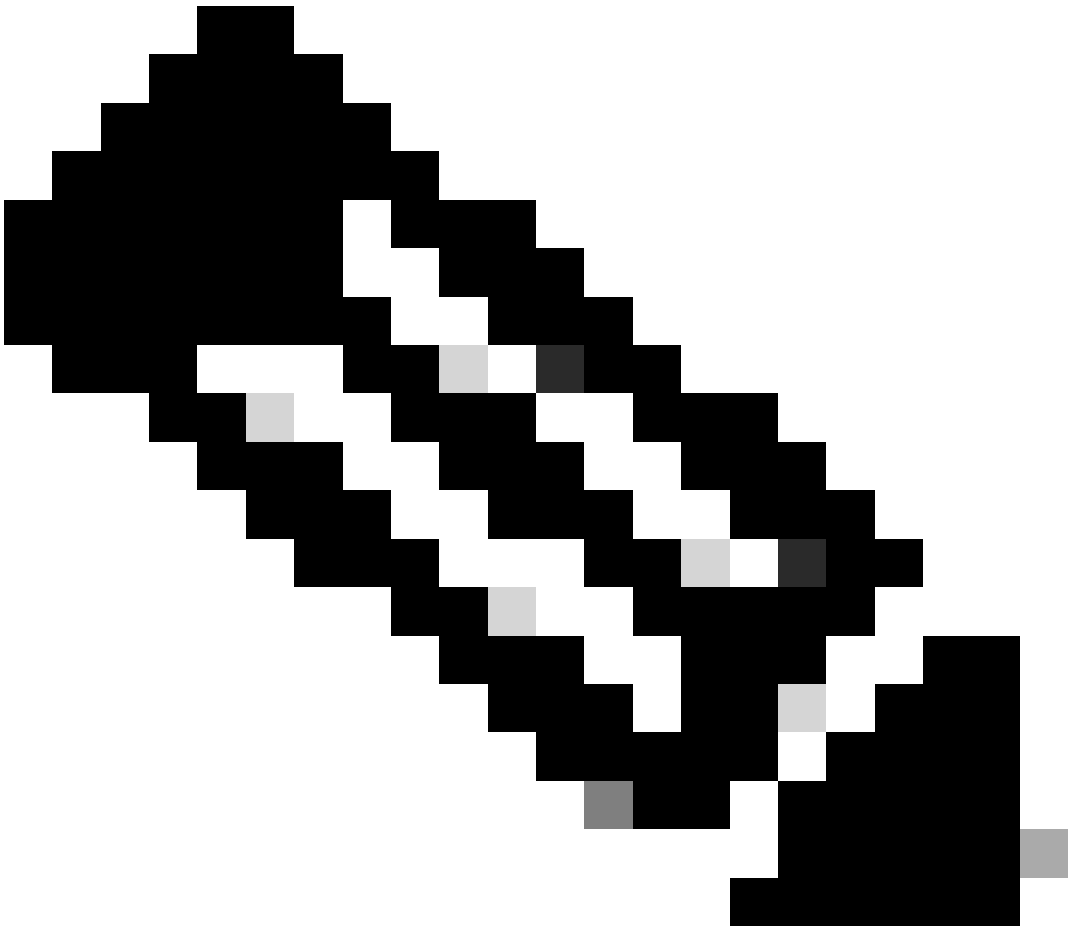
Um die Verbindung zwischen FMC-Geräten zu überprüfen, kann der Benutzer diese Befehle ausführen.

<#root>

```
> expert


admin@firepower:~$

sudo su



root@firepower:/Volume/home/admin#

ping xx.xx.18.102


PING xx.xx.18.102 (xx.xx.18.102) 56(84) bytes of data.
64 bytes from xx.xx.18.102: icmp_seq=1 ttl=64 time=0.533 ms
64 bytes from xx.xx.18.102: icmp_seq=2 ttl=64 time=0.563 ms
64 bytes from xx.xx.18.102: icmp_seq=3 ttl=64 time=0.431 ms
^C
--- xx.xx.18.102 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 59ms
rtt min/avg/max/mdev = 0.431/0.509/0.563/0.056 ms

root@firepower:/Volume/home/admin#

netstat -an | grep 8305


tcp 0 0 xx.xx.18.101:8305 0.0.0.0:* LISTEN
tcp 0 0 xx.xx.18.101:8305 xx.xx.18.253:48759 ESTABLISHED
tcp 0 0 xx.xx.18.101:8305 xx.xx.18.254:53875 ESTABLISHED
tcp 0 0 xx.xx.18.101:8305 xx.xx.18.254:49205 ESTABLISHED
tcp 0 0 xx.xx.18.101:60871 xx.xx.18.253:8305 ESTABLISHE
```

ping <Peer-IP-Adresse> Mit diesem Befehl kann die Erreichbarkeit zwischen beiden Geräten überprüft werden.

netstat -an | grep 8305 Dieser Befehl zeigt die Geräte an, die an Port 8305 angeschlossen sind.



Hinweis: Der Port 8305 ist der Standardport, der auf den FirePOWER-Geräten konfiguriert wird, um den Kommunikationskanal mit dem FMC einzurichten.

Zur Validierung der FMC-HA-Konfiguration kann der Benutzer auch das Skript troubleshoot_HADC.pl ausführen. Dies ist besonders in folgenden Szenarien hilfreich:

- Wenn der Integritätsstatus der FMC-HA-Integration herabgesetzt ist.
- Wenn der Zugriff auf die grafische Benutzeroberfläche (GUI) des FMC eines der Geräte nicht vorhanden ist, der Zugriff auf die FMC-CLI jedoch weiterhin funktioniert und verfügbar ist.

<#root>

> expert

admin@firepower:~$

sudo su

root@firepower:/Volume/home/admin#

troubleshoot_HADC.pl

```
**************** Troubleshooting Utility **************

1 Show HA Info Of FMC
2 Execute Sybase DBPing
3 Show Arbiter Status
4 Check Peer Connectivity
5 Print Messages of AQ Task
6 Show FMC HA Operations History (ASC order)
7 Dump To File: FMC HA Operations History (ASC order)
8 Last Successful Periodic Sync Time (When it completed)
9 Print HA Status Messages
10 Compare active and standby device list
11 Check manager status of standby missing devices
12 Check critical PM processes details
13 Get Remote Stale Sync AQ Info
14 Help
0 Exit

************************************************************
Enter choice:
```

FTD-Befehle zur Fehlerbehebung

Durch die Fehlerbehebung der Verbindung vom FTD zum FMC-HA kann der Benutzer die Verbindung von Geräten überprüfen, die auf beiden FMCs registriert werden müssen, oder wenn die HA-Kapazität herabgesetzt ist. Außerdem wird die Warnung "Herabgesetzt - Synchronisierung unvollständig (In diesem Management Center sind weniger Geräte registriert)" angezeigt.

Von der FTD-Klischeestufe aus kann der Benutzer diese Befehle ausführen, um die Kommunikation mit dem FMC zu validieren.

<#root>

>

ping system xx.xx.18.102

```
PING xx.xx.18.102 (xx.xx.18.102) 56(84) bytes of data.
64 bytes from xx.xx.18.102: icmp_seq=1 ttl=64 time=0.595 ms
64 bytes from xx.xx.18.102: icmp_seq=2 ttl=64 time=0.683 ms
64 bytes from xx.xx.18.102: icmp_seq=3 ttl=64 time=0.642 ms
64 bytes from xx.xx.18.102: icmp_seq=4 ttl=64 time=24.4 ms
```

```
64 bytes from xx.xx.18.102: icmp_seq=5 ttl=64 time=11.4 ms
^C
--- xx.xx.18.102 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 128ms
rtt min/avg/max/mdev = 0.595/7.545/24.373/9.395 ms
```

> show managers

```
Type : Manager
Host : xx.xx..18.101
Display name : xx.xx..18.101
Version : 7.2.8 (Build 25)
Identifier : fc3e3572-xxxx-xxxx-xxxx-39e0098c166c
Registration : Completed
Management type : Configuration and analytics

Type : Manager
Host : xx.xx..18.102
Display name : xx.xx..18.102
Version : 7.2.8 (Build 25)
Identifier : bb333216-xxxx-xxxx-xxxx-c68c0c388b44
Registration : Completed
Management type : Configuration and analytics
```

> sftunnel-status

```
SFTUNNEL Start Time: Mon Oct 14 21:29:16 2024

Both IPv4 and IPv6 connectivity is supported
Broadcast count = 5
Reserved SSL connections: 0
Management Interfaces: 2
eth0 (control events) xx.xx..18.254,
tap_nlp (control events) 169.254.1.2,fd00:0:0:1::2

**********************

**RUN STATUS****xx.xx..18.102*************
Key File = /var/sf/peers/bb333216-xxxx-xxxx-xxxx-c68c0c388b44/sftunnel-key.pem
Cert File = /var/sf/peers/bb333216-xxxx-xxxx-xxxx-c68c0c388b44/sftunnel-cert.pem
CA Cert = /var/sf/peers/bb333216-xxxx-xxxx-xxxx-c68c0c388b44/cacert.pem
Cipher used = TLS_AES_256_GCM_SHA384 (strength:256 bits)
ChannelA Connected: Yes, Interface eth0
Cipher used = TLS_AES_256_GCM_SHA384 (strength:256 bits)
ChannelB Connected: Yes, Interface eth0
Registration: Completed.
IPv4 Connection to peer 'xx.xx..18.102' Start Time: Tue Oct 15 00:38:43 2024 UTC
IPv4 Last outbound connection to peer 'xx.xx..18.102' via Primary ip/host 'xx.xx..18.102'

PEER INFO:
sw_version 7.2.8
sw_build 25
Using light registration
Management Interfaces: 1
eth0 (control events) xx.xx..18.102,
Peer channel Channel-A is valid type (CONTROL), using 'eth0', connected to 'xx.xx..18.102' via 'xx.xx..
Peer channel Channel-B is valid type (EVENT), using 'eth0', connected to 'xx.xx..18.102' via 'xx.xx..18
```

```
**********************

**RUN STATUS****xx.xx..18.101*************
Key File = /var/sf/peers/fc3e3572-xxxx-xxxx-xxxx-39e0098c166c/sftunnel-key.pem
Cert File = /var/sf/peers/fc3e3572-xxxx-xxxx-xxxx-39e0098c166c/sftunnel-cert.pem
CA Cert = /var/sf/peers/fc3e3572-xxxx-xxxx-xxxx-39e0098c166c/cacert.pem
Cipher used = TLS_AES_256_GCM_SHA384 (strength:256 bits)
ChannelA Connected: Yes, Interface eth0
Cipher used = TLS_AES_256_GCM_SHA384 (strength:256 bits)
ChannelB Connected: Yes, Interface eth0
Registration: Completed.
IPv4 Connection to peer 'xx.xx..18.101' Start Time: Mon Oct 14 21:29:15 2024 UTC
IPv4 Last outbound connection to peer 'xx.xx..18.101' via Primary ip/host 'xx.xx..18.101'

PEER INFO:

sw_version 7.2.8
sw_build 25
Using light registration
Management Interfaces: 1
eth0 (control events) xx.xx..18.101,
Peer channel Channel-A is valid type (CONTROL), using 'eth0', connected to 'xx.xx..18.101' via 'xx.xx..
Peer channel Channel-B is valid type (EVENT), using 'eth0', connected to 'xx.xx..18.101' via 'xx.xx..18

**********************
**RPC STATUS****xx.xx..18.102*************
'uuid' => 'bb333216-xxxx-xxxx-xxxx-c68c0c388b44',
'uuid_gw' => '',
'last_changed' => 'Wed Oct 9 07:00:11 2024',
'active' => 1,
'name' => 'xx.xx..18.102',
'ip' => 'xx.xx..18.102',
'ipv6' => 'IPv6 is not configured for management'

**RPC STATUS****xx.xx..18.101*************
'uuid_gw' => '',
'uuid' => 'fc3e3572-xxxx-xxxx-xxxx-39e0098c166c',
'last_changed' => 'Mon Jun 10 18:59:54 2024',
'active' => 1,
'ip' => 'xx.xx..18.101',
'ipv6' => 'IPv6 is not configured for management',
'name' => 'xx.xx..18.101'

Check routes:
No peers to check
```

ping system <fmc-IP> Um ein ICMP zu generieren, folgen Sie den Anweisungen auf der FTD-Management-Schnittstelle.

show managers Dieser Befehl listet die Informationen der Manager auf, bei denen das Gerät registriert ist.

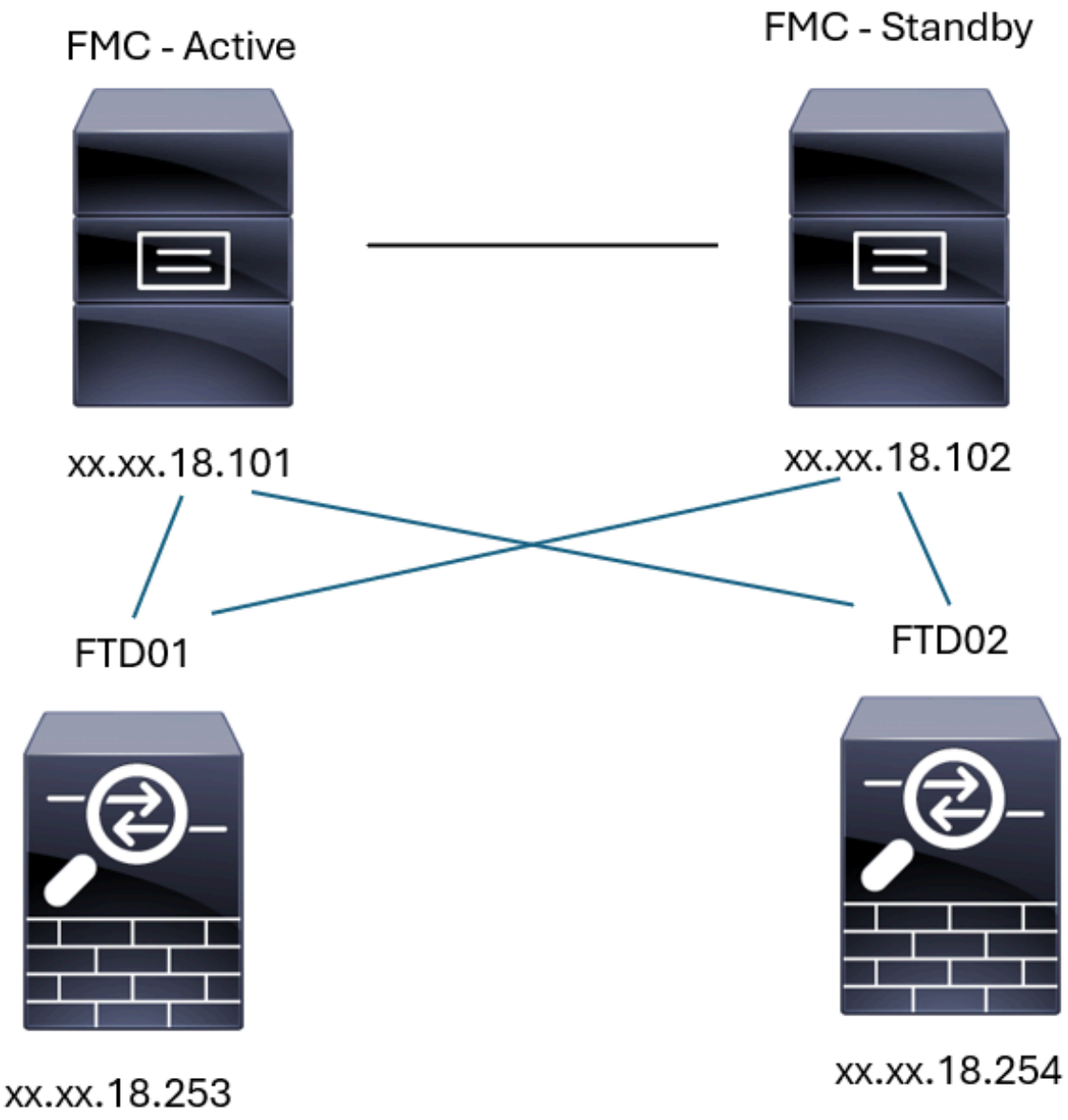
sftunnel-status Dieser Befehl validiert den Kommunikationskanal, der zwischen den Geräten eingerichtet wurde. Dieser Kanal erhält den Namen sftunnel.

Die Befehle zum Überprüfen der Verbindung auf der Stammebene des FTD entsprechen denen

des FMC. Im Falle des FTD enthält es kein Skript, das eine Validierung der Kommunikation mit dem FMC ermöglicht, es ist jedoch möglich, die während des Registrierungsvorgangs generierten Informationen im /ngfw/var/log/action.log zu überprüfen.

Verifizierung

Für die nächste Topologie kann die Kommunikation zwischen den FMC-HA-Peers und dem FTD01 mit den zuvor beschriebenen Befehlen validiert werden.



FMC-HA-Topologie

FMC - HA-Validierung

Für diese Validierung können die grundlegenden Richtlinien zum Festlegen von FMC-HA auch mit dem Befehl show version validiert werden.

<#root>

FMC Active

>

show version

```
-------------------[ firepower ]--------------------
Model                     : Secure Firewall Management Center for VMware (66) Version 7.2.8 (Build 25)
UUID                      : fc3e3572-xxxx-xxxx-xxxx-39e0098c166c
Rules update version      : 2023-11-29-001-vrt
LSP version               : lsp-rel-20231129-1200
VDB version               : 395
----------------------------------------------------
```

> expert

admin@firepower:~$

sudo su

root@firepower:/Volume/home/admin#

ping xx.xx.18.102

```
PING xx.xx.18.102 (xx.xx.18.102) 56(84) bytes of data.
64 bytes from xx.xx.18.102: icmp_seq=1 ttl=64 time=0.385 ms
64 bytes from xx.xx.18.102: icmp_seq=2 ttl=64 time=0.433 ms
64 bytes from xx.xx.18.102: icmp_seq=3 ttl=64 time=0.606 ms
64 bytes from xx.xx.18.102: icmp_seq=4 ttl=64 time=0.480 ms
64 bytes from xx.xx.18.102: icmp_seq=5 ttl=64 time=0.524 ms
^C
--- xx.xx.18.102 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 84ms
rtt min/avg/max/mdev = 0.385/0.485/0.606/0.079 ms
```

root@firepower:/Volume/home/admin#

netstat -an | grep 8305

```
tcp        0      0 xx.xx.18.101:8305       xx.xx.18.254:53875      ESTABLISHED
tcp        0      0 xx.xx.18.101:8305       xx.xx.18.102:38239      ESTABLISHED ------ communication es
tcp        0      0 xx.xx.18.101:8305       xx.xx.18.254:49205      ESTABLISHED
tcp        0      0 xx.xx.18.101:8305       xx.xx.18.253:34865      ESTABLISHED
tcp        0      0 xx.xx.18.101:60871      xx.xx.18.253:8305       ESTABLISHED
tcp        0      0 xx.xx.18.101:8305       xx.xx.18.102:42253      ESTABLISHED ------ communication es
```

root@firepower:/Volume/home/admin#

troubleshoot_HADC.pl

```
****************  Troubleshooting Utility  **************
 1   Show HA Info Of FMC
 2   Execute Sybase DBPing
 3   Show Arbiter Status
```

```
 4   Check Peer Connectivity
 5   Print Messages of AQ Task
 6   Show FMC HA Operations History (ASC order)
 7   Dump To File: FMC HA Operations History (ASC order)
 8   Last Successful Periodic Sync Time (When it completed)
 9   Print HA Status Messages
 10  Compare active and standby device list
 11  Check manager status of standby missing devices
 12  Check critical PM processes details
 13  Get Remote Stale Sync AQ Info
 14  Help
 0   Exit
*****************************************************************
Enter choice: 1

HA Enabled: Yes
This FMC Role In HA: Active - Primary
Status out put: vmsDbEngine (system,gui) - Running 5093
In vmsDbEngineStatus(): vmsDbEngine process is running at /usr/local/sf/lib/perl/5.24.4/SF/Synchronize/
Sybase Process: Running (vmsDbEngine, theSybase PM Process is Running)
Sybase Database Connectivity: Accepting DB Connections.
Sybase Database Name: csm_primary
Sybase Role: Active

****************  Troubleshooting Utility  **************
 1   Show HA Info Of FMC
 2   Execute Sybase DBPing
 3   Show Arbiter Status
 4   Check Peer Connectivity
 5   Print Messages of AQ Task
 6   Show FMC HA Operations History (ASC order)
 7   Dump To File: FMC HA Operations History (ASC order)
 8   Last Successful Periodic Sync Time (When it completed)
 9   Print HA Status Messages
 10  Compare active and standby device list
 11  Check manager status of standby missing devices
 12  Check critical PM processes details
 13  Get Remote Stale Sync AQ Info
 14  Help
 0   Exit
*****************************************************************
Enter choice: 4
Peer UUID [Enter 'Return' For HA Peer(no UUID required)]:

Peer Is Connected
$VAR1 = {
          'vip' => '',
          'model_id' => 'E',
          'ip' => 'xx.xx.18.102',
          'persistent' => 0,
          'sw_version' => '7.2.8',
          'last_changed' => 1728457211,
          'active' => 1,
          'uuid' => 'bb333216-xxxx-xxxx-xxxx-c68c0c388b44',
          'upgrade_version' => '',
          'reg_state' => 0,
          'model_number' => '66',
          'primary_mgr' => 0,
          'name' => 'xx.xx.18.102',
          'uuid_gw' => '',
          'ipv6' => undef,
          'vip_local' => '',
```

```
          'priority' => 0,
          'reg_key' => '',
          'vnet' => undef,
          'role' => 0,
          'mgmt_mac_address' => '00:50:56:B3:D1:07'
        };

*************** Troubleshooting Utility **************
1 Show HA Info Of FMC
2 Execute Sybase DBPing
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4 Check Peer Connectivity
5 Print Messages of AQ Task
6 Show FMC HA Operations History (ASC order)
7 Dump To File: FMC HA Operations History (ASC order)
8 Last Successful Periodic Sync Time (When it completed)
9 Print HA Status Messages
10 Compare active and standby device list
11 Check manager status of standby missing devices
12 Check critical PM processes details
13 Get Remote Stale Sync AQ Info
14 Help
0 Exit
*****************************************************************
Enter choice: 8

--------------------------- Last periodic sync time details ----------------------------------

Last successful sync completed at: Wed Oct 16 16:44:23 2024 UTC
Current time: Wed Oct 16 16:46:34 2024 UTC
Last successful sync completed '2 minutes 11 seconds' ago.

--------------------------- Last periodic sync time details end ----------------------------------

*************** Troubleshooting Utility **************
1 Show HA Info Of FMC
2 Execute Sybase DBPing
3 Show Arbiter Status
4 Check Peer Connectivity
5 Print Messages of AQ Task
6 Show FMC HA Operations History (ASC order)
7 Dump To File: FMC HA Operations History (ASC order)
8 Last Successful Periodic Sync Time (When it completed)
9 Print HA Status Messages
10 Compare active and standby device list
11 Check manager status of standby missing devices
12 Check critical PM processes details
13 Get Remote Stale Sync AQ Info
14 Help
0 Exit
*****************************************************************
Enter choice: 9

SYNC_ACTIVE: 1 at /usr/local/sf/lib/perl/5.24.4/SF/Synchronize.pm line 494, <STDIN> line 5.
Sybase state :  at /usr/local/sf/lib/perl/5.24.4/SF/Synchronize.pm line 701.
Sybase state :  at /usr/local/sf/lib/perl/5.24.4/SF/Synchronize.pm line 801.
Sync status : at /usr/local/sf/lib/perl/5.24.4/SF/Synchronize.pm line 802.
--------------------------- FMC HA status messages start ----------------------------------

Status: Healthy

--------------------------- FMC HA status messages end ----------------------------------
```

```
**************** Troubleshooting Utility **************
1 Show HA Info Of FMC
2 Execute Sybase DBPing
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4 Check Peer Connectivity
5 Print Messages of AQ Task
6 Show FMC HA Operations History (ASC order)
7 Dump To File: FMC HA Operations History (ASC order)
8 Last Successful Periodic Sync Time (When it completed)
9 Print HA Status Messages
10 Compare active and standby device list
11 Check manager status of standby missing devices
12 Check critical PM processes details
13 Get Remote Stale Sync AQ Info
14 Help
0 Exit
************************************************************
Enter choice: 10

Fetching standby missing device information...
Devices are in sync.

**************** Troubleshooting Utility **************
1 Show HA Info Of FMC
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6 Show FMC HA Operations History (ASC order)
7 Dump To File: FMC HA Operations History (ASC order)
8 Last Successful Periodic Sync Time (When it completed)
9 Print HA Status Messages
10 Compare active and standby device list
11 Check manager status of standby missing devices
12 Check critical PM processes details
13 Get Remote Stale Sync AQ Info
14 Help
0 Exit
************************************************************
Enter choice: 0
Thank you
```

<#root>

FMC Standby

>

show version

```
-------------------[ firepower ]--------------------
Model                     : Secure Firewall Management Center for VMware (66) Version 7.2.8 (Build 25)
UUID                      : bb333216-xxxx-xxxx-xxxx-c68c0c388b44
Rules update version      : 2023-11-29-001-vrt
LSP version               : lsp-rel-20231129-1200
VDB version               : 395
----------------------------------------------------
```

> expert

```
admin@firepower:~$
```

sudo su

```
root@firepower:/Volume/home/admin#
```

ping xx.xx.18.101

```
PING xx.xx.18.101 (xx.xx.18.101) 56(84) bytes of data.
64 bytes from xx.xx.18.101: icmp_seq=1 ttl=64 time=0.402 ms
64 bytes from xx.xx.18.101: icmp_seq=2 ttl=64 time=0.482 ms
64 bytes from xx.xx.18.101: icmp_seq=3 ttl=64 time=0.452 ms
64 bytes from xx.xx.18.101: icmp_seq=4 ttl=64 time=0.490 ms
64 bytes from xx.xx.18.101: icmp_seq=5 ttl=64 time=0.519 ms
^C
--- xx.xx.18.101 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 123ms
rtt min/avg/max/mdev = 0.402/0.469/0.519/0.039 ms

root@firepower:/Volume/home/admin#
```

netstat -an | grep 8305

```
tcp        0      0 xx.xx.18.102:8305       xx.xx.18.254:50373      ESTABLISHED
tcp        0      0 xx.xx.18.102:8305       xx.xx.18.253:42083      ESTABLISHED
tcp        0      0 xx.xx.18.102:59439      xx.xx.18.254:8305       ESTABLISHED
tcp        0      0 xx.xx.18.102:36751      xx.xx.18.253:8305       ESTABLISHED
tcp        0      0 xx.xx.18.102:38239      xx.xx.18.101:8305       ESTABLISHED ------ communication es
tcp        0      0 xx.xx.18.102:42253      xx.xx.18.101:8305       ESTABLISHED ------ communication es

root@firepower:/Volume/home/admin#

root@firepower:/Volume/home/admin#
```

troubleshoot_HADC.pl

```
**************** Troubleshooting Utility **************
1 Show HA Info Of FMC
2 Execute Sybase DBPing
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6 Show FMC HA Operations History (ASC order)
7 Dump To File: FMC HA Operations History (ASC order)
8 Last Successful Periodic Sync Time (When it completed)
9 Print HA Status Messages
10 Compare active and standby device list
11 Check manager status of standby missing devices
12 Check critical PM processes details
13 Get Remote Stale Sync AQ Info
14 Help
0 Exit
*************************************************************
Enter choice: 1

HA Enabled: Yes
This FMC Role In HA: Standby - Secondary
Status out put: vmsDbEngine (system,gui) - Running 29652
```

```
In vmsDbEngineStatus(): vmsDbEngine process is running at /usr/local/sf/lib/perl/5.24.4/SF/Synchronize/
Sybase Process: Running (vmsDbEngine, theSybase PM Process is Running)
Sybase Database Connectivity: Accepting DB Connections.
Sybase Database Name: csm_secondary
Sybase Role: Standby

**************** Troubleshooting Utility **************
1 Show HA Info Of FMC
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7 Dump To File: FMC HA Operations History (ASC order)
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10 Compare active and standby device list
11 Check manager status of standby missing devices
12 Check critical PM processes details
13 Get Remote Stale Sync AQ Info
14 Help
0 Exit
*****************************************************************
Enter choice: 4
Peer UUID [Enter 'Return' For HA Peer(no UUID required)]:

Peer Is Connected
$VAR1 = {
          'vnet' => undef,
          'upgrade_version' => '',
          'uuid_gw' => '',
          'name' => 'xx.xx.18.101',
          'primary_mgr' => 1,
          'sw_version' => '7.2.8',
          'persistent' => 0,
          'model_number' => '66',
          'last_changed' => 1718045994,
          'reg_key' => '',
          'active' => 1,
          'reg_state' => 0,
          'model_id' => 'E',
          'vip' => '',
          'mgmt_mac_address' => '00:50:56:B3:E1:57',
          'vip_local' => '',
          'ip' => 'xx.xx.18.101',
          'priority' => 0,
          'uuid' => 'fc3e3572-xxxx-xxxx-xxxx-39e0098c166c',
          'role' => 0,
          'ipv6' => undef
        };

**************** Troubleshooting Utility **************
1 Show HA Info Of FMC
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10 Compare active and standby device list
```

```
11 Check manager status of standby missing devices
12 Check critical PM processes details
13 Get Remote Stale Sync AQ Info
14 Help
0 Exit
*************************************************************
Enter choice: 8

---------------------------- Last periodic sync time details ----------------------------------

Last successful sync completed at: Wed Oct 16 16:46:06 2024 UTC
Current time: Wed Oct 16 16:47:35 2024 UTC
Last successful sync completed '1 minute 29 seconds' ago.

---------------------------- Last periodic sync time details end ------------------------------

**************** Troubleshooting Utility **************
1 Show HA Info Of FMC
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9 Print HA Status Messages
10 Compare active and standby device list
11 Check manager status of standby missing devices
12 Check critical PM processes details
13 Get Remote Stale Sync AQ Info
14 Help
0 Exit
*************************************************************
Enter choice: 9

SYNC_ACTIVE: 1 at /usr/local/sf/lib/perl/5.24.4/SF/Synchronize.pm line 494, <STDIN> line 5.
Found running Synchronization task: Initializing at /usr/local/sf/lib/perl/5.24.4/SF/Transaction/HADC.pm
Sybase state :  at /usr/local/sf/lib/perl/5.24.4/SF/Synchronize.pm line 701.
Sybase state :  at /usr/local/sf/lib/perl/5.24.4/SF/Synchronize.pm line 801.
Sync status :Synchronization Task In-progress  at /usr/local/sf/lib/perl/5.24.4/SF/Synchronize.pm line
Found running Synchronization task: Initializing at /usr/local/sf/lib/perl/5.24.4/SF/Transaction/HADC.pm

---------------------------- FMC HA status messages start ----------------------------------

Status: Synchronization Task In-progress

---------------------------- FMC HA status messages end ------------------------------------

**************** Troubleshooting Utility **************
1 Show HA Info Of FMC
2 Execute Sybase DBPing
3 Show Arbiter Status
4 Check Peer Connectivity
5 Print Messages of AQ Task
6 Show FMC HA Operations History (ASC order)
7 Dump To File: FMC HA Operations History (ASC order)
8 Last Successful Periodic Sync Time (When it completed)
9 Print HA Status Messages
10 Compare active and standby device list
11 Check manager status of standby missing devices
12 Check critical PM processes details
13 Get Remote Stale Sync AQ Info
```

```
14 Help
0 Exit
************************************************************
Enter choice: 10

Fetching standby missing device information...
Devices are in sync.

*************** Troubleshooting Utility **************
1 Show HA Info Of FMC
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10 Compare active and standby device list
11 Check manager status of standby missing devices
12 Check critical PM processes details
13 Get Remote Stale Sync AQ Info
14 Help
0 Exit
************************************************************
Enter choice: 0
Thank you
```

Validierung der Kommunikation von FTD zu FMC-HA

<#root>

```
>
```

show version

```
-------------------[ firepower ]--------------------
Model                     : Cisco Firepower Threat Defense for VMware (75) Version 7.2.4 (Build 165)
UUID                      : 7064913a-xxxx-xxxx-xxxx-803aefd05d2c
LSP version               : lsp-rel-20231129-1200
VDB version               : 395
----------------------------------------------------

>
```

ping system xx.xx.18.101

```
------ ping to FMC-Active
PING xx.xx.18.101 (xx.xx.18.101) 56(84) bytes of data.
64 bytes from xx.xx.18.101: icmp_seq=1 ttl=64 time=14.1 ms
64 bytes from xx.xx.18.101: icmp_seq=2 ttl=64 time=27.8 ms
64 bytes from xx.xx.18.101: icmp_seq=3 ttl=64 time=26.1 ms
64 bytes from xx.xx.18.101: icmp_seq=6 ttl=64 time=55.7 ms
64 bytes from xx.xx.18.101: icmp_seq=7 ttl=64 time=39.9 ms
64 bytes from xx.xx.18.101: icmp_seq=8 ttl=64 time=38.9 ms
^C
```

```
--- xx.xx.18.101 ping statistics ---
8 packets transmitted, 6 received, 25% packet loss, time 76ms
rtt min/avg/max/mdev = 14.081/33.733/55.658/13.069 ms

>
```

ping system xx.xx.18.102

```
------ ping to FMC-Active
PING xx.xx.18.102 (xx.xx.18.102) 56(84) bytes of data.
64 bytes from xx.xx.18.102: icmp_seq=1 ttl=64 time=23.9 ms
64 bytes from xx.xx.18.102: icmp_seq=2 ttl=64 time=23.10 ms
64 bytes from xx.xx.18.102: icmp_seq=3 ttl=64 time=0.425 ms
64 bytes from xx.xx.18.102: icmp_seq=4 ttl=64 time=6.88 ms
64 bytes from xx.xx.18.102: icmp_seq=5 ttl=64 time=10.5 ms
^C
--- xx.xx.18.102 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 70ms
rtt min/avg/max/mdev = 0.425/13.131/23.969/9.380 ms

>
```

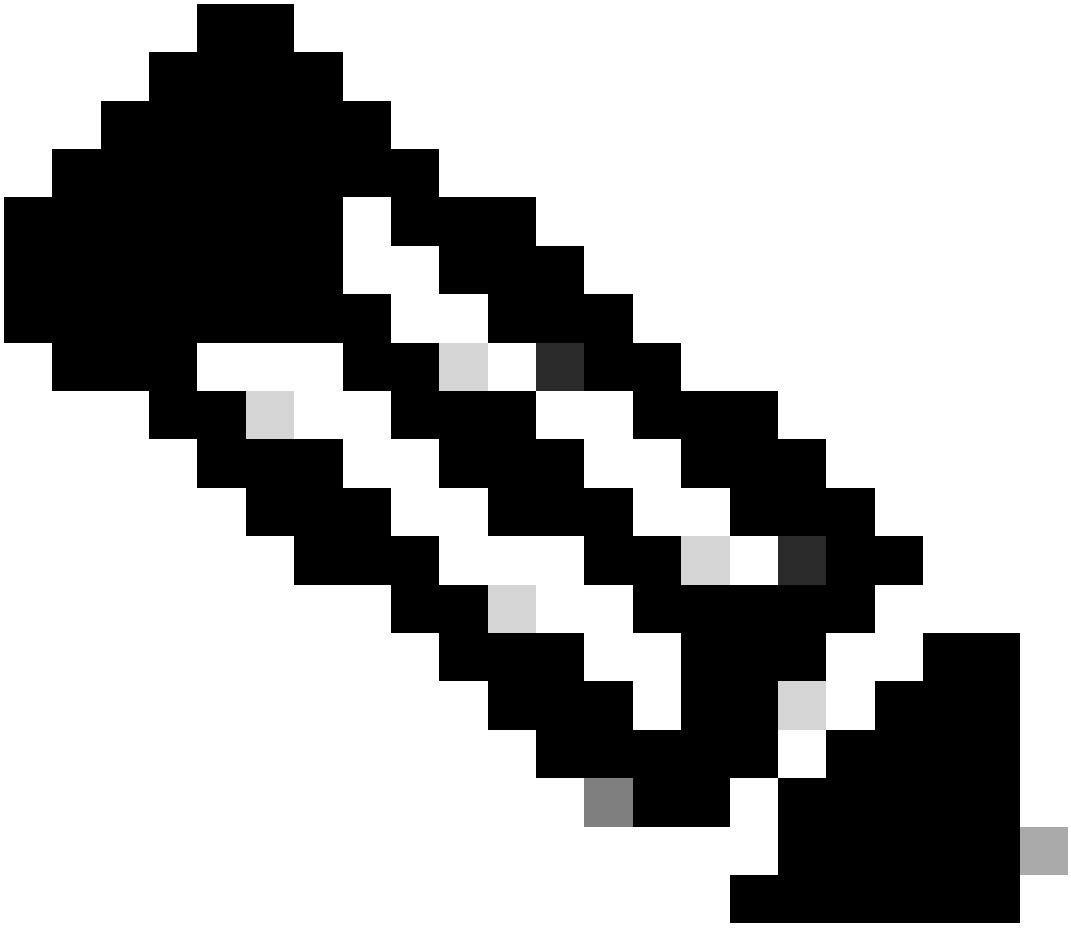
show managers

```
Type                      : Manager
Host                      : xx.xx.18.101
Display name              : xx.xx.18.101
Version                   : 7.2.8 (Build 25)
Identifier                : fc3e3572-xxxx-xxxx-xxxx-39e0098c166c
Registration              : Completed
Management type           : Configuration and analytics

Type                      : Manager
Host                      : xx.xx.18.102
Display name              : xx.xx.18.102
Version                   : 7.2.8 (Build 25)
Identifier                : bb333216-xxxx-xxxx-xxxx-c68c0c388b44
Registration              : Completed
Management type           : Configuration and analytics

>
```

sftunnel-status

```
SFTUNNEL Start Time: Mon Oct 14 21:29:16 2024
        Both IPv4 and IPv6 connectivity is supported
        Broadcast count = 17
        Reserved SSL connections: 0
        Management Interfaces: 2
        eth0 (control events) xx.xx.18.254,
        tap_nlp (control events) 169.254.1.2,fd00:0:0:1::2
**********************

**RUN STATUS****xx.xx.18.102************ ---------------------------------------- sftunnel information
        Key File     = /var/sf/peers/bb333216-xxxx-xxxx-xxxx-c68c0c388b44/sftunnel-key.pem
        Cert File    = /var/sf/peers/bb333216-xxxx-xxxx-xxxx-c68c0c388b44/sftunnel-cert.pem
        CA Cert      = /var/sf/peers/bb333216-xxxx-xxxx-xxxx-c68c0c388b44/cacert.pem
        Cipher used = TLS_AES_256_GCM_SHA384 (strength:256 bits)
        ChannelA Connected: Yes, Interface eth0
        Cipher used = TLS_AES_256_GCM_SHA384 (strength:256 bits)
        ChannelB Connected: Yes, Interface eth0
        Registration: Completed.
```

```
        IPv4 Connection to peer 'xx.xx.18.102' Start Time: Wed Oct 16 15:06:23 2024 UTC

        IPv4 Last outbound connection to peer 'xx.xx.18.102' via Primary ip/host 'xx.xx.18.102'

PEER INFO:
        sw_version 7.2.8
        sw_build 25
        Using light registration
        Management Interfaces: 1
        eth0 (control events) xx.xx.18.102,
        Peer channel Channel-A is valid  type (CONTROL), using 'eth0', connected to 'xx.xx.18.102' via
        Peer channel Channel-B is valid  type (EVENT), using 'eth0', connected to 'xx.xx.18.102' via 'x

**********************

**RUN STATUS****xx.xx.18.101************ ------------------------------------ sftunnel information o
        Key File    = /var/sf/peers/fc3e3572-xxxx-xxxx-xxxx-39e0098c166c/sftunnel-key.pem
        Cert File   = /var/sf/peers/fc3e3572-xxxx-xxxx-xxxx-39e0098c166c/sftunnel-cert.pem
        CA Cert     = /var/sf/peers/fc3e3572-xxxx-xxxx-xxxx-39e0098c166c/cacert.pem
        Cipher used = TLS_AES_256_GCM_SHA384 (strength:256 bits)
        ChannelA Connected: Yes, Interface eth0
        Cipher used = TLS_AES_256_GCM_SHA384 (strength:256 bits)
        ChannelB Connected: Yes, Interface eth0
        Registration: Completed.
        IPv4 Connection to peer 'xx.xx.18.101' Start Time: Mon Oct 14 21:29:15 2024 UTC

PEER INFO:
        sw_version 7.2.8
        sw_build 25
        Using light registration
        Management Interfaces: 1
        eth0 (control events) xx.xx.18.101,
        Peer channel Channel-A is valid  type (CONTROL), using 'eth0', connected to 'xx.xx.18.101' via
        Peer channel Channel-B is valid  type (EVENT), using 'eth0', connected to 'xx.xx.18.101' via 'x

**********************

**RPC STATUS****xx.xx.18.101*************
  'name' => 'xx.xx.18.101',
  'last_changed' => 'Mon Jun 10 18:59:54 2024',
  'uuid_gw' => '',
  'ip' => 'xx.xx.18.101',
  'ipv6' => 'IPv6 is not configured for management',
  'active' => 1,
  'uuid' => 'fc3e3572-xxxx-xxxx-xxxx-39e0098c166c'

**RPC STATUS****xx.xx.18.102*************
  'name' => 'xx.xx.18.102',
  'last_changed' => 'Wed Oct  9 07:00:11 2024',
  'uuid_gw' => '',
  'ip' => 'xx.xx.18.102',
  'ipv6' => 'IPv6 is not configured for management',
  'active' => 1,
  'uuid' => 'bb333216-xxxx-xxxx-xxxx-c68c0c388b44'

Check routes:
No peers to check
```



Hinweis: Wenn die Sftunnel-Informationen eines FMC fehlen, kann dies darauf hinweisen, dass die Kommunikation mit dem Manager beeinträchtigt ist.

<#root>

FTD root level troubleshoot

> expert

admin@firepower:~$

sudo su

root@firepower:/home/admin#

netstat -an | grep 8305

```
tcp        0      0 xx.xx.18.254:8305       xx.xx.18.102:59439      ESTABLISHED ------ communication es
tcp        0      0 xx.xx.18.254:49205      xx.xx.18.101:8305       ESTABLISHED ------ communication es
tcp        0      0 xx.xx.18.254:50373      xx.xx.18.102:8305       ESTABLISHED ------ communication es
tcp        0      0 xx.xx.18.254:53875      xx.xx.18.101:8305       ESTABLISHED ------ communication es

root@firepower:/home/admin#
```

cat /ngfw/var/log/action_queue.log | less

```
Oct 16 15:06:50 firepower ActionQueueScrape.pl[4166]: Waiting for light registration to complete on dev
erl/5.24.4/SF/PeerManager/RegistrationCL.pm line 1805.
Oct 16 15:06:50 firepower ActionQueueScrape.pl[4166]: Found Registered peer with name xx.xx.18.102 (bb3
Oct 16 15:06:50 firepower ActionQueueScrape.pl[4166]: Found peer with name xx.xx.18.102 - update DB at
Oct 16 15:06:50 firepower ActionQueueScrape.pl[4166]: Found Registered peer with name xx.xx.18.101 (fc3
```

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