

7.2 HA رادصلال، هرشنو MSE جم انرب نيوكت

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قم دقملال

(HA) يلاعلال رفوتلال معد Cisco نم (MSE) لقننتلال تامدخ كرحم جم انرب نم 7.2 رادصلال فيضي قفاضالاب، رشنللاو نيوكتلال تاداشرلا دننتس ملال اذه مدقي. قيساضارتفالاو قيداملال قزهجالال الال و/وقايسلال قاعارم تامدخ فيضت يتلل كك لتل اهالصلال او تالكش ملال فاشك تسال تاحيملت الال نم قدحوم (WLAN) قكلسال قيلحم كك بش الال قيفيكتلال (IPS) اعطخالال حيحصت تامدخ قلاعلال رفوتلال قيلباقب قصاخلال تاداشرالال حرش وه دننتس ملال اذه نم ضرغلالو Cisco. قصاخلال قيساضارتفالاو قعباطلل رفوتلال قلاع رشن تاهو ويراني س ريفوتو MSE قعباطلل

تانوك ملال او MSE رشومب قصاخلال نيوكتلال ليصافات دننتس ملال اذه مدقي ال: **قظحال م** درتو، يرخال قئاثو يف تامول عم لال هذه درتو. MSE HA رشومب قلعتت ال يتلل هب قطبت رملال لوح تادنتس ملال ققئاق الال لوصحلل **قلصلال تاذا تامول عم ملال** مسق عجار. اهان اشب عجارم WIPS نيوكت قيطغت متت ال امك. اهميمصتو ققايسلال قاعارم عم لقننتلال تامدخ نيوكت دننتس ملال اذه يف فيكت ملال

قيساسال تابلطت ملال

تابلطت ملال

دننتس ملال اذهل قصاخ تابلطت ملال دجوت ال

قم دختس ملال تانوك ملال

قني عم قيدام تانوك ملال وجمارب تارادصلال الال دننتس ملال اذه رصتقي ال

تاحالطصالال

[تاحالطصالال لوح تامول عم ملال نم ديزم الال لوصحلل قينقننتلال Cisco تاحيملت تاحالطصالال عجار تادنتس ملال.](#)

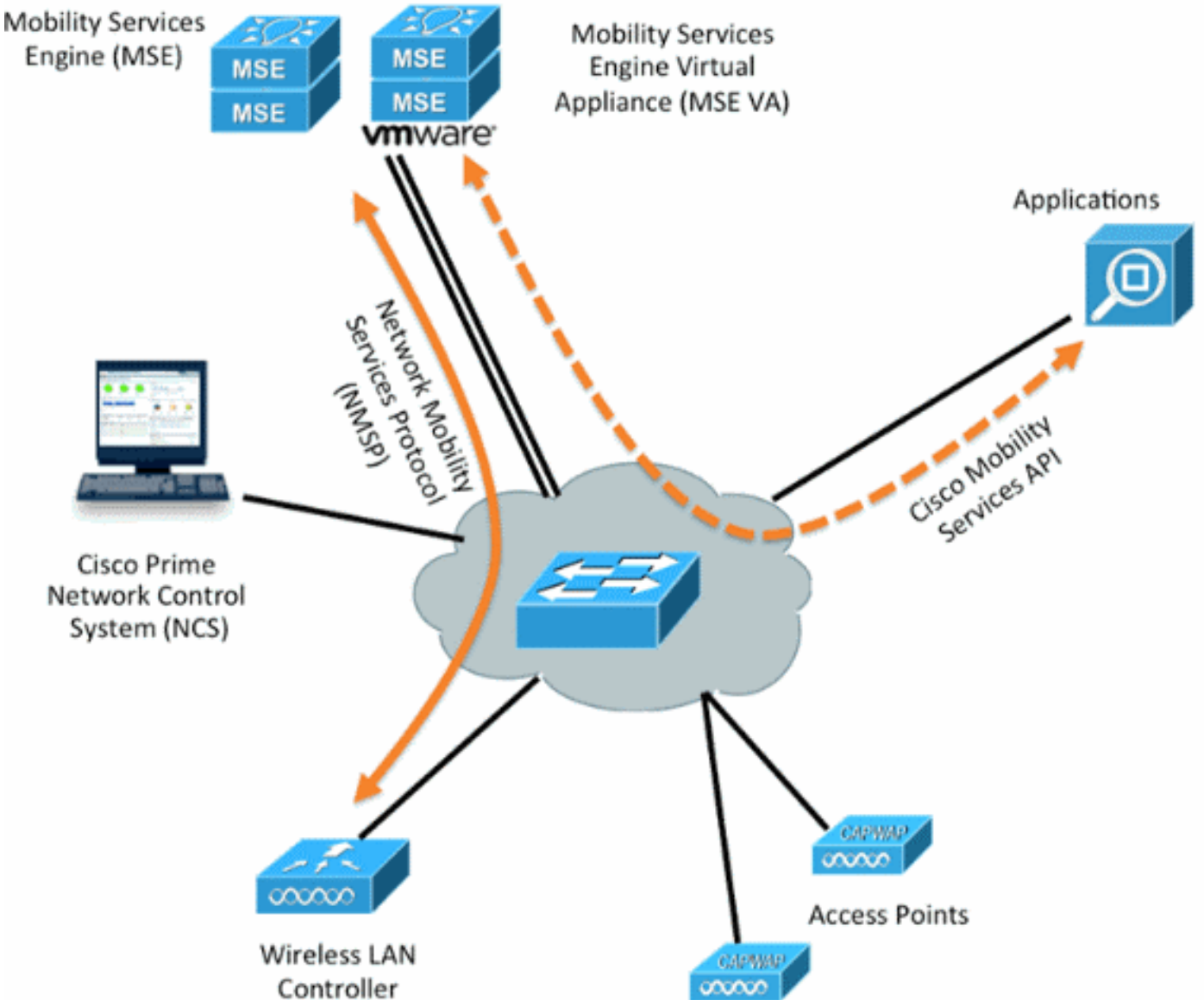
ةيساساً تامولعم

فئاطو تامدخل هذه رفوت .ةطبترم ةددتم تامدخ لئغشت ىلع رداق يساساً ماظن وه MSE نإ ف مساح رمأ ىل لعلال ىحصلا نيمأتلل رابتعالا عالي نإف ،كلذلو .ىوتسمل ةيلاع ةمدخ .ةمدخلال ف ةقثل نم ىوتسم ىلعل ةظفاحملا

زاهج MSE HA مدقي .رخآ طشن ريغ لئثم ةطساوب طشن MSE لك معد متي ،HA نئكمت عم ظافحل متي و .ىل لعلال رفوتل دادع ةبقارمو ةرادو ةئيهتب هي ف موقئ ىذلا ةحصلال ةبقارم "ةياملال بقارم" دعي .يوناتلالو يساسال فرصلال راعسأ رشؤم نئب بلقلال تاضبن ىلعل MSE لئش في ام دنع .قئبطلال ةبقارمو تافللمل خسنو تانايبلال ةدعاق دادع نعل الوؤسم يساسال MSE ب صاخلال يرهاظلال ناوعلال لئدبت متي ،يوناتلال ريدملا ملستئو يساساللافافش لكشب

لرحم نمضتت ىتلال Cisco نم ةئجذومنلال WLAN ةكبش رشن (1 لكشلا عجار) دادعلا اذع حضوي رفوتئ .ةيلاع رفوت ةئنكمتل ىلعل لوصحلل هئكمت متئ ىذل Cisco نم (MSE) لقلنتلال تامدخ ESXi ىلعل يرهاظلال زاهجال MSE-3350/3355 و MSE-3310 ىلعل HA معد

ىل لعلال رفوتلال ةلاح ف MSE ةمدخ رشن 1 لكش



دوئقلاو ةئهئجوتلال ئدابملا

MSE HA: ةي ن ب لوح تامولعم ي لي ام ي ف

- طقف راتكه 1:1 غلبت ةحاسم MSE يره اظلا زاهجلا معددي .
- رظنا . ن ي س اساس ال MSE ي حلصم ي ل ل لص ي ام ي و ن ا ث ل MSE رشؤم معددي ن ا ن ك مي (3 و 2 ن ا ل ش ل) HA ط ب ر ة ف و ف ص م
- رش ا ب م ل ل ا ص ت ا ل ا و ة ك ب ش ل ل ل ي ص و ت HA معددي .
- IP و ة ح ص ل ل ا ب ق ا ر م ب ص ا خ ل ل IP ن م ل ك ن و ك ي ن ا ب ج ي . ط ق ف MSE-2 ة ق ب ط ر ا ر ك ت م ع د م ت ي ف م ك ح ت ل ل م ا ظ ن ن م ه ي ل ل ل و ص و ل ن ك م ي و ا ه س ف ن ة ي ع ر ف ل ل ا ة ك ب ش ل ل ي ل ع ي ر ه ا ظ ل ل م و ع د م ر ي غ ة ث ل ا ث ل ل ا ة ق ب ط ل ل ر ا ر ك ت . (NCS) ة ك ب ش ل ل
- ن ي ف ل ت خ م ي ر ه ا ظ ل ل IP و Health Monitor ب ص ا خ ل ل IP ن و ك ي ن ا ب ج ي .
- ا ي ا ق ل ت و ا ا ي و د ي ل ش ف ل ل ز و ا ج ت م ا د خ ت س ا ك ن ك م ي .
- ا ي ا ق ل ت و ا ا ي و د ي ل ا ط ع ا ل ا ع ا ج ر ا م ا م ا د خ ت س ا ك ن ك م ي .
- ج م ا ن ر ب ل ا ر ا د ص ا س ف ن ي ل ع ي و ن ا ث ل ل ا و ي س ا س ا ل MSE ن م ل ك ن و ك ي ن ا ب ج ي .
- ر ا ع س ا ر ش ؤ م ح ب ص ي ال . ر خ ا ط ش ن ر ي غ ل ي ث م ب ط ش ن ي س ا س ا MSE رشؤم ل ك م ع د م ت ي . ل ش ف ل ل ز و ا ج ت ا ر ج ا ء د ب د ع ب ال ا ط ش ن ي و ن ا ث ل ل (MSE) ف ر ص ل ل
- ا ي ا ق ل ت و ا ا ي و د ي ل ش ف ل ل ز و ا ج ت ا ر ج ا ن و ك ي ن ا ب ج ي .
- ل ج س م ي س ا س ا MSE ل ك ل ت ا ن ا ي ب ل ل د ع ا و ق و ج م ا ر ب ل ل د ح ا و ل ي ث م د ج و ي .

MSE HA م ع د ن ا ر ت ق ا ة ف و ف ص م 2. ل ك ش

Primary Server Type	Secondary Server Type					
	3310	3350	3355	VA-Low	VA-Standard	VA-High
3310	Y	Y	Y	N	N	N
3350	N	Y	Y	N	N	N
3355	N	Y	Y	N	N	N
VA-Low	N	N	N	Y	Y	Y
VA-Standard	N	N	N	N	Y	Y
VA-High	N	N	N	N	N	Y

MSE HA N:1 ن ا ر ت ق ا ة ف و ف ص م 3. ل ك ش

Secondary Server	Primary Server
3310	N:1 not supported
3350	Two 3310 servers are supported
3355	Two 3310 servers are supported
3355	Two 3350 servers are supported
3355	One 3310 and one 3350 are supported

ل ص ت م ل ل MSE ي ر ه ا ظ ل ل ز ا ه ج ل ل HA ن ي و ك ت و ي ر ا ن ي س

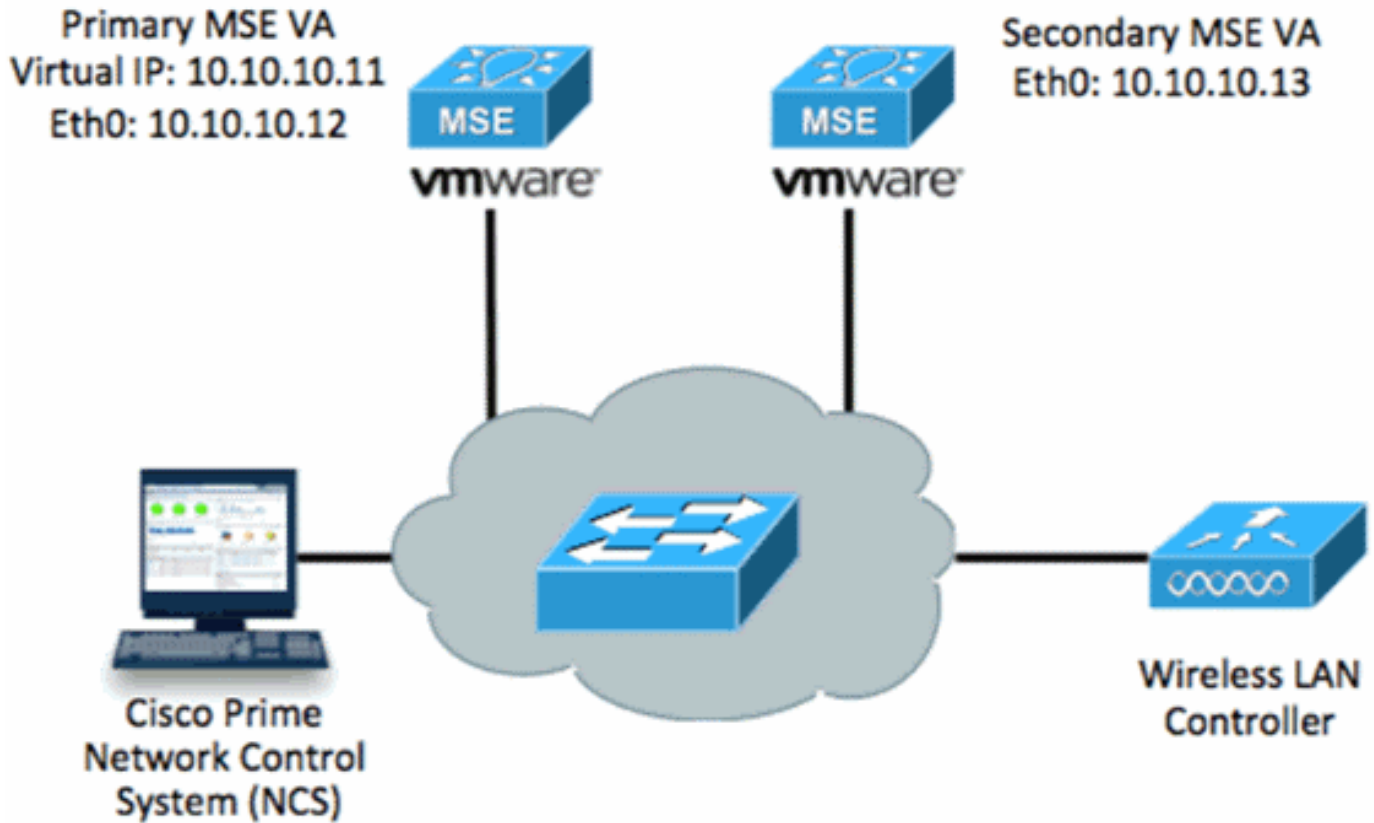
ةكبشلاب

اذه ،ويرانيس اذه ل (4 لكشلا عجار) MSE ل (VA) يره اظلا زاوجل HA نيوكت لاثملا اذه حضوي
تلكش دادع اةيلمع

- MSE VA اةحصلا بقارم اةجاول [10.10.10.11] - يره اظلا IP: يساسأ MSE VA [10.10.10.12] - (ETH0)
- MSE VA اةحصلا بقارم اةجاول [10.10.10.13] - يره اظلا IP: يوناثلل MSE VA

نيوكتل بولطم اذه VA لك ل (L-MSE-7.0-K9) طيشنت صيخرت يلع لوصحلا مزلي: اةظحالم
HA ل VA.

HA ف MSE يره اظلا زاوجل 4 لكش



تامولعملال نم ديزم يلع لوصحلا MSE يره اظلا زاوجل ايلع Cisco قئاو عجار

ةماعلا تاوطخلا يلي اميف

1. تادادع اةيمج اةفيسا نم ققحتو MSE ل VA تيبت لملكأ .
ةكبشلاب

```

MSE1 on kft-fx
File View VM
to complete.
Preparing to install...
Extracting the JRE from the installer archive...
Unpacking the JRE...
Extracting the installation resources from the installer archive...
Configuring the installer for this system's environment...

Launching installer...

Preparing SILENT Mode Installation...

=====
Cisco Mobility Services Engine      (created with InstallAnywhere by Macrovision)
=====

Command.run(): process completed before monitors could start.

=====
Installing...
=====

[=====|=====|=====|=====]
[-----|-----|-----|-----]

```

2. لوخدلا ليچست دن ع دادعإلا جلاع م أبا
الوأ.

```

Cisco Mobility Service Engine

mse login: root
Password:
Last login: Mon Feb 13 17:31:37 on tty1

Enter whether you would like to set up the initial
parameters manually or via the setup wizard.

Setup parameters via Setup Wizard (yes/no) [yes]: _

```

3. ةوطخال ي ف "معن" لخدأ. (كلذىل امو، لاجملاو فيضملا مسا) ةبولطملا تالخدإلا لخدأ.
رفوتلا نيوكتل
يلاعلا.

```

Current hostname=[mse]
Configure hostname? (Y)es/(S)kip/(U)se default [Yes]:

The host name should be a unique name that can identify
the device on the network. The hostname should start with
a letter, end with a letter or number, and contain only
letters, numbers, and dashes.

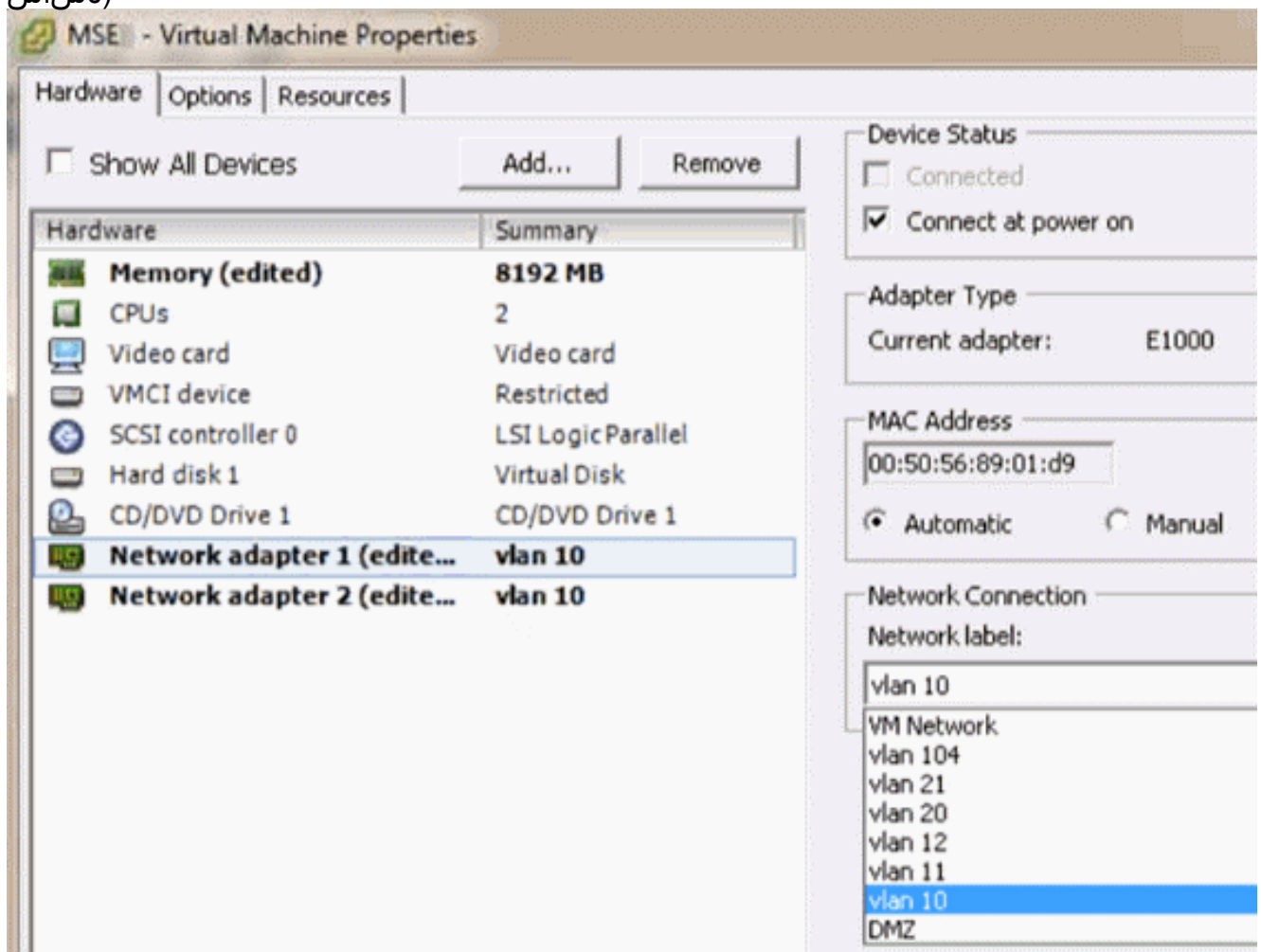
Enter a host name [mse]: mse1

Current domain=[]
Configure domain name? (Y)es/(S)kip/(U)se default [Yes]: s

Current role=[Primary]
Configure High Availability? (Y)es/(S)kip/(U)se default [Yes]:

```

4. ةكبشلا تادادع [eth0]** - ةحصلا ةبقارم ةهجاو [يساسألل 1] - رود دي دحت: لي ام لخدا (ةشاش
 ةطوقل ةني ع عجا) 1 ةكبشلا لوحم يلع ةني عمل



```

Enter a host name [mse1]: mse1

Current domain=[]
Configure domain name? (Y)es/(S)kip/(U)se default [Yes]: s

Current role=[Primary]
Configure High Availability? (Y)es/(S)kip/(U)se default [Yes]:

High availability role for this MSE (Primary/Secondary)

Select role [1 for Primary, 2 for Secondary] [1]:

Health monitor interface holds physical IP address of this MSE server.
This IP address is used by Secondary, Primary MSE servers and WCS to communicate
among themselves

Select Health Monitor Interface [eth0/eth1] [eth0]: _

```

5. رشابم لاصتالال ةهجاو ددح -
[none].

```

Health monitor interface holds physical IP address of this MSE server.
This IP address is used by Secondary, Primary MSE servers and WCS to communicate
among themselves

Select Health Monitor Interface [eth0/eth1] [eth0]:

-----

Direct connect configuration facilitates use of a direct cable connection between
the primary and secondary MSE servers.
This can help reduce latencies in heartbeat response times, data replication and
failure detection times.
Please choose a network interface that you wish to use for direct connect. You should
choose appropriately configure the respective interfaces.
\"none\" implies you do not wish to use direct connect configuration.

-----

Select direct connect interface [eth0/eth1/none] [none]: _

```

6. ليغشت ءدب [255.255.255.0] - ةكبشلال عانق [10.10.10.11] - يره اظلال IP ناونع: ي لي ام لخدأ -
دادرتسالال عضو ي في MSE -
[ال]

```

Select direct connect interface [eth0/eth1/none] [none]:

Enter a Virtual IP address for first this primary MSE server

Enter Virtual IP address [1.1.1.1]: 10.10.10.11

Enter the network mask for IP address 10.10.10.11.

Enter network mask [1.1.1.1]: 255.255.255.0

Choose to start the server in recovery mode.
You should choose yes only if this primary was paired earlier and you have now lost
the configuration from this box.
And, now you want to restore the configuration from Secondary via NCS
Do you wish to start this MSE in HA recovery mode?: (yes/no): no_

```

7. ةكبشلال عانق [10.10.10.12] IP- TH0 ناونع لخدأ [م عن] - ETH0 نيوكت: ي لي ام لخدأ -
ة يضارتفالال ةباوبل [255.255.255.0] -
[10.10.10.1]

```

Current IP address=[1.1.1.10]
Current eth0 netmask=[255.255.255.0]
Current gateway address=[1.1.1.1]
Configure eth0 interface parameters? (Y)es/(S)kip/(U)se default [Yes]
Enter an IP address for first ethernet interface of this machine.
Enter eth0 IP address [1.1.1.10]: 10.10.10.12
Enter the network mask for IP address 10.10.10.12.
Enter network mask [255.255.255.0]:
Enter an default gateway address for this machine.
Note that the default gateway must be reachable from
the first ethernet interface.
Enter default gateway address [1.1.1.1]: 10.10.10.1

```

8. ETH1 - هج او نيوكت. (ETH1) ةي ناثال تنرثي | هج او مادختس | متي ال
[ي طختال]

```

The second ethernet interface is currently disabled for this machine.
Configure eth1 interface parameters? (Y)es/(S)kip/(U)se default [Yes]: s

```

9. ة نمازم لجأ نم NTP م داخ ني كمت مهمل نم. دادع ال ج ل اع م ل الخ نم ة ع باتم ل
ي م ل اع ال تي قوت ل يه ة ل ض ف م ل ة ي ن م ز ل ا ة ق ط ن م ل ا. ة ع اس ل ل
ق س ن م ل ا.

```

Domain Name Service (DNS) Setup
DNS is currently enabled.
No DNS servers currently defined
Configure DNS related parameters? (Y)es/(S)kip/(U)se default [Yes]: s
Current timezone=[America/New_York]
Configure timezone? (Y)es/(S)kip/(U)se default [Yes]:
Enter the current date and time.
Please identify a location so that time zone rules can be set correctly.
Please select a continent or ocean.
 1) Africa
 2) Americas
 3) Antarctica
 4) Arctic Ocean
 5) Asia
 6) Atlantic Ocean
 7) Australia
 8) Europe
 9) Indian Ocean
10) Pacific Ocean
11) UTC - I want to use Coordinated Universal Time.
12) Return to previous setup step (^).
#? 11

```



```

Network Time Protocol (NTP) Setup.

If you choose to enable NTP, the system time will be
configured from NTP servers that you select.  Otherwise,
you will be prompted to enter the current date and time.

NTP is currently disabled.
Configure NTP related parameters? (Y)es/(S)kip/(U)se default [Yes]:

Enter whether or not you would like to set up the
Network Time Protocol (NTP) for this machine.

If you choose to enable NTP, the system time will be
configured from NTP servers that you select.  Otherwise,
you will be prompted to enter the current date and time.

Enable NTP (yes/no) [no]: yes
Enter NTP server name or address: ntp.network.local

```

MSE: يره اظلا زاه ج ل ل ي س اس ا ل ا داد ع ا ل ا ص خ ل ي ا ذ ه و

```

-----BEGIN-----
Role=1, Health Monitor Interface=eth0, Direct connect interface=none
Virtual IP Address=10.10.10.11, Virtual IP Netmask=255.255.255.0
Eth0 IP address=10.10.10.12, Eth0 network mask=255.0.0.0
Default Gateway=10.10.10.1
-----END-----

```

10. تام ول عم ع ي م ج ة ح ص ن م د ك ا ت ل ل [YES] ل خ د ا .

دادع ا ل ا .

```

Please verify the following setup information.

-----BEGIN-----

Host name=mse1
      Role=1, Health Monitor Interface=eth0, Direct connect interface=none
      Virtual IP Address=10.10.10.11, Virtual IP Netmask=255.255.255.0
Eth0 IP address=10.10.10.12, Eth0 network mask=255.255.255.0
Default gateway=10.10.10.1
Time zone=UTC
Enable NTP=yes, NTP servers=10.10.10.10

-----END-----

You may enter "yes" to proceed with configuration, "no" to make
more changes, or "^" to go back to the previous step.

Configuration Changed
Is the above information correct (yes, no, or ^): yes

```

11. د ع ب ل ي غ ش ت ل ا ة د ا ع ا ب ي ص و ي .

```

[root@mse1 ~]# reboot
Stopping MSE Platform

```

دادع ا ل ا .

12. و ا /etc/init.d/msed ل ي غ ش ت ع د ب ر م ا و ا م ا د خ ت س ا ب MSE ت ا م د خ ا د ب ا ، ل ي غ ش ت ل ا ة د ا ع ا د ع ب . ة م د خ ل ا .

```

[root@mse1 ~]# getserverinfo
Health Monitor is not running
[root@mse1 ~]# /etc/init.d/mse start
Starting MSE Platform

ip_tables: (C) 2000-2006 Netfilter Core Team
Netfilter messages via NETLINK v0.30.
ip_conntrack version 2.4 (8192 buckets, 65536 max) - 304 bytes per conntrack
Starting Health Monitor, Waiting to check the status.
Starting Health Monitor, Waiting to check the status.
Health Monitor successfully started
Starting Admin process...
Started Admin process.
Starting database .....
Database started successfully. Starting framework and services .....
Framework and services successfully started

[root@mse1 ~]#

```

13. رمألما ادختساب حيحص لكشب لمعت MSE تامدخ نأ نم دكأت، تامدخال عيجم ادب دعب .
 getServerInfo. ةي لمعلا ةلاح رهظت نأ بجي.
 up.

```

Active Wired Clients: 0
Active Elements(Wireless Clients, Rogue APs, Rogue Clients, Interferers, Wired C
lients, Tags) Limit: 100
Active Sessions: 0
Wireless Clients Not Tracked due to the limiting: 0
Tags Not Tracked due to the limiting: 0
Rogue APs Not Tracked due to the limiting: 0
Rogue Clients Not Tracked due to the limiting: 0
Interferers Not Tracked due to the limiting: 0
Wired Clients Not Tracked due to the limiting: 0
Total Elements(Wireless Clients, Rogue APs, Rogue Clients, Interferers, Wired Cl
ients) Not Tracked due to the limiting: 0

-----
Context Aware Sub Services
-----

Subservice Name: Aeroscout Tag Engine
Admin Status: Disabled
Operation Status: Down

Subservice Name: Cisco Tag Engine
Admin Status: Enabled
Operation Status: Up
[root@mse1 ~]#

```

يوناثل MSE VA دادع| نم عزج يه تاوطلال هذه:

1. نيوكت:يلي ام لخدأ .دادعإل جلاع م يي فيلوالا لوخدلا ليجست ادبي، ديدجال تيبتل دعب .
 - ةحصلا بقارمة جايوناثل رود يلا ريشي يذلا [2] - رود ديدحت[معن] - يلاعلا رفوتلا
 لثم [eth0]
 ياساسألا

```

Current hostname=[mse]
Configure hostname? (Y)es/(S)kip/(U)se default [Yes]: yes

The host name should be a unique name that can identify
the device on the network. The hostname should start with
a letter, end with a letter or number, and contain only
letters, numbers, and dashes.

Enter a host name [mse]: mse2

Current domain=[]
Configure domain name? (Y)es/(S)kip/(U)se default [Yes]: s

Current role=[Primary]
Configure High Availability? (Y)es/(S)kip/(U)se default [Yes]:

High availability role for this MSE (Primary/Secondary)

Select role [1 for Primary, 2 for Secondary] [1]: 2

Health monitor interface holds physical IP address of this MSE server.
This IP address is used by Secondary, Primary MSE servers and WCS to communicate
among themselves

Select Health Monitor Interface [eth0/eth1] [eth0]:

```

2. - ةكبش لال عانق [10.10.10.13] - IP th0 ناونع [عيش ال] - رشابم لاصت: لي ام لخدا
 - ةيضا رت فال اة باوبل [255.255.255.0]
 [10.10.10.1]

```

-----
Select direct connect interface [eth0/eth1/none] [none]:

Current IP address=[1.1.1.10]
Current eth0 netmask=[255.255.255.0]
Current gateway address=[1.1.1.1]
Configure eth0 interface parameters? (Y)es/(S)kip/(U)se default [Yes]:

Enter an IP address for first ethernet interface of this machine.

Enter eth0 IP address [1.1.1.10]: 10.10.10.13

Enter the network mask for IP address 10.10.10.13.

Enter network mask [255.255.255.0]:

Enter an default gateway address for this machine.

Note that the default gateway must be reachable from
the first ethernet interface.

Enter default gateway address [1.1.1.1]: 10.10.10.1_

```

3. - ETH1 ةهجاو نيوكت
 [ي طخت لال]

```

Configure eth0 interface parameters? (Y)es/(S)kip/(U)se default [Yes]:
Enter an IP address for first ethernet interface of this machine.
Enter eth0 IP address [1.1.1.10]: 10.10.10.13
Enter the network mask for IP address 10.10.10.13.
Enter network mask [255.255.255.0]:
Enter an default gateway address for this machine.
Note that the default gateway must be reachable from
the first ethernet interface.
Enter default gateway address [1.1.1.1]: 10.10.10.1
The second ethernet interface is currently disabled for this machine.
Configure eth1 interface parameters? (Y)es/(S)kip/(U)se default [Yes]: s

```

4. - ةنمزللة قطنملا نييعت [UTC]

```

Current timezone=[America/New_York]
Configure timezone? (Y)es/(S)kip/(U)se default [Yes]:
Enter the current date and time.
Please identify a location so that time zone rules can be set correctly.
Please select a continent or ocean.
 1) Africa
 2) Americas
 3) Antarctica
 4) Arctic Ocean
 5) Asia
 6) Atlantic Ocean
 7) Australia
 8) Europe
 9) Indian Ocean
10) Pacific Ocean
11) UTC - I want to use Coordinated Universal Time.
12) Return to previous setup step (^).
#? 11_

```

5. مءاخ نيكم تب مق NTP.

```

Network Time Protocol (NTP) Setup.

If you choose to enable NTP, the system time will be
configured from NTP servers that you select.  Otherwise,
you will be prompted to enter the current date and time.

NTP is currently disabled.
Configure NTP related parameters? (Y)es/(S)kip/(U)se default [Yes]:
Enter whether or not you would like to set up the
Network Time Protocol (NTP) for this machine.

If you choose to enable NTP, the system time will be
configured from NTP servers that you select.  Otherwise,
you will be prompted to enter the current date and time.

Enable NTP (yes/no) [no]: yes
Enter NTP server name or address: ntp.network.local

```

6. طفح ل دادع إال تامول عم دي كأتو "دادع إال ج ل عم" نم ةي ق ب تم ل ا و ط خ ل ل ام ك إ ب م ق ن ي و ك ت ل ل .

```

Please verify the following setup information.

-----BEGIN-----

Host name=mse2
      Role=2, Health Monitor Interface=eth0, Direct connect interface=none

Eth0 IP address=10.10.10.13, Eth0 network mask=255.255.255.0
Default gateway=10.10.10.1
Time zone=UTC
Enable NTP=yes, NTP servers=10.10.10.10

-----END-----

You may enter "yes" to proceed with configuration, "no" to make
more changes, or "^" to go back to the previous step.

Configuration Changed
Is the above information correct (yes, no, or ^): yes_

```

7. ل MSE ل ة ق ب اس ل ا و ط خ ل ل س ف ن ب ا م د خ ل ل ل ي غ ش ت ء د ب و ل ي غ ش ت ل ا ء ا ع إ ب م ق ي س اس أ ل ا .

```

[root@mse2 ~]# /etc/init.d/mse start
Starting MSE Platform

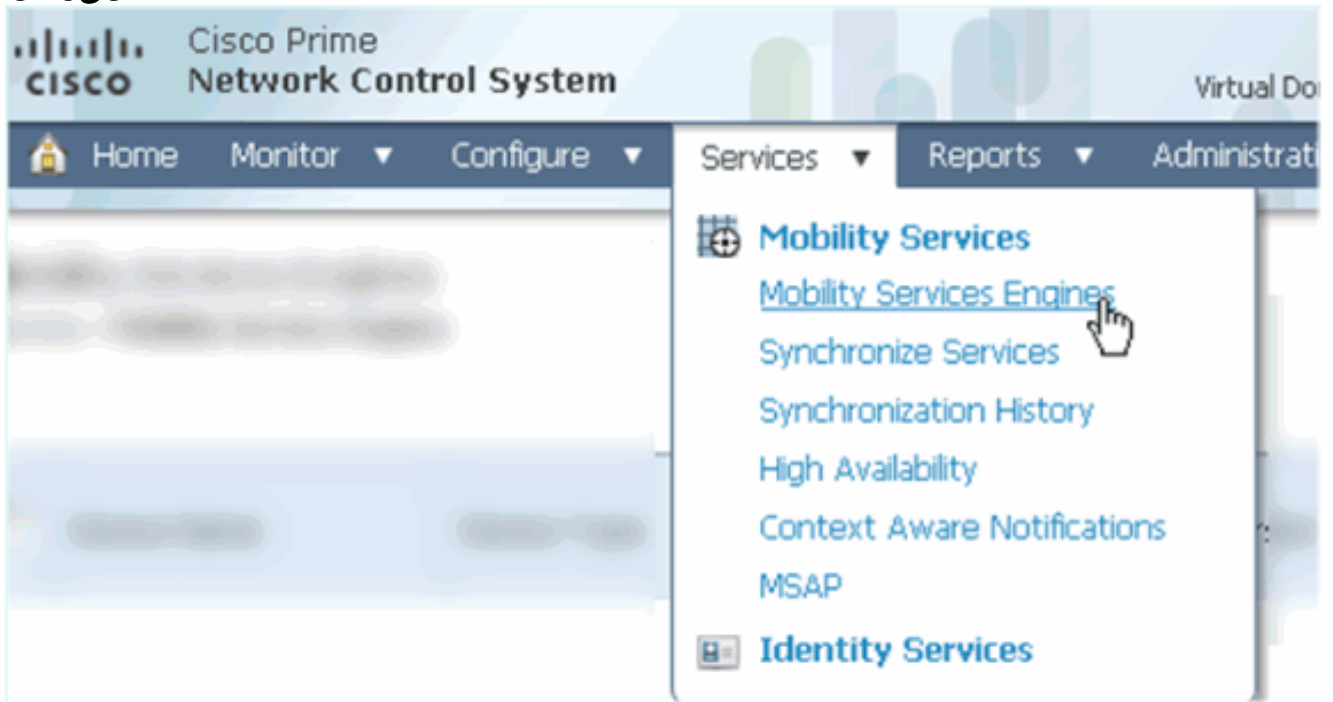
ip_tables: (C) 2000-2006 Netfilter Core Team
Netfilter messages via NETLINK v0.30.
ip_conntrack version 2.4 (8192 buckets, 65536 max) - 304 bytes per conntrack
Starting Health Monitor, Waiting to check the status.
Starting Health Monitor, Waiting to check the status.
Health Monitor successfully started
Starting Admin process...
Started Admin process.
Starting database .....
Database started successfully. Starting framework and services .....
Framework and services successfully started

[root@mse2 ~]# _

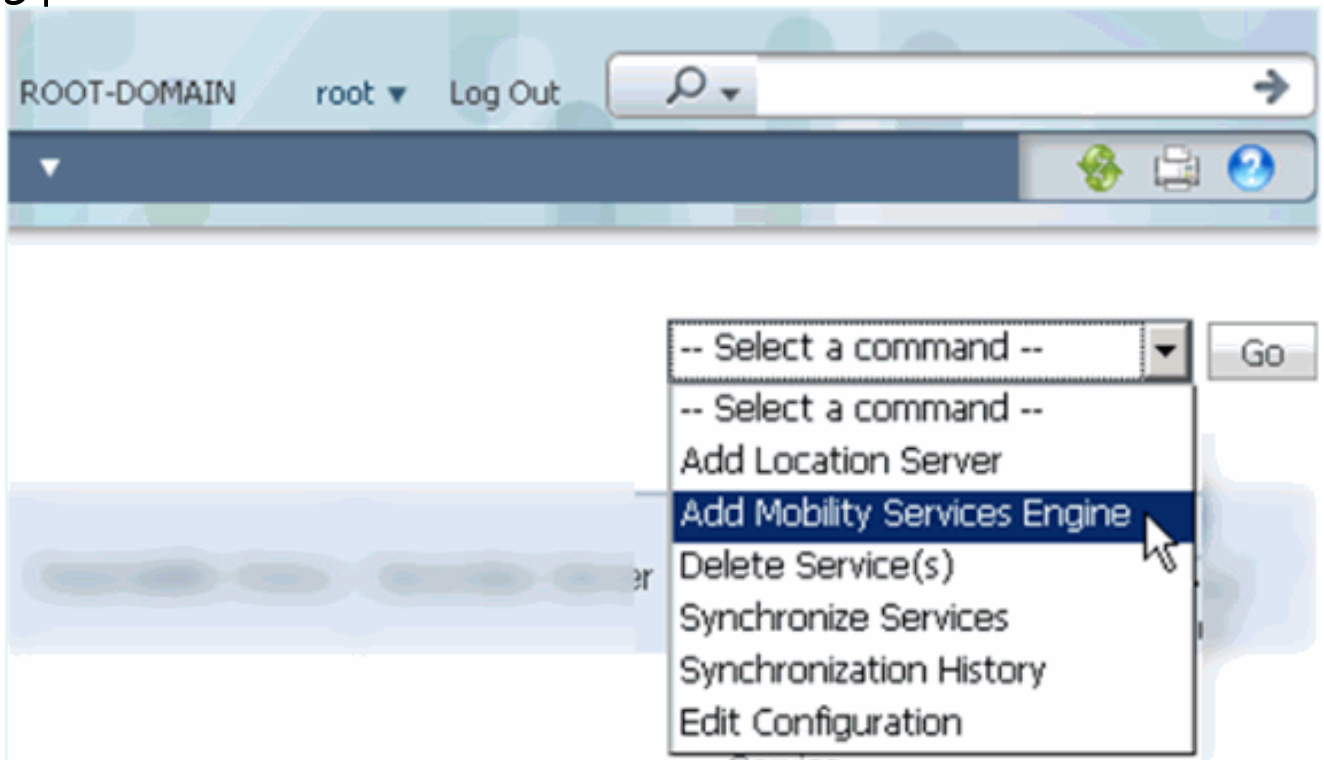
```

ت ا ق ا ط ب ل ل ي و ن ا ث ل ل ا و ي س اس أ ل ا MSE VA ل و ح م ة ف ا ض ا ة ي ف ي ك ة ي ل ل ا ت ل ا و ط خ ل ل ر ه ط ت ء ا ع اس م ل ل د ش ر م ل ي ك ش ت ل ل ت ي ا ر . NCS ل ل MSE ف ي ض ي ن ا ي د ا ع ة ي ل م ع ل ل ت ر ج ن ا . ء ك ب ش ل ل

1. تامدخ تاك حرم رتخ او **Systems > Mobility Services** ىل لقتنا، NCS نم لقتنا.



2. يضمم لاقوف رقتنا م. **Add Mobility Services Engine** رتخ، لقتنا نم لاقول نم. أم دق.



3. زاهج لاقول مس لخد: به ميقول، دنتس مل اذه ويرانيس ي. MSE ل NCS نيوكت جلاع م عبتا. رقتنا (يلو دادع ل ل) رورم لاقول مكد م دختس مل مس {10.10.10.12} - IP ناوع [MSE1]. لثم **Next** قوف (يلات ل).

Cisco Prime Network Control System

Add MSE Configuration

Licensing
Select Service
Tracking
Assign Maps

Add Mobility Services Engine

Device Name: mse1
 IP Address: 10.10.10.12
 Contact Name:
 Username: admin
 Password:
 HTTP: Enable

Delete synchronized service assignments (Network designs, controllers, wired switches)
 Selecting **Delete synchronized service assignments** permanently removes all service assignments. Existing location history data is retained, however you must use manual service assignments to

4. قوف رقنا مٲ، ةرفوتملا صيخارتلا عيمج ةفاضاب مق يلاتلا.

Cisco Prime Network Control System

MSE License Summary

Permanent licenses include installed license counts and in-built license counts.

MSE Name (UDI)	Service	Platform Limit	Type	Installed Limit
mse1 Activated (AIR-MSE-VA-K9:V01:mse1_d5972642-5696-11e1-bd0e)				
	CAS	2000	CAS Elements	100
			wIPS Monitor Mode APs	10
	wIPS	2000	wIPS Local Mode APs	10
	MSAP	2000	Service Advertisement Clicks	1000

Add License Remove License

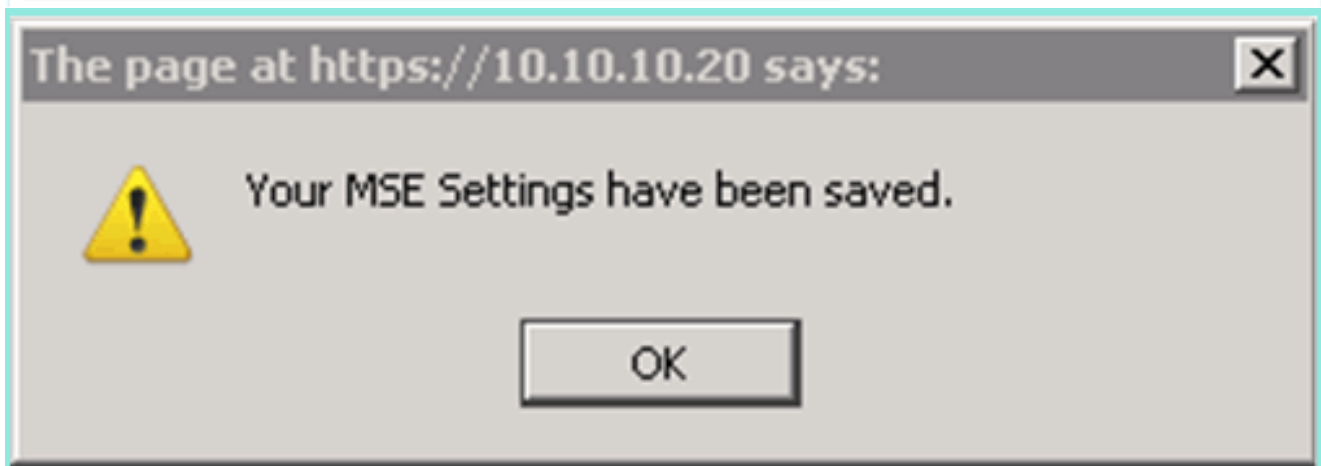
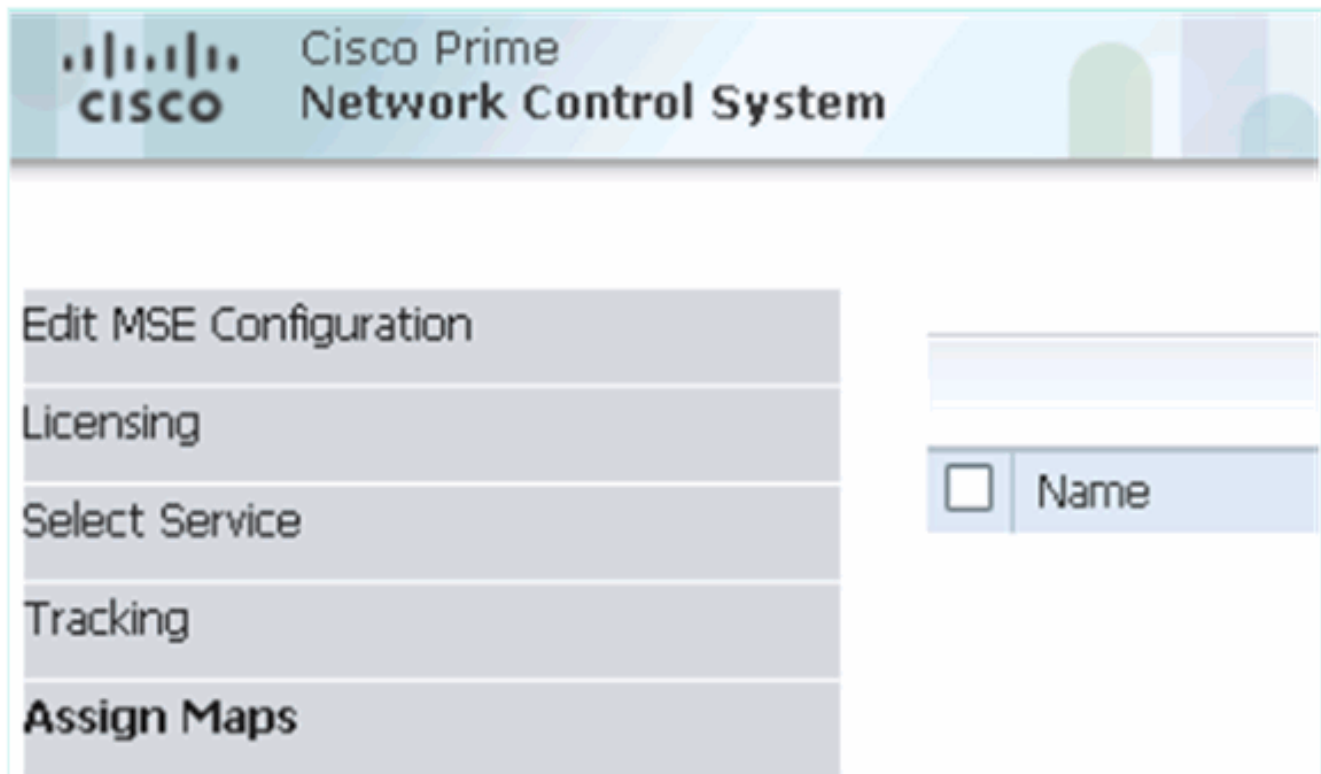
5. قوف رقنا مٲ، MSE تامدخ ددح يلاتلا.



6. قوف رونا مٲ ، بقعتلا تاملعم نيكم تٲ م ق .
يالاتلا.



7. MSE ءفاضا لامك ءل مٲ قوف رونا MSE تامدخ ءنمازم و طئارخال نييعت يرايخالا نم .
NCS.



steps in order to MSE va: تم اذته تم تاً، نآلآ. ةي ساس أال MSE VA ةفاضلآ تم ت هنأ ةي لآلآ ةشاشلآ ةطق ل ءصوت

1. طاب ترالآ قوف رقنا م ت، "يوناثلآ مداخلآ" دومع ءقوم دءء نيوكتلل.

Device Name	Device Type	IP Address	Version	Reachability Status	Secondary Server	Mobility Service		
						Name	Admin Status	Service Status
<input type="checkbox"/> mse1	Cisco Mobility Services Engine - Virtual Appliance	10.10.10.12	7.2.103.0	Reachable	N/A (Click here to configure)	Context Aware Service	Enabled	Up
						wIPS Service	Disabled	Down
						MSAP Service	Disabled	Down

2. - يوناثلآ زاهءلآ مسآ: وي ران ي س لآ اذته يف نيوكتلل م ادءءت ساب ةيوناثلآ MSE VA ةفاضلآ [MSE2] نم وأ ي ضارءرءالآ] - *ةيوناثلآ رورم لآ ءم لآ [10.10.10.13] - يوناثلآ IP ناوع [MSE2] ل يوط راطءنا *ي طايءءلآ ءون [ي ودي وأ ي ئاق لء] - *ل ش ف لآ زواءء ءون [ي ص ن لآ داءء لآ ءمان رب اذآ MSE قئاءو لآ ءءرا وأ ءام و ل ءم لآ زمر قوف رقنا *ظ ف ء ق ط ط ل ل ا ط ء أ ل ل ء بل ء ل ل مزل

رمألا

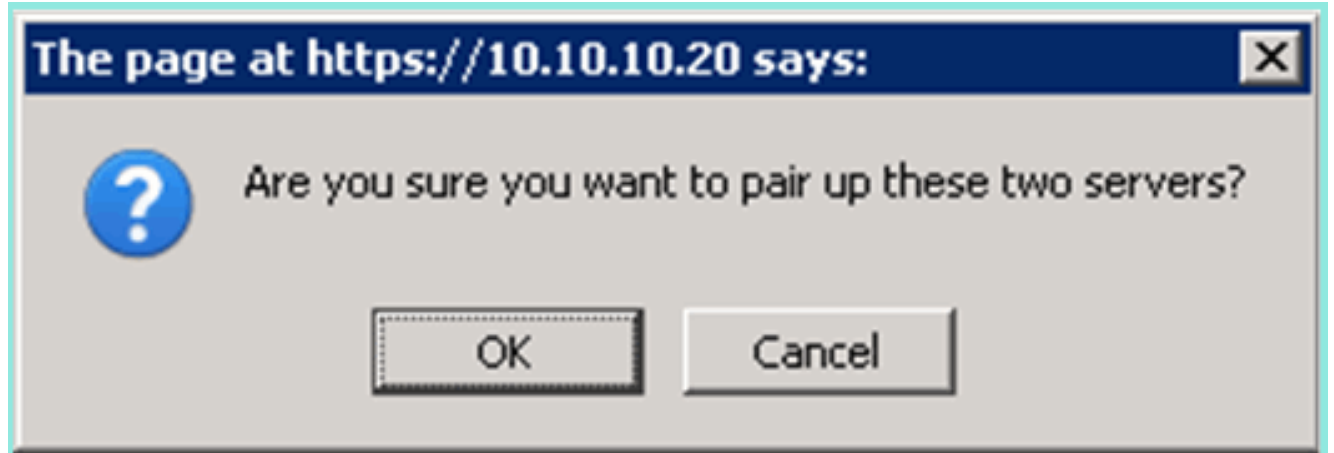
HA Configuration : mse1

Services > Mobility Services Engines > System > Services High Availability > **Configure High Availability Parameters**

Configure High Availability Parameters

Primary Health Monitor IP	10.10.10.12
Secondary Device Name	<input type="text" value="mse2"/>
Secondary IP Address	<input type="text" value="10.10.10.13"/>
Secondary Password ⓘ	<input type="password" value="•••••"/>
Failover Type ⓘ	<input type="text" value="Automatic"/>
Failback Type ⓘ	<input type="text" value="Manual"/>
Long Failover Wait ⓘ	<input type="text" value="10"/> seconds

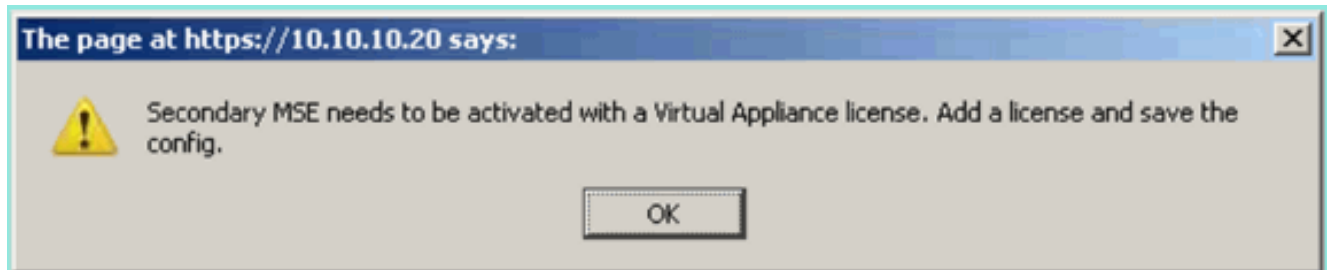
3. نانتال جوازي نأ بللاطي NCS ل امدنع ok ةق طوط MSEs.



قلخي نأ ينات a few ذخي NCS ل ليشتل.



(L- MSE-7.0- K9) طيشنت صيخرت بلطت ةيونات MSE VA تناك اذا ةبللاط ل NCS موقت فوس



4. طيشنتل صيخرتال فلم عقوم ددحو قفاوم قوف رونا Secondary.

HA Configuration : mse1
Services > Mobility Services Engines > System > Services High Availability > **Configure High Availability Parameters**

Configuration

Primary Health Monitor IP	10.10.10.12
Secondary Device Name	mse2
Secondary IP Address	10.10.10.13
Secondary Password ⓘ	•••••
Secondary Platform UDI	AIR-MSE-VA-K9:V01:mse2_666f2046-5699-11e1-b1b1-0050566
Secondary Activation Status	Not Activated
Activate Secondary with License	<input type="text"/> <input type="button" value="Browse..."/>
Failover Type ⓘ	Automatic ▼
Failback Type ⓘ	Manual ▼
Long Failover Wait ⓘ	<input type="text" value="10"/> seconds

5. لامكإل ظفح قوف رونا، ةيوناثال MSE VA طيشنت درج م ب نيوكتال.

HA Configuration : mse1

Services > Mobility Services Engines > System > Services High Availability > Configure High Availability Parameters

Configuration

Primary Health Monitor IP	10.10.10.12
Secondary Device Name	mse2
Secondary IP Address	10.10.10.13
Secondary Password ⓘ	•••••
Secondary Platform UDI	AIR-MSE-VA-K9:V01:mse2_666f2046-5699-11e1-b1b1-005
Secondary Activation Status	Activated
Delete Secondary Activation license ⓘ	<input type="checkbox"/>
Failover Type ⓘ	Automatic ▾
Failback Type ⓘ	Manual ▾
Long Failover Wait ⓘ	10 seconds

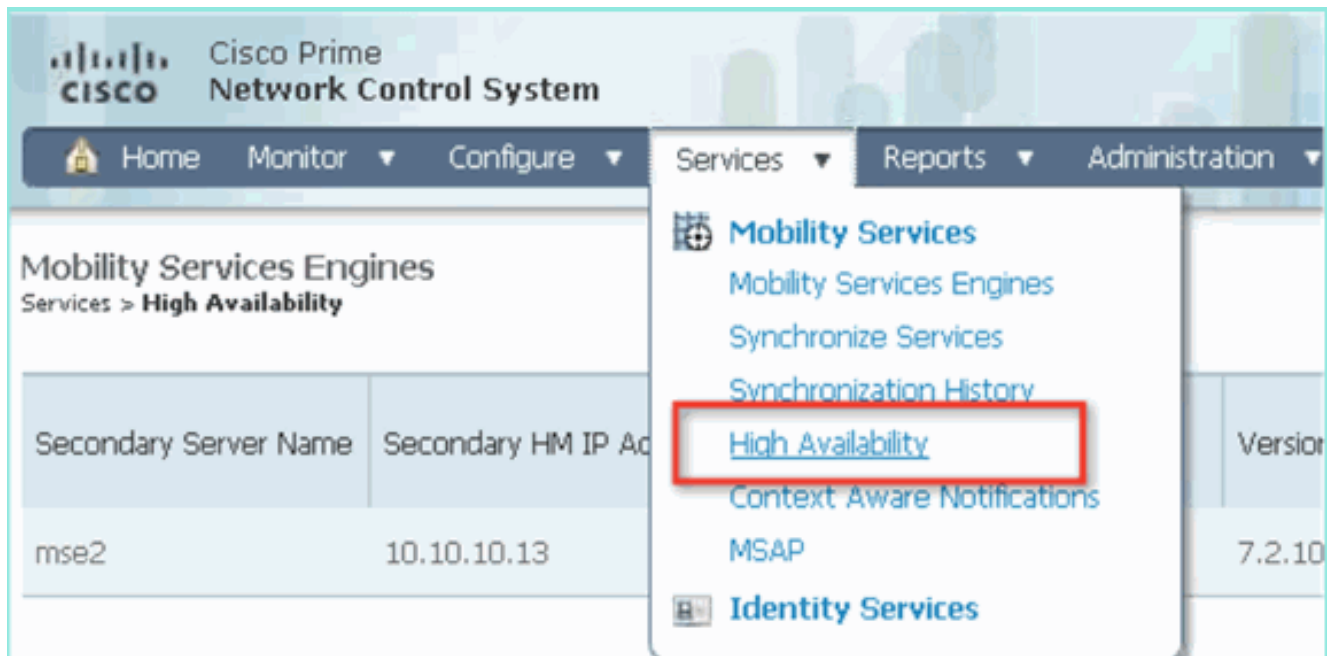
6. شېح ةشاشلا هذه NCS ضرعت. ل قننتلا تامدخ كرحم > ل قننتلا تامدخ > NCS ىلى ل قنتنا مداخلل دومعلا في يوناتل MSE رهظت يوناتل:

Mobility Services Engines
Service > Mobility Services Engines

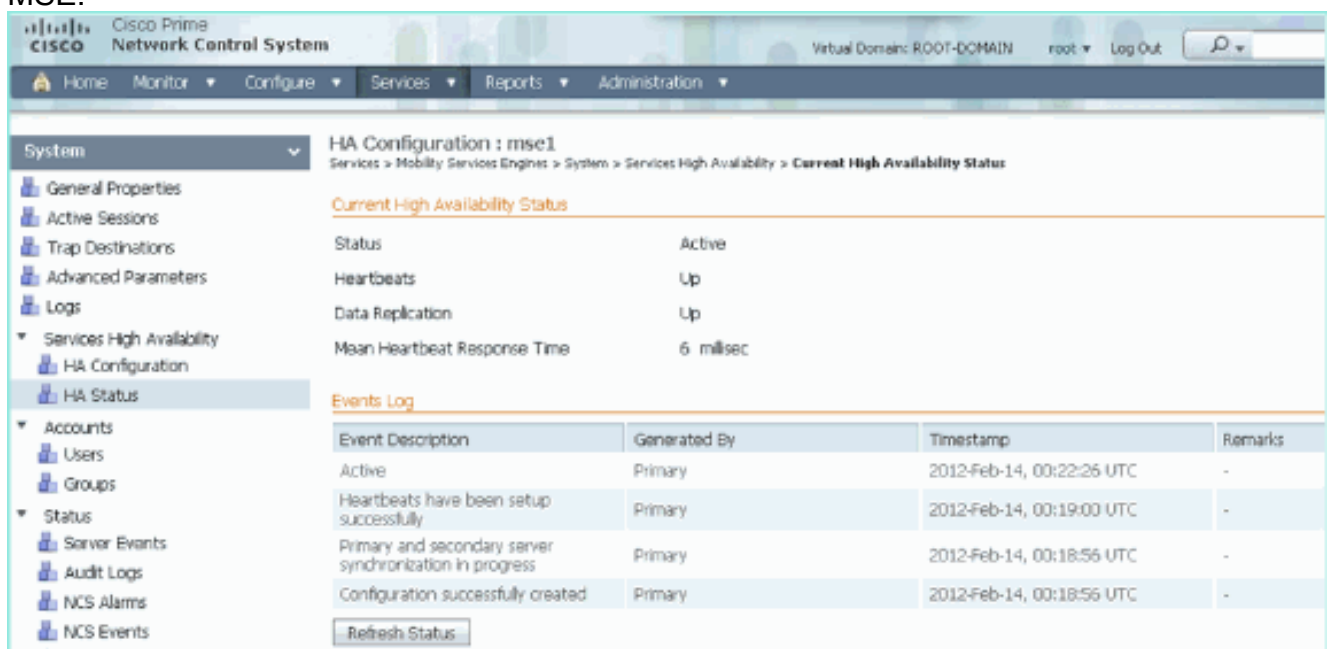
-- Select a command --

Device Name	Device Type	IP Address	Version	Reachability Status	Secondary Server	Mobility Service		
						Name	Admin Status	Service Status
<input type="checkbox"/> mse1	Cisco Mobility Services Engine - Virtual Appliance	10.10.10.11	7.2.103.0	Reachable	mse2	Context Aware Service	Enabled	Up
						WIPS Service	Disabled	Down
						MSAP Service	Disabled	Down

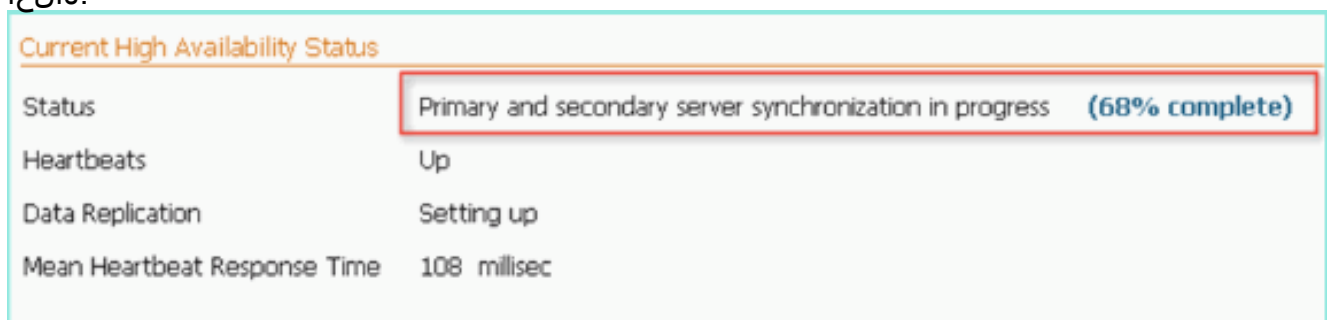
7. رفوتلا > تامدخلا > NCS ىلى ل قنتنا، ىلعال رفوتلا ةلاح ضرعل ىلعال.



جوزة طساب ةيلاحال اءاحال ةيؤر كنكمي HA، ةلاح في MSE.



NCS رفوت. قئاقء عضب لءامءملا ءانايبلا ءسنو ةيلوالا ءنمازملا ءاءع| قرءءسي ءق ءضوم وه امك لءكشب اطشن HA ءوز نوئي يءء مءقءلل ةيؤئملا ةبسنلا ءراش| ءالء.



ءضوي. Gethainfo وه HA قلءءي امي ف 7.2 راءصال MSE ءمانرب عم همءقءءمء ءيءء رمأ كانه يئونءلالو يساسال ءارءال اءه:

[root@mse1 ~]#gethainfo

Health Monitor is running. Retrieving HA related information

Base high availability configuration for this server

Server role: Primary
Health Monitor IP Address: 10.10.10.12
Virtual IP Address: 10.10.10.11
Version: 7.2.103.0
UDI: AIR-MSE-VA-K9:V01:mse1
Number of paired peers: 1

Peer configuration#: 1

Health Monitor IP Address 10.10.10.13
Virtual IP Address: 10.10.10.11
Version: 7.2.103.0
UDI: AIR-MSE-VA-K9:V01:mse2_666f2046-5699-11e1-b1b1-0050568901d9
Failover type: Manual
Failback type: Manual
Failover wait time (seconds): 10
Instance database name: mseos3s
Instance database port: 1624
Dataguard configuration name: dg_mse3
Primary database alias: mseop3s
Direct connect used: No
Heartbeat status: Up
Current state: PRIMARY_ACTIVE

[root@mse2 ~]#gethainfo

Health Monitor is running. Retrieving HA related information

Base high availability configuration for this server

Server role: Secondary
Health Monitor IP Address: 10.10.10.13
Virtual IP Address: Not Applicable for a secondary
Version: 7.2.103.0
UDI: AIR-MSE-VA-K9:V01:mse2
Number of paired peers: 1

Peer configuration#: 1

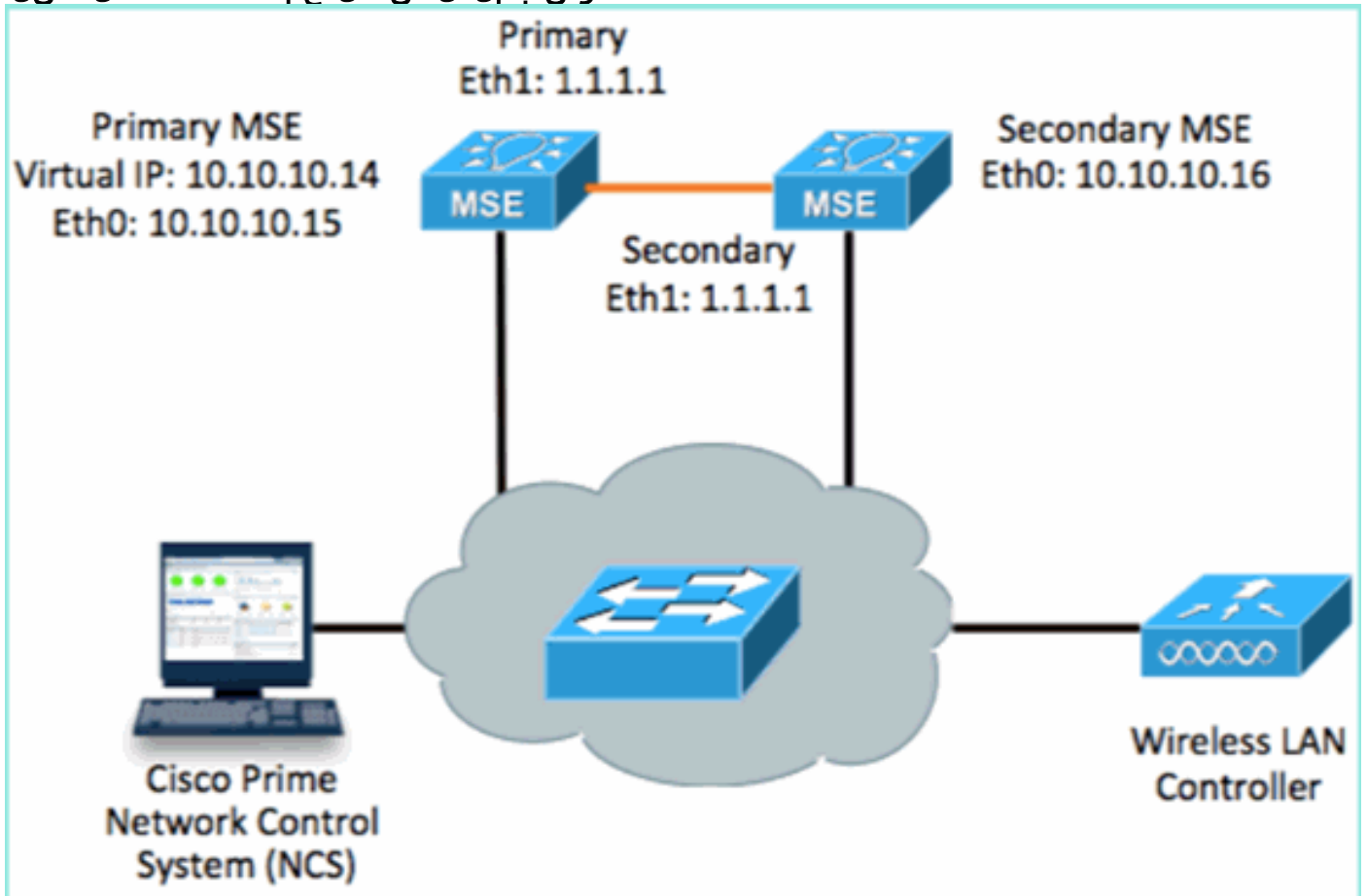
Health Monitor IP Address 10.10.10.12
Virtual IP Address: 10.10.10.11
Version: 7.2.103.0
UDI: AIR-MSE-VA-K9:V01:mse1_d5972642-5696-11e1-bd0c-0050568901d6
Failover type: Manual
Failback type: Manual
Failover wait time (seconds): 10
Instance database name: mseos3
Instance database port: 1524
Dataguard configuration name: dg_mse3
Primary database alias: mseop3s

Direct connect used: No
Heartbeat status: Up
Current state: SECONDARY_ACTIVE

رشابملا لاصتال عم (HA) رفوتلا ةقئاف ةئيهت

مادختسا رشابملا لاصتال نيوكت لهسي نيحي في، ةكبشلاب لصتال MSE HA مدختسي ليلقت ىلع اذه دعاسي نا نكمي و. ةيوناثلاو ةيساسال MSE مداوخ ني رشابم لبك لاصتال تاقواو لثامملا تانايبلا خسنو ةقئاف ةعرب ةباجتسال تاقوا في لوصول ةنمزا يضارتفال ددعتملا صحتلا لصتي، ويرانيسال اذهل ةبسنلاب. لاطعال فاشتك في حضورم وه امك، ETH1 ةهجالا ىلع يوناث رشومب يلوألا يئاي زي فال (MSE) طئاسولل ةهجال لك IP ناوع رفوت مزلي. رشابملا لاصتال مدختسم ETH1 نا ظحال 5 لكشلا

رشابملا لاصتال عم MSE HA 5 لكشلا



دادعإلل يصنلا جم انربلا نم نيوكتال صخلم.يساسال MSE دادعإ:

```
-----BEGIN-----  
Host name=mse3355-1  
Role=1 [Primary]  
Health Monitor Interface=eth0  
Direct connect interface=eth1  
Virtual IP Address=10.10.10.14  
Virtual IP Netmask=255.255.255.0  
Eth1 IP address=1.1.1.1  
Eth1 network mask=255.0.0.0  
Default Gateway =10.10.10.1  
-----END-----
```

دادعإلل يصنلا جم انربلا نم نيوكتال صخلم.يوناثال MSE دادعإ:

```
-----BEGIN-----  
Host name=mse3355-2  
Role=2 [Secondary]  
Health Monitor Interface=eth0
```

```

Direct connect interface=eth1
Eth0 IP Address 10.10.10.16
Eth0 network mask=255.255.255.0
Default Gateway=10.10.10.1
Eth1 IP address=1.1.1.2,
Eth1 network mask=255.0.0.0
-----END-----

```

3. ليكشت تلحأ وأ، قباس لاثم عجان) NCS لى لى ياساس MSE لى تفضأ (دشرم).

The screenshot shows the Cisco Prime Network Control System interface. The top navigation bar includes Home, Monitor, Configure, Services, Reports, and Administration. The main content area is titled 'Mobility Services Engines' and displays a table with the following data:

<input type="checkbox"/>	Device Name	Device Type	IP Address	Version	Reachability Status	Secondary Server
<input type="checkbox"/>	mse3355-1	Cisco 3355 Mobility Services Engine	10.10.10.14	7.2.103.0	Reachable	N/A (Click here to configure)

4. - يونال زاهال مسا لخدأ. يونال مداخل نيوكت > NCS نم يونال MSE دادعإب مق قوف روناو قبة قبة تم لى تام ل عمل لى لمكأ [10.10.10.16] - يونال IP ناونع [MSE3355-2] ظفح.

Cisco Prime Network Control System Virtual Domain: ROOT-

Home Monitor Configure Services Reports Administration

System

General Properties

Active Sessions

Trap Destinations

Advanced Parameters

Logs

Services High Availability

HA Configuration

HA Status

Accounts

Users

Groups

Status

Server Events

Audit Logs

HA Configuration : mse3355-1

Services > Mobility Services Engines > System > Services High Availability

Configure High Availability Parameters

Primary Health Monitor IP 10.10.10.15

Secondary Device Name mse3355-2

Secondary IP Address 10.10.10.16

Secondary Password

Failover Type Manual

Failback Type Manual

Long Failover Wait 10 seconds

Save

5. نانتال نيب نمازتلا دكؤي نأ ok ةق طقط MSEs.

The page at https://10.10.10.20 says:

Are you sure you want to pair up these two servers?

OK Cancel

مداخل نيوكت ةفاضال ةظحل NCS قرغتسي يوناتلا.

Please Wait. High Availability configuration is being created at the Primary and Secondary servers. This will take a few seconds...

.....

6. ةق طقط HA. تاملم عمىلع تاريغت يءارجاب مق، لامتكالا دنع ظفح.

HA Configuration : mse3355-1

Services > Mobility Services Engines > System > Services High Availability > **Configure High Availability Parameters**

Configuration

Primary Health Monitor IP 10.10.10.15

Secondary Device Name mse3355-2

Secondary IP Address 10.10.10.16

Secondary Password

Secondary Platform UDI AIR-MSE-3355-K9:V01:KQ:.....

Failover Type

Failback Type

Long Failover Wait seconds

7. MSE HA جوزل يلعفلال تقولا يف مدقتلل HA ةلا ح ضرع دي دل.

Virtual Domain: ROOT-DOMAIN root Log Out

Home Monitor Configure Services Reports Administration

System HA Configuration : mse3355-1
Services > Mobility Services Engines > System > Services High Availability > **Current High Availability Status**

Current High Availability Status

Status Primary and secondary server synchronization in progress (66% complete)

Heartbeats Up

Data Replication Setting up

Mean Heartbeat Response Time 8 msec

Events Log

Event Description	Generated By	Timestamp	Remarks
Configuration updated	Primary	2012-Feb-15, 20:10:56 UTC	Failover mode set to AUTOMATIC.
Heartbeats have been setup successfully	Primary	2012-Feb-15, 20:10:11 UTC	-
Primary and secondary server synchronization in progress	Primary	2012-Feb-15, 20:10:09 UTC	-
Configuration successfully created	Primary	2012-Feb-15, 20:10:09 UTC	-

8. MSE ةفاضا نم دكأت ،لقننلال تامدخ تاكرحم > لققننلال تامدخ > تامدخ > NCS نم
ىل HA (رشابملا لاصتالا)
NCS.

Cisco Prime Network Control System						
						Virtual Domain: ROOT-DOMAIN
						root ▾ Log Out
						Change Password
Mobility Services Engines						
Services > Mobility Services Engines						
<input type="checkbox"/>	Device Name	Device Type	IP Address	Version	Reachability Status	Secondary Server
<input type="checkbox"/>	mse3355-1	Cisco 3355 Mobility Services Engine	10.10.10.14	7.2.103.0	Reachable	mse3355-2

9. جتان لانا هه. **gethainfo** رمألا مادختساب ديكأتلا ةظحالم اضيا نكمي ،مكحتلا ةدحو نمو .
 يوناتلاو ياساسألا

```
[root@mse3355-1 ~]#gethainfo
```

```
Health Monitor is running. Retrieving HA related information
```

```
-----  

Base high availability configuration for this server  

-----
```

```
Server role: Primary  

Health Monitor IP Address: 10.10.10.15  

Virtual IP Address: 10.10.10.14  

Version: 7.2.103.0  

UDI: AIR-MSE-3355-K9:V01:KQ37xx  

Number of paired peers: 1
```

```
-----  

Peer configuration#: 1  

-----
```

```
Health Monitor IP Address 10.10.10.16  

Virtual IP Address: 10.10.10.14  

Version: 7.2.103.0  

UDI: AIR-MSE-3355-K9:V01:KQ45xx  

Failover type: Automatic  

Failback type: Manual  

Failover wait time (seconds): 10  

Instance database name: mseos3s  

Instance database port: 1624  

Dataguard configuration name: dg_mse3  

Primary database alias: mseop3s  

Direct connect used: Yes  

Heartbeat status: Up  

Current state: PRIMARY_ACTIVE
```

```
[root@mse3355-2 ~]#gethainfo
```

```
Health Monitor is running. Retrieving HA related information
```

```
-----  

Base high availability configuration for this server  

-----
```

```
Server role: Secondary
```

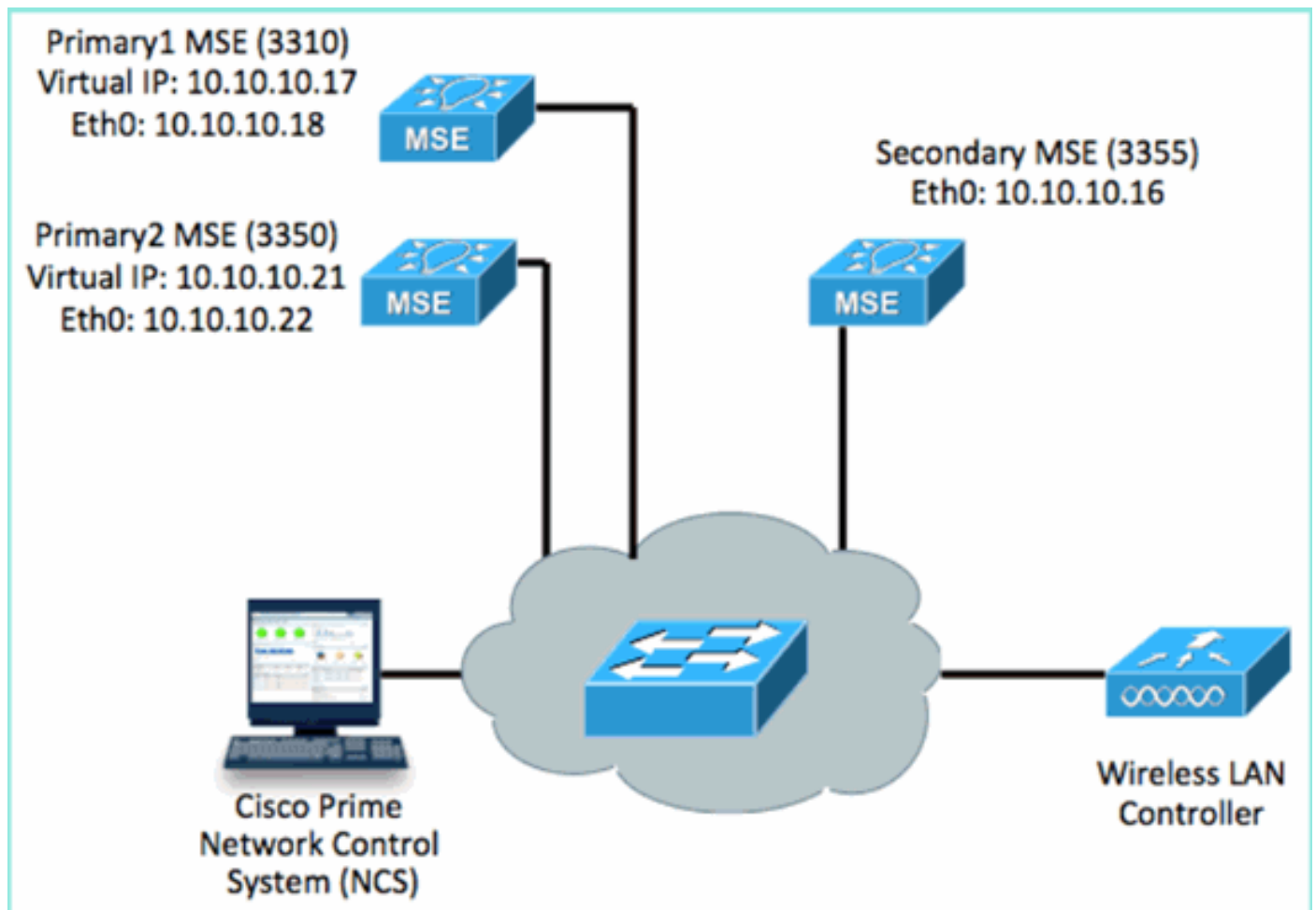
```
Health Monitor IP Address: 10.10.10.16
Virtual IP Address: Not Applicable for a secondary
Version: 7.2.103.0
UDI: AIR-MSE-3355-K9:V01:KQ45xx
Number of paired peers: 1
```

```
-----
Peer configuration#: 1
-----
```

```
Health Monitor IP Address 10.10.10.15
Virtual IP Address: 10.10.10.14
Version: 7.2.103.0
UDI: AIR-MSE-3355-K9:V01:KQ37xx
Failover type: Automatic
Failback type: Manual
Failover wait time (seconds): 10
Instance database name: mseos3
Instance database port: 1524
Dataguard configuration name: dg_mse3
Primary database alias: mseop3s
Direct connect used: Yes
Heartbeat status: Up
Current state: SECONDARY_ACTIVE
```

MSE يدام ل زاهج ل HA نيوكت ويراني س

يأ MSE-3355 ل زوجم اذه 2:1 وه HA نيوكت ي في صقأل دحلا، جوازت لة فوفصم ل اذانت سا
في رشابم ل لاصت ال قبطني ال MSE-3350 و MSE-3310 تدناس عي طتسي، يونات عضو في
ويراني س ل اذه.



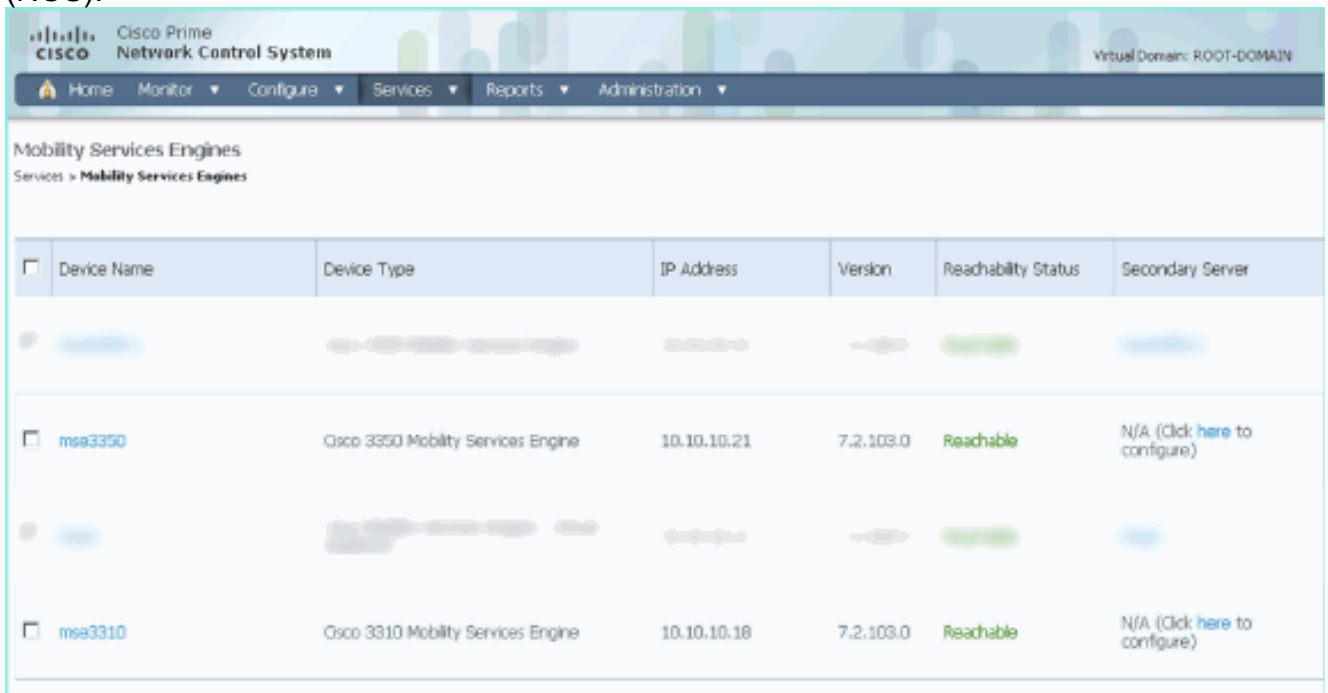
1. HA: 2:1 ويرانيس حيصوتل هذه MSE عم دخ نم دحاولك نيوكتب مق

MSE-3310 (Primary1)
Server role: Primary
Health Monitor IP Address (Eth0): 10.10.10.17
Virtual IP Address: 10.10.10.18
Eth1 - Not Applicable

MSE-3350 (Primary2)
Server role: Primary
Health Monitor IP Address: 10.10.10.22
Virtual IP Address: 10.10.10.21
Eth1 - Not Applicable

MSE-3355 (Secondary)
Server role: Secondary
Health Monitor IP Address: 10.10.10.16
Virtual IP Address: Not Applicable for a secondary

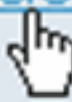
2. كبشلا هجاو اتا قاطب لى Primary1 و Primary2 فضا MSE، تاكبش عيمج نيوكتب دعب (NCS).



The screenshot shows the Cisco Prime Network Control System interface. The top navigation bar includes Home, Monitor, Configure, Services, Reports, and Administration. The main content area is titled 'Mobility Services Engines' and displays a table of configured devices. The table has columns for Device Name, Device Type, IP Address, Version, Reachability Status, and Secondary Server. Three devices are listed: mse3350, mse3355, and mse3310. mse3350 and mse3310 are marked as 'Reachable', while mse3355 is not visible in the table. The Secondary Server column for mse3350 and mse3310 is 'N/A (Click here to configure)'.

Device Name	Device Type	IP Address	Version	Reachability Status	Secondary Server
mse3350	Cisco 3350 Mobility Services Engine	10.10.10.21	7.2.103.0	Reachable	N/A (Click here to configure)
mse3355	Cisco 3355 Mobility Services Engine	10.10.10.16	7.2.103.0	Not Reachable	N/A (Click here to configure)
mse3310	Cisco 3310 Mobility Services Engine	10.10.10.18	7.2.103.0	Reachable	N/A (Click here to configure)

3. MSEs نم دحاولب ادبا. (ةقباسلا ةلثمألا يف حضورم وه امك) يوناتلا مداخللا نيوكتل رقنا. ةيساسألا

Reachability Status	Secondary Server
Reachable	N/A (Click here to configure)
Reachable	N/A (Click here to configure) 

4. ناونع {MSE-3355-2}، لاثم ل ل ب س ي ل ع : ي و ن ا ث ل ل ز ا ه ج ل م س ا : ي و ن ا ث ل ل M S E ت ا د د ح م ل خ د ا .
 ق ق ط ق ط . ق ي ق ب ت م ل ت ا م ل ع ل م ل ل م ك ا [10.10.10.16] - ي و ن ا ث ل ل I P
 ظ ف ح .

HA Configuration : mse3350
 Services > Mobility Services Engines > System > Services High Availability > **Configure High Availability Parameters**

Configuration

Primary Health Monitor IP	10.10.10.22
Secondary Device Name	mse3355-2
Secondary IP Address	10.10.10.16
Secondary Password ⓘ	•••••
Secondary Platform UDI	AIR-MSE-3355-K9:V01:KQ4
Failover Type ⓘ	Manual ▼
Failback Type ⓘ	Manual ▼
Long Failover Wait ⓘ	10 seconds

Save Delete Switchover

5. ي و ن ا ث ل ل ل ا خ د ا ل ن ي و ك ت م ت ي ح ع ز ي ح و ع ظ ل ر ط ت ن ا .
 ل و ا ل .

Please Wait. High Availability configuration is being created at the Primary and Secondary servers. This will take a few seconds...



6. يساسأل MSE لى لى يوناثلل مداخل ة فاضا نم دكأت لولأ.

Mobility Services Engines
Services > Mobility Services Engines

<input type="checkbox"/>	Device Name	Device Type	IP Address	Version	Reachability Status	Secondary Server
<input type="checkbox"/>	mse3350	Cisco 3350 Mobility Services Engine	10.10.10.21	7.2.103.0	Reachable	mse3355-2

7. يساسأل MSE لى لى 6 لى 3 نم تاوطلال ررك يوناثلل.

Mobility Services Engines
Services > Mobility Services Engines

<input type="checkbox"/>	Device Name	Device Type	IP Address	Version	Reachability Status	Secondary Server
<input type="checkbox"/>	mse3350	Cisco 3350 Mobility Services Engine	10.10.10.21	7.2.103.0	Reachable	mse3355-2
<input type="checkbox"/>	mse3310	Cisco 3310 Mobility Services Engine	10.10.10.18	7.2.103.0	Reachable	N/A (Click here to configure)

8. يساسأل MSE لى HA لى تاددحم عم ءاهن لى يوناثلل.

HA Configuration : mse3310

Services > Mobility Services Engines > System > Services High Availability > Configure High Availability Parameters

Configure High Availability Parameters

Primary Health Monitor IP	10.10.10.17
Secondary Device Name	<input type="text" value="mse3355-2"/>
Secondary IP Address	<input type="text" value="10.10.10.16"/>
Secondary Password ⓘ	<input type="password" value="•••••"/>
Failover Type ⓘ	<input type="text" value="Manual"/>
Failback Type ⓘ	<input type="text" value="Manual"/>
Long Failover Wait ⓘ	<input type="text" value="10"/> seconds

9. طفح ب مق
تاداعإلا.

HA Configuration : mse3310

Services > Mobility Services Engines > System > Services High Availability > Configure High Availability Parameters

Configuration

Primary Health Monitor IP	10.10.10.17
Secondary Device Name	mse3355-2
Secondary IP Address	10.10.10.16
Secondary Password ⓘ	<input type="password" value="•••••"/>
Secondary Platform UDI	AIR-MSE-3355-K9:V01:KQ
Failover Type ⓘ	<input type="text" value="Manual"/>
Failback Type ⓘ	<input type="text" value="Manual"/>
Long Failover Wait ⓘ	<input type="text" value="10"/> seconds

10. MSE تامدخ نم لك مدقت ةلاح نم ققحت
ةساسألا.

Cisco Prime Network Control System

Virtual Domain: ROOT-DOMAIN root Log Out

Home Monitor Configure Services Reports Administration

System HA Configuration : mse3310
 Services > Mobility Services Engines > System > Services High Availability > Current High Availability Status

Current High Availability Status

Status Primary and secondary server synchronization in progress (60% complete)
 Heartbeats Up
 Data Replication Setting up
 Mean Heartbeat Response Time 8 msec

Events Log

Event Description	Generated By	Timestamp
Heartbeats have been setup successfully	Primary	2012-Feb-17, 20:54:36 UTC
Primary and secondary server synchronization in progress	Primary	2012-Feb-17, 20:54:32 UTC
Configuration successfully created	Primary	2012-Feb-17, 20:54:32 UTC

Refresh Status

11. MSE م ادختساب Primary2 و 1مسياسأل MSE نم لك دادع نم دكأت .
 يوناثلل.

Mobility Services Engines
 Services > Mobility Services Engines

Device Name	Device Type	IP Address	Version	Reachability Status	Secondary Server
mse3350	Cisco 3350 Mobility Services Engine	10.10.10.21	7.2.103.0	Reachable	mse3355-2
mse3310	Cisco 3310 Mobility Services Engine	10.10.10.18	7.2.103.0	Reachable	mse3355-2

12. ءحاتإل رتخأ ،لقننل تامدخ > تامدخال > NCS نم .
 لعلال.

Cisco Prime Network Control System

Home Monitor Configure Services Reports Administration

Mobility Services
 Mobility Services Engines
 Synchronize Services
 Synchronization History
 High Availability
 Context Awareness Notifications
 MSAP

Identity Services

MSE-3355 زارطلل ايوناث هرابت عاب MSE-3355 زارطلل ةبس نلاب 2:1 دي كأت مت هنأ ظحال MSE-3310 و MSE-3350.

The screenshot shows the Cisco Prime Network Control System interface. The main heading is 'Mobility Services Engines' with a sub-heading 'Services > High Availability'. Below this is a table with columns: Secondary Server Name, Secondary HM IP Address, Secondary Device Type, Version, and Associated Primary Mobility Service Engines (Device Name, Device Type, Heartbeats). The table lists two secondary servers: mse3355-2 and mse3350-2. mse3355-2 is associated with mse3310 and mse3350. mse3350-2 is associated with mse3310 and mse3350. Both primary servers are listed as 'Cisco 3310 Mobility Services Engine' and 'Cisco 3350 Mobility Services Engine' respectively, with a status of 'Up'.

Secondary Server Name	Secondary HM IP Address	Secondary Device Type	Version	Associated Primary Mobility Service Engines		
				Device Name	Device Type	Heartbeats
mse3355-2	10.10.10.16	Cisco 3355 Mobility Services Engine	7.2.103.0	mse3310	Cisco 3310 Mobility Services Engine	Up
				mse3350	Cisco 3350 Mobility Services Engine	Up

لا امدنع MSEs ةثالث لك نم مكحت لل ةيفرط ةدحولا نم HA setup نم جاتن ةني ع انه
gethainfo: تلمعت سا رمأ

```
[root@mse3355-2 ~]#gethainfo
```

```
Health Monitor is running. Retrieving HA related information
```

```
-----  

Base high availability configuration for this server  

-----
```

```
Server role: Secondary  

Health Monitor IP Address: 10.10.10.16  

Virtual IP Address: Not Applicable for a secondary  

Version: 7.2.103.0  

UDI: AIR-MSE-3355-K9:V01:KQ45xx  

Number of paired peers: 2
```

```
-----  

Peer configuration#: 1  

-----
```

```
Health Monitor IP Address 10.10.10.22  

Virtual IP Address: 10.10.10.21  

Version: 7.2.103.0  

UDI: AIR-MSE-3350-K9:V01:MXQ839xx  

Failover type: Manual  

Failback type: Manual  

Failover wait time (seconds): 10  

Instance database name: mseos3  

Instance database port: 1524  

Dataguard configuration name: dg_mse3  

Primary database alias: mseop3s  

Direct connect used: No  

Heartbeat status: Up  

Current state: SECONDARY_ACTIVE
```

```
-----  

Peer configuration#: 2  

-----
```

```
Health Monitor IP Address 10.10.10.17  

Virtual IP Address: 10.10.10.18  

Version: 7.2.103.0
```

UDI: AIR-MSE-3310-K9:V01:FTX140xx
 Failover type: Manual
 Failback type: Manual
 Failover wait time (seconds): 10
 Instance database name: mseos4
 Instance database port: 1525
 Dataguard configuration name: dg_mse4
 Primary database alias: mseop4s
 Direct connect used: No
 Heartbeat status: Up
 Current state: SECONDARY_ACTIVE

MSE-3310 و MSE-3350 نم لكل لم اك طاشنك ةلجال رهطي NCS في HA ل يئاهنلا ققحتلا

The image displays two screenshots of the Cisco Prime Network Control System interface, showing the HA Configuration page for two different Mobility Services Engines (MSEs): mse3310 and mse3350.

Top Screenshot: HA Configuration : mse3310

Services > Mobility Services Engines > System > Services High Availability > Current High Availability Status

Current High Availability Status

Property	Value
Status	Active
Heartbeats	Up
Data Replication	Up
Mean Heartbeat Response Time	5 msec

Events Log

Event Description	Generated By
Active	Primary
Heartbeats have been setup successfully	Primary
Primary and secondary server synchronization in progress	Primary
Configuration successfully created	Primary

Bottom Screenshot: HA Configuration : mse3350

Services > Mobility Services Engines > System > Services High Availability > Current High Availability Status

Current High Availability Status

Property	Value
Status	Active
Heartbeats	Up
Data Replication	Up
Mean Heartbeat Response Time	4 msec

Events Log

Event Description	Generated By
Active	Primary
Heartbeats have been setup successfully	Primary
Primary and secondary server synchronization in progress	Primary
Configuration successfully created	Primary

MSE HA في ةيساسأل لكاشملا ل ح

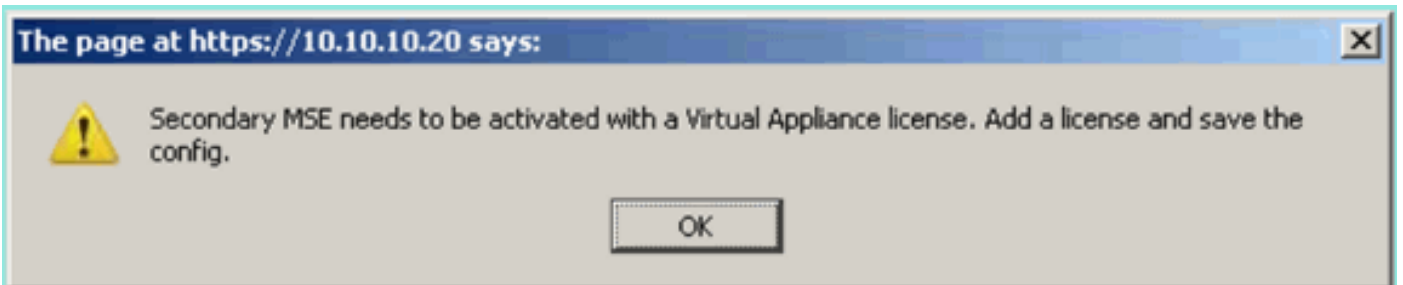
لثم ةبل اطم ةدهاشم كنكمي ،يوناثال MSE رشؤم ةفاضل دنع



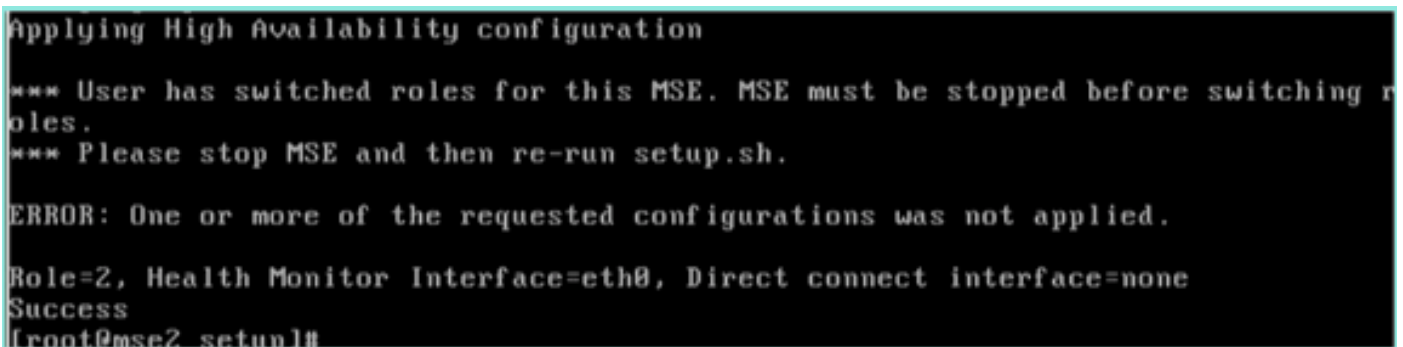
يصلنل دادعلال جم انرب ءانثأ ةلكشم كانه نأ لم تحملا نم

- ةبسانملا ةكبشلل تاداعل نم ققحتلل `getServerInfo` رمألا ليغشتب مق
- `/init.d/mseed start` رمألا ليغشتب مق .دعب أدبت مل تامدخل نأ اضيأ لم تحملا نمو
- ابولطم ناك اذا رخأ ةرم يصلنل دادعلال جم انرب لالخنم ليغشتلاب مق
ةياهنللا ي ف ظفحللاو (`/mse/setup/setup.sh`)

(L-MSE-7.0-K9) طيشنتل صيخرت (MSE) ددعت مل معدلا ةمدخل يرهاظلا زاهجل بلطتي امك
صاخلا طيشنتل صيخرت لعل لوصحلل .يوناثال MSE لوجم ةفاضل دنع كبللاطت اهناف ،الاول
هتفاضل او MSE VA ب



فاقيلاب مق ،كلذل .لماك لكشب تامدخل فاقيل نم دكأت ،MSE لعل HA رود لي دبت ةلاح ي ف
رخأ ةرم يصلنل دادعلال جم انرب ليغشتب مق مث ،`/init.d/mseed stop` رمألا مادختساب تامدخل
(`/mse/setup/setup.sh`).



تامولعم اذه رفوي .MSE لعل ي لالعل رفوتل تامولعم لعل لوصحلل `gethainfo` رمألا مدختسأ
اهتبقارم واهالصل او اهريغوت و HA ةلاح ءاطخأ فاشكتسأ ي ف ةديفم

```
[root@mse3355-2 ~]#gethainfo
```

```
Health Monitor is running. Retrieving HA related information
```

```
-----  
Base high availability configuration for this server  
-----
```

```
Server role: Secondary  
Health Monitor IP Address: 10.10.10.16  
Virtual IP Address: Not Applicable for a secondary  
Version: 7.2.103.0  
UDI: AIR-MSE-3355-K9:V01:KQ45xx  
Number of paired peers: 2
```

```
-----  
Peer configuration#: 1  
-----
```

```
Health Monitor IP Address 10.10.10.22  
Virtual IP Address: 10.10.10.21  
Version: 7.2.103.0  
UDI: AIR-MSE-3350-K9:V01:MXQ839xx  
Failover type: Manual  
Failback type: Manual  
Failover wait time (seconds): 10  
Instance database name: mseos3  
Instance database port: 1524  
Dataguard configuration name: dg_mse3  
Primary database alias: mseop3s  
Direct connect used: No  
Heartbeat status: Up  
Current state: SECONDARY_ACTIVE
```

```
-----  
Peer configuration#: 2  
-----
```

```
Health Monitor IP Address 10.10.10.17  
Virtual IP Address: 10.10.10.18  
Version: 7.2.103.0  
UDI: AIR-MSE-3310-K9:V01:FTX140xx  
Failover type: Manual  
Failback type: Manual  
Failover wait time (seconds): 10  
Instance database name: mseos4  
Instance database port: 1525  
Dataguard configuration name: dg_mse4  
Primary database alias: mseop4s  
Direct connect used: No  
Heartbeat status: Up  
Current state: SECONDARY_ACTIVE
```

يُرجى مراجعة إعدادات NCS ليعمل الرفع والتوزيع، كل ذلك في إطار إعدادات MSE. MSE لجأ من HA دادعإل ةيؤر ةي ناكإم

Cisco Prime Network Control System

Virtual Domain: ROOT-DOMAIN root Log Out

Home Monitor Configure Services Reports Administration

System

HA Configuration : mse3310
Services > Mobility Services Engines > System > Services High Availability > Current High Availability Status

Current High Availability Status

Status Primary and secondary server synchronization in progress (60% complete)

Heartbeats Up

Data Replication Setting up

Mean Heartbeat Response Time 8 msec

Events Log

Event Description	Generated By	Timestamp
Heartbeats have been setup successfully	Primary	2012-Feb-17, 20:54:36 UTC
Primary and secondary server synchronization in progress	Primary	2012-Feb-17, 20:54:32 UTC
Configuration successfully created	Primary	2012-Feb-17, 20:54:32 UTC

Refresh Status

ةلص تاذا تامولعم

- [\(يدامل او يرهاظلا زاوجل\) MSE نيوكت ليلد](#)
- [MSE رفاوتلا ليلاع نيوكتلا](#)
- [ببلا](#)
- [تادنتسملا او ينيقتلا مرعدلا - Cisco Systems](#)

ةمچرتل هذه لوح

ةللأل تاينقتل نم ةومجم مادختساب دن تسمل اذہ Cisco تچرت
ملاعلاء انء عي مچ ي ف ني مدخت سمل لمعد ى وتحم مي دقتل ةيرش بل او
امك ةقيد نوك تنل ةللأل ةمچرت لصف أن ةظحال مچرئي. ةصاخل متهت بل ب
Cisco ي لخت. فرتحم مچرت م اهم دقي يتل ةي فارتحال ةمچرتل عم لالحل وه
ىل إلمءاد ةوچرلاب ي صؤت و تامچرتل هذه ةق دن ع اهتيل وئسم Cisco
Systems (رفوتم طبارل) ي لصلأل يزي لچن إل دن تسمل