

في RCM ىلع مئاقلا AIO م داخ RMA ىلا تاوطخ CNDP رشن

تاوت ح م ل ا

[ةمدقم ل ا](#)

[ةيساس ال ا تابل ط م ل ا](#)

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[ق ب س م ل ا غ ي ل ب ت ل ا ا ر ج ا](#)

[AIO ىلع ق ب س م ل ا ص ح ف ل ا ت ا ي ل م ع](#)

[ة ق ب س م ل ا ت ا ق ق ح ت ل ا ت ا ج ر م ل ح ذ و م ن](#)

[ذ ي ف ن ت ل ا ا ر ج ا](#)

[AIO ة د ق ع ل ي غ ش ت ف ا ق ي ل ب ق RCM ىلع ذ ي ف ن ت ل ا ت ا و ط خ](#)

[AIO ة د ق ع ل ي غ ش ت ف ا ق ي ل ب ق Kubernetes ة د ق ع ىلع ذ ي ف ن ت ل ا ت ا و ط خ](#)

[م ق ل م ل ا ة ن ا ي ص ا ر ج ا](#)

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[AIO ة د ق ع ىلع Kubernetes Node Post Power ىلع ذ ي ف ن ت ل ا ت ا و ط خ](#)

[RCM ة د ا ع ت س ا ا ر ج ا](#)

[ق ي ب ط ت ل ا ة د ا ع ت س ال CEE و RCM ت ا ي ل م ع ز ك ا ر م ىلع ذ ي ف ن ت ل ا ت ا و ط خ](#)

[ق ق ح ت ل ا ا ر ج ا](#)

ةمدقم ل ا

ةرادا "م داخ ل (RMA) "ة ع ج ر ت س م ل ا داوم ل ا ض ي و ف ت " ل ي ل ي ص ف ت ل ا ا ر ج ا ل ا د ن ت س م ل ا ا ذ ه ف ص ي
ي س ا س ال ا م ا ظ ن ل ا " ر ش ن ي ف " (AIO) ت ا ن ا ك م ا ل ا د د ع ت م " ىلع م ئ ا ق ل ا (RCM) " ر ا ر ك ت ل ا ن ي و ك ت
ة ن ا ي ص ل ا ة ط ش ن ا و ا ة ز ه ج ال ا ب ق ل ع ت ت ت ا ل ك ش م ة ي ال (CNDP) " ة ب ا ح س ل ل ي ل ص ال ا ر ش ن ل ل

ةيساس ال ا تابل ط م ل ا

تابل ط م ل ا

ة ي ل ل ا ل ا ع ي ض ا و م ل ا ب ة فرعم ك ي د ل ن و ك ت ن ا ب Cisco ي ص و ت

- RCM
- س ت ي ن ر ي ب و ك

ةمدخت س م ل ا تانوك م ل ا

UP0300	RM0304	10.1.2.6	RCM2_STANDBY	opscenter
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يطايت حال خسننل اءارء

نيوكتلل يطايت حال خسننل

RCM تاموظننم نم running-config ب صاخلل نيوكتلل يطايت حال خسننل عمءب مق ،اهب ءءبلل فءهال AIO ءءق ىلء لمءء يئل.

```
# show running-config | nomore
```

فءهال AIO ءءق ىلء لمءء يئل RCM CEE تاموظننم نم running-config عيمءء.

```
# show running-config | nomore
```

قءسملل ءئلبلل اءارء

AIO ىلء قءسملل صءفلا ءايمء

ءلاء يفل لوصولل طاقن عيمء نأ نم قءءللل او AIO يئلءق الك نم رملل اءارء عيمءءب مق لئلءشئل.

```
# kubectl get ns
# kubectl get pods -A -o wide
```

ءءسملل ءاقءئلل ءاءرءمل ءءومن

AIO-1 ءءق ىلء هئلءشء مءل ءءاو RCM CEE مءاو RCM يروصل طءال

```
ccloud-user@up0300-ai0-1-master-1:~$ kubectl get ns
NAME                STATUS    AGE
cee-rce301          Active   110d  <--
default             Active   110d
istio-system        Active   110d
kube-node-lease     Active   110d
kube-public         Active   110d
```

```
kube-system      Active  110d
nginx-ingress    Active  110d
rcm-rm0301       Active  110d  <--
rcm-rm0303       Active  110d  <--
registry         Active  110d
smi-certs        Active  110d
smi-node-label   Active  110d
smi-vips         Active  110d
cloud-user@up0300-ai0-1-master-1:~$
```

ة.لأحل نم ققحتلأو AIO-1 نم RCM opscenter نم لك ىل لؤخدلا لىجستب مق

```
[up0300-ai0-1/rm0301] rcm# rcm show-status
message :
{"status":[" Fri Oct 29 07:21:11 UTC 2021 : State is MASTER"]}
[up0300-ai0-1/rm0301] rcm#
```

```
[up0300-ai0-1/rm0303] rcm# rcm show-status
message :
{"status":[" Fri Oct 29 07:22:18 UTC 2021 : State is MASTER"]}
[up0300-ai0-1/rm0303] rcm#
```

AIO-1 ةدقعل نالأمملا نارألأ RCM اذفم نوئي شيح AIO-2 ةدقعل ىلع اهسفن تاوطخلأ ررك نىرضأح.

```
cloud-user@up0300-ai0-2-master-1:~$ kubectl get ns
NAME          STATUS  AGE  <--
cee-rce302    Active  105d  <--
default       Active  105d
istio-system  Active  105d
kube-node-lease Active  105d
kube-public   Active  105d
kube-system   Active  105d
nginx-ingress Active  105d
rcm-rm0302    Active  105d  <--
rcm-rm0304    Active  105d  <--
registry      Active  105d
smi-certs     Active  105d
smi-node-label Active  105d
smi-vips      Active  105d
cloud-user@up0300-ai0-2-master-1:~$
```

ة.لأحل نم ققحتلأو AIO-2 نم RCM opscenter نم لك ىل لؤخدلا لىجستب مق

```
[up0300-ai0-2/rm0302] rcm# rcm show-status
message :
{"status":[" Fri Oct 29 09:32:54 UTC 2021 : State is BACKUP"]}
[up0300-ai0-2/rm0302] rcm#
```

```
[up0300-aio-2/rm0304] rcm# rcm show-status
message :
{"status":[" Fri Oct 29 09:33:51 UTC 2021 : State is BACKUP"]}
[up0300-aio-2/rm0304] rcm#
```

ذيفنتل اءارجإ

AIO ةدقع ليعغشت فاقيل لبق RCM ىلع ذيفنتل تاوطخ

1. يطايتحال اءس نل اىل مه ليعرت كنكمي ،يس يئر AIO-1 ىلع RCMs نم لك نأ امب .

RCMs ىلع ياساس اءل ليعرتلاب صاخال RCM رم اءل ذيفنت كيعل نيعتي ،كلذب مايقلل .
AIO-1 مءاخ ليعغشت فاقيل لبق ةطشنل

```
[up0300-aio-1/rm0301] rcm# rcm migrate primary
```

```
[up0300-aio-1/rm0303] rcm# rcm migrate primary
```

AIO-1 ىلع ةيطايتحال اءس نل اءل يه ةءال نأ نم ققحت .ب

```
[up0300-aio-1/rm0301] rcm# rcm show-status
```

```
[up0300-aio-1/rm0303] rcm# rcm show-status
```

MASTER اءنأ نم ءكأءو AIO-2 ىلع MASTER نءل اءل يه ةءال نأ نم ءكأء .ج

```
[up0300-aio-1/rm0302] rcm# rcm show-status
```

```
[up0300-aio-1/rm0304] rcm# rcm show-status
```

d. RM0301 و RM0303 نم لك ىلع RCM ليعغشت فاقيل اب مق .

```
[up0300-aio-2/rm0301] rcm# config
Entering configuration mode terminal
[up0300-aio-2/rm0301] rcm(config)# system mode shutdown
[up0300-aio-1/rce301] rcm(config)# commit comment <CRNUMBER>
```

```
[up0300-aio-2/rm0303] rcm# config
Entering configuration mode terminal
[up0300-aio-2/rm0303] rcm(config)# system mode shutdown
```

```
[up0300-aio-1/rce303] rcm(config)# commit comment <CRNUMBER>
```

2. يتل (CEE) عمجملة نسحمله تنرثي إكبش تايلمع ليغشت فاقبي انيلع نيغتي امك.
عمدختسمله رماوأل يهو، (AIO-1) تاناكلإا ددعت مةمظنألإا لعل لمعت

```
[up0300-aio-1/rce301] cee# config
Entering configuration mode terminal
[up0300-aio-1/rce301] cee(config)# system mode shutdown
[up0300-aio-1/rce301] cee(config)# commit comment <CRNUMBER>
[up0300-aio-1/rce301] cee(config)# exit
```

0.0% راهظال ماطنل نم ققحت مث نيغتي ققود رظتنا

```
[up0300-aio-1/rce301] cee# show system
```

3. ليكول او قئاثول اناثتساب CEE و RCM اامسأ تاحاسمل لوصو طاقن دوجو مدع نم دكأت.
OPS-center-RCM و OPS-center-CEE و يكذلا

```
# kubectl get pods -n rcm-rm0301 -o wide
# kubectl get pods -n rcm-rm0303 -o wide
# kubectl get pods -n cee-rce302 -o wide
```

AIO دقع ليغشت فاقبي لبق Kubernetes دقع لعل ذيفنتلا تاوطخ

لكشب نرتقملا تامدخل او لوصول اهان متي يتح Kubernetes دقع فازنتساب مق
ءاچرلا. دقع لعل كلت نم pods چرخيو هذه Kubernetes دقع دچي لودجملا دعي مل. سلس
ةرم لك في فدحاو دقع فازنتساب

"SMI" تاعومجم ةرادا لعل لوخدلا ليچستب مق

```
cloud-user@bot-deployer-cm-primary:~$ kubectl get svc -n smi-cm
NAME                                TYPE                CLUSTER-IP          EXTERNAL-IP          PORT(S)
cluster-files-offline-smi-cluster-deployer ClusterIP           10.102.108.177      <none>               8080/TCP
iso-host-cluster-files-smi-cluster-deployer ClusterIP           10.102.255.174      192.168.0.102        80/TCP
iso-host-ops-center-smi-cluster-deployer ClusterIP           10.102.58.99        192.168.0.100        3001/TCP
netconf-ops-center-smi-cluster-deployer ClusterIP           10.102.108.194      10.244.110.193       3022/TCP,22
ops-center-smi-cluster-deployer     ClusterIP           10.102.156.123      <none>               8008/TCP,20
squid-proxy-node-port               NodePort           10.102.73.130       <none>               3128:31677/
cloud-user@bot-deployer-cm-primary:~$ ssh -p 2024 admin@<Cluster IP of ops-center-smi-cluster-deployer>
```

Welcome to the Cisco SMI Cluster Deployer on bot-deployer-cm-primary
Copyright © 2016-2020, Cisco Systems, Inc.
All rights reserved.

admin connected from 192.168.0.100 using ssh on ops-center-smi-cluster-deployer-686b66d9cd-nfzx8
[bot-deployer-cm-primary] SMI Cluster Deployer#
[bot-deployer-cm-primary] SMI Cluster Deployer# show clusters

NAME	LOCK TO	VERSION

cp0100-smf-data	-	
cp0100-smf-ims	-	
cp0200-smf-data	-	
cp0200-smf-ims	-	
up0300-aio-1	-	<--
up0300-aio-2	-	
up0300-upf-data	-	
up0300-upf-ims	-	

ةيسيسيئرلا ةدقعلا غيرفتب مق:

[bot-deployer-cm-primary] SMI Cluster Deployer# clusters up0300-aio-1 nodes master-1 actions sync drain
This would run drain on the node, disrupting pods running on the node. Are you sure? [no,yes] yes
message accepted

ةنايصلال عضو في 1-يسيسيئر ةدقعلا ةمالع عضو:

```
[bot-deployer-cm-primary] SMI Cluster Deployer# config
Entering configuration mode terminal
[bot-deployer-cm-primary] SMI Cluster Deployer(config)# clusters up0300-aio-1
[bot-deployer-cm-primary] SMI Cluster Deployer(config-clusters-up0300-aio-1)# nodes master-1
[bot-deployer-cm-primary] SMI Cluster Deployer(config-nodes-master1)# maintenance true
[bot-deployer-cm-primary] SMI Cluster Deployer(config-nodes-master1)# commit
Commit complete.
[bot-deployer-cm-primary] SMI Cluster Deployer(config-nodes-master1)# end
```

ةنمازمالا ءارجاب ةصاخلا تالجال ةبقارمو ةومجالما ماظن ةنمازمالا ليغش ت ب مق:

```
[bot-deployer-cm-primary] SMI Cluster Deployer# clusters up0300-aio-1 nodes master-1 actions sync
This would run sync. Are you sure? [no,yes] yes
message accepted
[bot-deployer-cm-primary] SMI Cluster Deployer# clusters up0300-aio-1 nodes master-1 actions sync logs
```

ةومجالما ماظن ةنمازمالا تالجال جذومن جارجا:

```

[installer-master] SMI Cluster Deployer# clusters kali-stacked nodes cmts-worker1-1 actions sync logs
Example Cluster Name: kali-stacked
Example WorkerNode: cmts-worker1
Logs 2020-10-06 20:01:48.023 DEBUG cluster_sync.kali-stacked.cmts-worker1: Cluster name: kali-stacked
2020-10-06 20:01:48.024 DEBUG cluster_sync.kali-stacked.cmts-worker1: Node name: cmts-worker1
2020-10-06 20:01:48.024 DEBUG cluster_sync.kali-stacked.cmts-worker1: debug: false
2020-10-06 20:01:48.024 DEBUG cluster_sync.kali-stacked.cmts-worker1: remove_node: true
PLAY [Check required variables] *****
TASK [Gathering Facts] *****
Tuesday 06 October 2020  20:01:48 +0000 (0:00:00.017)          0:00:00.017 *****
ok: [master3]
ok: [master1]
ok: [cmts-worker1]
ok: [cmts-worker3]
ok: [cmts-worker2]
ok: [master2]
TASK [Check node_name] *****
Tuesday 06 October 2020  20:01:50 +0000 (0:00:02.432)          0:00:02.450 *****
skipping: [master1]
skipping: [master2]
skipping: [master3]
skipping: [cmts-worker1]
skipping: [cmts-worker2]
skipping: [cmts-worker3]
PLAY [Wait for ready and ensure uncordoned] *****
TASK [Cordon and drain node] *****
Tuesday 06 October 2020  20:01:51 +0000 (0:00:00.144)          0:00:02.594 *****
skipping: [master1]
skipping: [master2]
skipping: [master3]
skipping: [cmts-worker2]
skipping: [cmts-worker3]
TASK [upgrade/cordon : Cordon/Drain/Delete node] *****
Tuesday 06 October 2020  20:01:51 +0000 (0:00:00.205)          0:00:02.800 *****
changed: [cmts-worker1 -> 172.22.18.107]
PLAY RECAP *****
cmts-worker1          : ok=2    changed=1    unreachable=0    failed=0    skipped=1    rescued=0
cmts-worker2          : ok=1    changed=0    unreachable=0    failed=0    skipped=2    rescued=0
cmts-worker3          : ok=1    changed=0    unreachable=0    failed=0    skipped=2    rescued=0
master1               : ok=1    changed=0    unreachable=0    failed=0    skipped=2    rescued=0
master2               : ok=1    changed=0    unreachable=0    failed=0    skipped=2    rescued=0
master3               : ok=1    changed=0    unreachable=0    failed=0    skipped=2    rescued=0
Tuesday 06 October 2020  20:02:29 +0000 (0:00:38.679)          0:00:41.479 *****
=====
2020-10-06 20:02:30.057 DEBUG cluster_sync.kali-stacked.cmts-worker1: Cluster sync successful
2020-10-06 20:02:30.058 DEBUG cluster_sync.kali-stacked.cmts-worker1: Ansible sync done
2020-10-06 0:02:30.058 INFO cluster_sync.kali-stacked.cmts-worker1: _sync finished. Opening lock

```

مقلمل ةناي ص ءارجا

ةقلمل ةناي صل طاشن يف رمت سا .سلس لكشب CIMC نم مداخل لئغشت فاقب مق ةيحصلا صرللا تاي لمع عيمج ريرمت نم دكأت و ةزهجال ةرادا جم انرب يف دحم وه امك ةزهجال اب مداخل لئغشت دع

مداخل ةناي صل طاشن و ةزهجال اب ةصاخلا مهافتلا ةركذم ةلاقملا هذه ي طغت ال :ةطخال م ةلكشملا نايب نع فلتخت اهال

This would run sync. Are you sure? [no,yes] yes
message accepted

ةنم ازملا ءارجا تال ج س ةب ق ارم

```
[bot-deployer-cm-primary] SMI Cluster Deployer# clusters up0100-aio-1 nodes master-1 actions sync logs
```

ةنم ازملا ءارجا تال ج س ةب ق ارم AIO-1.

```
[bot-deployer-cm-primary] SMI Cluster Deployer# clusters up0300-aio-1 actions k8s cluster-status
```

ءارجا ءال ج ذوم ن

```
[installer-] SMI Cluster Deployer# clusters kali-stacked actions k8s cluster-status  
pods-desired-count 67  
pods-ready-count 67  
pods-desired-are-ready true  
etcd-healthy true  
all-ok true
```

RCM ةءاع ت س اءارجا

ق ي ب ط ت ل ل ةءاع ت س ال CEE و RCM ت ا ي ل م ع ز ك ا ر م ي ل ع ذ ي ف ن ت ل ل ت ا و ط خ

ل ي غ ش ت ل ل ع ض و ي ل ل RCM OpenCenter و CEE OpenCenter ت ي د ح ت ب م ق

RCE301 ل ل ي غ ش ت ل ل ع ض و ن ي و ك ت ب م ق

```
[up0300-aio-1/rce301] cee# config  
Entering configuration mode terminal  
[up0300-aio-1/rce301] cee(config)# system mode running  
[up0300-aio-1/rce301] cee(config)# commit comment <CRNUMBER>  
[up0300-aio-1/rce301] cee(config)# exit
```

100.0% ةب س ن ب م اظن ل ل ن ا ن م ق ق ح ت م ت ن ي ت ق ي ق د ر ط ت ن ا

```
[up0300-aio-1/rce301] cee# show system
```

RM0301 ل ليغشتاللا عضو نيوكتب مق

```
[up0300-aio-2/rm0301] rcm# config
Entering configuration mode terminal
[up0300-aio-2/rm0301] rcm(config)# system mode running
[up0300-aio-1/rce301] rcm(config)# commit comment <CRNUMBER>
```

100.0% ةبسنب ماظنللا نأ نم ققحت مث ققئاقد عضبل رظتنا

```
[up0300-aio-1/rm0301] cee# show system
```

RM0303 ل ليغشتاللا عضو نيوكتب مق

```
[up0300-aio-2/rm0303] rcm# config
Entering configuration mode terminal
[up0300-aio-2/rm0303] rcm(config)# system mode running
[up0300-aio-1/rce303] rcm(config)# commit comment <CRNUMBER>
```

100.0% ةبسنب ماظنللا نأ نم ققحت مث نيقيقق رظتنا

```
[up0300-aio-1/rm0303] cee# show system
```

ققحتلالا ءارجا

هذه مادختساب AIO دقع نم لك ىلع ليغشتاللا دي ق PODS ليغشتتاللا عيمج نأ نم ققحت رماوالا.

```
on AIO nodes:
kubect1 get ns
kubect1 get pods -A -o wide
```

```
on RCM ops-centers:
rcm show-status
```

ةمچرتل هذه ل و ح

ةلأل تاي نقتل ن م ة و مچ م ادخت ساب دن تسم ل ا ذه Cisco ت مچرت
م ل ا ل اء ان ا ع مچ ي ف ن م دخت س م ل ل م عد ي و ت ح م م ي دقت ل ة ي ر ش ب ل و
امك ة ق ي ق د ن و ك ت ن ل ة ي ل ا ة مچرت ل ض ف ا ن ا ة ظ ح ال م ي ج ر ي . ة ص ا خ ل ا م ه ت غ ل ب
Cisco ي ل خ ت . ف ر ت ح م مچرت م ا ه م د ق ي ي ت ل ا ة ي ف ا ر ت ح ال ا ة مچرت ل ا ع م ل ا ح ل ا و ه
ي ل ا م اء ا د ع و ج ر ل ا ب ي ص و ت و ت ا مچرت ل ا هذه ة ق د ن ع ا ه ت ي ل و ئ س م Cisco
Systems (ر ف و ت م ط ب ا ر ل ا) ي ل ص ا ل ا ي ز ي ل ج ن ا ل ا دن ت س م ل ا