

في احوال صا و زهجالا تالكشم فاشكتسا ةنايصالا عارجا و 5G SMI CNDP ةومجم

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ةمدقما

جم اربلا ةيقرت لثم (اهت نايص و ا زهجالا لادبتسا) ةنايصالا عارجا عارجا دن تسمما اذه فصبي رشنلل يساسالا ماظنلاب ةصاخلا (POD) زهجالا ةومجم في ،كلذىل امو (FW) ةتباثلا سماخلا ليجلا يكرتشملا (SMI) ةكبشلا ربع يلسالا .

ةيساسالا تابلطتما

تابلطتما

ةيلاتلا عيضاوملاب ةفرعم كيديل نوكت ناب Cisco ي صوت:

- Cisco SMI
- SMI-Bare-metal (BM) و 5G CNDPA ةينب
- تالابكلاو عاسرالا تاطحم
- C220 ةلسلسلا نم Cisco UCS مداوخ

ةمدختسما تانوكما

ةيلاتلا ةيداملا تانوكملا وجم اربلا تارادصلا يلا دن تسمما اذه في ةدراولا تامولعملا دن تست:

- SMI 2020.02.2.35
- Kubernetes v1.21.0
- Cisco UCS C220-M5SX-CM

ةصاخ ةيلمعم ةئيبي في ةدوجوملا زهجالا نم دن تسمما اذه في ةدراولا تامولعملا عاشن ا مت تناك اذا .(يضا رتفا) حوسمم نيوكتب دن تسمما اذه في ةمدختسما زهجالا عيمج تادب


```
pod-name-smf-data -
pod-name-smf-ims -
pod1-name-smf-data -
pod1-name-smf-ims -
pod2-name-aio-1 -
pod2-name-aio-2 -
pod2-name-upf-data -
pod2-name-upf-ims -
```

معن بتك او رماوأل هذه مادختساب ةنايصالا ءارجاب اهي ف موقت يتال ةدقعال ةيفصتب مق 5. بسح ىرأل دقعال يف ليغشال ةءاعا ةلوهسب (PODs) لوصولا طاقن ءالخاب اذه موقسي (س) (ءالجال).

جالجال جءومن:

```
[cluster-name-cm-1] SMI Cluster Deployer# clusters cluster-name nodes worker-11 actions sync
drain remove-node true
```

This will run drain on the node, disrupting pods running on the node. Are you sure? [no,yes] yes
message accepted

ءحك ةققيء 30 كلذ قرغتسي ءق) رماوأل هذه مادختساب ةنايصالا ءضو ىل ةدقعال لقنا 6. (ىصقا).

جالجال جءومن:

```
[cluster-name-cm-1] SMI Cluster Deployer# config
Entering configuration mode terminal
[cluster-name-cm-1] SMI Cluster Deployer(config)# clusters cluster-name
[cluster-name-cm-1] SMI Cluster Deployer(config-clusters-cluster-name)# nodes worker-11
[cluster-name-cm-1] SMI Cluster Deployer(config-nodes-worker1)# maintenance true
[cluster-name-cm-1] SMI Cluster Deployer(config-nodes-worker1)# commit
Commit complete.
[cluster-name-cm-1] SMI Cluster Deployer(config-nodes-worker1)# end
```

ءالجال ةفرءمل الءسال نم ققءح 7.

```
clusters cluster-name nodes worker-11 actions sync logs
```

(In this we are dealing with the worker-11 node)

ءالجال جءومن (ءطتقم):

```
logs 2022-01-03 06:04:02.755 DEBUG cluster_sync.cluster-name.worker-11: Cluster name: cluster-
name
```

```
2022-01-03 06:04:02.755 DEBUG cluster_sync.cluster-name.worker-11: Node name: worker-11
```

```
2022-01-03 06:04:02.755 DEBUG cluster_sync.cluster-name.worker-11: debug: false
```

```
2022-01-03 06:04:02.755 DEBUG cluster_sync.cluster-name.worker-11: remove_node: false
```

```
PLAY [Check required variables] *****
```

```
TASK [Gathering Facts] *****
```

```
Monday 03 January 2022 06:04:06 +0000 (0:00:00.014) 0:00:00.014 *****
```

ok: [worker-11]

ok: [worker-13]
ok: [worker-11]
ok: [worker-16]
ok: [worker-18]
ok: [worker-17]
ok: [worker-12]
ok: [worker-10]
ok: [worker-19]
ok: [worker-2]
ok: [master-1]
ok: [worker-11]
ok: [worker-15]
ok: [master-3]
ok: [worker-20]
ok: [worker-22]
ok: [worker-21]

....

TASK [Check node_name] *****

Monday 03 January 2022 06:04:13 +0000 (0:00:07.086) 0:00:07.101 *****

skipping: [master-1]
skipping: [master-2]
skipping: [master-3]
skipping: [worker-1]
skipping: [worker-10]
skipping: [worker-11]
skipping: [worker-12]
skipping: [worker-13]
skipping: [worker-11]
skipping: [worker-15]
skipping: [worker-16]
skipping: [worker-17]

skipping: [worker-18]
skipping: [worker-19]
skipping: [worker-2]
skipping: [worker-20]
skipping: [worker-21]
skipping: [worker-22]

.....

PLAY [Wait for ready and ensure uncordoned] *****

TASK [Cordon and drain node] *****

Monday 03 January 2022 06:04:15 +0000 (0:00:01.116) 0:00:08.217 *****

skipping: [master-1]
skipping: [master-2]
skipping: [master-3]
skipping: [worker-11]
skipping: [worker-10]
skipping: [worker-12]
skipping: [worker-13]
skipping: [worker-1]
skipping: [worker-15]
skipping: [worker-16]
skipping: [worker-17]
skipping: [worker-18]
skipping: [worker-19]
skipping: [worker-2]
skipping: [worker-20]
skipping: [worker-21]
skipping: [worker-22]

.....

TASK [upgrade/cordon : Cordon/Drain/Delete node] *****

Monday 03 January 2022 06:04:16 +0000 (0:00:01.430) 0:00:09.647 *****

changed: [worker-11 -> 10.192.x.x]

PLAY RECAP *****

master-1		: ok=1	changed=0	unreachable=0	failed=0	skipped=2
rescued=0	ignored=0					
master-2		: ok=1	changed=0	unreachable=0	failed=0	skipped=2
rescued=0	ignored=0					
master-3		: ok=1	changed=0	unreachable=0	failed=0	skipped=2
rescued=0	ignored=0					
worker-11		: ok=1	changed=0	unreachable=0	failed=0	skipped=2
rescued=0	ignored=0					
worker-10		: ok=1	changed=0	unreachable=0	failed=0	skipped=2
rescued=0	ignored=0					
worker-11		: ok=2	changed=1	unreachable=0	failed=0	skipped=1
rescued=0	ignored=0					
worker-12		: ok=1	changed=0	unreachable=0	failed=0	skipped=2
rescued=0	ignored=0					
worker-13		: ok=1	changed=0	unreachable=0	failed=0	skipped=2
rescued=0	ignored=0					
worker-1		: ok=1	changed=0	unreachable=0	failed=0	skipped=2
rescued=0	ignored=0					
worker-15		: ok=1	changed=0	unreachable=0	failed=0	skipped=2
rescued=0	ignored=0					
worker-16		: ok=1	changed=0	unreachable=0	failed=0	skipped=2
rescued=0	ignored=0					
worker-17		: ok=1	changed=0	unreachable=0	failed=0	skipped=2
rescued=0	ignored=0					
worker-18		: ok=1	changed=0	unreachable=0	failed=0	skipped=2
rescued=0	ignored=0					
worker-19		: ok=1	changed=0	unreachable=0	failed=0	skipped=2
rescued=0	ignored=0					
worker-2		: ok=1	changed=0	unreachable=0	failed=0	skipped=2
rescued=0	ignored=0					
worker-20		: ok=1	changed=0	unreachable=0	failed=0	skipped=2
rescued=0	ignored=0					
worker-21		: ok=1	changed=0	unreachable=0	failed=0	skipped=2
rescued=0	ignored=0					
worker-22		: ok=1	changed=0	unreachable=0	failed=0	skipped=2
rescued=0	ignored=0					

.....

Monday 03 January 2022 06:04:17 +0000 (0:00:01.168) 0:00:10.815 *****

```
=====
2022-01-03 06:04:17.957 DEBUG cluster_sync.cluster-name.worker-11: Cluster sync successful
2022-01-03 06:04:17.958 DEBUG cluster_sync.cluster-name.worker-11: Ansible sync done
2022-01-03 06:04:17.961 INFO cluster_sync.cluster-name.worker-11: _sync finished. Opening lock
لمعالجة دقعة لاج ريغت نم دكأتو Kubernetes ل سيئرلا دقعة نم ققحت 8.
```

جارجال جذومن:

```
cloud-user@cluster-name-master-1:~$ kubectl get nodes
```

NAME	STATUS	ROLES	AGE	VERSION
cluster-name-master-1	Ready	control-plane,master	213d	v1.21.0
cluster-name-master-2	Ready	control-plane,master	213d	v1.21.0
cluster-name-master-3	Ready	control-plane,master	213d	v1.21.0
cluster-name-worker-11	Ready	<none>	213d	v1.21.0
cluster-name-worker-10	Ready	<none>	213d	v1.21.0
cluster-name-worker-11	Ready, SchedulingDisabled			
cluster-name-worker-12	Ready	<none>	213d	v1.21.0
cluster-name-worker-13	Ready	<none>	213d	v1.21.0
cluster-name-worker-11	Ready	<none>	213d	v1.21.0

9. لوصول طاقن عي مج نوكت نأ بجي) ةنايصلل ةزهاج دقعة ل نوكت نأ بجي، ةوطخلل هذه يف 9. ةطساوب اهترادإ متت يتل لوصول طاقن ءانثتساب اهؤالخل مت دق قيبطتلاب ةصاخلل (اهلهجت نكمي يتل اوكلذ لىل امو Daemstartup/replicaset).

10. ةدحو يأ وأ Cisco Integrated Management Console (CIMC) نم مداخل ليغشت فاق ياب مق. ةزهجال ةنايصل عارجاب مقو، فل تخم دروم لىل يمتني مداخل ناك اذا ةئفالك مةريادإ مكحت.

يحصلا صحفلا تاي لمع عي مج نوكت ام دنعو ةنايصلل دعبت نترنت لىل مداخل دوعي ام دنع اذه عارجاب مق، عارضخ.

11. ليغشتب مق م ث فلخل لىل اهتفاضل "أطخ" = ةنايصل لىل لمعال دقعة نيبيعتب مق. ةنمازم.

جارجال جذومن:

```
[cluster-name-cm-1] SMI Cluster Deployer# config
Entering configuration mode terminal
[cluster-name-cm-1] SMI Cluster Deployer(config)# clusters cluster-name
[cluster-name-cm-1] SMI Cluster Deployer(config-clusters-cluster-name)# nodes worker-11
[cluster-name-cm-1] SMI Cluster Deployer(config-nodes-worker1)# maintenance false
```



```
[cluster-name-cm-1] SMI Cluster Deployer(config-nodes-worker1)# commit
Commit complete.
```

```
[cluster-name-cm-1] SMI Cluster Deployer(config-nodes-worker1)# end
```

12. عم دخلل اهزيهجتو نارودلا ءانثأ ءءقءلا عءءال ءءومءمءلما مءظن ءنمءزم لءءءشءب مق 12.

(ءطءقم) ءءءال ءءومء:

```
[cluster-name-cm-1] SMI Cluster Deployer# clusters cluster-name nodes worker-11 actions sync run
debug true
This will run sync. Are you sure? [no,yes] yes
message accepted
```

```
PLAY [Wait for ready and ensure uncordoned] *****
```

```
TASK [Wait for ready and ensure uncordoned] *****
```

```
Monday 03 January 2022 07:12:35 +0000 (0:00:01.151) 0:09:42.974 *****
```

```
skipping: [master-1] => (item=upgrade/wait-for-cluster-ready)
```

```
skipping: [master-1] => (item=upgrade/uncordon)
```

```
skipping: [master-2] => (item=upgrade/wait-for-cluster-ready)
```

```
skipping: [master-2] => (item=upgrade/uncordon)
```

```
skipping: [master-3] => (item=upgrade/wait-for-cluster-ready)
```

```
skipping: [master-3] => (item=upgrade/uncordon)
```

```
skipping: [worker-11] => (item=upgrade/wait-for-cluster-ready)
```

```
skipping: [worker-11] => (item=upgrade/uncordon)
```

```
skipping: [worker-10] => (item=upgrade/wait-for-cluster-ready)
```

```
skipping: [worker-10] => (item=upgrade/uncordon)
```

```
skipping: [worker-12] => (item=upgrade/wait-for-cluster-ready)
```

```
skipping: [worker-12] => (item=upgrade/uncordon)
```

```
skipping: [worker-13] => (item=upgrade/wait-for-cluster-ready)
```

```
skipping: [worker-13] => (item=upgrade/uncordon)
```

```
skipping: [worker-1] => (item=upgrade/wait-for-cluster-ready)
```

```
skipping: [worker-1] => (item=upgrade/uncordon)
```

```
.....
```

```
skipping: [worker-3] => (item=upgrade/wait-for-cluster-ready)
```

```
skipping: [worker-3] => (item=upgrade/uncordon)
```

```
skipping: [worker-4] => (item=upgrade/wait-for-cluster-ready)
```

```
skipping: [worker-4] => (item=upgrade/uncordon)
```

```
skipping: [worker-5] => (item=upgrade/wait-for-cluster-ready)
```

skipping: [worker-5] => (item=upgrade/uncordon)
skipping: [worker-6] => (item=upgrade/wait-for-cluster-ready)
skipping: [worker-6] => (item=upgrade/uncordon)
skipping: [worker-7] => (item=upgrade/wait-for-cluster-ready)
skipping: [worker-7] => (item=upgrade/uncordon)
skipping: [worker-8] => (item=upgrade/wait-for-cluster-ready)
skipping: [worker-8] => (item=upgrade/uncordon)
skipping: [worker-9] => (item=upgrade/wait-for-cluster-ready)
skipping: [worker-9] => (item=upgrade/uncordon)

TASK [upgrade/uncordon : Restore cordoned node] *****

Monday 03 January 2022 07:12:37 +0000 (0:00:01.539) 0:09:44.513 *****

changed: [worker-11 -> 10.192.x.x]

PLAY RECAP *****

master-1		: ok=38	changed=4	unreachable=0	failed=0	skipped=73
rescued=0	ignored=0					
master-2		: ok=35	changed=3	unreachable=0	failed=0	skipped=73
rescued=0	ignored=0					
master-3		: ok=35	changed=3	unreachable=0	failed=0	skipped=73
rescued=0	ignored=0					
worker-1		: ok=64	changed=3	unreachable=0	failed=0	skipped=83
rescued=0	ignored=0					
worker-10		: ok=63	changed=3	unreachable=0	failed=0	skipped=83
rescued=0	ignored=0					
worker-11		: ok=218	changed=30	unreachable=0	failed=0	skipped=306
rescued=0	ignored=0					
worker-12		: ok=63	changed=3	unreachable=0	failed=0	skipped=83
rescued=0	ignored=0					
worker-13		: ok=63	changed=3	unreachable=0	failed=0	skipped=83
rescued=0	ignored=0					
worker-11		: ok=63	changed=3	unreachable=0	failed=0	skipped=83
rescued=0	ignored=0					
.....						
worker-3		: ok=63	changed=3	unreachable=0	failed=0	skipped=83
rescued=0	ignored=0					
worker-4		: ok=63	changed=3	unreachable=0	failed=0	skipped=83
rescued=0	ignored=0					
worker-5		: ok=63	changed=3	unreachable=0	failed=0	skipped=83
rescued=0	ignored=0					

```
worker-6      : ok=63  changed=3  unreachable=0  failed=0  skipped=83
rescued=0    ignored=0

worker-7      : ok=63  changed=3  unreachable=0  failed=0  skipped=83
rescued=0    ignored=0

worker-8      : ok=63  changed=3  unreachable=0  failed=0  skipped=83
rescued=0    ignored=0

worker-9      : ok=63  changed=3  unreachable=0  failed=0  skipped=83
rescued=0    ignored=0
```

Monday 03 January 2022 07:12:38 +0000 (0:00:00.967) 0:09:45.481 *****

=====

```
2022-01-03 07:12:38.854 DEBUG cluster_sync.cluster-name.worker-11: Cluster sync successful
2022-01-03 07:12:38.858 DEBUG cluster_sync.cluster-name.worker-11: Ansible sync done
2022-01-03 07:12:38.860 INFO cluster_sync.cluster-name.worker-11: _sync finished. Opening lock
13. نيزه اچال دد عم PODS-WANTED دد ق فاوتي نأ بجي. ةومجم لاماظن ةل احم ق قحت
```

```
[cluster-name-cm-1] SMI Cluster Deployer# clusters cluster-name actions k8s cluster-status
pods-desired-count 678
pods-ready-count 678
pods-desired-are-ready true
etcd-healthy true
all-ok true
```

ةمچرتل هذه ل و ح

ةلأل تاي نقتل ن م ة و مچ م ادخت ساب دن ت س م ل ا اذ ه Cisco ت مچرت
م ل ا ع ل ا اء ن ا ع مچ ي ف ن ي م د خ ت س م ل ل م ع د ي و ت ح م م ي د ق ت ل ة ي ر ش ب ل و
ا م ك ة ق ي ق د ن و ك ت ن ل ة ل ا ة مچرت ل ض ف ا ن ا ة ظ ح ا ل 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 ا ل 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 ه ذ ه 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