

# SNO *Single Node OpenShift*

Glenn West

[gwest@redhat.com](mailto:gwest@redhat.com)



# *Prereqs*

- ❖ DNS Entries
- ❖ Bios
- ❖ DHCP
- ❖ Disk / ISO

# DNS Setup

- ❖ 4 entries
  - ❖ Api internal, api external
  - ❖ Node entry
  - ❖ App wildcard

api.sno.gw.lo	86400	IN	A	192.168.1.127
api-int.sno.gw.lo	86400	IN	A	192.168.1.127
*.apps.sno.gw.lo	86400	IN	A	192.168.1.127
node.sno.gw.lo	86400	IN	A	192.168.1.127

# BIOS Settings

PhoenixBIOS Setup Utility

Main Advanced Security Boot Exit

+Hard Drive CD-ROM Drive Removable Devices Network boot from Intel E1000e	Item Specific Help  Keys used to view or configure devices: <Enter> expands or collapses devices with a + or - <Ctrl+Enter> expands all <+> and <-> moves the device up or down. <n> May move removable device between Hard Disk or Removable Disk <d> Remove a device that is not installed.
--	--

F1 Help ↑ Select Item -/+ Change Values F9 Setup Defaults  
Esc Exit ↔ Select Menu Enter Select ▶ Sub-Menu F10 Save and Exit ↵

# *Disk and ISO*

- ❖ Drive should be erased
- ❖ Use the online assisted installer to configure and create discovery iso
- ❖ Download to where you can use the iso for ipmi or vm

# *Assisted Installer*

- ❖ Used Online at: <https://cloud.redhat.com/openshift/assisted-installer/clusters/>
- ❖ Can also be used via api see: <https://github.com/openshift/assisted-service/blob/master/docs/cloud.md>
- ❖ Can also be run locally
- ❖ Current Version for ocp sno is 4.8.0.fc3

# Assisted Installer

The screenshot shows the Red Hat OpenShift web interface. The left sidebar is titled "OpenShift" and includes links for Clusters, Overview, Releases, Subscriptions, Cost Management, Support Cases, Cluster Manager Feedback, Red Hat Marketplace, and Documentation. The main content area is titled "Assisted Clusters" and shows a single cluster entry:

Name	Base domain	Version	Status	Hosts	Created at	More
root	gw.lo	4.7	Draft	0	4/16/2021, 1:55:54 PM	⋮

At the bottom right, there is a circular badge with the number "2" and a lightbulb icon.

# Create New Cluster

Clusters > Assisted Clusters > New cluster Technology Preview

## Install OpenShift with the Assisted Installer

### 1 Cluster Details

- 2 Host Discovery
- 3 Networking
- 4 Review & Create

### Cluster Details

Cluster Name \*

sno

Base Domain \*

gw.lo

All DNS records must be subdomains of this base and include the cluster name. This cannot be changed after cluster installation. The full cluster address will be:

**sno.gw.lo**

I want to install single node OpenShift (SNO)

This enables you to install OpenShift using only 1 host.

#### ⚠ Limitations for using Single Node OpenShift

- SNO is in a proof-of-concept stage and is not supported in any way.
- Installing SNO will result in a non-highly available OpenShift deployment.
- OpenShift in-place upgrades aren't expected to work with SNO. If an upgrade is needed, your system will need a redeployment.
- Adding additional machines to your cluster is currently out of scope.

I understand, accept, and agree to the limitations associated with using Single Node OpenShift.

OpenShift Version \*



# Create the Discovery ISO

Clusters > Assisted Clusters > sno Technology Preview

## Install OpenShift with the Assisted Installer

1 Cluster Details  
2 Host Discovery  
3 Networking  
4 Review & Create

### Host Discovery

[View Cluster Events](#)

#### Instructions

Generate a Discovery ISO and use a bootable device (local Disk, USB drive, etc.) or network booting (PXE) to **boot once** your machine from it on hardware that should become part of this OCP cluster.

Hosts connected to the internet with a valid IP address will appear in the table below.

[Generate Discovery ISO](#)

#### Information & Warnings

[Minimum hardware requirements](#) [Hosts not showing up?](#)

[Note that all bootable disks will be formatted when the installation starts.](#)

Hostname ↑	Role ↓	Status ↓	Discovered At ↓	CPU Cores ↓	Memory ↓	Disk ↓	(0)
(•)							

Waiting for hosts...

Hosts may take a few minutes to appear here after booting.

[Generate Discovery ISO](#)



# Select sno and version

2 Host Discovery  
3 Networking  
4 Review & Create

**Cluster Name \***  
sno

**Base Domain \***  
gw.lo

All DNS records must be subdomains of this base and include the cluster name. This cannot be changed after cluster installation. The full cluster address will be:  
**sno.gw.lo**

I want to install single node OpenShift (SNO)  
This enables you to install OpenShift using only 1 host.

**⚠ Limitations for using Single Node OpenShift**

- SNO is in a proof-of-concept stage and is not supported in any way.
- Installing SNO will result in a non-highly available OpenShift deployment.
- OpenShift in-place upgrades aren't expected to work with SNO. If an upgrade is needed, your system will need a redeployment.
- Adding additional machines to your cluster is currently out of scope.

I understand, accept, and agree to the limitations associated with using Single Node OpenShift.

**OpenShift Version \***  
OpenShift 4.8.0-fc.3

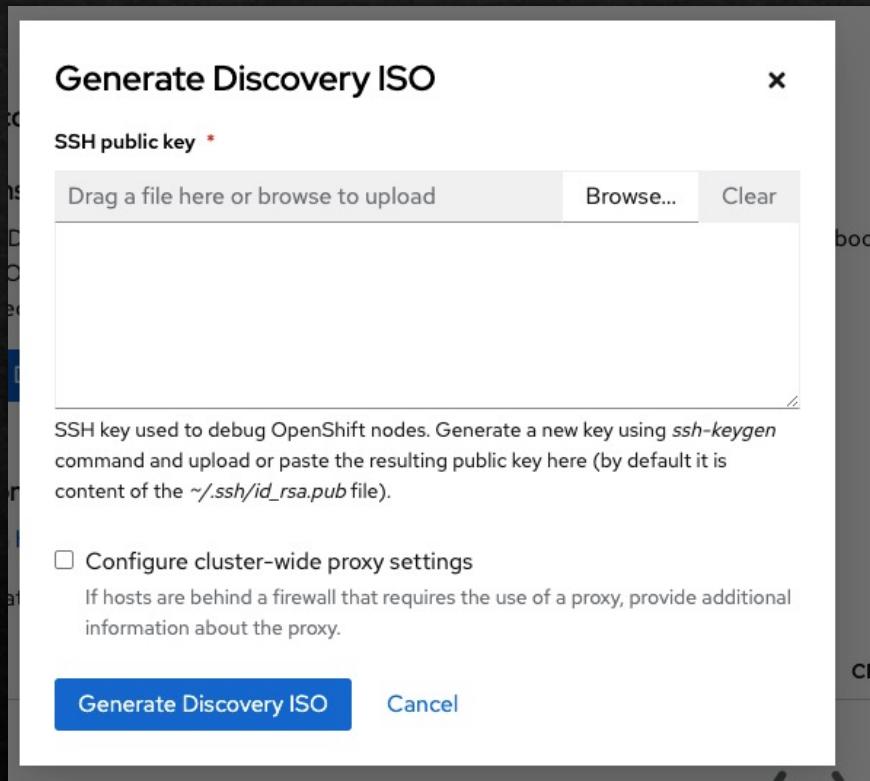
**⚠ Please note that this version is not production ready.**

Edit pull secret [?](#)

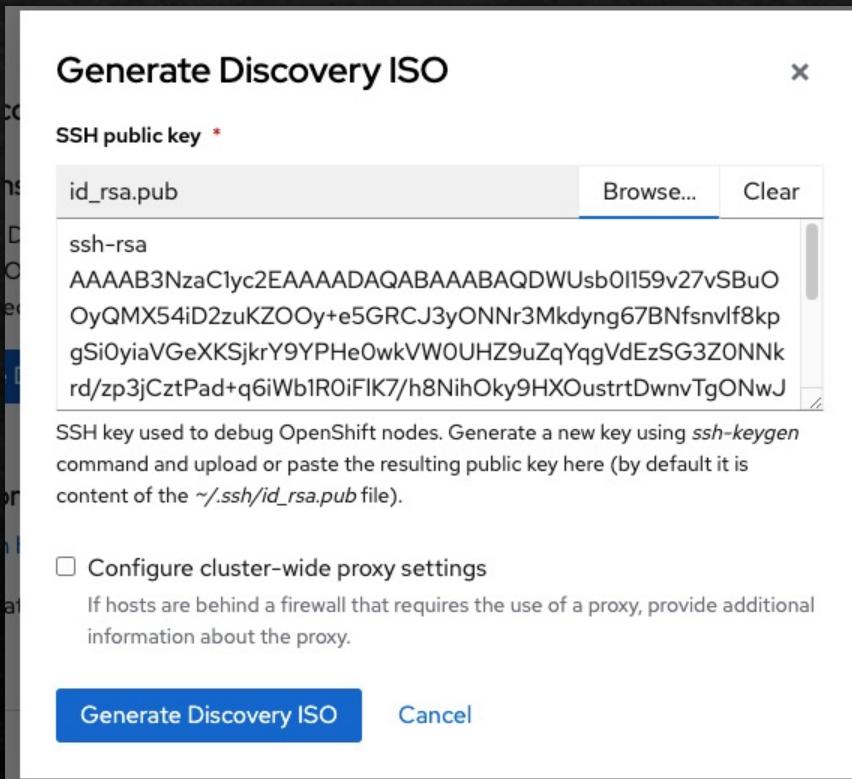
[Next](#) [Cancel](#)

2

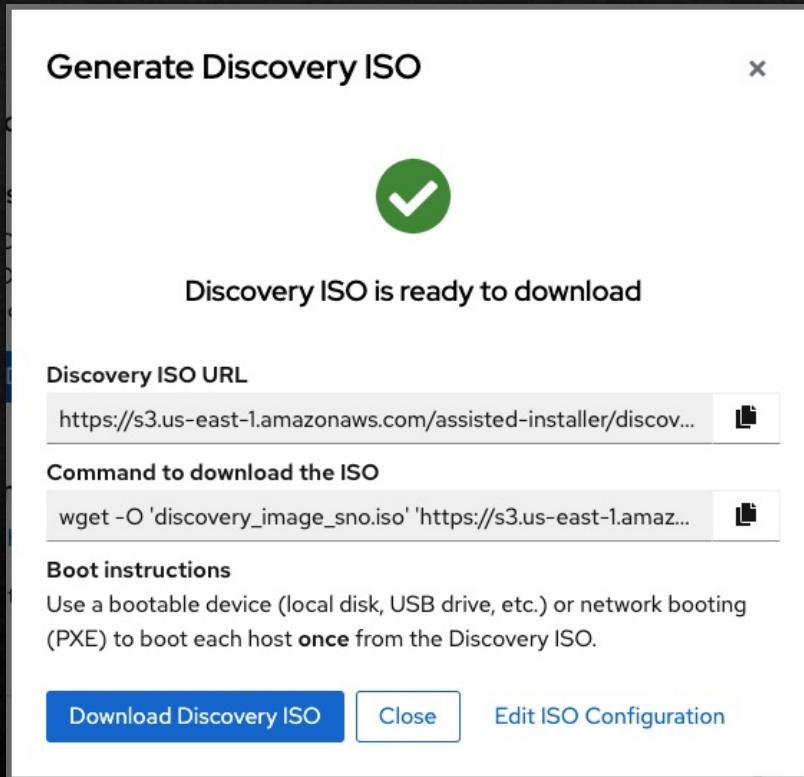
# *Start the iso generation*



# Add in your ssh key



*Download the iso to where you can use it*



## Cluster Events

x

Hosts 1 ▾

Severity ▾

Filter by text ...



- 5/16/2021, 9:05:37 AM Host node.sno.gw.lo: reached installation stage Installing: bootstrap
- 5/16/2021, 9:05:37 AM Host node.sno.gw.lo: reached installation stage Starting installation: bootstrap
- 5/16/2021, 9:05:37 AM Host node.sno.gw.lo: updated status from "installing" to "installing-in-progress" (Starting installation)
- 5/16/2021, 9:05:02 AM Host node.sno.gw.lo: updated status from "preparing-successful" to "installing" (Installation is in progress)
- 5/16/2021, 9:04:48 AM Updated status of cluster sno to installing
- 5/16/2021, 9:04:43 AM Host node.sno.gw.lo: updated status from "preparing-for-installation" to "preparing-successful" (Host finished successfully to prepare for installation)
- 5/16/2021, 9:04:18 AM Cluster was prepared successfully for installation
- 5/16/2021, 9:04:07 AM Host node.sno.gw.lo: updated status from "known" to "preparing-for-installation" (Host is preparing for installation)
- 5/16/2021, 9:04:02 AM Host node.sno.gw.lo: set as bootstrap
- 5/16/2021, 9:02:34 AM Updated status of cluster sno to ready
- 5/16/2021, 9:02:34 AM Cluster validation 'all-hosts-are-ready-to-install' is now fixed
- 5/16/2021, 9:02:34 AM Cluster validation 'machine-cidr-defined' is now fixed
- 5/16/2021, 9:02:34 AM Host node.sno.gw.lo: updated status from "insufficient" to "known" (Host is ready to be installed)
- 5/16/2021, 9:00:55 AM Host node.sno.gw.lo: validation 'hostname-valid' is now fixed
- 5/16/2021, 8:58:37 AM Host localhost: validation 'ntp-synced' is now fixed
- 5/16/2021, 8:57:23 AM ⚠ warning Host localhost: updated status from "discovering" to "insufficient" (Host cannot be installed due to following failing validation(s): Host couldn't synchronize with any NTP server ; Hostname localhost is forbidden)
- 5/16/2021, 8:57:18 AM Cluster validation 'sufficient-masters-count' is now fixed

Close

## Cluster Events

X

▼ Hosts 1 ▾

▼ Severity ▾

Filter by text ...



- 5/16/2021, 9:11:22 AM Host node.sno.gw.lo: reached installation stage Rebooting
- 5/16/2021, 9:11:03 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 100%
- 5/16/2021, 9:11:02 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 96%
- 5/16/2021, 9:10:59 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 90%
- 5/16/2021, 9:10:57 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 84%
- 5/16/2021, 9:10:55 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 78%
- 5/16/2021, 9:10:53 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 72%
- 5/16/2021, 9:10:51 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 66%
- 5/16/2021, 9:10:49 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 59%
- 5/16/2021, 9:10:48 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 54%
- 5/16/2021, 9:10:47 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 48%
- 5/16/2021, 9:10:45 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 39%
- 5/16/2021, 9:10:44 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 32%
- 5/16/2021, 9:10:43 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 24%
- 5/16/2021, 9:10:42 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 15%
- 5/16/2021, 9:10:41 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 10%
- 5/16/2021, 9:10:39 AM Host node.sno.gw.lo: reached installation stage Writing image to disk
- 5/16/2021, 9:05:37 AM Host node.sno.gw.lo: reached installation stage Installing: bootstrap
- 5/16/2021, 9:05:37 AM Host node.sno.gw.lo: reached installation stage Starting installation: bootstrap

Close

SNO

## Installation progress

### Started on

5/16/2021, 9:04:02 AM

### Status

Installing

63%

 Control Plane (1 master)

 Initialization

 2 operators

[Download kubeconfig](#)

## Host Inventory

Hostname 	Role 	Status 	Discovered At 	CPU Cores 	Memory 	Disk 	(1) 
 node.sno.gw.lo *	Master (bootstrap)	 Installing 5/8	5/16/2021, 8:57:12 AM	4	16.00 GiB	172.83 GB	

## Cluster Details

### OpenShift version

4.8.0-fc.3

### Base DNS domain

gw.lo

### UUID

cdb47d36-037c-4962-b2be-61a289b1f91b

### Cluster network CIDR

10.128.0.0/14

### Cluster network host prefix

23

### Service network CIDR

172.30.0.0/16

[Abort Installation](#)

[Back to all clusters](#)

[Download Installation Logs](#)

[View Cluster Events](#)

2



```
ay 16 14:54:36 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:          object given to jsonpath engine was:  
ay 16 14:54:36 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:              map[string]interface {}{"apiVersion":"v1", "items":[]interface {}{}, "kind":"List", "metadata":map[string]i  
":""}  
ay 16 14:54:36 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Approving csrs ...  
ay 16 14:55:06 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Approving csrs ...  
ay 16 14:55:36 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Approving csrs ...  
ay 16 14:56:07 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Restarting kubelet  
ay 16 14:56:07 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: error: error executing jsonpath "{.items[0].status.conditions[?(@.type==\"Ready\").status}": Error executing template: arr  
Printing more information for debugging the template:  
ay 16 14:56:07 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:          template was:  
ay 16 14:56:07 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:              {.items[0].status.conditions[?(@.type=="Ready")].status}  
ay 16 14:56:07 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:          object given to jsonpath engine was:  
ay 16 14:56:07 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:              map[string]interface {}{"apiVersion":"v1", "items":[]interface {}{}, "kind":"List", "metadata":map[string]i  
":""}  
ay 16 14:56:07 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Waiting for kube-apiserver-operator ready condition to be True  
ay 16 14:56:18 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: error: error executing jsonpath "{.items[0].status.conditions[?(@.type==\"Ready\").status}": Error executing template: arr  
Printing more information for debugging the template:  
ay 16 14:56:18 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:          template was:  
ay 16 14:56:18 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:              {.items[0].status.conditions[?(@.type=="Ready")].status}  
ay 16 14:56:18 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:          object given to jsonpath engine was:  
ay 16 14:56:18 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:              map[string]interface {}{"apiVersion":"v1", "items":[]interface {}{}, "kind":"List", "metadata":map[string]i  
":""}  
ay 16 14:56:18 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Waiting for kube-apiserver-operator ready condition to be True  
ay 16 14:56:28 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: error: error executing jsonpath "{.items[0].status.conditions[?(@.type==\"Ready\").status}": Error executing template: arr  
Printing more information for debugging the template:  
ay 16 14:56:28 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:          template was:  
ay 16 14:56:28 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:              {.items[0].status.conditions[?(@.type=="Ready")].status}  
ay 16 14:56:28 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:          object given to jsonpath engine was:  
ay 16 14:56:28 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:              map[string]interface {}{"apiVersion":"v1", "items":[]interface {}{}, "kind":"List", "metadata":map[string]i  
":""}  
ay 16 14:56:28 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Waiting for kube-apiserver-operator ready condition to be True  
ay 16 14:56:38 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: error: error executing jsonpath "{.items[0].status.conditions[?(@.type==\"Ready\").status}": Error executing template: arr  
Printing more information for debugging the template:  
ay 16 14:56:38 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:          template was:  
ay 16 14:56:38 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:              {.items[0].status.conditions[?(@.type=="Ready")].status}  
ay 16 14:56:38 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:          object given to jsonpath engine was:  
ay 16 14:56:38 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:              map[string]interface {}{"apiVersion":"v1", "items":[]interface {}{}, "kind":"List", "metadata":map[string]i  
":""}  
ay 16 14:56:38 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Waiting for kube-apiserver-operator ready condition to be True
```

```
Printing more information for debugging the template:  
May 16 15:01:04 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:      template was:  
May 16 15:01:04 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:          {.items[0].status.conditions[?(@.type=="Ready")].status}  
May 16 15:01:04 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:      object given to jsonpath engine was:  
May 16 15:01:04 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:          map[string]interface {}{"apiVersion":"v1", "items":[]interface {}{}, "kind":"List", "metadata":map[string]interface {}{"resourceVersion":""," selfLink":""}}  
May 16 15:01:04 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Waiting for kube-apiserver-operator ready condition to be True  
May 16 15:01:33 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:  name: bootstrap-kube-apiserver  
May 16 15:01:33 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Waiting for kube-apiserver to apply the new static pod configuration  
May 16 15:01:43 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:  name: bootstrap-kube-apiserver  
May 16 15:01:43 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Waiting for kube-apiserver to apply the new static pod configuration  
May 16 15:01:53 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:  name: bootstrap-kube-apiserver  
May 16 15:01:53 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Waiting for kube-apiserver to apply the new static pod configuration  
May 16 15:02:03 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:  name: bootstrap-kube-apiserver  
May 16 15:02:03 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Waiting for kube-apiserver to apply the new static pod configuration  
May 16 15:02:13 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:  name: bootstrap-kube-apiserver  
May 16 15:02:13 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Waiting for kube-apiserver to apply the new static pod configuration  
May 16 15:02:23 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]:  name: bootstrap-kube-apiserver  
May 16 15:02:23 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Waiting for kube-apiserver to apply the new static pod configuration
```

## Cluster Events

X

Hosts 1 ▾

Severity ▾

Filter by text ...



- 5/16/2021, 10:02:18 AM Updated status of cluster sno to finalizing
- 5/16/2021, 10:02:18 AM Host node.sno.gw.lo: reached installation stage Done
- 5/16/2021, 10:02:18 AM Host node.sno.gw.lo: updated status from "installing-in-progress" to "installed" (Done)
- 5/16/2021, 9:49:52 AM Host node.sno.gw.lo: reached installation stage Rebooting
- 5/16/2021, 9:49:35 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 100%
- 5/16/2021, 9:49:34 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 96%
- 5/16/2021, 9:49:31 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 91%
- 5/16/2021, 9:49:29 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 85%
- 5/16/2021, 9:49:27 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 78%
- 5/16/2021, 9:49:25 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 73%
- 5/16/2021, 9:49:23 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 67%
- 5/16/2021, 9:49:21 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 61%
- 5/16/2021, 9:49:20 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 56%
- 5/16/2021, 9:49:19 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 51%
- 5/16/2021, 9:49:17 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 40%
- 5/16/2021, 9:49:16 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 34%
- 5/16/2021, 9:49:15 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 25%

Close

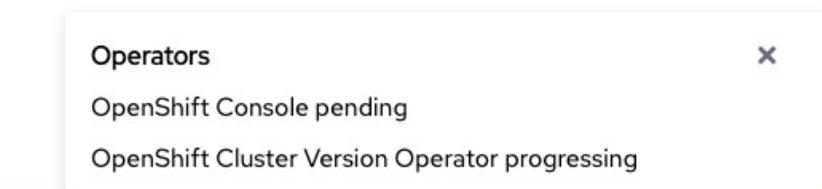
## Installation progress

Started on

5/16/2021, 9:42:14 AM

Status

Finalizing



100%

Control Plane (1 master)

Initialization

Installing 2 operators

[Download kubeconfig](#)

## Host Inventory

Hostname	Role	Status	Discovered At	CPU Cores	Memory	Disk	(1)
node.sno.gw.lo *	Master (bootstrap)	Installed	5/16/2021, 8:57:12 AM	4	16.00 GiB	172.83 GB	:

## Cluster Details

### OpenShift version

4.8.0-fc.3

### UUID

cdb47d36-037c-4962-b2be-61a289b1f91b

### Base DNS domain

gw.lo

### Cluster network CIDR

10.128.0.0/14

### Cluster network host prefix

23

### Service network CIDR

172.30.0.0/16

[Abort Installation](#)

[Launch OpenShift Console](#)

[Back to all clusters](#)

[Download Installation Logs](#)

[View Cluster Events](#)

2



[Show All](#)

```
May 16 15:04:32 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Still waiting for cvo ...
May 16 15:05:02 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: The connection to the server localhost:6443 was refused - did you specify the right host or port?
May 16 15:05:02 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Still waiting for cvo ...
May 16 15:05:32 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: The connection to the server localhost:6443 was refused - did you specify the right host or port?
May 16 15:05:32 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Still waiting for cvo ...
May 16 15:06:02 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Still waiting for cvo ...
May 16 15:06:32 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Still waiting for cvo ...
May 16 15:07:03 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Still waiting for cvo ...
May 16 15:07:33 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Still waiting for cvo ...
May 16 15:08:04 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Still waiting for cvo ...
May 16 15:08:34 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Still waiting for cvo ...
May 16 15:09:05 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Still waiting for cvo ...
May 16 15:09:35 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Still waiting for cvo ...
May 16 15:10:05 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: The connection to the server localhost:6443 was refused - did you specify the right host or port?
May 16 15:10:05 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Still waiting for cvo ...
May 16 15:10:35 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: The connection to the server localhost:6443 was refused - did you specify the right host or port?
May 16 15:10:35 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Still waiting for cvo ...
May 16 15:11:06 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Still waiting for cvo ...
May 16 15:11:37 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Still waiting for cvo ...
May 16 15:12:07 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Still waiting for cvo ...
May 16 15:12:37 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Still waiting for cvo ...
May 16 15:13:07 node.sno.gw.lo bootstrap-in-place-post-reboot.sh[1889]: Removed /etc/systemd/system/multi-user.target.wants/bootkube.service.
May 16 15:13:08 node.sno.gw.lo systemd[1]: bootkube.service: Succeeded.
May 16 15:13:08 node.sno.gw.lo systemd[1]: Started Bootkube - bootstrap in place post reboot.
May 16 15:13:08 node.sno.gw.lo systemd[1]: bootkube.service: Consumed 7.689s CPU time
```

## Cluster Events

Hosts 1 ▾

Severity ▾

Filter by text ...



- 5/16/2021, 10:14:58 AM Successfully finished installing cluster sno
- 5/16/2021, 10:12:48 AM Cluster version status: available message: Done applying 4.8.0-fc.3
- 5/16/2021, 10:11:47 AM Cluster version status: progressing message: Working towards 4.8.0-fc.3: 32 of 676 done (4% complete)
- 5/16/2021, 10:09:49 AM Cluster version status: progressing message: Unable to apply 4.8.0-fc.3: some cluster operators have not yet rolled out
- 5/16/2021, 10:07:48 AM Cluster version status: progressing message: Working towards 4.8.0-fc.3: 654 of 676 done (96% complete)
- 5/16/2021, 10:06:47 AM Cluster version status: progressing message: Working towards 4.8.0-fc.3: 494 of 676 done (73% complete)
- 5/16/2021, 10:05:52 AM Cluster version status: progressing message: Working towards 4.8.0-fc.3: 592 of 676 done (87% complete)
- 5/16/2021, 10:03:48 AM Cluster version status: progressing message: Unable to apply 4.8.0-fc.3: an unknown error has occurred: MultipleErrors
- 5/16/2021, 10:02:18 AM Updated status of cluster sno to finalizing
- 5/16/2021, 10:02:18 AM Host node.sno.gw.lo: reached installation stage Done
- 5/16/2021, 10:02:18 AM Host node.sno.gw.lo: updated status from "installing-in-progress" to "installed" (Done)
- 5/16/2021, 9:49:52 AM Host node.sno.gw.lo: reached installation stage Rebooting
- 5/16/2021, 9:49:35 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 100%
- 5/16/2021, 9:49:34 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 96%
- 5/16/2021, 9:49:31 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 91%
- 5/16/2021, 9:49:29 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 85%
- 5/16/2021, 9:49:27 AM Host node.sno.gw.lo: reached installation stage Writing image to disk: 78%

Close

✓ Control Plane (1 master)

✓ Initialization

✓ 2 operators installed

#### Web Console URL

<https://console-openshift-console.apps.sno.gw.lo>

[ⓘ Not able to access the Web Console?](#)

#### Username

kubeadmin

#### Password

.....



[Download kubeconfig](#)

#### Host Inventory

Hostname	Role	Status	Discovered At	CPU Cores	Memory	Disk	(1)
node.sno.gw.lo *	Master (bootstrap)	✓ Installed	5/16/2021, 8:57:12 AM	4	16.00 GiB	172.83 GB	⋮

#### Cluster Details

##### OpenShift version

4.8.0-fc.3

##### UUID

cdb47d36-037c-4962-b2be-61a289b1f91b

##### Base DNS domain

gw.lo

##### Cluster network CIDR

10.128.0.0/14

##### Cluster network host prefix

23

##### Service network CIDR

172.30.0.0/16

[Launch OpenShift Console](#)

[Back to all clusters](#)

[Download Installation Logs](#)

[View Cluster Events](#)

2



← → C ⚠ Not Secure | console-openshift-console.apps.sno.gw.io/dashboards

Apps Bookmarks Scrumwise - Pricing NodeJs Vietnam Rover Apps Support Mojo IT Toolbox IT New Hire Hub Red Hat E-Busine... Presentation Reso... Red Hat External Instant Pot Zatarai... Wrecked Tesla Mo... New Age Music R...

Red Hat OpenShift Container Platform

kube:admin

Administrator

Home Overview Projects Search API Explorer Events Operators Workloads Networking Storage Builds Monitoring Compute User Management Administration

You are logged in as a temporary administrative user. Update the [cluster OAuth configuration](#) to allow others to log in.

## Overview

### Cluster

Details	View settings
<b>Cluster API address</b> https://api.sno.gw.io:6443	
<b>Cluster ID</b> 1b6fd720-0a24-4c59-9c9e-71afc9513d02	<a href="#">OpenShift Cluster Manager</a>
<b>Provider</b> None	
<b>OpenShift version</b> 4.8.0-fc.3	
<b>Update channel</b> stable-4.8	
<b>Control plane high availability</b> No (single master)	

Status	View alerts
<span>✓ Cluster</span>	
<span>✓ Control Plane</span> Single master	
<span>✓ Operators</span>	
<span>✓ Insights</span> 0 issues found	

Cluster utilization		1 hour
Resource	Usage	10:10 AM 10:12 AM 10:14 AM 10:16 AM
CPU	1.13	2 2.87 available of 4
Memory	9.29 GiB	10 GiB 6.35 GiB available of 15.65 GiB
Filesystem	13.73 GiB	20 GiB 145.8 GiB available of 159.5 GiB
Network transfer	239.7 KBps in 685.8 KBps out	2 MBps
Pod count	78	100 50

### Quick Starts

[Get started with Spring](#)  
[Monitor your sample application](#)  
[Get started with Quarkus using a Helm Chart](#)

[View all Quick Starts](#)

### Activity

Ongoing

There are no ongoing activities.

Recent events

- NS Received signal to terminate, ...
- NS Received signal to terminate, ...
- NS Server has stopped listening
- P Received signal to terminate, b...
- NS The minimal shutdown durati...
- NS All pending requests process...
- NS Server has stopped listening



Search

API Explorer

Events

Operators

Workloads

Networking

Storage

Builds

Monitoring

Compute

User Management

Administration

Cluster Settings

Namespaces

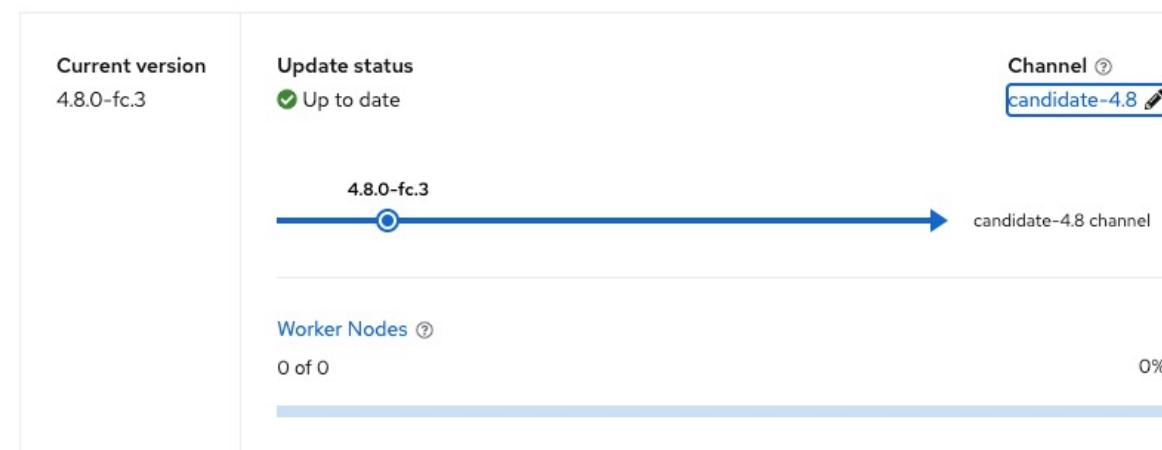
ResourceQuotas

LimitRanges

CustomResourceDefinitions

## Cluster Settings

You are logged in as a temporary administrative user. Update the cluster OAuth configuration to allow others to log in.

[Details](#)[ClusterOperators](#)[Global configuration](#)**Cluster ID**

1b6fd720-0a24-4c59-9c9e-71afc9513d02

**Desired release image**

quay.io/openshift-release-dev/ocp-release@sha256:6acafdf55e592842bf883b00a0fb1f59fdc323690b5c3ffd742a184b94f918429

**Cluster version configuration**

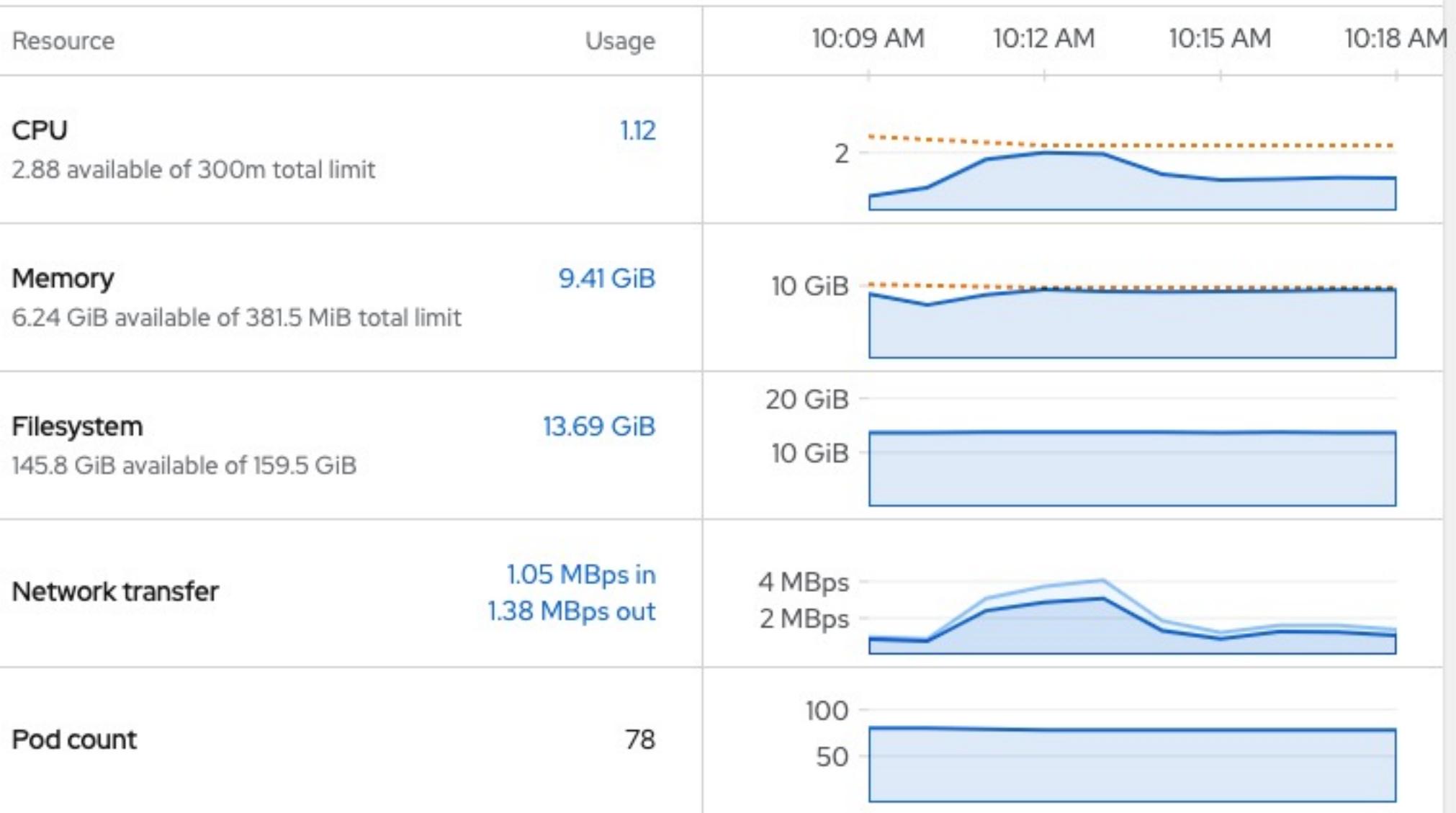
CV version

**Cluster autoscaler**

Create autoscaler

## Utilization

1 hour ▾



# *Timing*

- ❖ 6 minutes for writing imaging to disk
- ❖ 12 minutes in rebooting phase
- ❖ 33 minutes total for install

# *Issues*

- ❖ Boot order is important, install will fail otherwise
- ❖ DHCP may not set the host name, and install will fail. (Seen it once on creating slides)
- ❖ Ssh will fail if hostname is not set