PREFLIGHT CHECKLIST

New in version 0.60.

Thank you for trying Ceph! Petabyte-scale data clusters are quite an undertaking. Before delving deeper into Ceph, we recommend setting up a two-node demo cluster to explore some of the functionality. This **Preflight Checklist** will help you prepare an admin node and a server node for use with ceph-deploy.

Before you can deploy Ceph using ceph-deploy, you need to ensure that you have a few things set up first on your admin node and on nodes running Ceph daemons.

INSTALL AN OPERATING SYSTEM

Install a recent release of Debian or Ubuntu (e.g., 12.04, 12.10, 13.04) on your nodes. For additional details on operating systems or to use other operating systems other than Debian or Ubuntu, see OS Recommendations.

INSTALL AN SSH SERVER

The ceph-deploy utility requires ssh, so your server node(s) require an SSH server.

```
sudo apt-get install openssh-server
```

CREATE A USER

Create a user on nodes running Ceph daemons.

> **Tip:** We recommend a username that brute force attackers won't guess easily (e.g., something other than root, ceph, etc).

```
ssh user@ceph-server
sudo useradd -d /home/ceph -m ceph
sudo passwd ceph
```

ceph-deploy installs packages onto your nodes. This means that the user you create requires passwordless sudo privileges.

> **Note:** We **DO NOT** recommend enabling the root password for security reasons.

To provide full privileges to the user, add the following to /etc/sudoers.d/ceph.

```
echo "ceph ALL = (root) NOPASSWD:ALL" | sudo tee /etc/sudoers.d/ceph
sudo chmod 0440 /etc/sudoers.d/ceph
```

CONFIGURE SSH

Configure your admin machine with password-less SSH access to each node running Ceph daemons (leave the passphrase empty).

```
ssh-keygen
Generating public/private key pair.
Enter file in which to save the key (/ceph-client/.ssh/id_rsa):
Enter passphrase (empty for no passphrase):
```

```
Enter same passphrase again:
Your identification has been saved in /ceph-client/.ssh/id_rsa.
Your public key has been saved in /ceph-client/.ssh/id_rsa.pub.
```

Copy the key to each node running Ceph daemons:

```
ssh-copy-id ceph@ceph-server
```

Modify your ~/.ssh/config file of your admin node so that it defaults to logging in as the user you created when no username is specified.

```
Host ceph-server
        Hostname ceph-server.fqdn-or-ip-address.com
        User ceph
```

INSTALL CEPH-DEPLOY

To install ceph-deploy, execute the following:

```
wget -q -O- 'https://ceph.com/git/?p=ceph.git;a=blob_plain;f=keys/release.asc' | sudo apt-key
echo deb http://ceph.com/debian-cuttlefish/ $(lsb_release -sc) main | sudo tee /etc/apt/sourc
sudo apt-get update
sudo apt-get install ceph-deploy
```

ENSURE CONNECTIVITY

Ensure that your admin node has connectivity to the network and to your Server node (e.g., ensure iptables, ufw or other tools that may prevent connections, traffic forwarding, etc. to allow what you need).

Tip: The ceph-deploy tool is new and you may encounter some issues without effective error messages.

Once you have completed this pre-flight checklist, you are ready to begin using ceph-deploy.

Note: Some distributions (e.g., RHEL) require you to comment out Default requiretty in the /etc/sudoers file for ceph-deploy to work properly. If editing, /etc/sudoers, ensure that you use sudo visudo rather than a text editor.

HOSTNAME RESOLUTION

Ensure that your admin node can resolve the server node's hostname.

```
ping {server-node}
```

If you execute ceph-deploy against the localhost, ceph-deploy must be able to resolve its IP address. Consider adding the IP address to your /etc/hosts file such that it resolves to the hostname.

```
hostname
host -4 {hostname}
sudo vim /etc/hosts

{ip-address} {hostname}

ceph-deploy {command} {hostname}
```

Tip: The ceph-deploy tool will not resolve to localhost. Use the hostname.

SUMMARY

Once you have passwordless `ssh` connectivity, passwordless `sudo`, installed `ceph-deploy`, and you have ensured appropriate connectivity, proceed to the Storage Cluster Quick Start.

Tip: The `ceph-deploy` utility can install Ceph packages on remote machines from the admin node!