OnApp

Cloud

Installation Guide

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	document revisions

ⓘ PLEASE NOTE: The installation processes described in this document require servers to have a base installation of CentOS 5.X x64 with the standard repositories enabled.

If you have additional repositories enabled, please disable them before continuing.

Contents

1. Control Panel Installation

ⓘ PLEASE NOTE:

- *If mysql server is already installed, it <u>must not</u> have a password configured: this will be configured by our installer. Any password that is already configured will cause an installer error*
- *Installer output is redirected to ./onapp-cp-install.log*
- *All installer critical errors are in /var/log/messages*
- *Once the installation of the control panel is complete your default OnApp login will be* admin / changeme
- *The password can be updated in the Users and Groups section of the Control Panel UI*

1. **Update your server using YUM:**

   ```
   OnApp-CP#> yum -y update
   ```

   ⓘ If anything was updated, reboot the server.

2. **Download OnApp YUM repository file (for CentOS 5.x x86_64):**

   ```
   OnApp-CP#> wget http://rpm.repo.onapp.com/repo/centos/5/onapp-
   repo.noarch.rpm
   OnApp-CP#> rpm -ivh onapp-repo.noarch.rpm
   OnApp-CP#> yum clean all
   ```

3. **Install OnApp Control Panel installer package:**

   ```
   OnApp CP#> yum install onapp-cp-install
   ```

4. **Run Control Panel installer:**

   ```
   OnApp CP#> /onapp/onapp-cp-install/onapp-cp-install.sh
   ```

2. Hypervisor Installation

ⓘ Once the control panel server has been installed successfully, you can follow the process below to install each hypervisor and add it to the Control Panel server.

1. **First you need to add the hypervisor to your cloud using the OnApp Control Panel:**

   Settings --> Hypervisors --> Add New Hypervisor

   Make sure the hypervisor is visible in the Control Panel, and at this point showing as inactive.

2. **Make sure your OS is up to date:**

   ```
   bash#> yum -y update
   ```


3. **Download the OnApp repository:**

   ```
   bash#> wget  http://rpm.repo.onapp.com/repo/centos/5/onapp-repo.noarch.rpm
   bash#> rpm  -ivh  onapp-repo.noarch.rpm
   bash#> yum clean all
   ```


4. **Install OnApp from the above repository:**

   ```
   bash#> yum install onapp-hv-install
   ```

   For Xen hypervisors:
   ```
   bash#> /onapp/onapp-hv-install/onapp-hv-xen-install.sh
   ```

   For KVM hypervisors:
   ```
   bash#> /onapp/onapp-hv-install/onapp-hv-kvm-install.sh
   ```


5. **Configure the hypervisor for your cloud:**

   ⓘ Ignore any errors stating stats and vmon services aren't running. This is expected at this stage.

   ```
   bash#> /onapp/onapp-hv-install/onapp-hv-config.sh -h <CP_HOST_IP> -f
   <FILE_TRANSFER_SERVER_IP>
   ```

   <CP_HOST_IP> is the IP addresses of the Control Panel server.
   <FILE_TRANSFER_SERVER_IP> is the IP address of the server that will hold your backups and templates.

6. **Reboot the hypervisor to complete the installation:**

   ```
   bash#> shutdown -r now
   ```

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3. Data store installation

ⓘ PLEASE NOTE:

- *This process assumes you have already configured a hypervisor to see the ISCSI/ATAoE block device it is connecting to, and that the SAN disk will be shown when running a fdisk -l.*
- *All hypervisors need access to the same datastore. Ensure that you have the block device visible on all hypervisors.*
- *VERY IMPORTANT: only perform this procedure once per data store!*
- *ALSO IMPORTANT: take care when choosing the disk/partition you wish to use for storing VM data!*

1. **Add the new data store to OnApp via the WebUI:**

   Go to *http://xxx.xxx.xxx.xxx/settings/data_stores/new*

   Add a unique label and the disk size of the data store.

2. **Find the data store's unique identifier (this is needed to create your volume group in step# 4):**

   Go back to the data stores page and read the IDENTIFIER.

   http://xxx.xxx.xxx.xxx/settings/data_stores

3. **SSH into a hypervisor that is able to connect to this datastore. Create the physical volume:**

   ```
   bash#> pvcreate --metadatasize 50M /dev/xxx
   ```

   ⓘ Replace xxx with the real device.

4. **Create the volume group:**

   ```
   bash#> vgcreate onapp-IDENTIFIER /dev/xxx
   ```

   ⓘ Replace xxx with the real device and IDENTIFIER with the info from the datastore page in the UI.

5. **Test hypervisor/volume group visibility:**

   Now you have the new datastore formatted you should be able to see the volume group from all hypervisors. To test this, run *pvscan* and *vgscan* on all hypervisors. Make sure you can see all identifiers on all hypervisors.

4. Basic backup installation

ⓘ While a separate backup server is preferred, you can also use the Control Panel server to store backups and templates (make sure you have sufficient disk space). The process below works for both approaches.

1. **On the backup server, create the necessary directories on your preferred disk:**

```
bash#> mkdir -p /onapp/templates
bash#> mkdir /onapp/backups
bash#> mkdir /data
```

2. **Configure your Control Panel with the correct backup location:**

   Go to: *http://xxx.xxx.xxx.xxx/settings/edit*

   Check the 'Use SSH file transfer' box and enter the IP of your backup server.

3. **Download the OnApp recovery templates:**

```
cd /data
bash#> wget -c http://templates.repo.onapp.com/Linux/recovery-centos.iso
bash#> wget -c http://templates.repo.onapp.com/Linux/recovery-centos-xen.kernel
bash#> wget -c http://templates.repo.onapp.com/Linux/recovery-centos-xen.initrd
bash#> wget -c http://templates.repo.onapp.com/Linux/recovery-centos-kvm.kernel
bash#> wget -c http://templates.repo.onapp.com/Linux/recovery-centos-kvm.initrd
```

4. **Download the Base OnApp templates:**

   For Xen:
```
bash#> cd /onapp/templates
bash#> wget http://downloads.repo.onapp.com/add_base_xen_templates.sh
bash#> /bin/sh add_base_xen_templates.sh
```

   For KVM:
```
bash#> cd /onapp/templates
bash#> wget http://downloads.repo.onapp.com/add_base_kvm_templates.sh
bash#> /bin/sh add_base_kvm_templates.sh
```

5. Generate SSH keys

ⓘ OnApp requires SSH keys to access various elements of the cloud. The script provided will generate and transfer keys as necessary.

- *The script needs to run on your Control Panel server.*
- *The script will overwrite any keys that already exist, so if you have custom keys already installed you will need to add them again after running the script.*
- *The script will ask you for login details to various servers during the execution. Please follow the onscreen instructions.*

1. **SSH into your Control Panel server**

2. **Download and run the script:**

```
bash#> wget http://downloads.repo.onapp.com/install-all-keys.sh
bash#> /bin/sh install-all-keys.sh
```

ⓘ Do not specify passphrases - just leave them blank!

Appendix: document revisions

v0.1, 19th August 2011

- First release