v2.3.2 to v2.3.3 Upgrade Guide

This document explains the upgrade process for customers moving from the full version of OnApp Cloud v2.3.2, to v2.3.3.

There are different upgrade methods depending which backup scheme you use in your cloud.

PLEASE READ THE INTRODUCTION AND IMPORTANT NOTES CHAPTER BEFORE YOU BEGIN!

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1. Introduction & important notes

This guide explains how to upgrade from the full version of OnApp Cloud v2.3.2 to the new version 2.3.3. For other upgrade paths, please contact OnApp support.

There are different upgrade methods depending whether you use the new backup scheme introduced in v2.3.2, or the old backup scheme.

Please make sure you follow the correct instructions for your cloud!

1.1   What's new in v2.3.3?

OnApp Cloud v2.3.3 features a re-engineered backup system, which improves backup stability and performance for clouds using the new backup scheme introduced in v2.3.2.

V2.3.3 also rolls up a number of patches issued for v2.3.2. See the v2.3.3 changelog for more information.

1.2   Getting support for your upgrade

You can use the information in this document to perform your own upgrade to OnApp Cloud v2.3.3.

However, if you have a full (paid) OnApp Cloud license, you are entitled to free upgrade support from the OnApp Support team.

If you would prefer to have the Support team perform the upgrade for you, just raise a ticket in the normal way. Please be aware, however, that there may be a queue!

2. Upgrade instructions – old backup scheme

Use these upgrade instructions only if you're upgrading from v2.3.2 and you **are not** using the new backup scheme.

2.1   Controller server upgrade instructions

1. **Download the OnApp repository:**

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

2. **Upgrade the OnApp Control Panel installer package:**

    ```
    # yum update onapp-cp-install
    ```

3. **Custom Control Panel configuration:**

    ```
    # vi  /onapp/onapp-cp.conf
    ```

Edit the /onapp/onapp-cp.conf file to set Control Panel custom values, such as:

- OnApp to MySQL database connection data: connection timeout, pool, encoding, unix socket
- MySQL server configuration data (if MySQL is running on the same server as the CP): wait timeout, maximum number of connections
- The maximum number of requests queued to a listen socket (net.core.somaxconn value for sysctl.conf)
- The root of OnApp database backups directory (temporary directory on the CP box where MySQL backups are placed)

ⓘ Custom values must be set before the installer script runs.

4. **Run the OnApp Control Panel installer script:**

    # /onapp/onapp-cp-install/onapp-cp-install.sh

2.2   Hypervisor upgrade instructions

1. **Download the OnApp repository**

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

2. **Upgrade OnApp HV installer package:**

```
# yum update onapp-hv-install
```

3. **Edit custom Hypervisor configuration**

    Edit the /onapp/onapp-hv.conf file to set hypervisor custom values, such as:

    - NTP time sync server
    - Xen Dom0 memory configuration data
    - Number of loopback interfaces

    # vi /onapp/onapp-hv.conf

    ⓘ Custom values must be set before the installer script runs.

4. **Run the OnApp HV installer script, and keep on eye on the upgrade process:**

    Xen:
    ```
    # /onapp/onapp-hv-install/onapp-hv-xen-install.sh
    ```

    KVM:
    ```
    # /onapp/onapp-hv-install/onapp-hv-kvm-install.sh
    ```

3. Upgrade instructions – new backup scheme

Use these upgrade instructions only if you're upgrading from v2.3.2 and you **already use** the new backup scheme.

Firstly, we have altered the recommended network configuration in v2.3.3 (compared with v2.3.2): hypervisors are now connected to the provisioning network, and require 4 NICs. We recommend that you adopt the recommended config if you want to use the new backup scheme, although you can still use the new scheme without doing so.

Next, you should follow the upgrade process for your hypervisors, then backup servers, then your control panel.

Finally you should configure your UI to ensure that the backup scheme will perform in the optimal way, across the provisioning network (if available) or via the management or storage networks if not. This is explained later in this chapter.

3.1   Adopt the new network configuration (recommended, but optional)

The diagram below shows the optimal network configuration for OnApp Cloud 2.3.3. This differs from previous recommendations for v2.3.2 and for earlier versions. One of the main changes is that hypervisors are now connected to the provisioning network.

While it is possible to deploy OnApp Cloud on a different network set-up, we strongly recommend that you follow the recommended configuration below to ensure maximum stability, especially when using the new backup scheme. If you don't follow this config the new backup scheme will work across the management network (or storage network, depending on your setup) but this is not recommended for optimal performance.
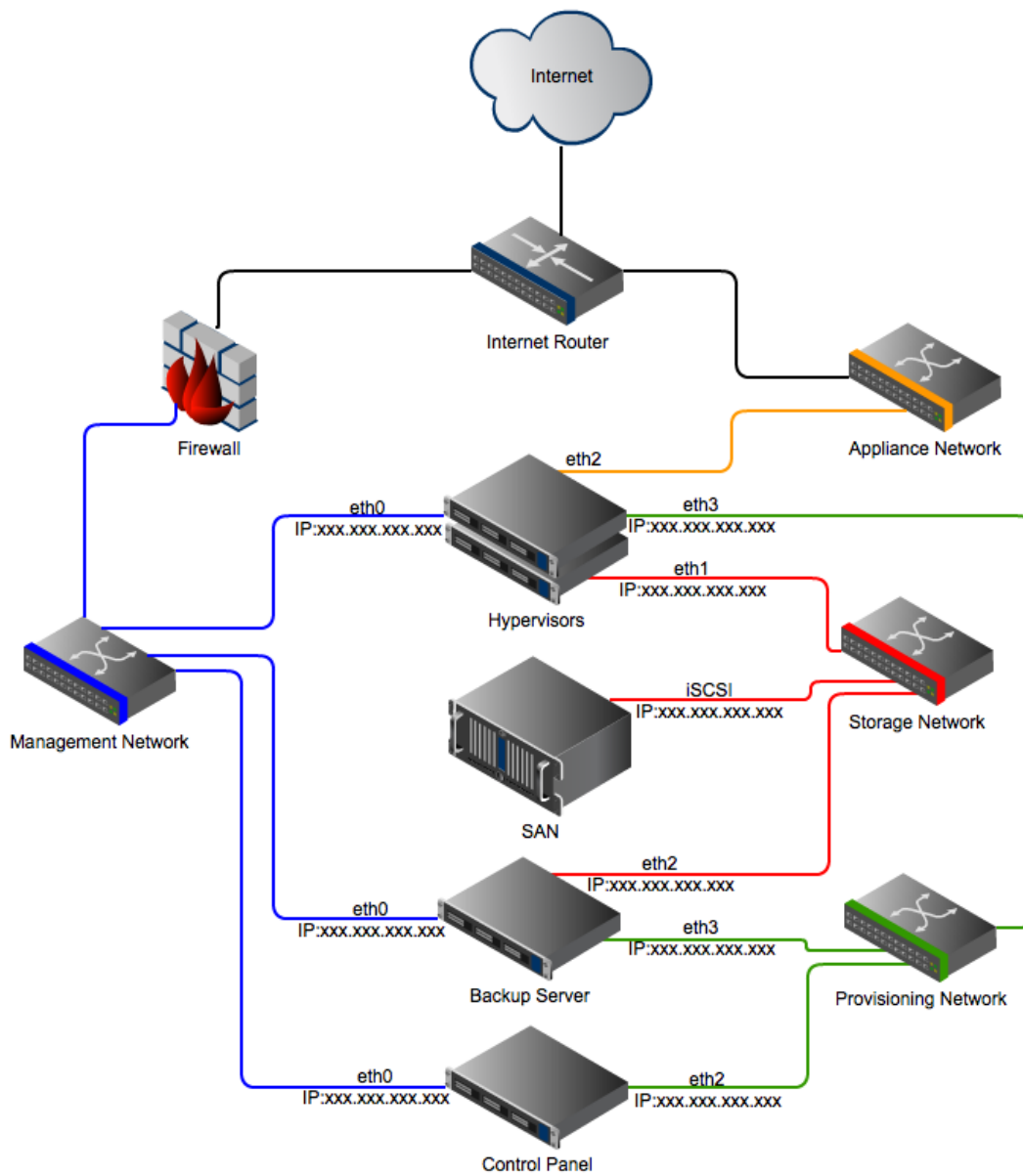
3.2   Upgrade hypervisors

1. **Download the OnApp repository**

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

2. **Upgrade OnApp HV installer package:**

    ```
    # yum update onapp-hv-install
    ```

3. **Edit custom Hypervisor configuration**

    Edit the /onapp/onapp-hv.conf file to set hypervisor custom values, such as:

    - NTP time sync server
    - Xen Dom0 memory configuration data
    - Number of loopback interfaces

    # vi /onapp/onapp-hv.conf

    ⓘ Custom values must be set before the installer script runs.

4. **Run the OnApp HV installer script, and keep on eye on the upgrade process:**

    Xen:
    ```
    # /onapp/onapp-hv-install/onapp-hv-xen-install.sh
    ```

    KVM:
    ```
    # /onapp/onapp-hv-install/onapp-hv-kvm-install.sh
    ```

3.3   Upgrade backup servers

1. **Install the OnApp backup server installer package:**

    ```
    bash# yum install onapp-bk-install
    ```

2. **Check and set backup server default settings**

Edit Backup Server default settings (such as templates and backups directories, and ntp server) by editing the /onapp/onapp-bk.conf file:

```
bash# vi /onapp/onapp-bk.conf
```

3. **Run the installer:**

```
bash# sh /onapp/onapp-bk-install/onapp-bk-install.sh
```

3.4   Upgrade controller server(s)

1. **Download the OnApp repository:**

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

2. **Upgrade the OnApp Control Panel installer package:**

```
# yum update onapp-cp-install
```

3. **Custom Control Panel configuration:**

```
# vi  /onapp/onapp-cp.conf
```

Edit the /onapp/onapp-cp.conf file to set Control Panel custom values, such as:

- OnApp to MySQL database connection data: connection timeout, pool, encoding, unix socket
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- The maximum number of requests queued to a listen socket (net.core.somaxconn value for sysctl.conf)
- The root of OnApp database backups directory (temporary directory on the CP box where MySQL backups are placed)

ⓘ Custom values must be set before the installer script runs.

4. **Run the OnApp Control Panel installer script:**

```
# /onapp/onapp-cp-install/onapp-cp-install.sh
```

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3.5　Configure your UI for the new backup scheme

To complete the upgrade you need to create an NDB connection between hypervisors and backup servers, via the control panel UI.

If you're using the new network set-up, you need to enter the the provisioning network IP address for your hypervisors, to the following screens in the control panel UI:

- Settings > Hypervisors > Edit hypervisors

- Settings > Backup servers > Edit backup servers

This will ensure that backups will use the provisioning network.

If you don't specify the provisioning network IP, backups will take place over the management network.

You can also specify the storage network IP in the UI, to send backup traffic over that network instead.

Appendix: document revisions

v1.1, 5th September 2012

- Updated upgrade process for customers using the new backup scheme

v1.0, 28th August 2012

- First release