

Upgrade Guide for Cloud with Static Servers

This guide explains how to upgrade OnApp Cloud v5.0 to the v5.1 for the cloud where all servers are static. Follow the procedure listed below in the correct order to upgrade your cloud. All packages (Control Panel and Compute resources) must belong to the same major version to ensure the best performance of your cloud.

See also:

[Installation Guide](#)

[Technical Details](#)

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Important Notes

1. You must be running the latest patch of OnApp 5.0 version to upgrade to 5.1 version. If you are using an earlier version, please [upgrade to 5.0](#) first.
2. Check the Activity Log in your OnApp CP dashboard if there are no transactions running in your cloud. If so, wait until all transactions are complete.
3. Make sure no Control Panel files are open for editing under the root user account.
4. If you are using a third-party billing platform, please ensure that this is compatible with OnApp 5.1 before proceeding with the upgrade! The latest WHMCS modules can be found [here](#).
5. If you are using WHMCS modules, make sure to update the PHP Wrapper after you update OnApp Cloud. [Download the latest wrapper](#).
6. Be aware that from now on, OnApp Licensing has a standalone client. Use only 443 port to connect from Control Panel to licensing server.
7. We strongly recommend that you test all your custom scripts before upgrading your production environment.
8. Be aware that OnApp does not support UEFI on static compute resources. You should disable UEFI on your compute resources before installing OnApp.

Upgrade Static Compute Resources

At first upgrade your static compute resources.

1. Make sure your compute resource is visible and online in the Control Panel.
2. This step applies to CentOS 5.x Xen compute resources only. Run the following command:

```
# rm -f /etc/yum.repos.d/GITCO-*.repo
```

3. Download and install the latest OnApp YUM repository file and install new packages:

```
# rpm -Uvh http://rpm.repo.onapp.com/repo/onapp-repo-5.1.noarch.rpm
```

Run one of the following commands depending on CentOS version:

For CentOS 5.x compute resources:

```
# yum install gdisk lsblk-wrapper
```

For CentOS 6.x compute resources:

```
# yum install gdisk util-linux-ng
```

Upgrade Static Backup Servers

After you upgraded static compute resources, proceed to static backup servers upgrade.

Download the OnApp repository:

```
bash#> rpm -Uvh http://rpm.repo.onapp.com/repo/onapp-repo-5.1.noarch.rpm
# yum install gdisk
```

Upgrade Control Panel Server

To upgrade your Control Panel server:

1. If you are using a remote RabbitMQ server, make sure the onapp user on the Control Panel has SSH access to that remote server:

```
su onapp
ssh root@<ip address>
```

2. Download and install the latest OnApp YUM repository file:

```
# rpm -Uvh http://rpm.repo.onapp.com/repo/onapp-repo-5.1.noarch.rpm
```

3. Upgrade OnApp Control Panel installer package:

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

4. Update your server OS components (if required):

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

5. *(Optional)* If you need some custom Control Panel configuration, set the values before the installer script runs.

Template server URL

```
TEMPLATE_SERVER_URL='http://templates-manager.onapp.com';
```

IPs (separated with coma) list for the snmp to trap

```
SNMP_TRAP_IPS=
```

OnApp Control Panel custom version

```
ONAPP_VERSION=""
```

OnApp MySQL/MariaDB connection data (database.yml)

```
ONAPP_CONN_WAIT_TIMEOUT=15
ONAPP_CONN_POOL=30
ONAPP_CONN_RECONNECT='true'
ONAPP_CONN_ENCODING='utf8'
ONAPP_CONN_SOCKET='/var/lib/mysql/mysql.sock'
```

MySQL/MariaDB server configuration data (in case of local server)

```
MYSQL_WAIT_TIMEOUT=604800
MYSQL_MAX_CONNECTIONS=500
MYSQL_PORT=3306
```

[Use MariaDB instead of MySQL as OnApp database server](#) (Deprecated parameter. If you set any values for this parameter, they will not take effect)

```
WITH_MARIADB=0
```

Configure the database server relative amount of available RAM

```
TUNE_DB_SERVER=1
```

The number of C data structures that can be allocated before triggering the garbage collector. It defaults to 8 million

```
RUBY_GC_MALLOC_LIMIT=16000000
```

sysctl.conf net.core.somaxconn value

```
NET_CORE_SOMAXCONN=2048
```

The root of OnApp database dump directory (on the Control Panel box)

```
ONAPP_DB_DUMP_ROOT=""
```

Remote server's (to store database dumps) IP, user, path, openssh connection options and number of dumps to keep

```
DB_DUMP_SERVER=""
DB_DUMP_USER="root"
DB_DUMP_SERVER_ROOT="/onapp/backups"
DB_DUMP_SERVER_SSH_OPT="-o StrictHostKeyChecking=no -o UserKnownHostsFile=/dev/null -o PasswordAuthentication=no"
KEEP_DUMPS=168
DB_DUMP_CRON='40 * * * *'
```

[Enable monit - tool for managing and monitoring Unix systems](#)

```
ENABLE_MONIT=1
```

If enabled (the 1 value is set) - install (if local box) and configures RabbitMQ Server (messaging system) for the vCloud support. (Deprecated parameter. If you set any values for this parameter, they will not take effect)

```
ENABLE_RABBITMQ=1
```

Rotate transactions' log files created more than TRANS_LOGS_ROTATE_TIME day(s) ago

```
TRANS_LOGS_ROTATE_TIME=30
```

Maximum allowed for uploading file size in bytes, from 0 (meaning unlimited) to [2147483647](#) (2GB). Default is 1GB

```
MAX_UPLOAD_SIZE=1073741824
```

```
# Timeout before ping Redis Server to check if it is started. Default is 5 sec.
```

```
REDIS_PING_TIMEOUT=5
```

```
# OnApp Control Panel SSL certificates (please do not change if you aren't familiar with SSL certificates)  
# * The data below to generate self-signed PEM-encoded X.509 certificate
```

```
SSL_CERT_COUNTRY_NAME=UK  
SSL_CERT_ORGANIZATION_NAME='OnApp Limited'  
SSL_CERT_ORGANIZATION_ALUNITNAME='OnApp Cloud'  
SSL_CERT_COMMON_NAME=`hostname --fqdn 2>/dev/null`
```

```
# SSLCertificateFile, SSLCertificateKeyFile Apache directives' values  
# ssl_certificate, ssl_certificate_key Nginx directives' values
```

```
SSLCERTIFICATEFILE=/etc/pki/tls/certs/ca.crt  
SSLCERTIFICATECSRFILE=/etc/pki/tls/private/ca.csr  
SSLCERTIFICATEKEYFILE=/etc/pki/tls/private/ca.key
```

```
# * PEM-encoded CA Certificate (if custom one exists)  
# SSLCACertificateFile, SSLCertificateChainFile Apache directives' values  
# ssl_client_certificate Nginx directives' values
```

```
SSLCACERTIFICATEFILE=  
SSLCERTIFICATECHAINFILE=
```

```
# SSLCipherSuite, SSLProtocol Apache directives' values  
# ssl_ciphers, ssl_protocols Nginx directives' values
```

```
SSLCIPHERSUITE=  
SSLPROTOCOL=
```

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



If the `onapp-cp.conf` file is not configured correctly, it will replace the SSL files with a self-signed even if a legitimate certificate is already installed.


6. Run Control Panel installer:

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

Usage:

```
/onapp/onapp-cp-install/onapp-cp-install.sh -hUsage: /onapp/onapp-cp-install/onapp-cp-install.sh [-c CONFIG_FILE] [--mariadb | --percona | --percona-cluster] [-m MYSQL_HOST] [--mysql-port=MYSQL_PORT] [--mysql-sock[=MYSQL_SOCKET]] [-p MYSQL_PASSWORD] [-d MYSQL_DB] [-u MYSQL_USER] [-U ADMIN_LOGIN] [-P ADMIN_PASSWORD] [-F ADMIN_FIRSTNAME] [-L ADMIN_LASTNAME] [-E ADMIN_EMAIL] [--ONAPP_VERSION] [-i SNMP_TRAP_IPS] [--redis-host=REDIS_HOST] [--redis-bind[=REDIS_BIND] [--redis-passwd[=REDIS_PASSWORD] [--redis-port=REDIS_PORT] [--redis-sock[=REDIS_SOCKET] [--rbthost RBT_HOST] [--vcdlogin VCD_LOGIN] [--vcdpasswd VCD_PASSWORD] [--vcdvhost VCD_VHOST] [--rbtlogin RBT_LOGIN] [--rbtpasswd RBT_PASSWORD] [-a] [-y] [-D] [-t] [--noservices] [--ha-install] [--rake=RAKE_TASKS] [-h]
```

Where:	
Database server options:	Default database SQL server is MySQL Server. Please use one of the following option to install LOCALLY .
--mariadb	MariaDB Server
--percona	Percona Server
--percona-cluster	Percona Cluster
MYSQL_*	Options are useful if MySQL is already installed and configured.
-m MYSQL_HOST	MySQL host. Default is 'localhost'
--mysql-port=MYSQL_PORT	TCP port where MySQL Server serves connections. Default values is 3306 for the local installation
--mysql-sock [=MYSQL_SOCKET]	Unix socket on which MySQL Server serves connections. Default values is /var/lib/mysql/mysql.sock. Used if local server only. The socket is unset if the option's argument isn't specified.
-p MYSQL_PASSWORD	MySQL password. Random is generated if is not set or specified.
-d MYSQL_DB	OnApp MySQL database name. Default is 'onapp'
-u MYSQL_USER	MySQL user. Default is 'root'
REDIS_*	Options are useful if Redis Server is already installed and configured.
--redis-host=REDIS_HOST	IP address/FQDN where Redis Server runs. The Redis Server will be installed and configured on the current box if localhost/127.0.0.1 or box's public IP address (listed in SNMP_TRAP_IPS) is specified. If local Redis, it will serve as well on the unix socket '/tmp/redis.sock'. Default value is 127.0.0.1.
--redis-bind [=REDIS_BIND]	The IP address for Redis Server to serve connections (to listen). The option is not mandatory.
--redis-port=REDIS_PORT	Redis Server listen port. Defaults are: 0 - if local server 6379 - if remote server

<code>--redis-passwd</code> <code>[=REDIS_PASSWD]</code>	Redis Server password to authenticate. Random password is generated if the option's argument isn't specified. By default no password is used for local Redis.
<code>--redis-sock</code> <code>[=REDIS_SOCKET]</code>	Path to the Redis Server's socket. Used if local server only. Default is <code>/tmp/redis.sock</code> . The socket is unset if the option's argument is not specified.
<code>ADMIN_*</code>	Options are used to configure OnApp Control Panel administrator data. Please note, that these options are for NEW INSTALL only and not for upgrade
<code>-P ADMIN_PASSWD</code>	CP administrator password
<code>-F ADMIN_FIRSTNAME</code>	CP administrator first name
<code>-L ADMIN_LASTNAME</code>	CP administrator last name
<code>-E ADMIN_EMAIL</code>	CP administrator e-mail
<code>--rbthost RBT_HOST</code>	IP address/FQDN where RabbitMQ Server runs. The RabbitMQ will be installed and configured on the current box if localhost/127.0.0.1 or box's public IP address (enlisted in <code>SNMP_TRAP_IPS</code>) Default values are 127.0.0.1.
<code>VCD_*</code>	Options are usefull if vCloud/RabbitMQ are already installed and configured.
<code>--vcdlogin VCD_LOGIN</code>	RabbitMQ/vCloud user. Default value is 'rbtvcd'.
<code>--vcdpasswd VCD_PASSWD</code>	RabbitMQ/vCloud user password. The random password is generated if isn't specified.
<code>--vcdvhost VCD_VHOST</code>	RabbitMQ/vCloud vhost. Default value is '/'
<code>RBT_*</code>	Options are used to configure RabbitMQ manager account. If local RabbitMQ server.
<code>--rbtlogin RBT_LOGIN</code>	RabbitMQ manager login. The default value is 'rbtmgr'.
<code>--rbtpasswd RBT_PASSWD</code>	RabbitMQ manager password. The random password is generated if isn't specified.
<code>--ha-install</code>	Proceed with Control Panel and High Availability components installation
<code>--rake RAKE_TASKS</code>	List of OnApp Control Panel rake tasks (separated with space) to run at the very end of install or upgrade.
<code>-v ONAPP_VERSION</code>	Install custom OnApp CP version
<code>-i SNMP_TRAP_IPS</code>	IP addresses separated with coma for snmp to trap <div style="border: 1px solid #ffc107; padding: 10px; margin: 10px 0;"> <p> The '-i' option has higher priority than 'on_app.yml'/onapp-cp.conf' files. In case of the Control Panel upgrade with the '-i' option the snmp address will be overwritten in the 'on_app.yml'/onapp-cp.conf' files.</p> <p>During the Control Panel upgrade without the '-i' option the 'on_app.yml' file has higher priority than the 'onapp-cp.conf' file. In this case the snmp address will be taken from the 'on_app.yml' file and the 'onapp-cp.conf' file will be overwritten.</p> </div>
<code>-c CONFIG_FILE</code>	Custom installer configuration file. Otherwise, preinstalled one is used.
<code>-y</code>	update OS packages (except of OnApp provided) on the box with 'yum update'.

-a	Do not be interactive. Process with automatic installation. Please note, this will continue OnApp Control Panel install/upgrade even if there is transaction currently running.
-t	Add to the database and download Base Templates. For new installs only. If this option is not used, then only the following mandatory System Templates will be added by default during fresh install: OnApp CDN Appliance; Load Balancer Virtual Appliance; Application Server Appliance.
--noservices	Do not start OnApp services: monit, onapp and httpd Please note, crond and all OnApp's cron tasks remain running. They could be disabled by stopping crond service manually for your own risk.
-D	do not make database dump, and make sure it is disabled in the cron and not running at the moment
-h	print this info

You may wish to reboot your Control Panel server to take advantage of a new kernel if it is installed. It is not required immediately as a part of the upgrade process though.

Perform the following steps if you plan to deploy Accelerator. Otherwise skip.

7. If you plan to configure an Accelerator, run the following command:

- For all compute resources:

```
rake hypervisor:messaging:configure
```

- For certain compute resources only:

```
rake hypervisor:messaging:configure['11.0.50.111 11.0.50.112']
```

To perform the configuration for a number of compute resources, separate their IPs with a space.



The command above runs on compute resources that are online. If some compute resources are offline, you should run the command again when they are online.

The *rabbitmq_host* parameter in the *on_app.yml* file should contain the real IP address of the server with RabbitMQ installed. The *rabbitmq_host* parameter should not be set to 'localhost' or '127.0.0.1'.

The server with RabbitMQ installed should be available from the compute resources.



For information on manual configuration for Accelerator, refer to [RabbitMQ Configuration for Accelerator](#).



If you face the problem with viewing the maps on VS/Smart/Application server creation wizard (Locations step), refer to the [Add Google Map API Key](#) document.

Getting support for your upgrade

You can use the information in this document to perform your own upgrade to the 5.1 version of the OnApp Cloud. However, if you have a full 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! For help with your upgrade, visit the OnApp community forum: <http://forum.onapp.com>.