

Ahsay Replication Server v5.5

Installation and Upgrade Guide

Version 5.5
Aug 2008

Ahsay Replication Server v5.5

Installation and Upgrade Guide

Copyright Notice

© Ahsay Systems Corporation Limited 2008. All rights reserved.

Author: Scherring Chong

The use and copying of this product is subject to a license agreement. Any other use is prohibited. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system or translated into any language in any form by any means without the prior written consent of Ahsay Systems Corporation Limited. Information in this manual is subject to change without notice and does not represent a commitment on the part of the vendor. Ahsay Systems Corporation Limited does not warrant that this document is error free. If you find any errors in this document, please report to Ahsay Systems Corporation Limited in writing.

This product includes software developed by the Apache Software Foundation (<http://www.apache.org/>).

Trademarks

Microsoft, Windows, Microsoft Exchange Server and Microsoft SQL Server are registered trademarks of Microsoft Corporation.

Sun, Solaris, SPARC, Java and Java Runtime Environment are registered trademarks of Sun Microsystems Inc.

Oracle, Oracle 8i, Oracle 9i are registered trademarks of Oracle Corporation.

Lotus, Domino, Notes are registered trademark of IBM Corporation.

Red Hat is registered trademark of Red Hat, Inc.

Linux is registered trademark of Linus Torvalds.

Apple and Mac OS X are registered trademarks of Apple Computer, Inc.

All other product names are registered trademarks of their respective owners.

Disclaimer

Ahsay Systems Corporation Limited will not have or accept any liability, obligation or responsibility whatsoever for any loss, destruction or damage (including without limitation consequential loss, destruction or damage) however arising from or in respect of any use or misuse of or reliance on this document. By reading and following the instructions in this document, you agree to accept unconditionally the terms of this Disclaimer and as they may be revised and/or amended from time to time by Ahsay Systems Corporation Limited without prior notice to you.

Table of Content

1	System Requirements.....	4
2	Installation Guide.....	5
2.1	Windows Platform.....	5
2.2	Linux/Unix Platform.....	7
2.3	Mac OS X Platform.....	9
3	Upgrade Guide.....	11
3.1	Windows Platform.....	11
3.2	Linux/Unix Platform.....	13
3.3	Mac OS X Platform.....	15
4	Further Information.....	17

1 System Requirements

Server-side applications		
	Supported Platforms	Hardware Requirements
AhsayOBS 	<ul style="list-style-type: none"> Windows 2000 / 2003 (server recommended) Linux kernel 2.4 or above Solaris 2.x or above AIX HP-UX FreeBSD Mac OS X 10.3 or above All other operating systems that supports Java2 Runtime Environment 1.4.2 or above 	<ul style="list-style-type: none"> Memory: <ul style="list-style-type: none"> 512MB (minimum) 1GB (recommended) Disk Space: <ul style="list-style-type: none"> 300MB Network Protocol: <ul style="list-style-type: none"> TCP/IP (http/https)
AhsayRPS 	<ul style="list-style-type: none"> Windows 2000 / 2003 (server recommended) Linux kernel 2.4 or above Solaris 2.x or above AIX HP-UX FreeBSD Mac OS X 10.3 or above All other operating systems that supports Java2 Runtime Environment 1.4.2 or above 	<ul style="list-style-type: none"> Memory: <ul style="list-style-type: none"> 128MB (minimum) 512MB (recommended) Disk Space: <ul style="list-style-type: none"> 100MB Network Protocol: <ul style="list-style-type: none"> TCP/IP (http/https)

* The use of Windows 2000 WorkStation and XP Professional is only recommended for backup system with less than 20 users. For 20 or more users, please use Windows 2000 or 2003 Server instead.

2 Installation Guide

2.1 Windows Platform

■ Download

Please download the corresponding setup files from our website.

■ Install

1. Logon as [administrator] to Windows NT / 2000 / XP / 2003
2. Run *rps-win.exe* downloaded
3. Follow the instructions on the installation wizard to complete installation
4. Upon completion, Ahsay Replication Server should now be started automatically.

■ Get Started

1. Point your browser to <http://localhost:9080/>
2. Click the [System Administration Logon] link and logon to the replication server. The default username and password is "system" and "system" respectively.
3. Once logged on, click the [Manage Receiver] link.
A receiver is replication account of Ahsay Replication Server that defines whether an Ahsay Offsite Backup Server can send data to an Ahsay Replication Server.
4. Under the the [Manage Receiver] menu, click the [Add] link.
5. Fill in the form and press the [Add] button
You can create a replication account on the replication server for an AhsayOBS by filling this form. Please refer to the [Key] section for an explanation of each field.
6. You should now be redirected automatically to the [Manage Receiver] → [Profile] page
7. You can click the [Advanced Options] link to modify all other settings.
8. To start receiving replication traffic, please check the [Enable Replication] checkbox and press the [Update] button
9. Logon to AhsayOBS as system and click the [Manage System] → [Replication Config] link
10. Enter the [Username] and [Password] you have just setup on your replication server here. Enter the hostname and the TCP port of the replication server in the [Target Host] and [Port] field. Check the [Enable Replication] checkbox and press the [Update] button.
11. If you have changed the [Use SSL] and [Compression] settings in the [Advanced Options] page of AhsayRPS from their default values, you need to match both changes you have made here on AhsayOBS.
12. Replication is now setup successfully. Data backup on AhsayOBS will be replicated automatically to AhsayRPS.

AhsayOBS-AhsayRPS pair configuration example

Assume AhsayRPS is running with the following configuration:

Host: rps.your-company.com
HTTP port for web traffic: 9080

HTTPS port for web traffic: 9443
Port for replication traffic: 9444

You should then setup [AhsayRPS] → [Manage Receiver] page with the following values:

Enable Replication = **Checked**
 Login Name = **AhsayOBS** (matches with that of the AhsayOBS)
 Password = **AhsayOBS** (matches with that of the AhsayOBS)
 Alias = **Receiver for AhsayOBS**
 Home Directory = **D:\ReplicatedData** (specific for the particular AhsayOBS)
 Listen Host = **0.0.0.0**
 Listen Port = **9444**
 Use SSL = **Yes**
 Use Compression = **Yes**

And you should setup [AhsayOBS] → [Manage System] → [Replication Config] page with the following values:

Enable Replication = **Checked**
 Username = **AhsayOBS** (matches with that of the AhsayRPS)
 Password = **AhsayOBS** (matches with that of the AhsayRPS)
 Target Host = **rps.your-company.com**
 Port = **9444**
 Use SSL = **Yes**
 Use Compression = **Yes**

■ Startup/Shutdown Instructions

1. Select [Ahsay Replication Server] service from:

For Windows NT

[Control Panel] → [Services]

Windows XP

[Control Panel]
 → [Performance and Maintenance]
 → [Administrative Tools]
 → [Services]

Windows 2000/2003

[Control Panel]
 → [Administrative Tools]
 → [Services]

2. To startup Ahsay Replication Server, press the **[Start]** button
3. To shutdown Ahsay Replication Server, press the **[Stop]** button

2.2 Linux/Unix Platform

■ Download

Please download the corresponding setup files from our website.

■ Install

1. Logon as [root] to Linux/Unix
2. Define the directory you would like to install the software by setting the RPS_HOME environment variable (RPS stands for Replication Server). For example, to install Ahsay Replication Server to '/usr/local/rps', just do the followings:

```
export RPS_HOME=/usr/local/rps
```

3. If you are using a Linux kernel which contains an unstable implementation of NPTL POSIX threading library (e.g. from RedHat 9.0 to RedHat Fedore Core 2), please set the LD_ASSUME_KERNEL environment variable to 2.4 to revert to the LinuxThread library.

```
[root]# export LD_ASSUME_KERNEL=2.4
```

4. Copy the installation file, rps-linux.tar.gz, to \$ RPS_HOME and untar it.

```
[root]# mkdir $RPS_HOME
[root]# cp rps-linux.tar.gz $RPS_HOME
[root]# cd $RPS_HOME
[root]# tar xvfz rps-linux.tar.gz
```

5. To Install RPS

```
[root]# sh $RPS_HOME/bin/install.sh
```

6. Installation completed – RPS will be started after installation

Point your browser to <http://localhost:9080/>. You should see the AhsayRPS Web Administration Console

■ Get Started

1. Point your browser to <http://localhost:9080/>
2. Click the [System Administration Logon] link and logon to the replication server. The default username and password is "system" and "system" respectively.
3. Once logged on, click the [Manage Receiver] link.
A receiver is replication account of Ahsay Replication Server that defines whether an Ahsay Offsite Backup Server can send data to an Ahsay Replication Server.
4. Under the the [Manage Receiver] menu, click the [Add] link.
5. Fill in the form and press the [Add] button
You can create a replication account on the replication server for an AhsayOBS by filling this form. Please refer to the [Key] section for an explanation of each field.
6. You should now be redirected automatically to the [Manage Receiver] → [Profile] page
7. You can click the [Advanced Options] link to modify all other settings.
8. To start receiving replication traffic, please check the [Enable Replication] checkbox and press the [Update] button
9. Logon to AhsayOBS as system and click the [Manage System] → [Replication Config] link

10. Enter the [Username] and [Password] you have just setup on your replication server here. Enter the hostname and the TCP port of the replication server in the [Target Host] and [Port] field. Check the [Enable Replication] checkbox and press the [Update] button.
11. If you have changed the [Use SSL] and [Compression] settings in the [Advanced Options] page of AhsayRPS from their default values, you need to match both changes you have made here on AhsayOBS.
12. Replication is now setup successfully. Data backup on AhsayOBS will be replicated automatically to AhsayRPS

AhsayOBS-AhsayRPS pair configuration example

Assume AhsayRPS is running with the following configuration:

Host: [rps.your-company.com](#)
 HTTP port for web traffic: [9080](#)
 HTTPS port for web traffic: [9443](#)
 Port for replication traffic: [9444](#)

You should then setup [AhsayRPS] → [Manage Receiver] page with the following values:

Enable Replication = [Checked](#)
 Login Name = [AhsayOBS](#) (matches with that of the AhsayOBS)
 Password = [AhsayOBS](#) (matches with that of the AhsayOBS)
 Alias = [Receiver for AhsayOBS](#)
 Home Directory = [/ReplicatedData](#) (specific for the particular AhsayOBS)
 Listen Host = [0.0.0.0](#)
 Listen Port = [9444](#)
 Use SSL = [Yes](#)
 Use Compression = [Yes](#)

And you should setup [AhsayOBS] → [Manage System] → [Replication Config] page with the following values:

Enable Replication = [Checked](#)
 Username = [AhsayOBS](#) (matches with that of the AhsayRPS)
 Password = [AhsayOBS](#) (matches with that of the AhsayRPS)
 Target Host = [rps.your-company.com](#)
 Port = [9444](#)
 Use SSL = [Yes](#)
 Use Compression = [Yes](#)

■ Startup/Shutdown Instructions

1. To startup AhsayRPS , please run

```
[root]# sh $RPS_HOME/bin/startup.sh
```

2. To shutdown AhsayRPS, please run

```
[root]# sh $RPS_HOME/bin/shutdown.sh
```

Once you have completed the steps above, the Ahsay Replication Server should start automatically upon machine restart.

2.3 Mac OS X Platform

■ Download

Please download the corresponding setup files from our website.

■ Install

1. Logon as a Mac user with [administrative privileges] to [Mac OS X]
2. Make sure Apple Mac OS X Java 1.4.1 or above is installed already.
3. Download *rps-mac.zip* from our website.
4. Expand the archive and run the [AhsayRPS] application
5. Enter the [root] username and password
6. Follow the instructions on the installation wizard to complete installation
7. Startup Ahsay Replication Server by running, please do the following by using [Applications] → [Utility] → [Terminal]

```
[localhost:~] user1% su -
Password:
[localhost:~] root# SystemStarter start AhsayRPS
```

■ Get Started

1. Point your browser to <http://localhost:9080/>
2. Click the [System Administration Logon] link and logon to the replication server. The default username and password is "system" and "system" respectively.
3. Once logged on, click the [Manage Receiver] link.
A receiver is replication account of Ahsay Replication Server that defines whether an Ahsay Offsite Backup Server can send data to an Ahsay Replication Server.
4. Under the the [Manage Receiver] menu, click the [Add] link.
5. Fill in the form and press the [Add] button
You can create a replication account on the replication server for an AhsayOBS by filling this form. Please refer to the [Key] section for an explanation of each field.
6. You should now be redirected automatically to the [Manage Receiver] → [Profile] page
7. You can click the [Advanced Options] link to modify all other settings.
8. To start receiving replication traffic, please check the [Enable Replication] checkbox and press the [Update] button
9. Logon to AhsayOBS as system and click the [Manage System] → [Replication Config] link
10. Enter the [Username] and [Password] you have just setup on your replication server here. Enter the hostname and the TCP port of the replication server in the [Target Host] and [Port] field. Check the [Enable Replication] checkbox and press the [Update] button.
11. If you have changed the [Use SSL] and [Compression] settings in the [Advanced Options] page of AhsayRPS from their default values, you need to match both changes you have made here on AhsayOBS.
12. Replication is now setup successfully. Data backup on AhsayOBS will be replicated automatically to AhsayRPS.

AhsayOBS-AhsayRPS pair configuration example

Assume AhsayRPS is running with the following configuration:

Host: [rps.your-company.com](#)
 HTTP port for web traffic: [9080](#)
 HTTPS port for web traffic: [9443](#)
 Port for replication traffic: [9444](#)

You should then setup [AhsayRPS] → [Manage Receiver] page with the following values:

Enable Replication = [Checked](#)
 Login Name = [AhsayOBS](#) (matches with that of the AhsayOBS)
 Password = [AhsayOBS](#) (matches with that of the AhsayOBS)
 Alias = [Receiver for AhsayOBS](#)
 Home Directory = [D:\ReplicatedData](#) (specific for the particular AhsayOBS)
 Listen Host = [0.0.0.0](#)
 Listen Port = [9444](#)
 Use SSL = [Yes](#)
 Use Compression = [Yes](#)

And you should setup [AhsayOBS] → [Manage System] → [Replication Config] page with the following values:

Enable Replication = [Checked](#)
 Username = [AhsayOBS](#) (matches with that of the AhsayRPS)
 Password = [AhsayOBS](#) (matches with that of the AhsayRPS)
 Target Host = [rps.your-company.com](#)
 Port = [9444](#)
 Use SSL = [Yes](#)
 Use Compression = [Yes](#)

■ Startup/Shutdown Instructions

1. To startup Ahsay Replication Server, please do the following by using [Applications] → [Utility] → [Terminal]


```
[localhost:~] user1% su -
Password:
[localhost:~] root# SystemStarter start AhsayRPS
```
2. To shutdown Ahsay Replication Server, please do the following by using [Applications] → [Utility] → [Terminal]


```
[localhost:~] user1% su -
Password:
[localhost:~] root# SystemStarter stop AhsayRPS
```

3 Upgrade Guide

3.1 Windows Platform

■ Download

Please download the corresponding setup files from our website.

■ Startup/Shutdown Instructions

1. Select [Ahsay Replication Server] service from:

For Windows NT

[Control Panel] → [Services]

Windows XP

[Control Panel]

→ [Performance and Maintenance]

→ [Administrative Tools]

→ [Services]

Windows 2000/2003

[Control Panel]

→ [Administrative Tools]

→ [Services]

2. To startup Ahsay Replication Server, press the [Start] button
3. To shutdown Ahsay Replication Server, press the [Stop] button

■ Upgrade Instructions

1. Logon as [administrator] to Windows
2. Download *rps-win.zip* from the upgrade links on our website
3. Shutdown [Ahsay Replication Server] service from [Services] (see above)
4. (Optional but recommended) Make a backup of the directories containing all replicated data.
5. Rename "C:\Program Files\Ahsay Replication Server" to "C:\Program Files\Ahsay Replication Server.bak"

6. Make a new "C:\Program Files\Ahsay Replication Server" directory

7. Expand *rps-win.zip* to "C:\Program Files\Ahsay Replication Server" (make sure the directory structure looks like this)

```
+ C:\Program Files\Ahsay Replication Server
| C:\Program Files\Ahsay Replication Server\bin
| C:\Program Files\Ahsay Replication Server\conf
| C:\Program Files\Ahsay Replication Server\license
| C:\Program Files\Ahsay Replication Server\tomcat
- C:\Program Files\Ahsay Replication Server\java
```

8. Copy the following files over from old installation to upgrade installation.

- i. [OLD_CONFIG] \ ars.xml → [NEW_CONFIG] \ ars.xml
- ii. [OLD_CONFIG] \ lfsConfig.xml → [NEW_CONFIG] \ lfsConfig.xml
- iii. [OLD_CONFIG] \ rpsRecv.xml → [NEW_CONFIG] \ rpsRecv.xml

where

[OLD_DIR] = C:\Program Files \ Ahsay Replication Server.bak

[OLD_CONFIG] = [OLD_DIR] \ conf \ localhost \ config

[NEW_DIR] = C:\Program Files \ Ahsay Replication Server
[NEW_CONFIG] = [NEW_DIR] \ conf

9. Move the [System Home] and the application log directory to the new location (If your system home directory was not under [OLD_DIR] before this upgrade, you can skip this step)
 - i. (Upgrading from v4.5.x) [OLD_DIR] \ host \ default \ data \ system → [NEW_DIR] \ system
 - ii. (Upgrading from v4.5.x) [OLD_DIR] \ host \ default \ data \ log → [NEW_DIR] \ log
 - iii. (Upgrading from v5.0.x) [OLD_DIR] \ system → [NEW_DIR] \ system
 - iv. (Upgrading from v5.0.x) [OLD_DIR] \ log → [NEW_DIR] \ log
10. Open [NEW_CONFIG] \ ars.xml and update the "system-home" attribute to point to the new [System Home] directory. (For example, change the `system-home="C:\Program Files\Ahsay Replication Server\host\default\data\system"` entry to `system-home="C:\Program Files\Ahsay Replication Server\system"` entry.)
11. (if upgrading from v4.5.x) Please run [NEW_DIR] \ bin \ remove-service.bat and then [NEW_DIR] \ bin \ install-service.bat to reinstall the [Ahsay Replication Server] service.
12. (if upgrading from v4.5.x) The listening ports of AhsayRPS for HTTP and HTTPS of the web interface have now been changed to port 9080 and 9443 respectively. If you want to change these ports back to port 80 and 443, please open [NEW_CONFIG] \ server.xml and change the port attributes for both HTTP and HTTPS connectors to port="80" and port="443" respectively.
13. Startup [Ahsay Replication Server] service from [Services] (see above)
14. Upgrade completed.

3.2 Linux/Unix Platform

■ Download

Please download the corresponding setup files from our website.

■ Startup/Shutdown Instructions

1. To startup Replication Server, please run
`sh $RPS_HOME/bin/startup.sh`
2. To shutdown Ahsay Offsite Backup Server, please run
`sh $RPS_HOME/bin/shutdown.sh`

■ Upgrade Instructions

1. (if upgrading from v4.5.x) There are two major changes between v4.5.x and the current release. The \$ARS_HOME environment variable has been renamed to \$RPS_HOME and the default installation directory is now /usr/local/rps instead of /usr/local/ars. If you are upgrading from v4.5.x releases, please treat all references to the new parameters as the old equivalent.
2. Logon as [root] to Linux/Unix
3. Download *rps-linux.zip* from the upgrade link on our website
4. Shutdown the replication service (see above)
5. (Optional but recommended) Make a backup of the directories containing all replicated data.
6. Rename \$RPS_HOME to \$RPS_HOME.bak (The default location for \$RPS_HOME is /usr/local/rps. In this case, just rename /usr/local/rps → /usr/local/rps.bak)
7. Make a new \$RPS_HOME directory (i.e. /usr/local/rps)
8. Expand *rps-linux.zip* to \$RPS_HOME (make sure the directory structure looks like this)


```
+ /usr/local/rps
| /usr/local/rps/bin
| /usr/local/rps/conf
| /usr/local/rps/license
| /usr/local/rps/tomcat
- /usr/local/rps/java
```
9. Copy the following files over from old installation to upgrade installation.
 - i. [OLD_CONFIG] / obs.xml → [NEW_CONFIG] / obs.xml
 - ii. [OLD_CONFIG] / lfsConfig.xml → [NEW_CONFIG] / lfsConfig.xml
 - iii. [OLD_CONFIG] / rpsRecv.xml → [NEW_CONFIG] / rpsRecv.xml

where

```
[OLD_DIR] = /usr/local/rps.bak
[OLD_CONFIG] = [OLD_DIR] / host / default / conf
```

```
[NEW_DIR] = /usr/local/rps
[NEW_CONFIG] = [NEW_DIR] / conf
```

10. Move the [System Home] and the application log directory to the new location (If your system home directory was not under [OLD_DIR] before this upgrade, you can skip this step)
 - i. (Upgrading from v4.5.x) [OLD_DIR] / host / default / data / system → [NEW_DIR] / system
 - ii. (Upgrading from v4.5.x) [OLD_DIR] / host / default / data / log → [NEW_DIR] / log
 - iii. (Upgrading from v5.0.x) [OLD_DIR] / system → [NEW_DIR] / system
 - iv. (Upgrading from v5.0.x) [OLD_DIR] / log → [NEW_DIR] / log

11. Open [NEW_CONFIG] \ ars.xml and update the "system-home" attribute to point to the new [System Home] directory. (For example, change the `system-home="/usr/local/rps/host/default/data/system"` entry to `system-home="/usr/local/rps/system"` entry.)
12. (if upgrading from v4.5.x) The listening ports of AhsayRPS for HTTP and HTTPS of the web interface have now been changed to port 9080 and 9443 respectively. If you want to change these ports back to port 80 and 443, please open [NEW_CONFIG] / server.xml and change the port attributes for both HTTP and HTTPS connectors to `port="80"` and `port="443"` respectively.
13. Startup the replication service (see above)
14. Upgrade completed.

3.3 Mac OS X Platform

■ **Download**

Please download the corresponding setup files from our website.

■ **Startup/Shutdown Instructions**

1. To startup Ahsay Replication Server, please do the following by using [Applications] → [Utility] → [Terminal]

```
[localhost:~] user1% su -
Password:
[localhost:~] root# SystemStarter start AhsayRPS
```

2. To shutdown Ahsay Replication Server, please do the following by using [Applications] → [Utility] → [Terminal]

```
[localhost:~] user1% su -
Password:
[localhost:~] root# SystemStarter stop AhsayRPS
```

■ **Upgrade Instructions**

1. Logon as a Mac user with [administrative privileges] to [Mac OS X]
2. Make sure Apple Mac OS X Java 1.4.1 or above is installed already.
3. Shutdown the replication service (see above)
4. (Optional but recommended) Make a backup of the directories containing all replicated data.
5. Rename /Applications/AhsayRPS to /Applications/AhsayRPS.bak
6. Download *rps-mac.zip* from the upgrade link on our website
7. Expand the archive and run the [AhsayRPS] application
8. Enter the [root] username and password
9. Follow the instructions on the installation wizard to complete installation
10. Copy the following files over from old installation to upgrade installation.
 - i. [OLD_CONFIG] / obs.xml → [NEW_CONFIG] / obs.xml
 - ii. [OLD_CONFIG] / lfsConfig.xml → [NEW_CONFIG] / lfsConfig.xml
 - iii. [OLD_CONFIG] / rpsRecv.xml → [NEW_CONFIG] / rpsRecv.xml

where

```
[OLD_DIR] = /Applications/AhsayRPS.bak
[OLD_CONFIG] = [OLD_DIR] / host / default / conf
```

```
[NEW_DIR] = /Applications/AhsayRPS
[NEW_CONFIG] = [NEW_DIR] / conf
```

11. Move the [System Home] and the application log directory to the new location (If your system home directory was not under [OLD_DIR] before this upgrade, you can skip this step)
 - i. (Upgrading from v4.5.x) [OLD_DIR] / host / default / data / system → [NEW_DIR] / system
 - ii. (Upgrading from v4.5.x) [OLD_DIR] / host / default / data / log → [NEW_DIR] / log
 - iii. (Upgrading from v5.0.x) [OLD_DIR] / system → [NEW_DIR] / system
 - iv. (Upgrading from v5.0.x) [OLD_DIR] / log → [NEW_DIR] / log
12. Open [NEW_CONFIG] \ ars.xml and update the "system-home" attribute to point to the new [System Home] directory. (For example, change the `system-home="/Applications/AhsayRPS/host/default/data/system"` entry to `system-`

[home="/Applications/AhsayRPS/system"](#) entry.)

13. (if upgrading from v4.5.x) The listening ports of AhsayRPS for HTTP and HTTPS of the web interface have now been changed to port 9080 and 9443 respectively. If you want to change these ports back to port 80 and 443, please open [NEW_CONFIG] / server.xml and change the port attributes for both HTTP and HTTPS connectors to port="80" and port="443" respectively.
14. Start the replication service (see above)
15. Upgrade completed.

4 Further Information

Please contact support-kb@ahsay.com if you need further assistance.