

# AVALANCHE UPGRADE PROCESS

If you already have Avalanche servers installed, then you will want to perform an upgrade to preserve existing data.

The installer for Avalanche 6.0 migrates the profiles, users, and navigation tree; removes any Avalanche services that are installed locally; and installs the new version.

During migration, most of the data in the Enterprise Server database is copied to the 6.0 databases and then modified. If you install Avalanche 6.0 on a different computer than the existing 5.3 version, you can continue to use Avalanche 5.3 until all your devices are pointed to the new server. Device statistics, mobile device details, scheduled events, and report definitions are not copied to the 6.0 databases, but are retained in the 5.3 databases.

Completed reports (in PDF, XML, or CSV format) are not migrated, but they are not deleted and can still be accessed through the file system.

When you install Avalanche 6.0 at a different location than 5.3, software packages are not copied to the new environment and must be moved manually.

The following are supported versions able to upgrade to Avalanche 6.0:

- Avalanche SE 5.3.0.572
- Avalanche MC 5.3.0.543
- Avalanche MC External DB 5.3.0.543
- Avalanche MC 5.3.1.50
- Avalanche MC External DB 5.3.1.50

If you have an earlier version, you must first upgrade to Avalanche 5.3.1 before upgrading to 6.0.

When upgrading from your existing version of Avalanche to 6.0, Wavelink suggests the following methods for performing the upgrade:

- [Upgrading via a Cloned Environment \(Recommended\)](#)
- [Upgrading through a New Install](#)



For a video tutorial of upgrading Avalanche using a cloned environment, see the video on [Wavelink's YouTube page](#).

## UPGRADING DATABASES

During any Avalanche upgrades, your databases must be upgraded to the new Avalanche 6.0 table structure. You need Windows SQL Server 2008 or 2012 to run Avalanche 6.0. When you begin the upgrade process, you must have the new database server installed to facilitate a successful upgrade.



Microsoft SQL Server Express is available for free commercial use, but comes with hardware limitations that govern the number of CPU cores, memory, and hard drive space that can be used per instance. Should an upgraded version be necessary to manage your databases, you are responsible for all licensing and fees associated.

Prior to upgrading Avalanche or your databases, we recommend you perform the following tasks:

- Back up all Avalanche databases
- Install Microsoft SQL Server 2008 or 2012 Express, Standard, or Enterprise edition.
- Identify and keep record of all current scheduled tasks in Avalanche, as these will be lost during the upgrade process
- Ensure no other users or tasks are using the database during the upgrade process

When upgrading with an existing installation Microsoft SQL Server 2008 or 2012 on a machine not local to the enterprise server, the following tools must also be installed:

- Microsoft SQL Server 2012 Native Client
- Microsoft ODBC Driver 11 for SQL Server
- Microsoft Command Line Utilities 11 for SQL Server

In some instances, you may need to verify the path to Microsoft Command Line Utilities. After installing, the `sqlcmd.exe` file should be located at `C:\Program Files\Microsoft SQL Server\100\Tools\Binn\`. To ensure connectivity from the computer you're installing Avalanche on, open a command prompt and type `sqlcmd -S [Server Address] -U[Microsoft SQL Server User Login] -P[Login Password]`. If a `1>` appears, you will be able to connect to the database during the Avalanche upgrade. If not, additional troubleshooting is needed.

## UPGRADING VIA A CLONED ENVIRONMENT (RECOMMENDED)

The standard and recommended method of migrating to Avalanche 6.0 is accomplished by creating a clone of your existing Avalanche installation, migrating it to Avalanche 6.0, and then redirecting all devices to the new server. This process ensures your data and working environment are still accessible for use throughout the migration. You can still upgrade Avalanche from your existing computer, but Wavelink recommends creating a cloned environment to avoid system downtime.

Consider this method of upgrading if one or both of the following conditions apply:

- If you plan to install the enterprise server and mobile device server at one location
- If your existing PostgreSQL database is local to the enterprise server

For a video tutorial of this process, visit [Wavelink's YouTube page](#).

To upgrade through a cloned environment:

- 1 Upgrade your existing environment to Avalanche 5.3.1. To obtain the install files, contact Wavelink support.
- 2 Perform a backup of Avalanche.
- 3 Install Microsoft SQL Server.
- 4 On the new computer, install Avalanche 5.3.1.
- 5 Copy your backup files to the new environment and restore them.



Prior to restoring Avalanche in the new environment, obtain the most recent backup.

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- 6 Run the Avalanche 6.0 installer.
- 7 Create a Network Profile or Mobile Device Profile with the new server address to redirect all mobile devices to the new mobile device server.
- 8 Create certificates for SSL encryption and enable Smart device communication via an APNS certificate and Android GCM key.

## UPGRADING THROUGH A NEW INSTALL

An alternate method of upgrading to Avalanche 6.0 is accomplished by installing Avalanche 6.0 on another computer as an upgrade.

Consider this method of upgrading if one or both of the following conditions apply:

- If you plan on managing mobile and Smart devices in multiple locations

- If your enterprise server and database are not installed on the same system
- If your current installation uses Microsoft SQL Server

To upgrade through a new install:

- 1 Upgrade your existing Avalanche services to version 5.3.1. To obtain the install files, contact Wavelink support.
- 2 Perform a backup and restore of Avalanche. Give the database copies different names in Microsoft SQL Server, as these will be the databases upgraded.
- 3 If you currently use Microsoft SQL Server on a different computer from where the new Avalanche install will be located, configure the database to allow remote connections and restart the server.
- 4 Shut down the Wavelink Enterprise Server, Wavelink StatsServer, and WavelinkTomcat services on the old Avalanche system using the Windows Task Manager.
- 5 From the new system, install Avalanche 6.0 as an upgrade and associate the installation with your new database copies.
- 6 Upgrade all existing mobile device servers.
- 7 Create a Network Profile or Mobile Device Profile with the new server address to redirect all mobile devices to the new mobile device server.
- 8 Create certificates for SSL encryption and enable mobile device communication via an APNS certificate and Android GCM key.

## ALLOWING REMOTE ACCESS TO THE DATABASE

If you currently use PostgreSQL or Microsoft SQL Server on the same computer as Avalanche, you do not need to configure the server for remote access. However, if your database server is on a different machine from where you will upgrade Avalanche, it must be configured to allow remote access.

To configure a PostgreSQL database for remote access:

- 1 On the machine where the database is running, navigate to:

```
[PostgreSQL installation directory]\9.x\data
```

-Or-

```
[Avalanche installation directory]\db\data
```

- 2 Using a text editor, open `pg_hba.conf`.
- 3 Add the following line:

```
host all all 0.0.0.0/0 md5
```

Where 0.0.0.0/0 is the range of addresses you will accept a connection from. For example, 10.10.29.0/24.

- 4 Save your changes and close the file.
- 5 Restart the PostgreSQL Server database service.

To configure the Microsoft SQL Server database for remote access:

- 1 Launch SQL Server Management Studio.
- 2 In Object Explorer, right-click on your server and select **Properties**.
- 3 Click **Connections**.
- 4 Under Remote server connections, select **Allow remote connections to this server**.
- 5 Click **OK** to save the changes. Changing this setting does not require restarting the server.
- 6 Ensure TCP/IP protocols are enabled and your firewall is set to allow port 1433.

When upgrading with an existing installation Microsoft SQL Server 2008 or 2012 on a machine not local to the enterprise server, the following tools must also be installed:

- Microsoft SQL Server 2012 Native Client
- Microsoft ODBC Driver 11 for SQL Server
- Microsoft Command Line Utilities 11 for SQL Server

In some instances, you may need to verify the path to Microsoft Command Line Utilities. After installing, the `sqlcmd.exe` file should be located at `C:\Program Files\Microsoft SQL Server\100\Tools\Binn\`. To ensure connectivity from the computer you're installing Avalanche on, open a command prompt and type `sqlcmd -S [Server Address] -U[Microsoft SQL Server User Login] -P[Login Password]`. If a `1>` appears, you will be able to connect to the database during the Avalanche upgrade. If not, additional troubleshooting is needed.

## UPGRADING TO AVALANCHE 6.0

After upgrading your databases, you can upgrade your enterprise and device servers. All services are upgraded with the same installer.

As part of the upgrade process, any previous versions of Avalanche installed locally will be uninstalled. Do not exit the uninstall dialog because this will corrupt the Avalanche upgrade.

Prior to beginning the upgrade process, Wavelink recommends the following actions:

- Perform an enterprise-wide deployment from My Enterprise.

- If you have Avalanche Remote Control, patch it to a version compatible with Avalanche 6.0. Patch files are available through the Wavelink Community.
- If your current databases are not local to where you will install Avalanche 6.0, ensure the database server is set up for remote access. To configure this, see [See "Allowing Remote Access to the Database"](#).
- If you are using Microsoft SQL Server currently and want the 6.0 databases to be on the same system, back up and restore the databases with different names in your existing installation of Microsoft SQL Server. During the Avalanche upgrade process, provide the server credentials to connect to and upgrade the new databases.

For more information on prerequisites for upgrading and a list of what is retained during upgrade, see [Avalanche Upgrade Process](#) (1).

To upgrade your enterprise server:

- 1 From the designated server, double-click the file you received to upgrade your enterprise server.

The Setup Wizard Welcome screen appears.

- 2 Select a language and click **OK**.
- 3 Select whether to install to the existing Avalanche directory or a new one and click **Next**.
- 4 Select **Upgrade** and the database server type you currently use.
- 5 Click **Next**.

The Select Components screen appears. By default, all components are selected. To upgrade mobile device servers on different computers, see [Upgrading the Mobile Device Server](#) (7).

- 6 Click **Next**.
- 7 Enter all requested SQL Server Credentials. If you backed up and restored your original databases under different names, provide the login credentials and names for the new databases. If you are upgrading from PostgreSQL to Microsoft SQL Server, it will first ask for PostgreSQL credentials and then the next screen will ask for credentials for migrating to Microsoft SQL Server. The password for PostgreSQL was set during your initial install of Avalanche 5.3. When connecting to PostgreSQL from a clone, type `localhost` as the **Hostname**.
- 8 Click **Next** to begin the upgrade process.



Once the upgrade process has begun, do not stop the installer unless instructed to do so by Wavelink support. Stopping the upgrade may result in the corruption of databases and loss of data.

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A dialog appears, prompting you to uninstall your previous version of Avalanche.

- 9 Select the **Remove** option and click **Next**. Click **Yes** to verify.
- 10 Once the previous version of Avalanche is removed, the dialog closes. Click **Finish** to complete the upgrade process.

Upon completing the upgrade process, you will need to enter in your Avalanche licenses from the Web Console.

If a mobile device server is upgraded locally, it will appear in the Unassigned Server Locations region and must be reassigned to a folder.

## UPGRADING THE MOBILE DEVICE SERVER

Use the mobile device server installer to install and upgrade individual mobile device servers.

To upgrade your device servers:

- 1 Double-click the mobile device server installer to start the upgrade process.
- 2 Select **Yes, update the existing installation** and click **Next** to continue.
- 3 Enter an Avalanche Address in the form of a hostname or IP address to identify the new enterprise server's computer.
- 4 Click **Next** to begin the installation process.
- 5 Click **Finish** to complete the installation.

After upgrading the mobile device servers, they will manually connect them to Avalanche and overwrite the existing servers.



Mobile devices already enrolled may not appear on the Inventory screen until their next scheduled check-in.

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