

# Foundation Upgrade Guide

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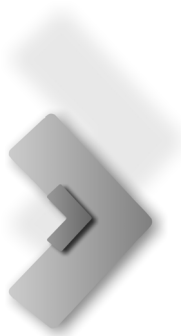
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# Foundation Upgrade Process

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## Overview

The Foundation upgrade process for the current version of ITSM is designed to bring your currently installed version up to the latest version by upgrading the system schema tables and performing pre and post data clean up.

There are two main parts to the upgrade process: **Server Installation** and **Foundation Upgrade**. These are required steps that everyone must perform to bring your system up to the latest version of ITSM. The completion of this part will provide you with access to issue fixes and foundation level enhancements.

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**Note:** The upgrade steps and testing requirements are similar to the 5.x upgrade process.

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## Supported Versions for Foundation Upgrade

The following list of version and Foundation (binary) patches are supported for upgrade to the current release:

- 5.0.4 + patches  
This includes all version and patch combinations, such as 5.0.4 w/o patch, 5.0.4 + patch 1, 5.0.4 + patch 2, etc.
- 5.0.4sp1 + patches
- ITSM 5.0.6 + patches

- ITSM 5.0.7 + patches
- ITSM 5.0.8
- ITSM 6.1.0
- ITSM 6.1.1
- ITSM 6.2.0

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**Tip:** Consulting services are highly recommended before upgrading your product version. A Foundation PSO upgrade service package is available for training and existing application validation.

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## Understanding the Foundation Upgrade Process

There is no need to uninstall any part of your current version of ITSM before upgrading Foundation. The upgrade process involves a number of steps. During the upgrade process, you should setup a staging environment, perform the prerequisite steps, shutdown the services, install the ITSM Server, update Foundation, perform some manual steps, migrate the database (optional), install and configure KM, and restart services.

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**CAUTION:** It is highly recommended that you should exercise the entire upgrade process in a staging environment, verifying that the existing application and new features are on the Server, and validating the current workflow is working as expected.

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User Acceptance Testing (UAT) should be performed on the staging environment. After successful testing, this process can be repeated on the production environment.

## Required Steps

These steps are required before upgrading Foundation to the current release.

1. Backup your current ITSM database before the upgrade process starts.

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**CAUTION:** We highly recommend that customers create an image of the current Applications Server.

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**Note:** If you experience any unexpected interruptions or unexpected behavior during the install or upgrade process, we recommend that you restore the original image on the Application Server.

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2. Backup your existing installation, including the installation directory (C:\Program Files\FrontRange Solutions\) and the database.
3. Perform a file backup of any other separate servers (such as a separate BPE or Web application server) that is used for ITSM application
4. Shut down the FSMT service.
5. Shut down the FrontRange Scheduler service.
6. Stop the BP Engine (see 'To Stop the BP Engine' on page 1-4).
7. Shut down the FrontRange License Authentication Server.
8. Shut down Knowledge Management Server (Optional).

## To Stop the BP Engine

1. Make sure there is no activity in the Application Server (w3wp.exe).

This can be ensured by watching the CPU consumed by the Application Server process in the Windows Task Manager or Performance Monitor.
2. Make sure BPE is not active.

One of the ways to find this is to watch the BP Service log if the **debug** is turned on or watch the CPU in the Task Manager.
3. Shut down application pool for the Application Server in IIS.
  - Open the Windows **Start** menu and select **All Programs > Administrative Tools > Internet Information Services Manager > Application Pools**.
  - Right-click on **Application pool** for the Application Server and select **Stop**.
4. Make sure the BP Engine MSMQ is empty (0).
  - If it is not empty and if the queue size is decreasing, then wait until it becomes zero.
  - If it does not decrease, then it means that the BP Engine is not processing the MSMQ for some reason, in which case it is ok to go the next step.
5. Shutdown the application pool used by ITSM or IIS completely depending on your setup.
6. Shutdown the BP Engine from the Windows Services.
7. Optional steps:
  - Backup the BPE database.
  - Backup the MSMQ directory.
  - Backup the BPE log files.
8. (Optional) Database holding the BPE persistent tables and the database holding ITSM tables can be taken offline only after shutting down the App Server, Web Services and the BP Engine.

9. (Optional) The Mail Server can be shutdown only after shutting down Web Services.

## Installing the Current ITSM Server

Installation of the ITSM Server will do the following:

- Preserve ITSM customer configuration and data files
- Uninstall all previous versions and patches of ITSM
- Install new assemblies and configuration files
- Restore ITSM customer configuration and data files & merge some of the configuration files

Depending on your currently installed version of ITSM, you will have different installation paths. Below is a list of upgradable versions and the general steps you will need to perform to upgrade to the current ITSM server.

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**Note:** Starting with ITSM 6.1.1, server installer includes License server components. The 5.0.x license cached files are compatible with the current release, so you do not need to import license again.

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### 5.0.4 - 5.0.7 Upgrade Paths

The following steps are only for users currently running ITSM versions 5.0.4 through 5.0.7:

- Stop all ITSM services.

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**Note:** If you want to upgrade your SQL 2000 database to SQL 2005, see 'Upgrading the ITSM and Knowledge Management Servers' on page 1-9.

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- Run the Foundation upgrade.

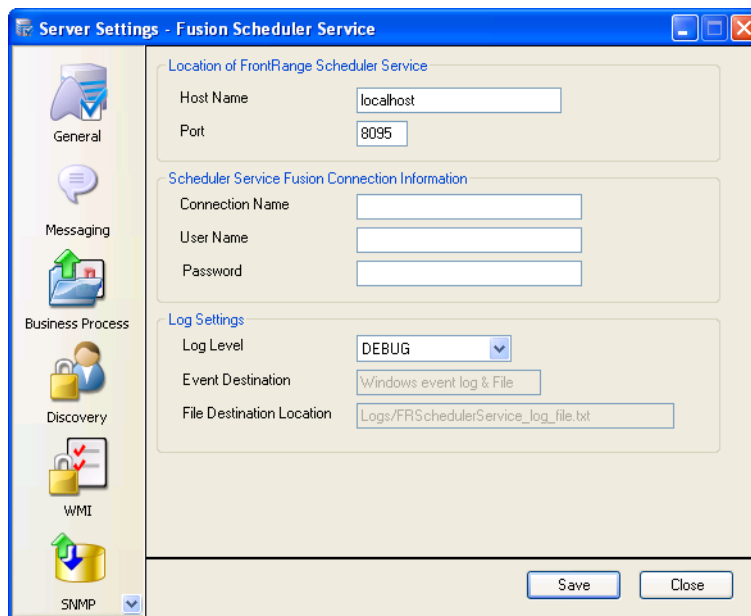
For more information, see 'To Update the FRS Scheduler Service Setting from 5.0.4' on page 1-5.

### To Update the FRS Scheduler Service Setting from 5.0.4

When upgrading your system from ITSM 5.0.4 to the current release of ITSM, you will need to overwrite your existing configuration file. You

will also need to reconfigure the settings and restart the service. The following instructions will show you how to reconfigure your settings.

1. Browse to the C:\program files\frontrange solutions\service management\ folder.
2. Rename the FRSchedulerService.exe.config file to old\_FRSchedulerService.exe.config.
3. Rename new\_FRSchedulerService.exe.config to FRSchedulerService.exe.config.
4. Launch the Service Management Administrator.
5. Open the **Settings** menu and select **Server Settings** to view the Server Settings dialog.



6. Click the **General** icon from the list on the left.
7. Reconfigure your **Scheduler Service Fusion Connection Information**.
8. Click **Save** and then **Close**.

## 5.0.8 Upgrade Path

The following steps are only for users currently running ITSM version 5.0.8:

- Stop all ITSM services.

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**Note:** If you want to upgrade your SQL 2000 database to SQL 2005, see 'Upgrading the ITSM and Knowledge Management Servers' on page 1-9.

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- Run the Foundation upgrade.
- Manually configure the Web.config file.

For more information, see 'To Configure the Web.config File' on page 1-7.

### To Configure the Web.config File

To populate the web.config file, you must perform the following steps:

1. Go to C:\Programme\FrontRange Solutions\Service Management\ServiceManagement\ folder.
2. Delete the existing web.config file.
3. Right-click the web.config.tpl and select **Properties**.
4. Uncheck the **Read-only** attribute for the file web.config.tpl.
5. Create a copy of web.config.tpl and rename the copy to web.config.
6. Open web.config using Notepad or any text editor.
7. Find the Tag <appsettings>.

You will see an entry for value as [[INSTALLDIR]].

For example:

```
<appSettings>
  <add key="ServiceManagementAppDir"
    value="[[INSTALLDIR]]"/> </appSettings>
```

8. Replace [[INSTALLDIR]] with the current install location.

For example:

```
<appSettings>  
<add key="ServiceManagementAppDir" value="  
C:\Programme\FrontRange Solutions\Service Management "/>  
</appSettings>
```

9. Open a command prompt and type **IISReset**.

## 6.1.0 Upgrade Path

The following steps are only for users currently running ITSM version 6.1.0

- Stop all ITSM services.
- Install the current ITSM server.
- Run the Foundation upgrade.

For more information about installing the server, see the *ITSM Installation Guide*.

## 6.1.1 Upgrade Path

The following steps are for customers using ITSM version 6.1.1

- Stop all ITSM services.
- Install the current ITSM server.

## 6.2.0 Upgrade Path

- Stop all ITSM services.
- Install the current ITSM server.

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**Note:** If you want to upgrade your SQL 2000 database to SQL 2005, see 'Upgrading the ITSM and Knowledge Management Servers' on page 1-9.

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## Installing the ITSM Knowledge Management Server

Installation of the KM Server will do the following:

- Preserve KM customer configuration and data files.
- Uninstall all previous versions and patches of KM.
- Install new assemblies and configuration files. New versions of the configuration files that have the same name as files installed in previous ITSM versions will have a “new\_” prepended to the filename.
- Restore KM customer configuration and data files & merge some of the configuration files.

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**Note:** For detailed information about installing the KM Server, see the *ITSM Installation Guide*.

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## Upgrading the ITSM and Knowledge Management Servers

ITSM supports both SQL 2000 and Oracle 9i. If you are currently using either of these database servers for your ITSM and Knowledge Management servers, upgrading your servers are optional steps.

### Upgrading the ITSM Database Server

1. With ITSM still using the SQL 2000 or Oracle 9i Server, install ITSM.
2. Perform a Foundation upgrade.
3. Back up the ITSM database.
4. Manually restore the ITSM database to the SQL 2005 or Oracle 9i Server system.
5. Configure the ITSM connection to the new database, including the Crystal ODBC connections.

## Upgrading the Knowledge Management Database Server

1. Manually stop the KM service.
2. Back up the KM database.
3. Manually restore the KM database to the SQL 2005 or Oracle 10g Server.
4. Configure the ITSM connection to point to the new database system.
5. Run the KM configuration utility and target the new KM database.
6. Manually restart the KM service

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**Tip:** System user privileges are required to run the Knowledge Management configuration tool for SQL Server and Oracle, because the configuration tool needs sufficient access to create the database instance, create a user, and grant the user access to tables.

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**Note:** For detailed information about the installation process, see the *ITSM Installation Guide*.

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## Upgrade Foundation

After the Server component is installed, run the Upgrade Wizard to perform a system upgrade to make the ITSM application database compatible with the current ITSM Foundation.

For customers who are upgrading to 6.1.1 to run their existing application on the current ITSM Foundation, only the Foundation Upgrade step is required. This step performs the following operations:

1. Upgrade foundation system tables to be compatible with the current binaries.
2. Data definition and cleanup

## Running the Upgrade Wizard

The Upgrade Wizard detects a older Foundation, a window appears with a message that a Foundation upgrade needs to be performed.

The upgrade process performs the following tasks:

- Removes records with duplicate RecIDs
- Upgrades the System Table
- Removes any duplicate link records
- Updates link fields with Autofill for backward compatibility
- Checks the application for errors

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**Note:** Validation of the database is also run as part of the System Table upgrade.

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### To Run the Wizard

1. Open the Windows Start menu and select **All Programs > FrontRangeSolutions > ITSM > Upgrade Wizard.**

You can also access the Application Upgrade Wizard from the `\Program Files\FrontRange Solutions\Service Management\` directory and then run the `UpgradeWizard.exe` file.

2. Select your target database to update (such as ITSM507) and click **OK.**  
If you are using a database from 5.0.7/5.0.8/6.1.0, you will be required to perform a Foundation upgrade.
3. Login with Admin credentials.
4. After logging in, a validation check will initiate, checking for any possible errors or warnings in your current FAD.

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**Note:** Let the validation check complete. Do not cancel at this time.

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If you encounter any errors, you must quit the wizard and fix the errors in the Admin tool. If the errors are validation errors, the wizard will not let you proceed with the upgrade.

5. After the validation completes, the Welcome to the Upgrade Wizard screen appears.
6. Close all running FrontRange Solutions services.

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**CAUTION:** As a safety precaution, make a backup copy of your database before starting the upgrade process.

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7. After you have created a backup of your database, select **I acknowledge the above warning** and then click **Next**.

DO NOT check the **Perform application upgrade** option.

8. Click **Next** to continue.

At this time, the system checks for conflicts between the upgrade package definitions and the target database definitions. It also checks for errors, such as missing data files.

If there are any conflicts, they are reported and must be dealt with before you can proceed. For more information, see “Handling Upgrade Conflicts” on page 27.

9. Click **Finish** to close the wizard.

10. After completing the entire upgrade process, restart IIS and test.

## Handling Upgrade Conflicts

Upgrade conflicts occur when the Upgrade Wizard encounters an object (relationships, panels, grids, etc.) that is either unexpectedly missing or already existing in the target database. Any conflicts are displayed in the window.

- **Add Object Conflict** is any conflict that occurs when the Upgrade Wizard encounters an object that it doesn't expect to be in the target database. An example might be that the user created a new object that has the same name as an object that the wizard is attempting to add. This type of conflict can cause a loss of data to the user's database, if the user has created an object for a specific purpose, because the upgrade will over-write this object with its own information.
- **Update Object Conflict** is any conflict that occurs when the Upgrade Wizard encounters a missing object that it was going to update in the

target database. This type of conflict is typically safer to ignore because it does not replace existing data, but adds data that is missing.

## Viewing Upgrade Conflicts

When a conflict is discovered, the results appear in the window with a link and a description of the conflict. To view the details of the conflict, click the link under the **Upgrade Feature** column. A new window opens with detailed information about the conflict.

## Resolving Upgrade Conflicts

After viewing the details of any reported conflict, you can choose to either proceed without upgrading the areas of conflict or continue upgrading and ignore the conflict.

### To Resolve Conflicts

1. View each conflict's details to decide if you want to ignore or upgrade it.
2. Check the **Ignore Conflicts** box and then check the box next to the conflict(s) you want to update.

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**CAUTION:** All unchecked conflicts will be upgraded.

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**Note:** Conflicts that are ignored (checked) display a different symbol on the Selected Upgrade Feature tree after proceeding to the next step.

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3. Click **Next** to resolve the conflicts.

## Viewing the Upgrade Wizard Log Files

After the Upgrade Wizard process completes, you can view the log file created from the Upgrade Wizard. This file contains all the information displayed on the Log tab, plus other information logged. The log file is stored in the following directory:

```
\Program Files\FrontRange Solutions\Service  
Management\UpgradeData\Logs\
```

The log files are named in the following manner:

UpgradeWizard\_YYYY-mm-dd\_hhmmss.log

yyyy	4-digit Year value
mm	2-digit Month value
dd	2-digit Day value
hh	2-digit hour value
mm	2-digit minutes value
ss	2-digit seconds value

An example of a log file for the Upgrade Wizard that was completed on December 10th, 2008 at 1:24.36 P.M. would have the following structure:

UpgradeWizard\_2008-12-10\_132436.log

## Post Upgrade Steps

1. Restart IIS and ITSM services following best practice guidelines.
2. Verify that your existing application is working correctly in 6.x foundation.

## Failure Recovery

A failure of the upgrade process results in the following window being displayed.



If your upgrade attempt fails, you should copy files that may have changed since the initial installation to a separate location in order to retain them. You can find these files in the following location:

C:\Documents and Settings\\LocalSettings\Temp\Guid.

Because a failure results in the Foundation files being rolled back, you will have to reinstall your original Foundation software. Following the reinstallation of the original Foundation software, you can place the copied files into their original location.

It is recommended you delete any existing FrontRange virtual directories, application pools and restart IIS before reinstalling your original Foundation software.

