BrightSign®

UPGRADE GUIDE

BrightSign Network Enterprise Edition 3.9

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INTRODUCTION

This manual will guide you through the process of upgrading your BSNEE services to version 3.9. Note that the 3.9 Upgrade Installer only supports upgrading from BSNEE version 3.5. BSNEE installations that were upgraded using a previous version of the Upgrade Installer are also supported.

The BSNEE upgrade installer can only upgrade standard BSNEE installs with standard database schema. However, BSNEE installs with customized WebUI files are supported.

What's New in BSNEE 3.9?

The following features and improvements have been implemented since the previous version of BSNEE (3.5):

- **HTTPS File Upload Support**: If the HTTPS protocol is enabled for the BSNEE Web Site node (i.e. the WebUI) during installation, file uploads through the WebUI will also use HTTPS.
- **Audio Dynamic Playlists**: Audio Dynamic Playlists can now be created in the WebUI or uploaded from BrightAuthor.
- **Validity Dates**: You can now assign Validity Dates to specific items in Dynamic Playlists, Live Data feeds, and Live Media feeds. An item with Validity Dates will only be included in the playlist/feed within a specified time period.
- **Support for New Models**: The 4Kx42, XDx32, HDx22, and LSx22 devices are now supported by BSNEE.
- **Media Info Tab**: The new **Media Info** tab (located in the **File Properties** window of a media item) provides formatting/encoding information for audio and video files.
- **Unicode Naming**: Most objects in BSNEE now support Unicode names.
- **Extended File Support**: Dynamic Playlists, Live Media feeds, and presentations now support the FLAC audio codec, as well as the *.ogg* and *.m2ts* container formats.
- **Extended API Support**: The BSN API now supports a greater array of BSNEE functions.
- **Autorun Selector**: When editing a presentation that is already scheduled for a group, you will be prompted to update the firmware if it is required to play the presentation.

Minimum Hardware Requirements

- 1.4 GHz or faster Dual Core processor (2 GHz or faster recommended; Intel Xeon preferable)
- 2GB of RAM (4GB or more recommended)
- 6GB free hard disk space
- Network connection

Software Requirements

- Operating System:
    - Windows 7 (excluding Home editions)
    - Windows Server 2008 (x32 or x64)
    - Windows Server 2008 R2 (x64)
- IIS 7.0 or later (with ASP.NET and WCF Activation handlers)
- MS SQL Server 2008 SP1 (or later), including Express edition
- .NET Framework 4.0 or later
- X.509 certificate issued for the BSNEE Web Services node

Note: *The X.509 certificate is required by the WS-* (WS-Security) specifications for message-level encryption in WCF services, as well as transport-level encryption for compliance with the WS-I Basic Profile 1.1, which is used by the Web Services node.*

BrightSign Software Requirements

- Target BrightAuthor version: **4.1.0.x**
- Minimum required BrightAuthor version: **3.5.0.34**
- Minimum player firmware version:

| Device Family	Minimum Firmware
4K242, 4K1042, 4K1142	5.0.22
XD232, XD1032, XD1132	5.1.24
HD222, HD1022	5.1.16
LS322, LS422	5.1.16
XD230, XD1030, XD1230	4.4.44
HD220, HD1020, AU320	4.4.44
HD210w, HD1010(w), TD1012	3.10.22

INSTALLATION

To start the upgrade process, click on the BSNEE Upgrade Installer software. The installer will extract the necessary files and prompt you to continue. Click **OK** to begin.

Prerequisites

The installer will check to ensure that you have all necessary system components to upgrade to BSNEE version 3.9. Note that system requirements have not changed between versions 3.5 and 3.9:

The installer will check the following conditions:

- ✓ Operating System version (OS)
- ✓ .NET Framework version (4.0 or later)
- ✓ .NET Framework features
- ✓ WMI services activity status
- ✓ IIS version (7.0 or later)
- ✓ IIS services status
- ✓ IIS components set up status (40 items total)
- ✓ Microsoft Messages Queue set up status
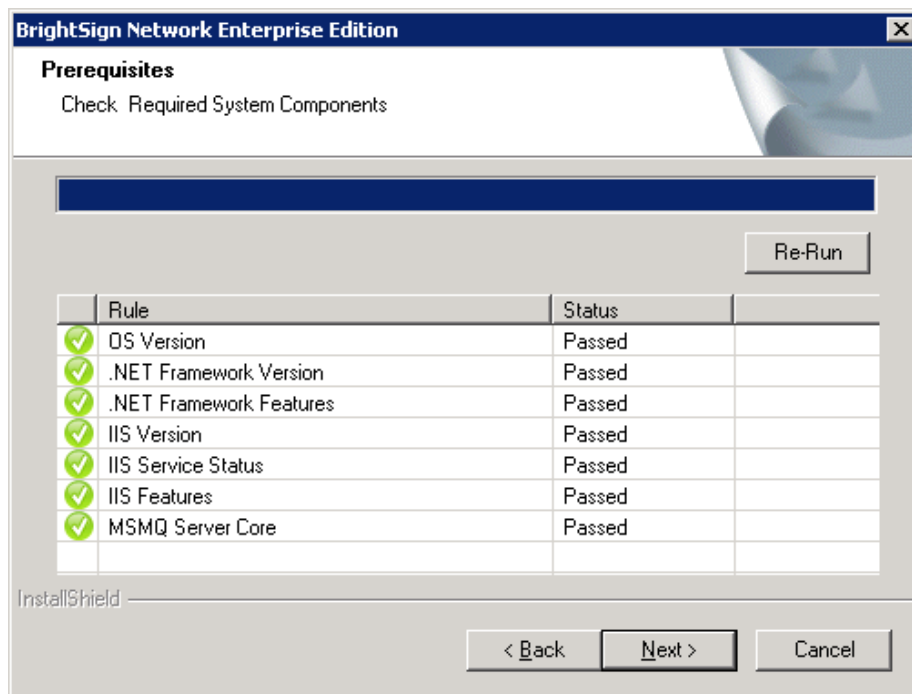
Once the system check is finished, the installer will display a full list of components that are installed or that need to be installed. If an item does not pass the system check (as indicated by the *Failed* status), you can click the item to learn the reason for the failure and instructions for fixing the problem. After installing the missing component(s), click **Re-Run** to check the installation again.

Once all components meet the requirements for installation, you will be able to click **Next** to continue.

Customized Files

The installer will search for any customized WebUI files within the BSNEE installation. Once the list of customized files is populated, click **Next**. The customized files will be saved with *.bak* extensions and replaced with standard versions during the final installation step.

If you have any customized files, you will need to manually re-implement them after the installation process is complete.
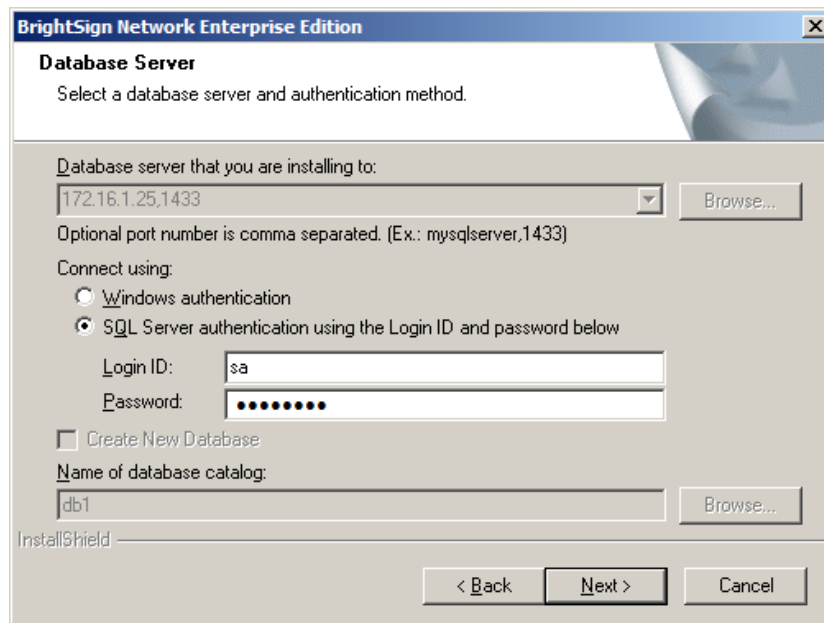
Note: *Customized database schemata are not supported by the upgrade installer. Clicking* **Next** *will return an error message if your BSNEE install contains customized database schema.*
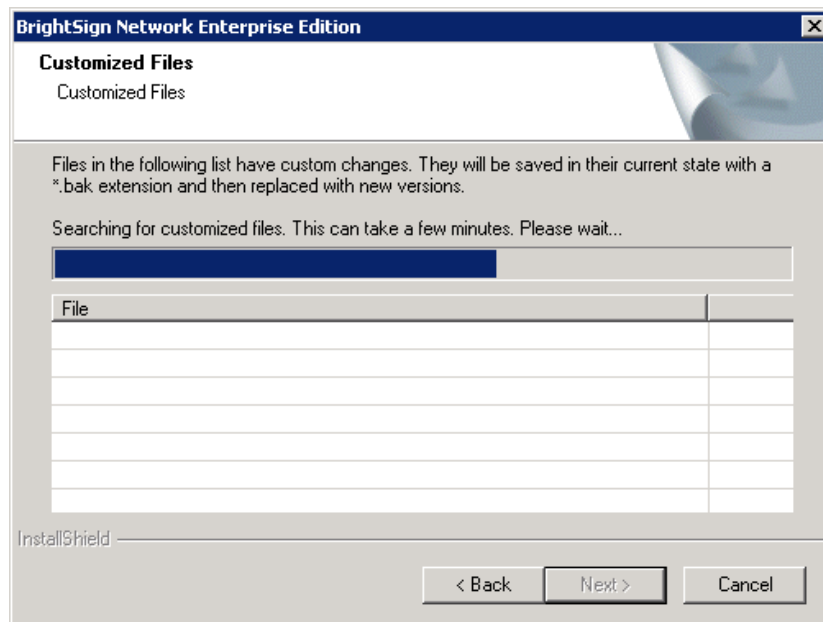
Database Server

The **Database Server** step will only appear if you do not currently have access to the MS SQL Server where the BSNEE database is located. If this step does not appear after the **Customized Files** step, you can move on to the **Backup Database** step.

If you do not have authorization to modify the BSNEE database, you will need to enter valid **SQL Server** credentials.


Backup Database

Check the **Backup Database** box to enable automatic rollback of the BSNEE database in case the upgrade process fails during installation. If the upgrade installation process is completed successfully, you will not be able to use this option to recover the previous BSNEE install. You should leave this box checked unless you have other means for backing up the database.

The **Backup Set** and **Destination** fields are automatically populated using information from the MS SQL server. You can modify them if necessary:
- **Backup Set**: Specify the **Name** of the backup file set.
- **Destination**: Specify the destination path of the backup file set on the MS SQL server. You can specify a path on a remote MS SQL server as well.

Click **Next** to confirm the backup parameters you have chosen.
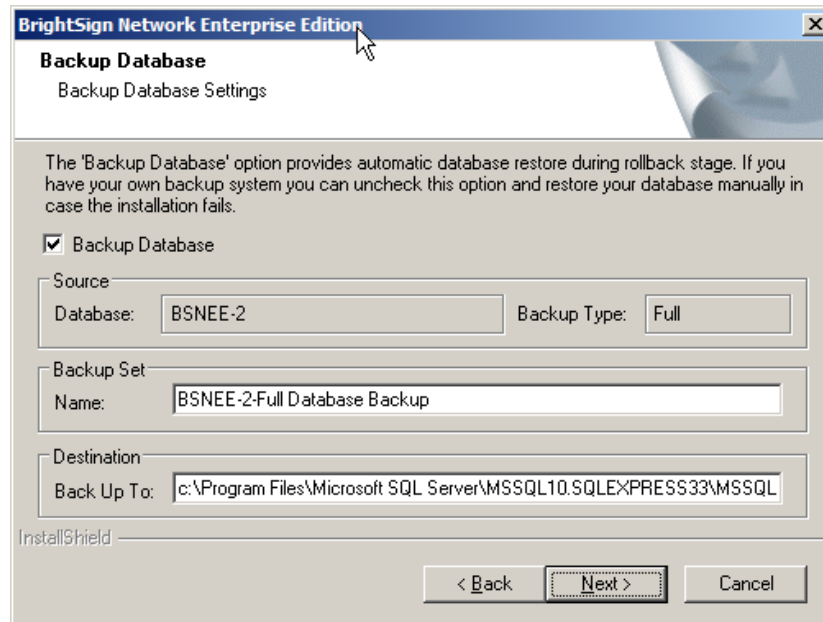
Bindings Configuration

The Base Domain Name must remain the same during the BSNEE upgrade process. Select each node to change the bindings for that node.

Node names are populated using the existing BSNEE configuration files. The **Web Services** and **Device Handlers** node names are editable, but we recommend against changing them unless it is absolutely necessary. If the name of the **Device Handlers** node is changed, all players connecting to the BSNEE account will need to be set up again.
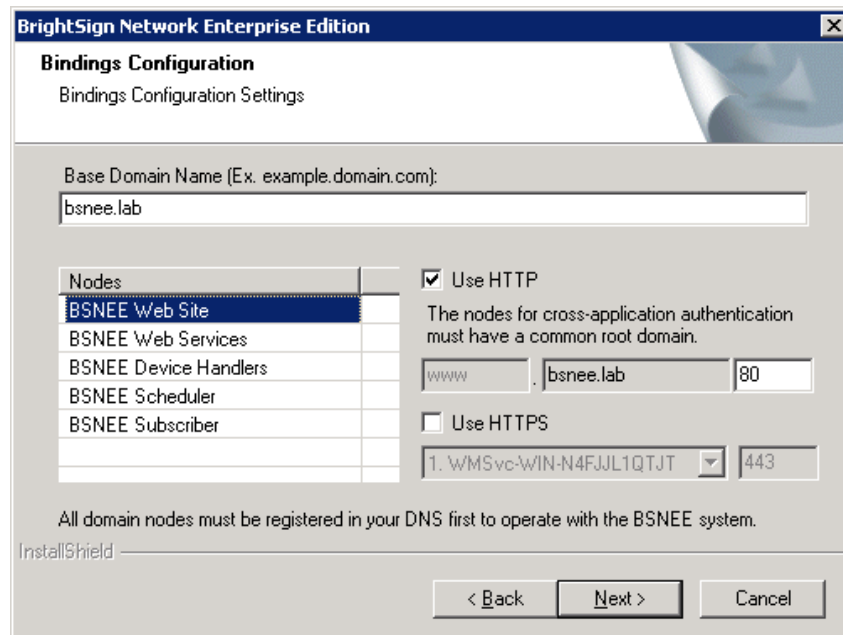
Check the **Use HTTP** and/or **Use HTTPS** boxes if you would like to enable these protocols for the Web Site, Web Services, and Device Handler nodes. You can also change the port numbers for the Web Site, Web Services, and Device Handlers nodes.

As of versions 3.9, BSNEE requires an X.509 certificate and HTTPS binding for the Web Services node. The X.509 certificate is required by the WS-* (WS-Security) specifications for message-level encryption in WCF services, as well as transport-level encryption for compliance with the WS-I Basic Profile 1.1. Please install a valid certificate and select it for the Web Services node.
Note: *For testing purposes, you may use a self-signed certificate issued for the Web Services binding.*

Note: *Changing the HTTP port or adding HTTPS binding for the Device Handlers node will require devices to be set up again to use HTTPS. Also, devices will not work with self-signed certificates if these options are selected.*

If you plan on using HTTPS, you should use the Microsoft Management Console (MMC) to ensure that you have appropriate permissions for the private key of the certificate. By default, read access is required for the "IIS_IUSRS" group (for more information, see **Pre-Installation > Persistent Root and Temporary Storage Folders** in the BSNEE Installation Guide).

Click the **Next** button to reach the confirmation page. Click **Install** to begin the upgrade process. The upgrade process from version 3.5 to version 3.9 includes data migration procedures for Presentations and Feeds. This may take more than 10 minutes, depending on the amount of data in the Persistent Storage, but it likely won't last for more than 30 minutes.

POST-INSTALLATION

Configuring BrightAuthor

BrightAuthor installations will need to be configured to connect to the BSNEE instance. BrightAuthor install files can be configured using the latest version BrightAuthor Configurator, which is available on the [Software Downloads](#) page.

If you were previously using BSNEE 3.3, and did not change any node names during the update process, follow these steps while running the Configurator:

1. Enter the **Base Domain Name** for the BSNEE instance.
2. Check the **Advanced Configuration** box.
3. For the **Application Services** node, use a "fileservices" domain instead of an "api" domain (e.g. "fileservices.mydomain.com").
4. For the **Device Handlers** node, use a "services" domain instead of a "handlers" domain (e.g. "services.mydomain.com").
5. For the **Storage** node, enter the same BSNEE Persistent Storage URL that was used previously.
6. Enter the **WS-* Endpoint DNS Identity (CN)**: This value must match the CN of the certificate that was assigned to the Web Services node.

Configuring MIME Types in IIS

BSNEE 3.9 includes support for additional media-file formats, including *.ogg*, *.m2ts*, and *.flac*. If you're using an IIS server as the Persistent Storage, you will need to register these MIME types with the server.

- If using Windows Server 2008 or Windows Server 2008 R2 (IIS 7 or 7.5):
  - `.ogg` – audio/ogg
  - `.m2ts` – audio/mpeg
  - `.flac` – audio/flac
- If using Windows Server 2012 or Windows Server 2012 R2 (IIS 8 or 8.5):
  - `.flac` – audio/flac