



EDB

Slony Replication Guide

EDB Postgres™ Slony Replication Guide

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Slony Replication is a primary-standby replication environment that is well-suited for large databases with a limited number of standby systems. It shares data in one direction only (from a primary node to a standby node), is cascading (a standby node may pass data to another standby node), and does not allow modification of data on standby nodes.

This guide acts provides information about installing and uninstalling Slony Replication. For detailed information about reference and usage, please visit the [project site](#).

CHAPTER 1

Installation

This section walks you through installing Slony Replication on a RHEL/CentOS host, a Debian/Ubuntu host, and a Windows host.

The Slony Replication version required by your Advanced Server installation is version-specific, but the documented and supported functionality of each version is the same.

The following table lists the latest Slony Replication versions and their corresponding Advanced Server versions, and platforms supported by Slony Replication. The information in this guide applies to each version listed in the table below.

Supported Slony Replication Version	Supported Advanced Server Version	Supported Platforms
Slony Replication 2.2.8	Advanced Server 12	RHEL 6 - x86_64 RHEL 7 - x86_64 RHEL 8 - x86_64 RHEL 7 - ppc64le Debian 9x Stretch Ubuntu 18.04 Bionic Beaver Windows x86_64

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Supported Slony Replication Version	Supported Advanced Server Version	Supported Platforms
Slony Replication 2.2.8	Advanced Server 11	RHEL 6 - x86_64 RHEL 7 - x86_64 RHEL 7 - ppc64le Debian 9x Stretch Ubuntu 18.04 Bionic Beaver
Slony Replication 2.2.6	Advanced Server 10	RHEL 6 - x86_64 RHEL 7 - x86_64 RHEL 7 - ppc64le Windows x86_64 Linux graphical installer
Slony Replication 2.2.5	Advanced Server 9.6	RHEL 6 - x86_64 RHEL 7 - x86_64 RHEL 7 - ppc64le Windows x86_64 Linux graphical installer
Slony Replication 2.2.6	Advanced Server 9.5	RHEL 7 - x86_64
Slony Replication 2.2.4	Advanced Server 9.5	RHEL 6 - x86_64 RHEL 7 - x86_64 RHEL 7 - ppc64le Windows x86_64 Linux graphical installer

1.1 Installing Slony Replication on a RHEL/CentOS Host

If you have used an RPM package to install Advanced Server on the host on which you will be installing Slony Replication, you have probably already created the EnterpriseDB repository configuration file and have EnterpriseDB credentials. If that is the case, you can install Slony Replication with the following command:

On RHEL/CentOS 6 and 7:

```
yum -y install edb-as<xx>-slony-replication
```

where <xx> is the Advanced Server version.

For example, to install Slony Replication for Advanced Server version 12, execute the following command:

```
yum -y install edb-as12-slony-replication
```

On RHEL/CentOS 8:

```
dnf -y install edb-as<xx>-slony-replication
```

where <xx> is the Advanced Server version.

Note: To install Slony Replication for Advanced Server version 9.5, you need to execute the `yum install ppas95-replication` command.

If you have not previously created the repository configuration file, follow the steps given below to create the file and to install Slony Replication.

Before creating the repository configuration file, you must have credentials that allow access to the EnterpriseDB repository. For information about requesting credentials, [visit the EnterpriseDB website](#).

1. To create the repository configuration file, assume superuser privileges, and invoke one of the following platform-specific commands:

On RHEL/CentOS 6 and 7:

```
yum -y install https://yum.enterprisedb.com/edb-repo-rpms/edb-repo-latest.  
↪noarch.rpm
```

On RHEL/CentOS 8:

```
dnf -y install https://yum.enterprisedb.com/edb-repo-rpms/edb-repo-latest.  
↪noarch.rpm
```

The repository configuration file is named `edb.repo`; the file resides in `/etc/yum.repos.d`.

2. After creating the `edb.repo` file, use your choice of editor to open this file. Ensure the `enabled` parameter value is 1, and replace the `username` and `password` placeholders in the `baseurl` specification with the credentials of a registered EnterpriseDB user.

```
[edb]
name=EnterpriseDB RPMs $releasever - $basearch
baseurl=https://<username>:<password>@yum.enterprisedb.com/edb/redhat/rhel-
->$releasever-$basearch
enabled=1
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/ENTERPRISEDB-GPG-KEY
```

3. Save your changes to the configuration file and exit the editor.

4. Execute the following commands to update the metadata:

```
yum clean all
```

```
yum makecache
```

5. On RHEL/CentOS 8, you need to enable the `PowerTools` repo with the following command:

```
dnf config-manager --set-enabled PowerTools
```

6. Before installing Slony Replication, you must install the Extra Packages for Enterprise Linux (EPEL) release package by executing the following command:

On RHEL/CentOS 6 and 7:

```
yum -y install epel-release
```

On RHEL/CentOS 8:

```
dnf -y install epel-release
```

Note: You may need to enable the `[extras]` repository definition in the `CentOS-Base.repo` file (located in `/etc/yum.repos.d`).

7. Then, use one of the following platform-specific command to install Slony Replication.

On RHEL/CentOS 6 and 7:

```
yum -y install edb-as<xx>-slony-replication
```

where `<xx>` is the Advanced Server version.

For example, to install Slony Replication for Advanced Server version 12, execute the following command:

```
yum -y install edb-as12-slony-replication
```

On RHEL/CentOS 8:

```
dnf -y install edb-as<xx>-slony-replication
```

where <xx> is the Advanced Server version.

Note: To install Slony Replication for Advanced Server version 9.5, you need to execute the `yum install ppas95-replication` command. The `ppas95-replication.service` path is `/usr/lib/systemd/system/ppas95-replication.service` and the installation path is `/usr/ppas-9.5`.

The following table lists the path of the service, installation, and configuration files.

Platform	Service File Path	Installation File Path	Configuration File Path
RHEL/CentOS 6	/etc/init.d/ edb-slony-replication-<xx>	/usr/edb/ as<xx>	The configuration file slony-replication. ini is located in /etc/edb/ slony-replication<xx>
RHEL/CentOS 7 and 8	/usr/lib/systemd/system/ edb-slony-replication-<xx>. service	/usr/edb/ as<xx>	The configuration file slony-replication. ini is located in /etc/edb/ slony-replication<xx>

In the above table, <xx> represents the Advanced Server version.

1.2 Installing Slony Replication on a Debian or Ubuntu Host

You must install Advanced Server before installing Slony Replication. For details about installing and configuring Advanced Server, see [the EDB Postgres Advanced Server Installation Guide](#). To install a package on a Debian or Ubuntu host, you must have credentials to access the EnterpriseDB repository. If you need EnterpriseDB credentials, [visit the EnterpriseDB website](#).

The following steps will walk you through using the EnterpriseDB repository to install a DEB package. When using the commands, replace the `username` and `password` with the credentials provided by EnterpriseDB.

Please note that if you are using the pdf version of this document, using cut/paste to copy command may result in extra spaces or carriage returns in the pasted command. If a command fails, check the command carefully for additional characters.

1. Assume superuser privileges:

```
sudo su -
```

2. Configure the EnterpriseDB repository:

```
sh -c 'echo "deb https://<username>:<password>@apt.enterprisedb.com/$(lsb_release -cs)-edb $(lsb_release -cs) main" > /etc/apt/sources.list.d/edb-$(lsb_release -cs).list'
```

3. Add support to your system for secure APT repositories:

```
apt-get install apt-transport-https
```

4. Add the EDB signing key:

```
wget -q -O - https://<username>:<password>@apt.enterprisedb.com/edb-deb.gpg.  
→key | apt-key add -
```

5. Update the repository metadata:

```
apt-get update
```

6. Install DEB package:

```
apt-get install edb-as<xx>-slony-replication
```

where `<xx>` is the Advanced Server version.

For example, to install Slony Replication for Advanced Server version 12, execute the following command:

```
apt-get install edb-as12-slony-replication
```

The following table lists the path of the service, installation, and configuration path.

Service File Path	Installation File Path	Configuration File Path
<code>/lib/systemd/system/ edb-as<xx>-slony-replication. service</code>	<code>/usr/lib/ edb-as/<xx></code>	The configuration file named slony-replication.ini is located in /etc/edb/ slony-replication<xx>

In the above table, <xx> represents the Advanced Server version.

1.3 Installing Slony Replication on a Windows Host

Graphical installers for Slony Replication are available via StackBuilder Plus (for Advanced Server hosts) or Stack Builder (on PostgreSQL hosts). You can access StackBuilder Plus through your Windows start menu.

Perform the following steps to install Slony Replication:

1. Open StackBuilder Plus and select your Advanced Server installation from the drop-down list on the Welcome window. Click **Next** to continue to the application selection page.

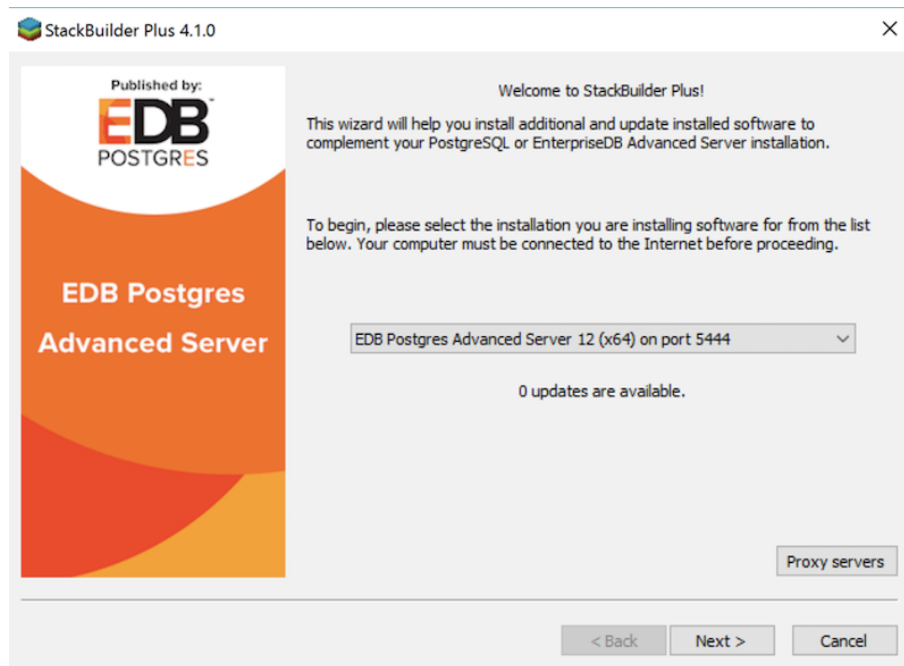


Fig. 1: *The StackBuilder Plus Welcome window*

2. Expand the **Replication Solutions** node, and check the box next to the **Slony Replication** version. Click **Next** to continue.

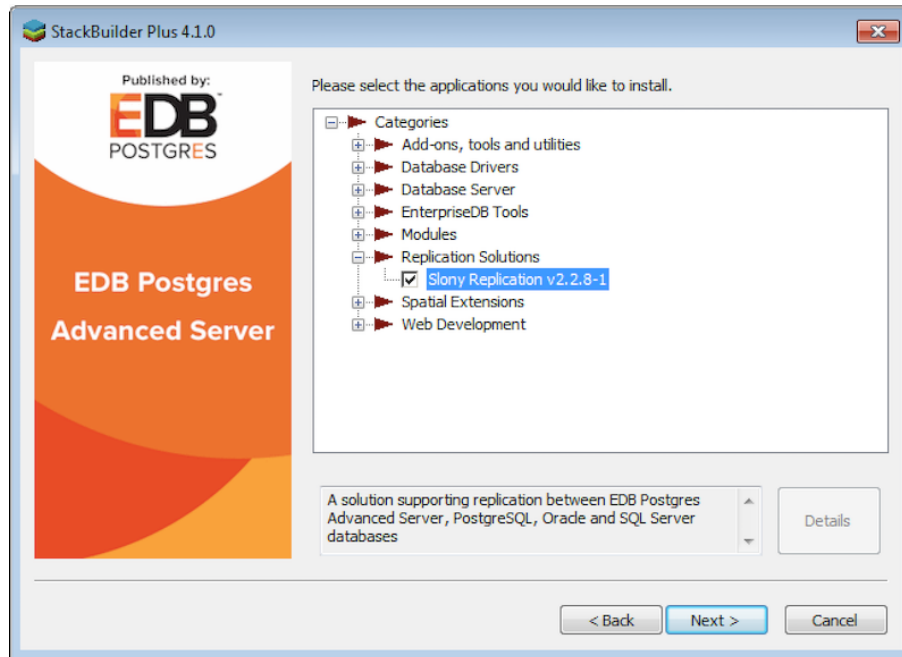


Fig. 2: The Slony Selection window

3. The selected packages and the default download directory are displayed. Change the download directory location if required. Click Next.

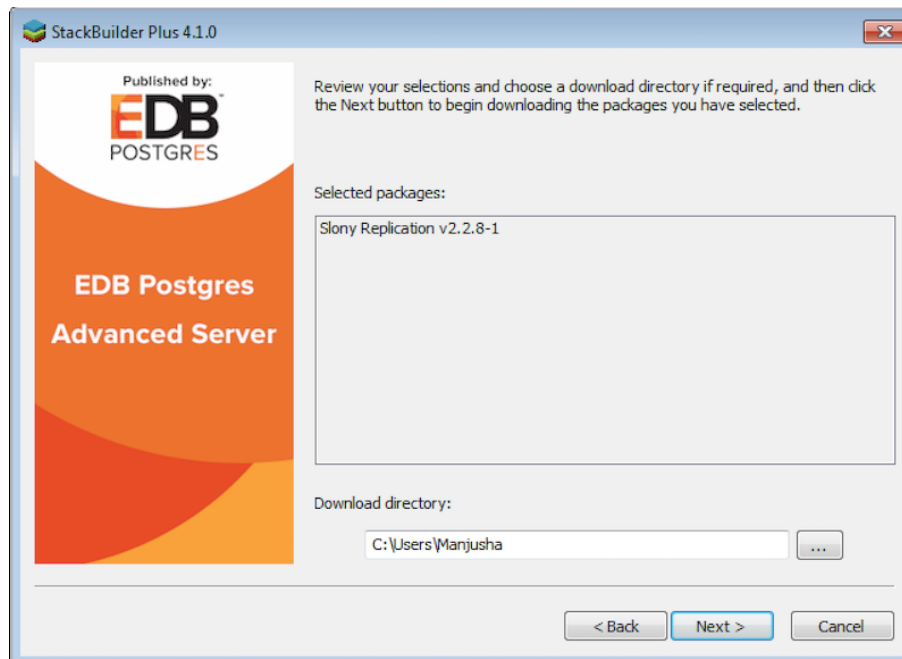


Fig. 3: The Slony Selected Packages Window

4. Once you have downloaded the installation files, a confirmation message is displayed. Click Next to start the Slony Replication installation.

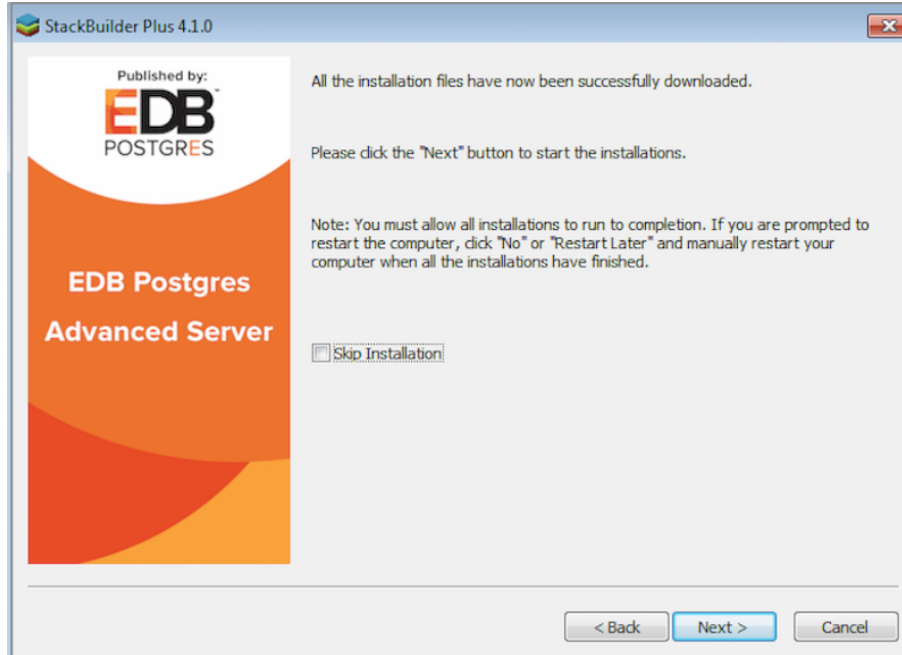


Fig. 4: *Installing Slony.png*

5. Select an installation language and click OK.

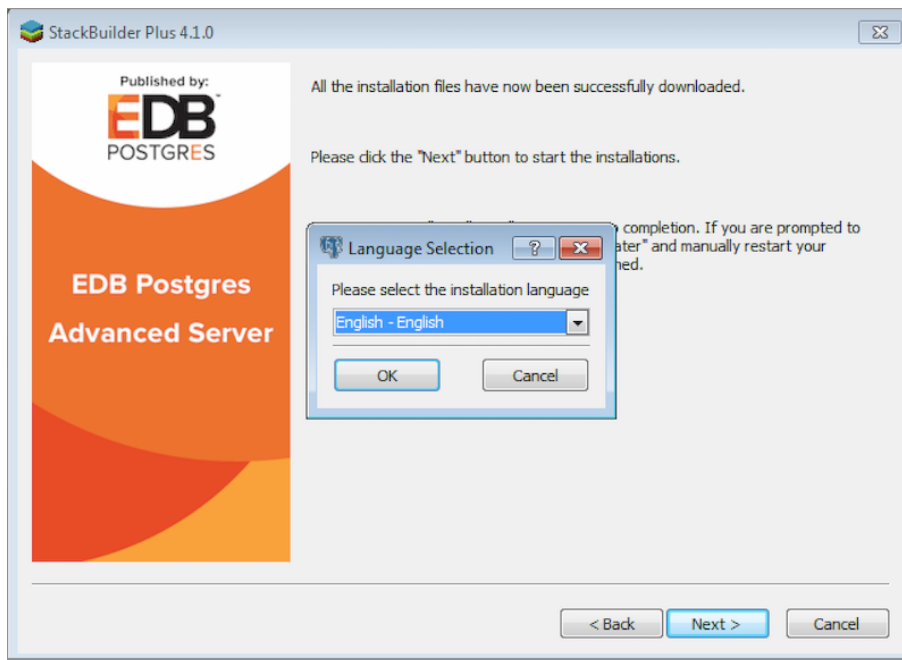


Fig. 5: *The Slony language selection window*

6. The installer welcomes you to the setup wizard. Click Next.

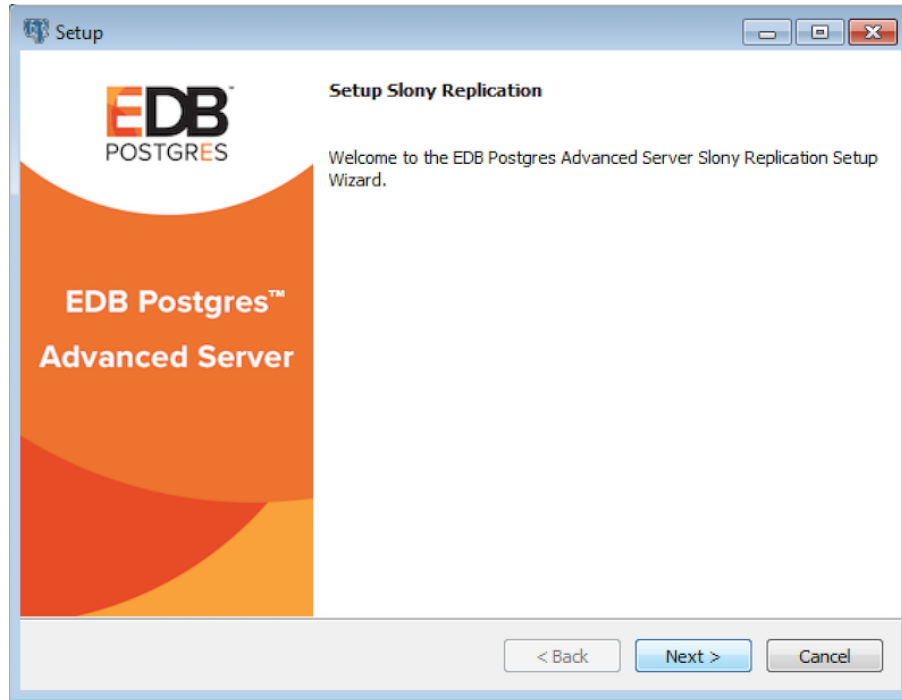


Fig. 6: *The Slony Welcome window*

7. Use the Installation Directory field to specify the directory in which you wish to install Slony Replication. Then, click Next to continue.

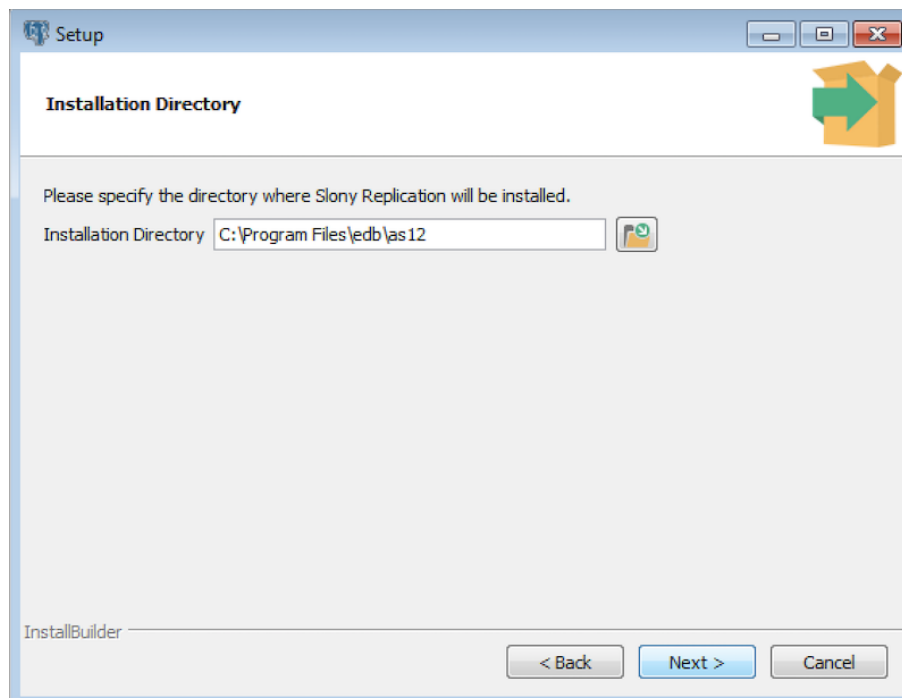


Fig. 7: *The Installation Directory window*

8. The `Ready to Install` window notifies you when the installer has all of the information needed to install Slony Replication on your system. Click `Next` to install Slony Replication. Progress bars inform you as the installation progresses.

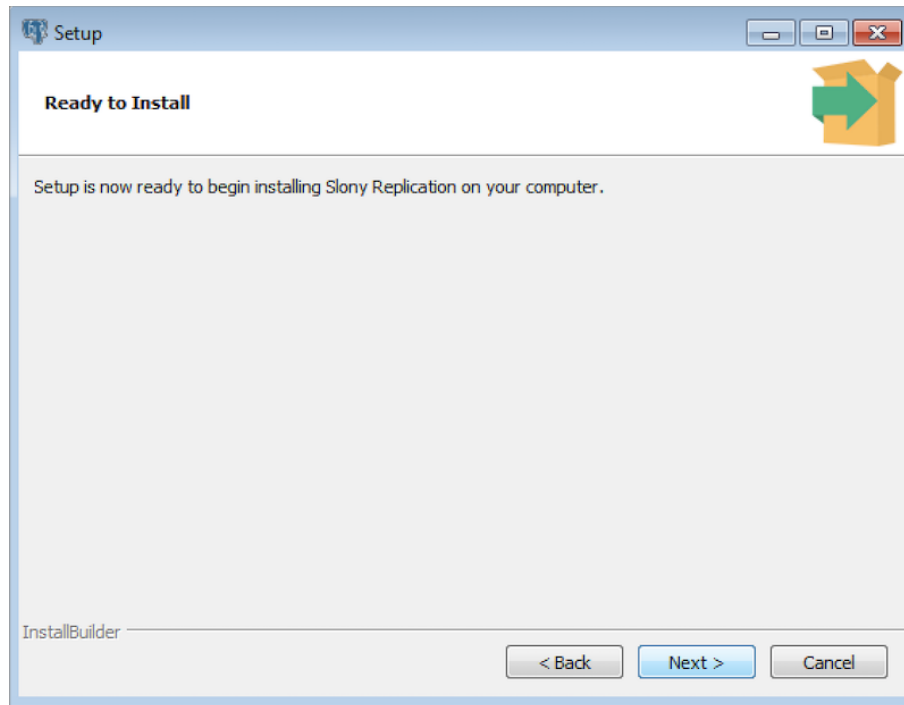


Fig. 8: *The Ready to Install window*

9. The installer notifies you when the setup wizard has completed the installation. Click `Finish` to exit the installer.

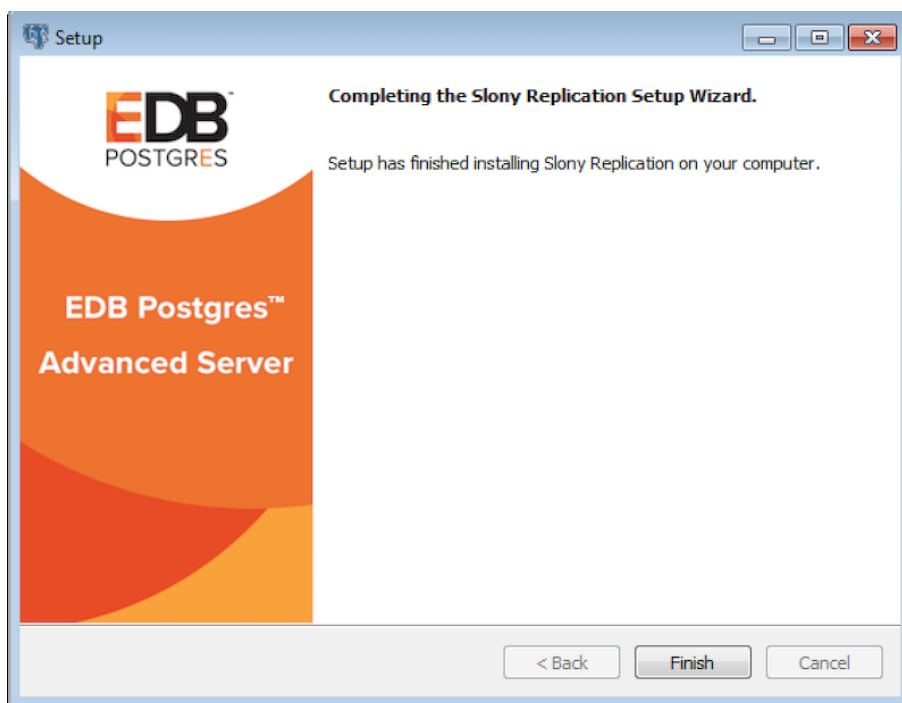


Fig. 9: *The installation is complete*

10. Click **Finish** to exit the StackBuilder Plus.

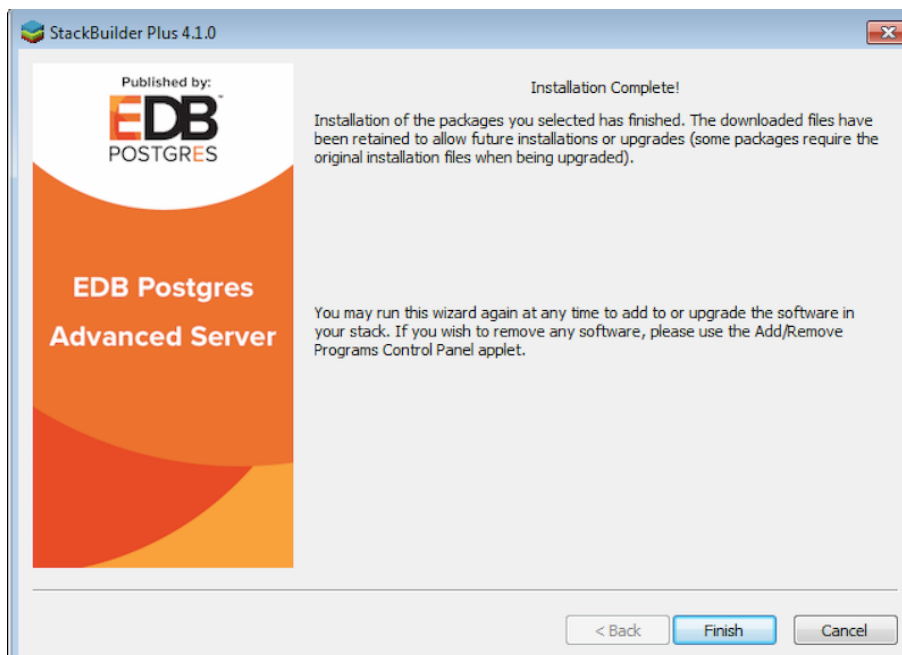


Fig. 10: *Exit StackBuilder Plus*

Configuring Slony Replication

On a CentOS and Debian host, the configuration file (`slony-replication.ini`) is located in the `/etc/edb/slony-replication<xx>` directory and the `ppas95-replication` configuration file (`ppas95-replication.ini`) is located in the `/etc/ppas95-replication` directory. Use the configuration file to specify connection information for the master and standby nodes.

On a Windows host, the configuration files are named `master.conf.sample` and `slave.conf.sample`, and are located in the `/etc` directory, under the Advanced Server installation; before configuring Slony Replication, you must rename the configuration files to `master.conf` and `slave.conf`.

For information about configuring a Slony Replication environment, please refer to the [Slony official project documentation](#).

After specifying configuration options, you must start the Slony Replication service on all nodes of the replication environment. For detailed information about controlling a service, see [EDB Postgres Advanced Server Installation Guide](#).

After installing, configuring and starting the Slony Replication, on a Linux system, you must manually configure your system to autostart the service when your system reboots.

To configure a service to autostart on a Linux system, open a command line, assume superuser privileges, and enter the following command.

On a Redhat-compatible Linux system:

```
/sbin/chkconfig service_name on
```

Where `service_name` specifies the name of the service.

On a Debian-compatible Linux system, use the command:

```
/usr/sbin/update-rc.d service_name enable
```

Where `service_name` specifies the name of the service.

Please note that if you are using a Windows system, the Slony Replication service will be configured to autostart by default. On Windows, you can use the `Service Properties` dialog to control the service startup type.

Upgrading Slony Replication

The following section outlines the process of upgrading Slony Replication.

Assume the identity of the root user and invoke the following command:

```
yum upgrade edb-as<xx>-slony-replication*
```

where <xx> is the Advanced Server version.

For example, to upgrade Slony Replication for Advanced Server version 9.6, you need to execute the command:

```
yum upgrade epas96-replication
```

Similarly, to upgrade Slony Replication for Advanced Server version 9.5, you need to execute the command:

```
yum upgrade ppas95-replication
```

Uninstalling Slony

This section walks you through uninstalling Slony Replication.

4.1 Uninstalling Slony Replication on a RHEL/CentOS Host

To uninstall Slony Replication on a RHEL/CentOS host, assume identity of the root user and invoke the following command:

On RHEL/CentOS 6 and 7:

```
yum remove edb-as<xx>-slony-replication*
```

where <xx> is the Advanced Server version.

Note: To uninstall Slony Replication for Advanced Server 9.5 version, you need to execute the `yum remove ppas95-replication` command.

On RHEL/CentOS 8:

```
dnf remove edb-as<xx>-slony-replication*
```

4.2 Uninstalling Slony Replication on a Debian or Ubuntu Host

To uninstall Slony Replication on a Debian or Ubuntu host, invoke the following command:

```
apt-get remove edb-as<xx>-slony-replication*
```

where <xx> is the Advanced Server version.

Note: To uninstall Slony Replication for Advanced Server 9.5 version, you need to execute the `apt-get remove ppas95-replication` command.

4.3 Uninstalling Slony Replication on a Windows Host

The Slony Replication graphical installer creates an uninstaller in the installation directory.

To uninstall Slony Replication on a Windows Host:

1. Navigate into the installation directory that contains the uninstaller and assume superuser privileges. Open the uninstaller and click **Yes** to begin uninstalling Slony Replication:

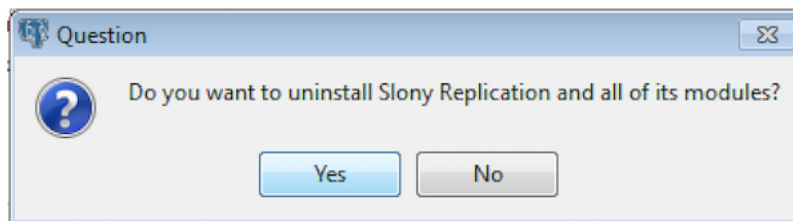


Fig. 1: *The Slony Replication Uninstaller*

2. The uninstallation process begins. Click **OK** once the process completes.

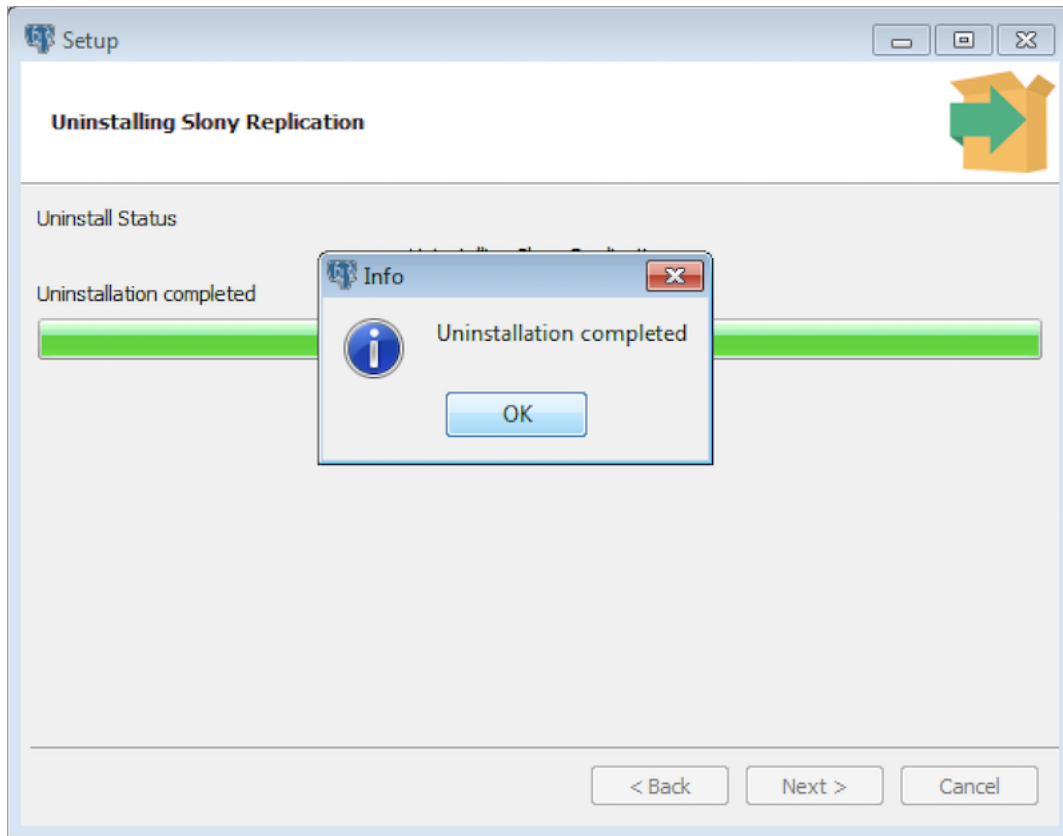


Fig. 2: *Uninstallation completes*

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