

Installation Guide

Version 1.0

pbxnsip Windows Installation Guide

This document details how to install the pbxnsip software onto a Microsoft windows system. The software will run on Windows 2000 and Windows XP professional or server. It will not run on windows 98. There are Linux versions available as seen below but are not detailed in this document. The first step is to download the software to the computer that will run the system. Go to www.pbxnsip.com/downloads and copy the software to the local system. If the local system is not on the Internet then copy it to a CD or a network drive. Once it is copied click on the executable and follow the install shield through to completion.

Download Area
You may download the latest software and documentation from this web site.

Product	Version	Date	Size	Operating System	Type
PBX	1.1	2005/10/02	8.3 MB	Windows 32	Executable
PBX	1.2.2	2005/11/9	8.4 MB	Windows 32	Executable
PBX	1.1	2005/10/02	5.9 MB	Linux	tgz
PBX	1.2.2	2005/11/9	7.5 MB	Linux	tgz
Product Brochure	1.1	2005/10/10	1.0 MB		Document
PBX Datasheet	1.0	2005/07/01	0.5 MB		Document
PBX User Manual	1.0	2005/08/01	1.2 MB		Document
Release Notes	1.1	2005/09/28	0.9 MB		Document
Release Notes	1.2	2005/11/03	0.4 MB		Document
Training Document 1	1.0	2005/08/29	2.2 MB		Document
Training Document 2	1.0	2005/09/01	4.2 MB		Document

Copyright © 2005 pbxnsip Inc. | [Home](#) | [Disclaimer](#) | [Privacy](#) | [Imprint](#)

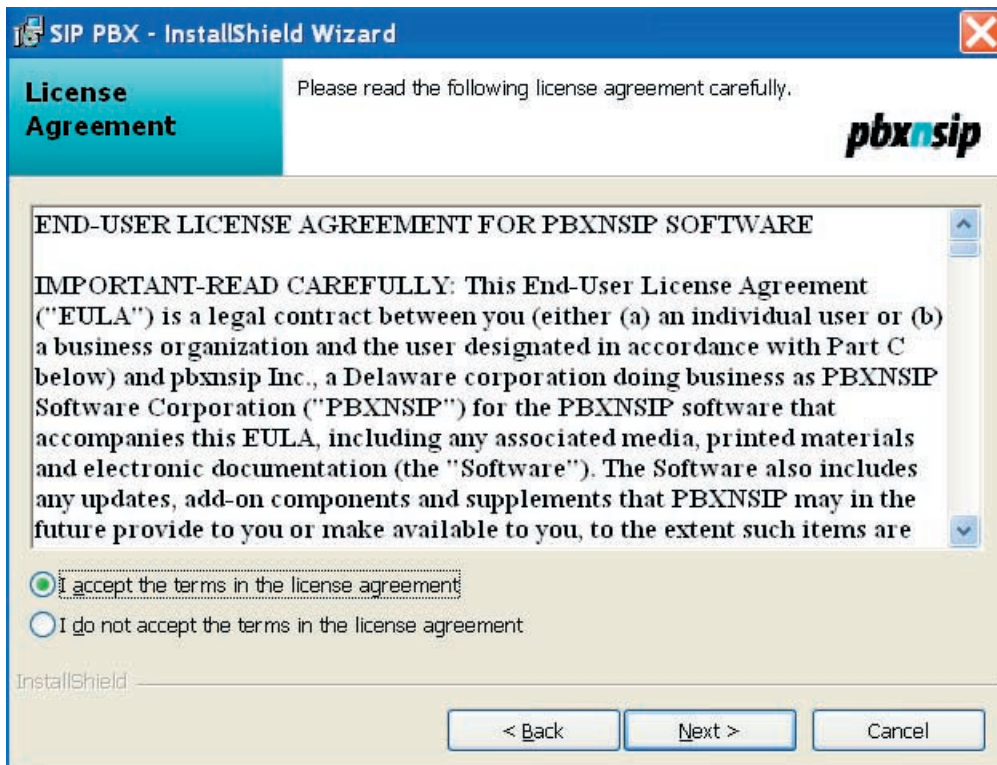
Once it is copied click on the executable and follow the install shield through to completion



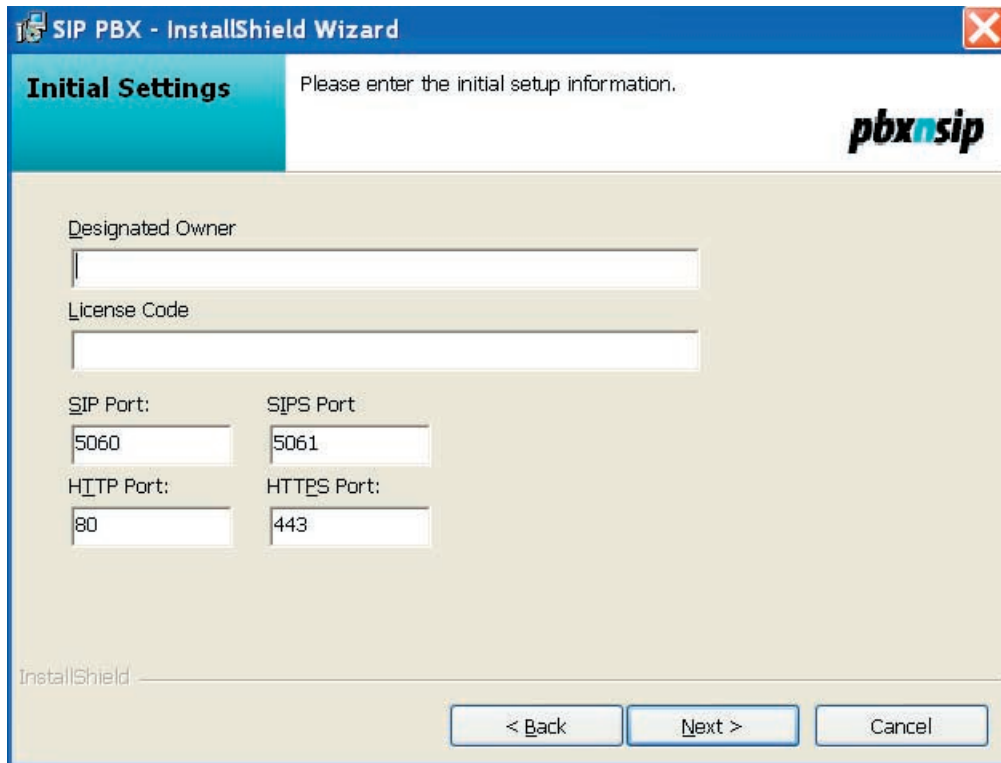
Once the installed shield is launched the following dialogue box will appear.



Select Next and read the license agreement.

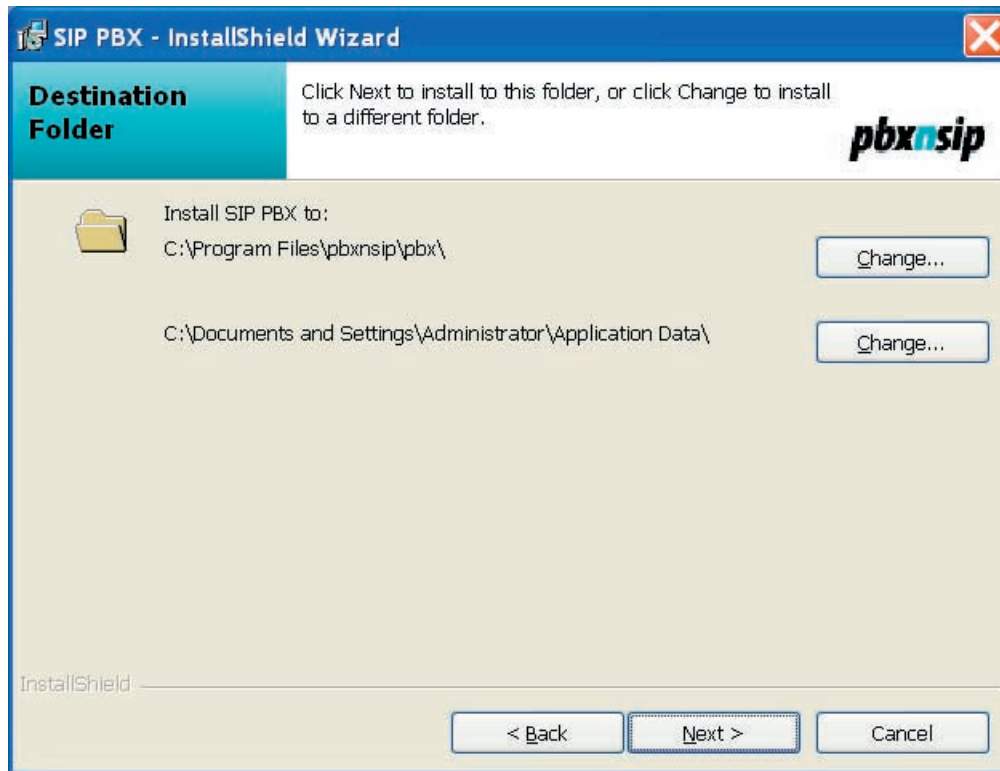


The Designated owner can be any text string and is use for informational purposes. The License code is required in order to have the system process calls. If the License code is not available at the time of installation it can be activated after the installation. The SIP and SIPS ports are defaulted and can be changed later as well. The HTTP and HTTPS default ports are shown as well and can also be changed if needed.

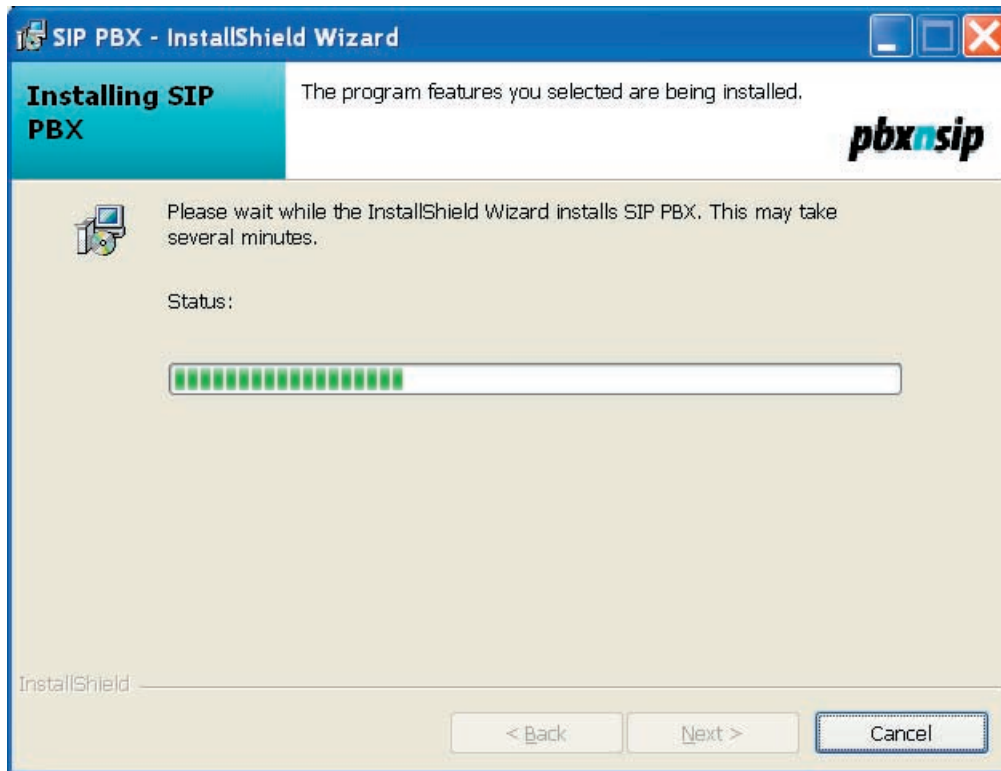


The screenshot shows a Windows-style dialog box titled "SIP PBX - InstallShield Wizard". The window has a blue title bar with a close button (X) in the top right corner. Below the title bar, there is a teal header area with the text "Initial Settings" and a white area with the instruction "Please enter the initial setup information." and the "pbxnsip" logo. The main content area is light beige and contains several input fields: "Designated Owner" (a single-line text box), "License Code" (a single-line text box), "SIP Port:" (a text box with "5060" entered), "SIPS Port:" (a text box with "5061" entered), "HTTP Port:" (a text box with "80" entered), and "HTTPS Port:" (a text box with "443" entered). At the bottom left, the "InstallShield" logo is visible. At the bottom right, there are three buttons: "< Back", "Next >", and "Cancel".

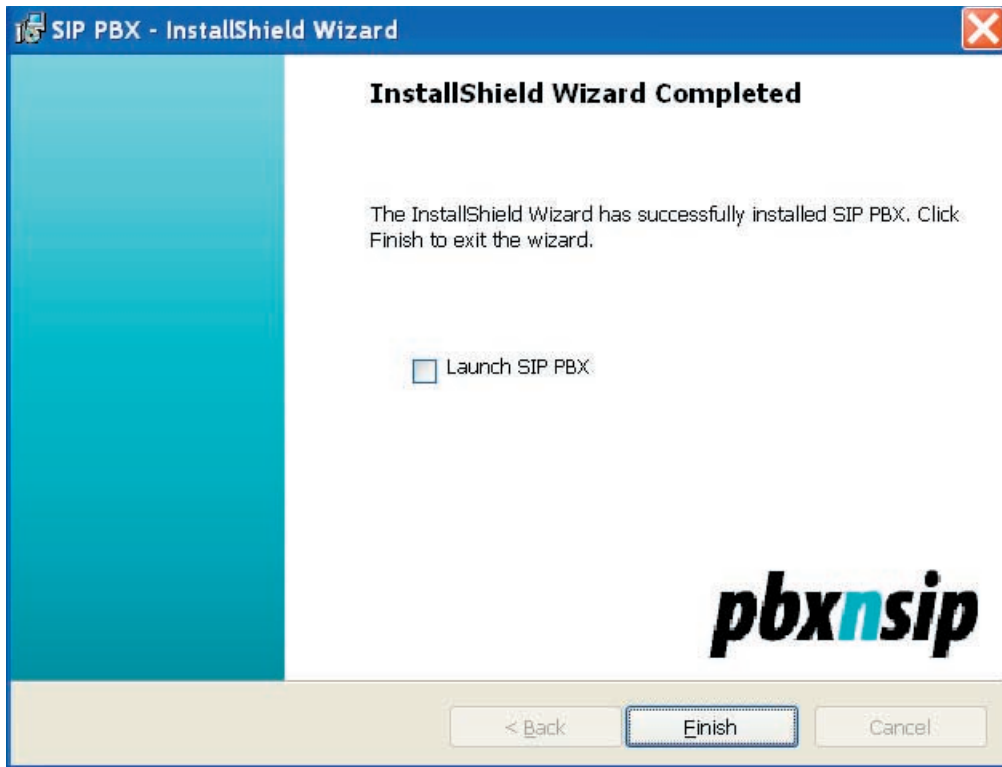
The next dialogue box determines where the system files and user data will be stored. The executable should be stored locally but the user data can be stored on a local system drive with RAID capabilities and one that is regularly backed up.



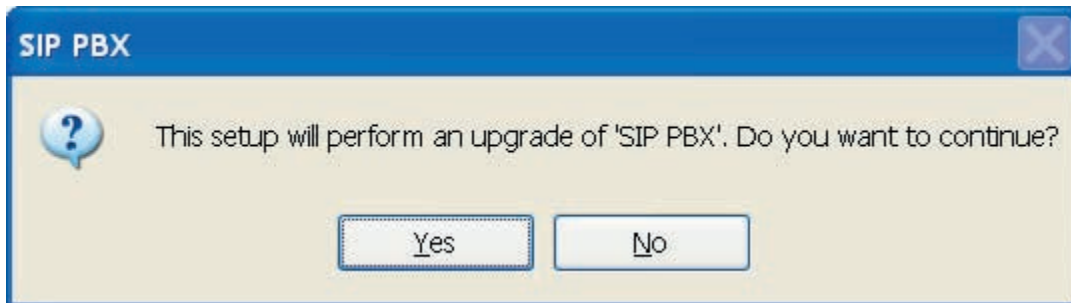
Select next to start the copying of files.



Once the files are copied and all the components are installed then you completed dialogue box will be displayed. Do not select Launch SIP PBX since it is installed as a service and this will just create a dialogue box to appear with no meaning.



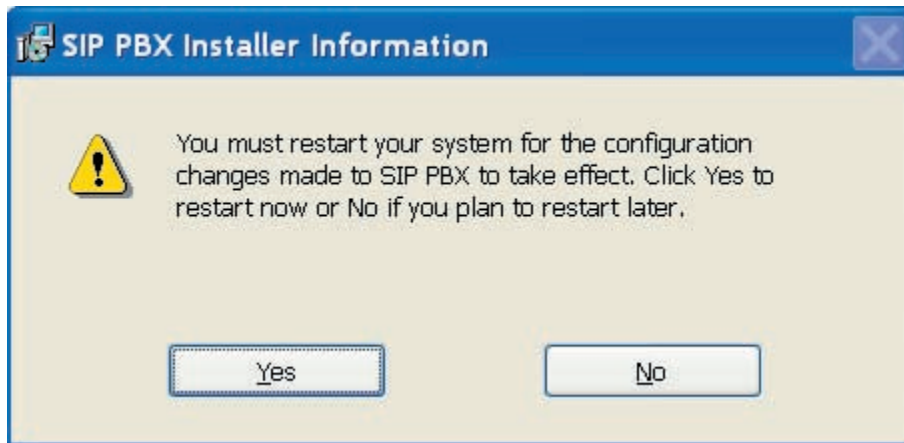
If the software is already installed and one is performing an upgrade the following dialogue box will appear. If you are updating the software you do not need to remove the software first.



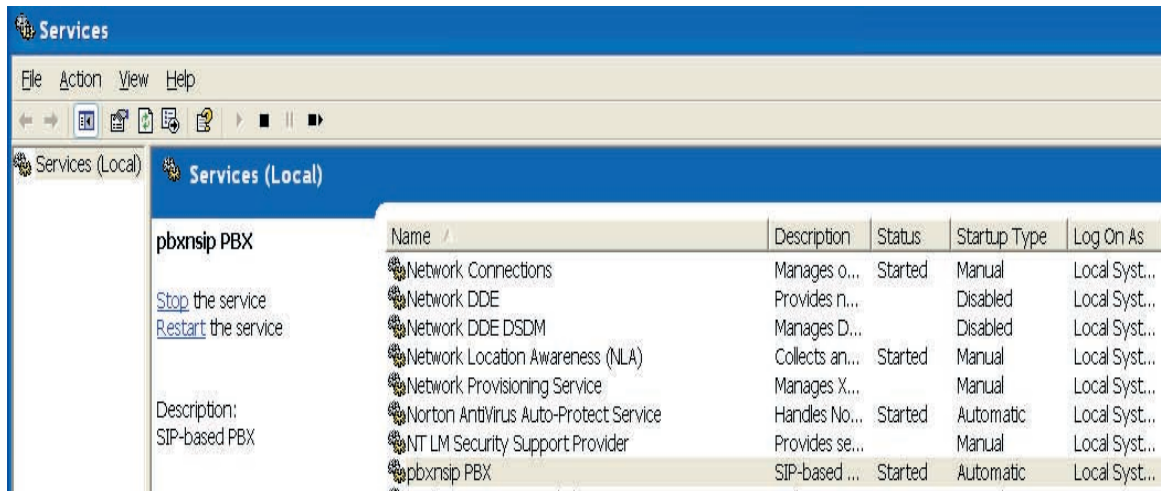
The install shield will start copying files and then the following dialogue box will appear. Press next.



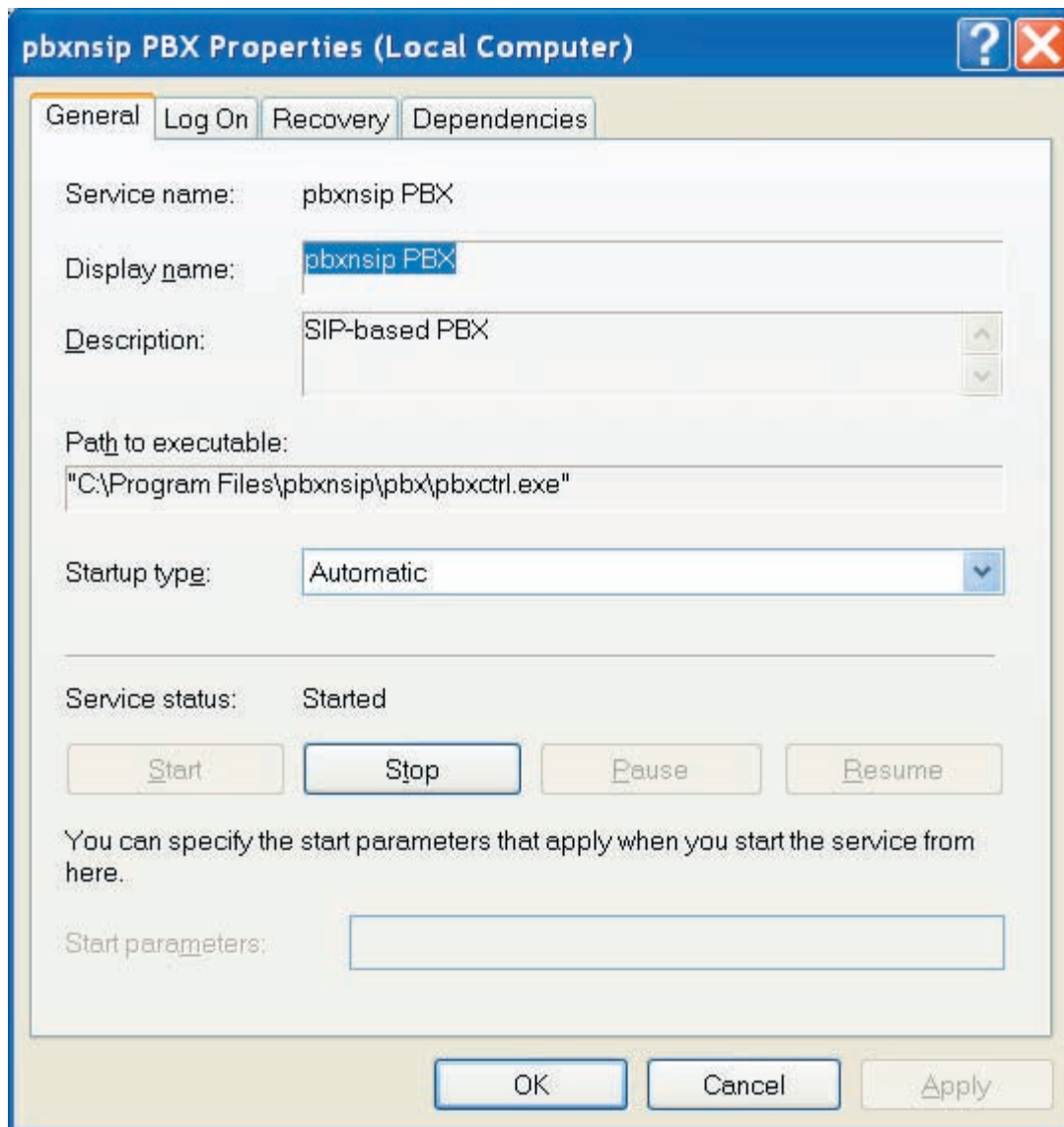
Once the installation is complete the installation shield will prompt to restart the PC. The easiest way it to say yes but you can start the service manually as well. Select No below.



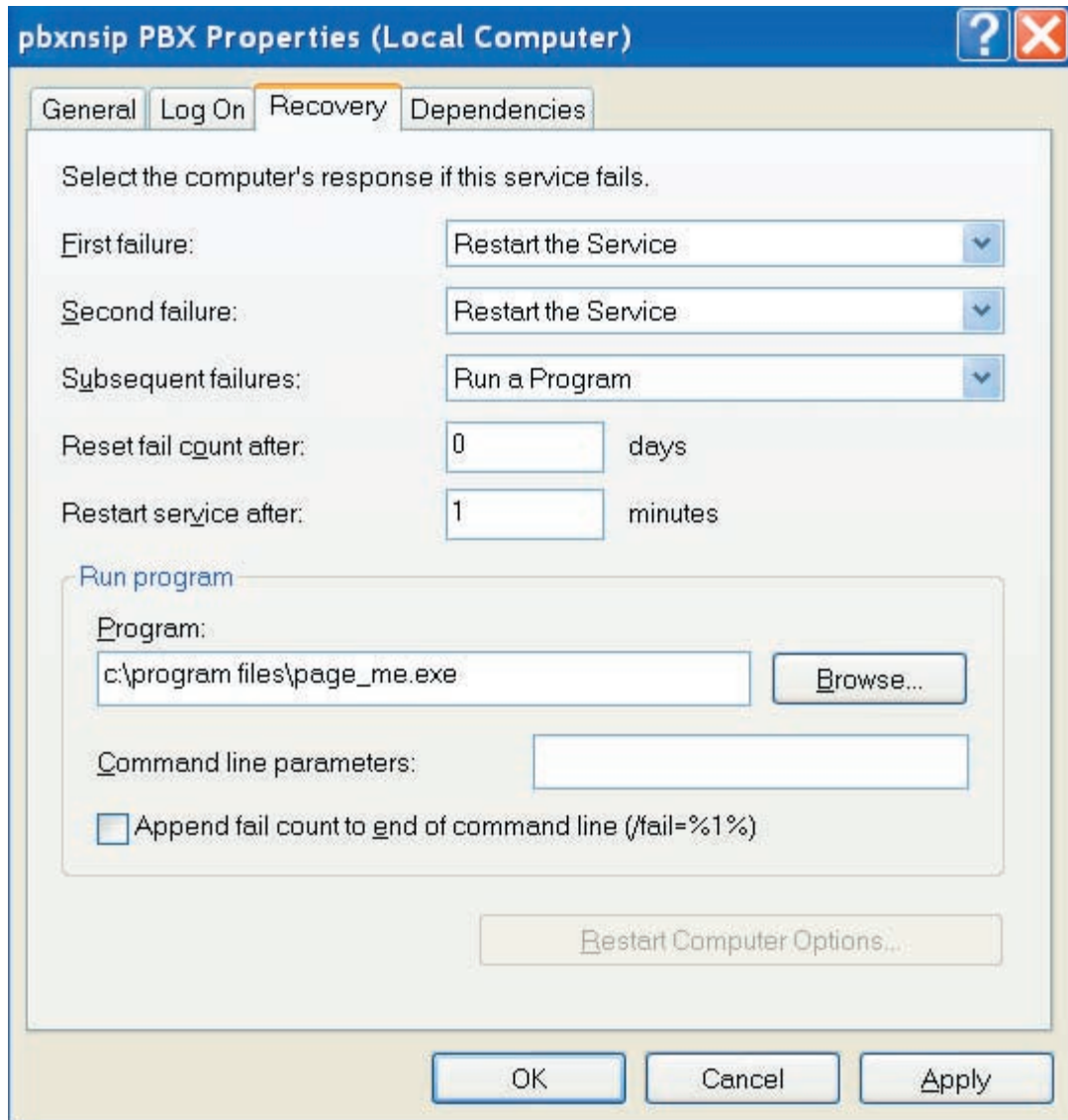
To start the service manually go to the start menu, control panel, administrative tools, services, and scroll down to pbxnsip PBX.



Double click on pbxnsip and you will view the properties window where you can manually start the process.

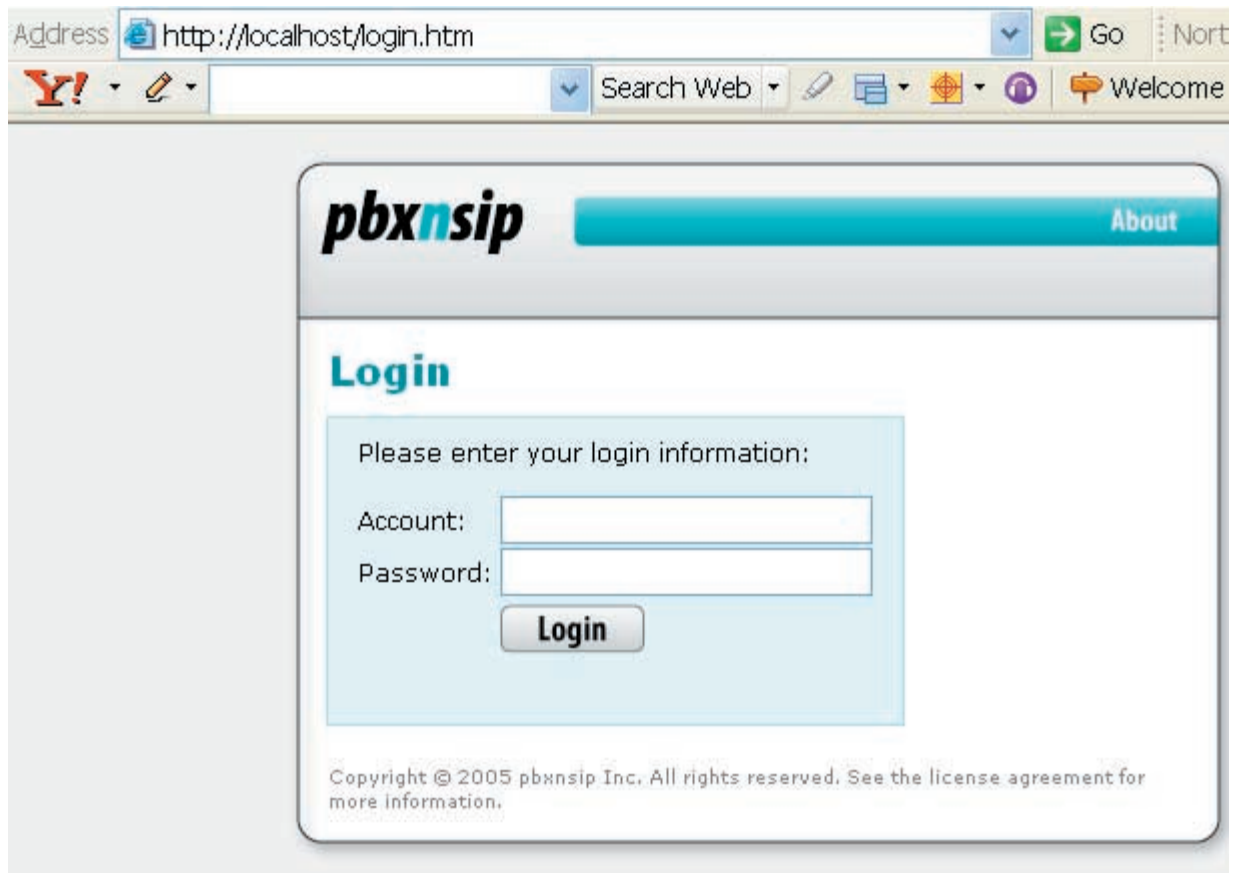


If you click on recovery you can set up the program to restart the program upon failure and then to run a program.



Once the pbxnsip service says it is running then bring up a web browser and enter `http://localhost` It should

Find the login.htm and present The following box. The default account is admin and the default password is blank



Login Screen. This screenshot was taken from a Microsoft Internet Explorer logging into the system.

The other screenshots will be presented without the browser surroundings.

Administrator Screen. After logging in as administrator, you will see the top-level menu for administrators. All functions are also available from the navigation bar on the top of the window.

The first thing that needs to be done is to enter the license code.

The screenshot shows the pbxnsip web interface. At the top left is the pbxnsip logo. To its right is a navigation bar with buttons for Settings, Domains, Status, Help, and Logout. The main content area is titled "Set your PBX up!" and contains three sections:

- Settings:** Accompanied by a gear icon, it explains that settings determine the overall behavior of the PBX. It states that license information must be entered before use and that demo codes are available on the pbxnsip web page. It ends with three asterisks (***)
- Domains:** Accompanied by an icon of three people, it explains that domains are necessary to group users. It notes that domains are similar to email domains, may have aliases, and can be addressed via DNS. It also mentions that administrative rights can be assigned to users. It ends with three asterisks (***)
- Status:** Accompanied by a magnifying glass icon, it explains that the status is important for troubleshooting or tracing activity. It mentions that call traces and active calls can be viewed, and that the logfile can be accessed from this page.

At the bottom of the page, there is a copyright notice: "Copyright © 2005 pbxnsip Inc. All rights reserved. See the license agreement for more information."

The first thing that needs to be done is to enter the license code via setting license code.

The screenshot shows the pbxnsip web interface. At the top, there is a navigation bar with tabs for Settings, Domains, and Status. Below this, there is a sub-navigation bar with tabs for System, Ports, and License. The main content area is titled "License" and contains the following text: "Please enter your license code here. You can get licenses from the [online](#) store. On this link you will also be able to receive demo license codes." Below the text are two input fields: "License Code:" with the value "PBX-" and "Upgrade Code (optional):" which is empty. A "Save" button is located at the bottom left of the form.

Once the license is entered verify that it was accepted. You should see the license status with the appropriate license type. The example below is a SME 50 extension temporary license. You will also notice the interfaces that the software is listening on. It can listen multiple interfaces so if there is a private and public IP address one can put the phones on the private IP and the trunk on the public IP.

The screenshot shows the pbxnsip web interface. At the top, there is a navigation bar with tabs for Settings, Domains, and Status. Below this, there is a sub-navigation bar with tabs for System, Logfile, Call Log, and Calls. The main content area is titled "System Status Overview" and contains the following text: "Please use the information on this web page when you address the support. It makes it much easier to locate the problems." Below the text is a table with the following information:

License Code:	[REDACTED]
License Status:	SME (50)
License Expires:	179 days
Version:	1.2.2
Working Directory:	C:\Documents and Settings\Administrator\Application Data\pbx
Routing Table:	1 127.0.0.1 2 192.168.1.101

Copyright © 2005 pbxnsip Inc. All rights reserved. See the license agreement for more information.

Once the license code is entered then you need to go into the domain. A domain is a logical grouping of users. The system can support multiple companies or just one. Leave the default localhost if you are unsure or just want to test. If you wanted multiple companies to share the system then you would create two domains i.e. companya.com and companyb.com and you would create a DNS record to point to the IP address that the system is on. In this scenario you would need a static IP address for the machine.

pbxnsip Settings Domains Status Help Logout

Show List Create

Current Domains

This list shows the currently available domains on this system. Please note that setting up the domains on this system does not mean that you automatically set up the necessary DNS records. By clicking on the edit button, you will move into domain mode. Please be careful clicking the delete button, because all domain data will be lost.

Alias	Domain	Users	Edit	Delete
localhost	localhost	0		

Copyright © 2005 pbxnsip Inc. All rights reserved. See the license agreement for more information.

Click on the localhost and you will enter the domain mode. Here you can configure system.

pbxnsip Settings Accounts Trunks Dial Plans Status Help Logout

Managing localhost

Domain **Settings** are necessary to customize the behavior of the PBX in this domain. Here you can define how features are mapped to star codes.

Accounts are anything that you can dial on your PBX. Accounts include Extensions, Auto Attendants, Park Orbits. These numbers may be service numbers of the PBX as well as the numbers of your extensions. Extensions are accounts that are assigned to your users. They may include a mailbox and other features like do not disturb and redirection.

Trunks are used to connect your PBX to the outside world. Trunks can be PSTN gateways in your network or they can be ITSP accounts that you signed up for. The PBX offers various generic accounts types as well as some special trunks types for the most common Internet Telephony Service Providers.

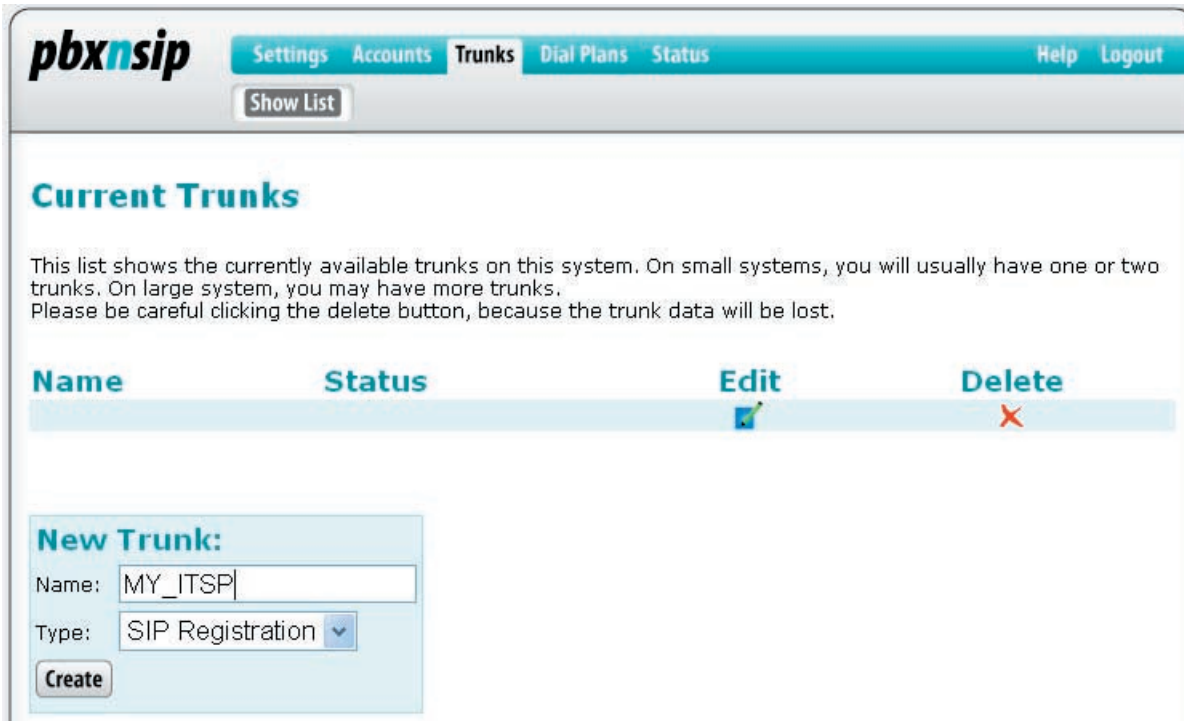
Dial Plans tell the PBX how to reach an outside number. Usually you will use a trunk to terminate outgoing calls. But dial plans may contain more information about the cost of the call. Each extension may have its own dial plan. With this technology, you can allow or restrict extensions from making calls to specific numbers.

The **Status** is important for you when something is not working as expected or when you want to trace the activity of the PBX. Here you can see call traces, see which endpoints are registered to your PBX and which calls are currently active. You can also access the logfile of the domain from here.

pbxnsip is a back to back user agent or B2BUA. That means logically there

are trunks on one side and extensions on another side just like a traditional PBX.

Before you create users or extensions one should create a trunk, then a dial plan, then the extensions. The example below creates a Trunk to an ITSP that requires Registration.



Once the Trunk is created then select edit trunk. You will need the account name which is usually the same as the username.

You will also need the Name or IP address of the Registrar. If you are on a private IP address you may have to set the STUN server or the outbound proxy if your ITSP does not have a Session Border Controller.

Edit Trunk

Name:	<input type="text" value="MY_ITSP"/>
Type:	<input type="text" value="SIP Registration"/>
Display Name:	<input type="text" value="MY_ITSP"/>
Account:	<input type="text" value="5551212"/>
Registrar:	<input type="text" value="SIP.MYITSP.COM"/>
Username:	<input type="text" value="5551212"/>
Password:	<input type="password" value="••••••••"/>
Password (repeat):	<input type="password" value="••••••••"/>
Outbound Proxy:	<input type="text"/>
STUN Server:	<input type="text"/>
Keepalive Time:	<input type="text"/>
Extension:	<input type="text"/>
Is Secure:	<input type="radio"/> on <input checked="" type="radio"/> off
Strict RTP Routing:	<input type="radio"/> on <input checked="" type="radio"/> off

Edit

Once the trunk is defined then create a dial plan. The simple diaphan below will send anything beginning with a 9 to the MYITSP trunk.

The screenshot shows the 'Edit Dial Plan default' page. At the top, there is a navigation bar with 'Settings', 'Accounts', 'Trunks', 'Dial Plans', and 'Status'. The 'Dial Plans' tab is active. Below the navigation bar, there are 'Show List' and 'Edit' buttons. The main heading is 'Edit Dial Plan default'. Below this, there is a 'Quick Usage' section with text: 'Quick Usage: Use simple patterns for matching the input (for example, "9*" or "911"), and just leave the replacement empty. Please see the online help for more information on how to use the advanced features of the dial plan.' Below the text is a table with three columns: 'Pref Trunk', 'Pattern', and 'Replacement'. The 'Pref Trunk' column has two rows, each with a '100' in a box and a dropdown menu showing 'MYITSP'. The 'Pattern' column has two rows, with the second row containing '9*' in a text box. The 'Replacement' column has two empty text boxes. At the bottom left of the table is an 'Edit' button.

To create a new account select the appropriate account type from the drop down list.

The screenshot shows the 'Create New Accounts' page. At the top, there is a navigation bar with 'Settings', 'Accounts', 'Trunks', 'Dial Plans', and 'Status'. The 'Accounts' tab is active. Below the navigation bar, there are 'Create' and 'Show List' buttons. The main heading is 'Create New Accounts'. Below this, there is a text block: 'Accounts are numbers that you can call on the PBX. Please select the account type that you would like to create. **Tip:** You may enter more than one name. If you use a space between the names, the PBX will set up several accounts for you. If you use a slash between the names, you will set up one account with different alias names. For example, "123/theo 124/fred" will set up two accounts, the first with the names 123 and theo and the second with the names 124 and fred.' Below the text is a form with a table. The table has columns for 'Number', 'Password', and 'Email'. The 'Number' column has two rows, numbered 1 and 2. The 'Password' and 'Email' columns have two empty text boxes each. To the left of the table, there are labels for 'Account Type:', 'Dial Plan:', and 'Plug and Play:'. The 'Account Type:' dropdown menu is open, showing a list of options: 'Extension', 'Attendant', 'Conference', 'Hunt Group', 'Paging', 'Service Flag', and 'IVR Node'. The 'Extension' option is selected and highlighted in blue.

Account List. This screenshot shows an excerpt of the account list. You can see which accounts are available and some short information about the status if the account.

Create Extension. Here you see how several extensions are created. Unless special settings should be set up with these users, they can be used right away and

are ready for automatic provisioning.

Create New Accounts

Accounts are numbers that you can call on the PBX. Please select the account type that you would like to create.

Tip: You may enter more than one name. If you use a space between the names, the PBX will set up several accounts for you. If you use a slash between the names, you will set up one account with different alias names. For example, "123/theo 124/fred" will set up two accounts, the first with the names 123 and theo and the second with the names 124 and fred.

Account Type:	<input type="text" value="Extension"/>			
Dial Plan:	<input type="text" value="Default"/>			
Plug and Play:	<input type="text" value="Manual"/>			
Number	Name	Password	Email	
1	<input type="text" value="123/2124354123"/>	<input type="text" value="Verena Cozira"/>	<input type="text" value="•••••••"/>	<input type="text" value="verena@hotmail.com"/>
2	<input type="text" value="124/2124354124"/>	<input type="text" value="Helena Wire"/>	<input type="text" value="••••••••"/>	<input type="text" value="helena@yahoo.com"/>
3	<input type="text" value="125/2124354125"/>	<input type="text" value="Marcus Quest"/>	<input type="text" value="••••••••"/>	<input type="text" value="marcus@sprint.com"/>
4	<input type="text" value="126/2124354126"/>	<input type="text" value="Jim Average"/>	<input type="text" value="•••••••"/>	<input type="text" value="jim@aol.com"/>
5	<input type="text" value="127/2124354127"/>	<input type="text" value="Fred Klemino"/>	<input type="text" value="•••••••"/>	<input type="text" value="fred@hotmail.com"/>
6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
9	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
10	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

