

# SHORETEL NUISANCE CALL HANDLER

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## Overview

The ShoreTel Nuisance Call Handler application is a Windows Service which normally runs all the time. Depending on configuration, it can monitor all of the station, hunt groups, workgroups route points and auto attendant/voice mail extensions on the system or some subset of them for inbound calls. When an external call presents, the caller ID is retrieved and if it is empty then, depending on configuration, it will be left to ring or it can be immediately transferred to a configured extension. If the call has caller ID then this is compared to a configured list of “nuisance” calls and if the ID is on the list then, depending on configuration, the call is either disconnected or transferred to a configured extension. The service can be configure to compare only the digits in the caller ID with the blocked numbers or can compare the full text exactly if more control is needed. Whenever the service transfers a call due to no caller ID or a nuisance caller ID it will mark the call so that if the call presents to an extension that is being monitored it will no longer be blocked. This is to prevent calls looping and also to allow the calls to be sent to a person who could decide to allow the call to continue and transfer the call.

In addition to the service, a separate configuration program provided as a standard Windows desktop application is also installed and can be run as needed. The config program must be run directly on the server. It allows easy modification of the type of extensions that will be monitored and the list of extensions if all extensions of a specified type will not be monitored. It also allows configuring some of the logging options. Finally it allows stopping and starting the service. Any changes are seen by the server and don’t require a server restart.

## Important Notes

- This application intercepts calls when they first present to a monitored extension. What this means is that in the case of calls that are intercepted at user's phones, the call will briefly present. This means that the user's phone will light up and briefly ring or if the user is off hook will briefly play a call waiting tone.
- Similarly, if used with automated extensions such as Contact Center route points, workgroups, hunt groups and so on, if a call which presents is rapidly forwarded then this application cannot be used to disconnect or intercept those calls. The extension should be configured to delay transferring the call for up to one second.
- In order to intercept calls on Hunt Groups, the call must first connect on the group. For example, this can't be used to handle shared call appearances because these calls present on a pseudo hunt group and never actually connect.

## Installation

The application must be installed on a ShoreTel Server. This may be the customer's Headquarters server or it could be a separately configured Distributed Voice Server (DVS.)

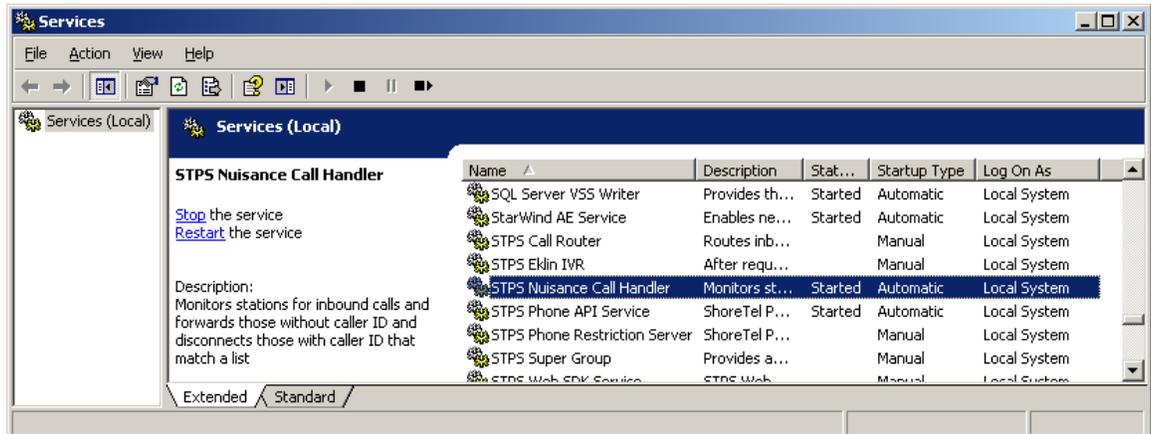
In addition to this documentation, we supply the setup executable and associated MSI file in the form of a zip file. You should unzip this to a folder and run the setup from the folder. **Do not run the setup directly from the zip file.**

To install the application follow these steps:

- After unzipping the setup files, run Setup.exe.
- After the welcome screen, select the Installation Directory and click Next and then click Next again to start the install.
- When the install completes click Close to complete the installation.
- The application should now be installed. A shortcut to run the configuration application is placed on your desktop as well as in your Programs | ShoreTel group:



- The service should now be running. You can confirm this by running the Windows Services application and checking for the "STPS Nuisance Call Handler" entry:

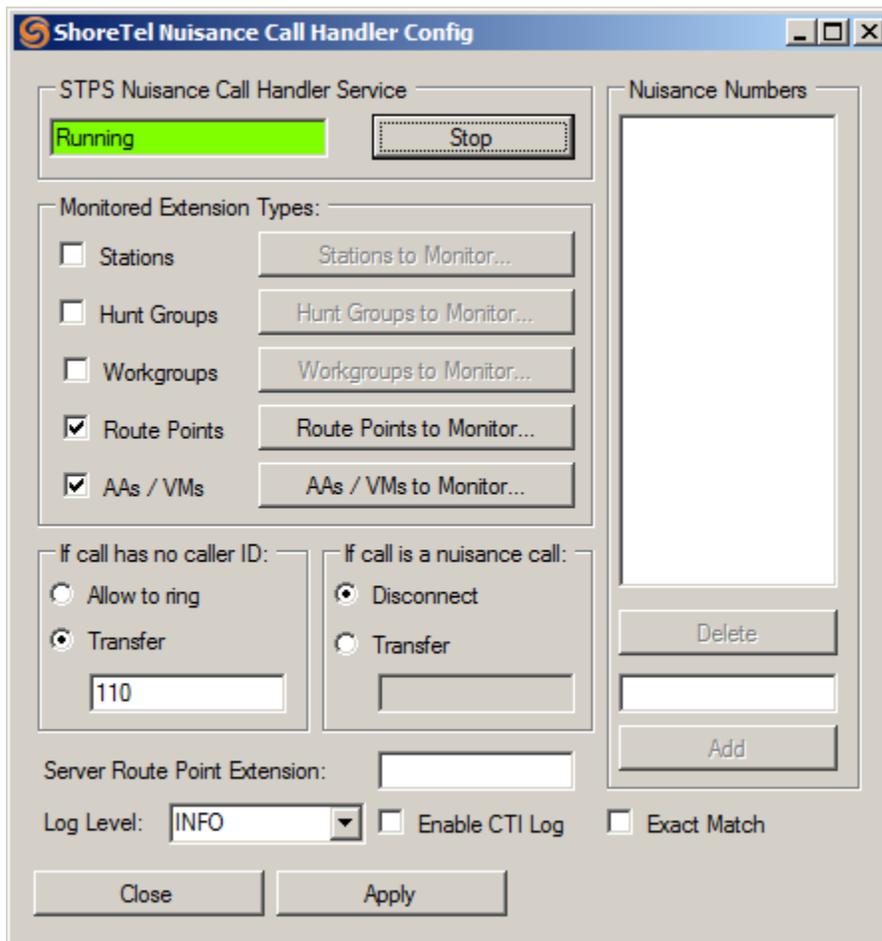


Note that the Startup Type is set to Automatic. This ensures that the service will always be run whenever the Server PC is started.

## Configuring the Application

Once the service is installed it will be running and immediately functional. The default settings are such that it will not transfer or disconnect any calls. Before it will work you will need to configure the service using the config utility.

To run the Config program, use the desktop icon or the Programs | ShoreTel icon. This shows the main screen of the config program:



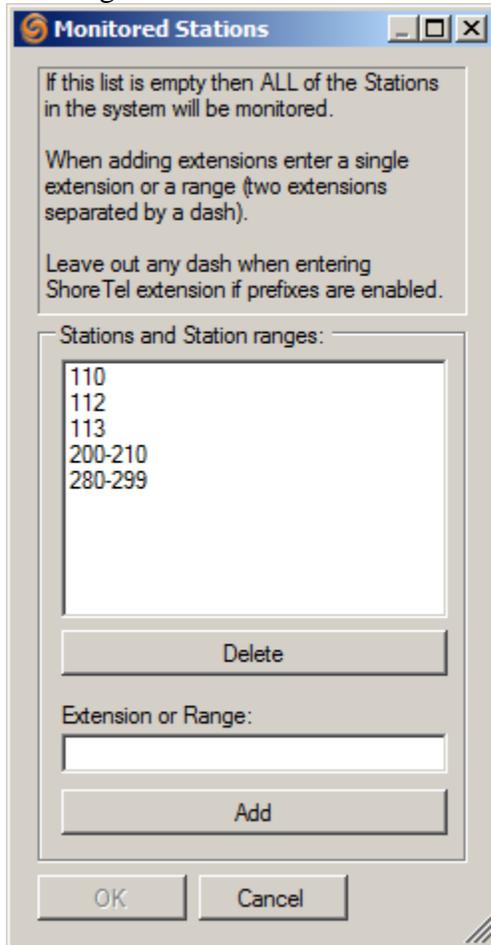
The user interface has a number of areas or "panes" and a as well as several controls at the bottom. Starting at the top the areas are:

- **STPS Nuisance Call Handler Service**  
Shows the current status of the service and allows stopping it if it is currently running or starting it if it is currently stopped. Alternatively the service can be started or stopped using the Windows Service application as shown above.
- **Monitored Extension Types**  
Allows the control of monitoring of which types (stations, hunt groups, workgroups, route points, and auto attendant / voice extensions) are monitored for nuisance calls. The default is to monitor all extensions of the specified type across the system. However, using the appropriate "Monitor..." button, a list of extensions can be entered and only these will be monitored. See the section below on the Extension Monitor dialog.
- **If call has no caller ID**  
Allows control over how calls that present to a monitored extension without a caller ID are handled. The choice is to allow it to ring (the default) or transfer it to a specific extension. If you select Transfer you should enter a valid extension.

- If call is a nuisance call  
Allows control over how calls that present to a monitored extension from a nuisance caller are handled. A nuisance caller is a caller whose caller ID matches a number or prefix in the Nuisance Call list. The choice is to allow it to disconnect it (the default) or transfer it to a specific extension. If you select Transfer you should enter a valid extension.
- Nuisance Numbers  
Where the list of caller IDs to block is maintained. To add an entry to the list, enter it in the edit box at the bottom of the pane and click the Add button. To delete entry(s) from the list, select one or more (you can use Shift to extend your selection or Ctrl to select disparate elements) and click the Delete button. Changes to the list are made right away. You can enter full numbers or you can enter prefix digits. For example, to disconnect or transfer all calls from area code 1-203 you could enter just 1203. **Note that any national number prefix must be included so for the North American Dialing Plan all external numbers would start with 1.**
- Server Route Point Extension.  
If you intend to monitor calls to hunt group and you plan to handle nuisance calls by disconnecting then you must provide the extension of a route point. Because of a quirk in how ShoreTel hunt group calls work, the only way they can be disconnected without leaving the hunt consulting calls still ringing is by transferring the hunt group call to another extension and then disconnecting it there. Hunt group calls which are sent to the route point are immediately disconnected by service as soon as they present to the route point. The route point is created in Director and should have a call stack sufficient to handle a few calls. Make sure that forwarding is disabled.
- Log Level  
This allows the services application log level to be set. It ranges from OFF (no logging) through DEBUG (full logging.) Typically you will want this set to either WARN or INFO. WARN should log any irregularities and errors while INFO will also log each call that was handled. DEBUG will typically only be used when requested by ShoreTel Professional Services to assist with tracking down an issue. The log files are written to the Logs folder in the application's install folder.
- Enable CTI Log  
If this is checked then the separate lower level CTI (computer telephony interface) log will be written. The log files are written to the Logs folder in the application's install folder.
- Exact Match  
If this is checked then the nuisance call IDs are compared exactly. If this is unchecked then only the digits in the call IDs are compared to determine if a call should be blocked. **Note that any national prefix (specifically '1' in North America) must be included even when Exact Match is not enabled.**

## Extensions to Monitor

Clicking one of the three buttons which end in “Monitor...” shows this a dialog like this:



This particular dialog is the one used to enter stations and ranges of stations. The dialog for hunt groups, workgroups, route points and AA/VMs is essentially the same. Make note of the comment in the dialog that makes these three points:

- If the list is empty then ALL extensions of the appropriate type will be monitored. If even a single extension or extension range is entered then it will the list will be used instead of monitoring all extensions.
- You can enter individual extensions or ranges of extensions. Ranges entered in the form *low extension-high extension.*, i.e., 200-210 in the above dialog means ANY stations with an extension between 200 and 210 inclusive will be monitored.
- Because the dash is used to indicate a range of extensions, you should not enter a dash that is part of extensions if you have prefix dialing enabled on your ShoreTel system. Instead just enter the extension without the dash. Only use the dash to indicate an extension range.