

STONEVOICE Application Suite System Guide

Introduction

Stonevoice™ is the first Cisco™ partner to offer a complete suite of applications for the Cisco Unified Communications solutions: Accounting and Billing, Fax over IP, Distributed Auto Attendant, Audio and Video Conference, Skype Gateway. The **Stonevoice Application Suite (SAS)** is a single package including a set of these applications integrated in a web based environment for both administration and user access.

This guide will lead you through the simple process of configuring the applications bundled in the SAS and the Cisco platform to work together.

Installation Requirements

Stonevoice Application Suite (SAS) is a software-only product which you can download from Stonevoice Download Area (www.stonevoice.com/auto/downloads). The SAS is server-side product, i.e. no installation is needed on the users' PCs. It only requires a single server connected to the network. No additional hardware (e.g. cards or adapters) are needed on the server or on the Cisco platform.

The package must be installed on a Windows based machine. The machine must not be a domain controller. Virtual Machines based on VMware are supported under certain conditions.

The Stonevoice Application Suite also requires an e-mail server to send and receive faxes through email, to send voicemail messages, reports, and administrative alerts. You'll only have to configure an account for POP3/SMTP on your e-mail server.

The Stonevoice products do support several Cisco Unified Communications versions: an up-to-date list of hardware, software, and operating system requirements and compatible platforms is available here:

<http://www.stonevoice.com/auto/requirements>

Configuration Task List

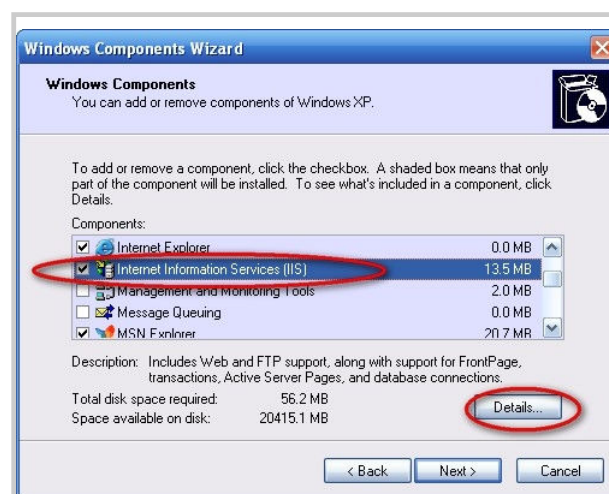
The Stonevoice solution can be accessed through a web based interface. It has to be properly configured by these simple tasks:

- Setup the Operating System
- Install the prerequisites
- Install the latest SAS package
- Configure the shared SAS system parameters
- Configure the list of users
- Setup specific parameters for each application
- Configure the Cisco Unified CallManager
- Install helper applications (if needed)
- Configure the mail server (StoneFax only)
- Activate the licenses

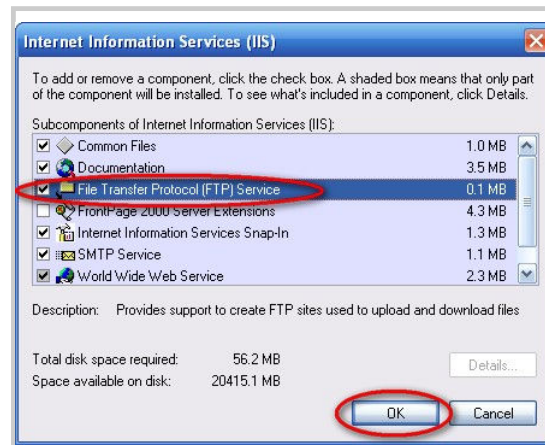
Operating System Setup

Perform a standard installation of the operating system on the target machine. The SAS has a web-based interface that requires IIS to work. So make sure that it is installed on the target machine.

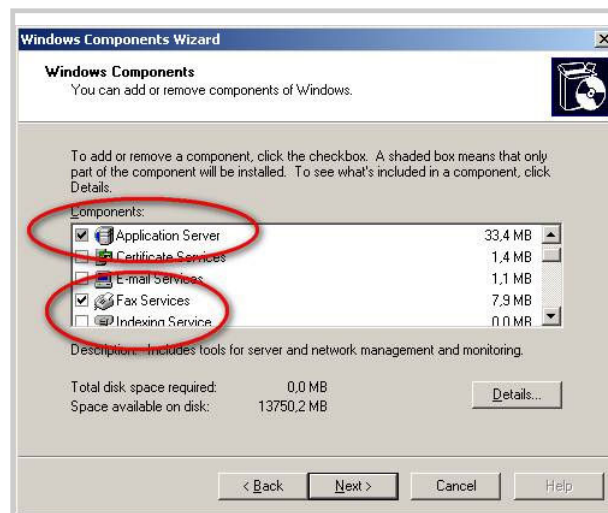
- Click on Control Panel->Add or Remove Programs
- Select Add/Remove Windows Components
- Select Internet Information Services (IIS)



- Activate also the support for FTP. Select File Transfer Protocol (FTP) Service and click OK.



If you plan to install StoneFax, Microsoft Fax Services, which are a standard Windows component, are required. Do not install Microsoft Fax Services from a Terminal Services session; install it from console or VNC. During the installation choose "Share the Fax Printer" when asked.



The installation of either component may require the operating system CD-ROM to be inserted in the CD-ROM drive.

When the process is completed ensure that the SAS server is able to receive FTP packets (no firewall between the server and the PBX).

Prerequisites

Tip: on Stonevoice Download Area (<http://www.stonevoice.com/auto/downloads>) you'll find a package which installs all the general prerequisites at once.

Note: Prerequisites installation may take up to an hour.

Starting from version 3.0 the Stonevoice Application Suite requires **.Net framework 3.5 SP1 runtime**. Please download it from Microsoft web site and install it on the target machine. Please install also the latest update:

- [.Net Framework 3.5 with Service Pack 1](#)
- [.Net Framework 3.5 Sp1 Family update](#)

Stonevoice recommends that you keep the Operating System of the target machine up-to-date by running Windows Update.

Please ensure that the Windows Management Instrumentation is active on the server and it's startup type is **automatic**.

Services (Local)

Windows Management Instrumentation

[Stop](#) the service
[Pause](#) the service
[Restart](#) the service

Description:
 Provides a common interface and object model to access management information about operating system, devices, applications and services. If this service is stopped, most Windows-based software will not function properly. If this service is disabled, any services that explicitly depend on it will fail to start.

Name	Description	Status	Startup Type	Log On As
Telephony	Provides T...		Manual	Local System
Telnet	Enables a ...		Disabled	Local System
Terminal Services	Allows mu...	Started	Manual	Local System
Themes	Provides u...		Manual	Local System
ThinkPad HDD APS Logging Service		Started	Automatic	Local System
ThinkPad PM Service		Started	Automatic	Local System
Uninterruptible Power Supply	Manages a...		Disabled	Local Service
Universal Plug and Play Device Host	Provides s...		Disabled	Local Service
Uvnc_service			Manual	Local System
Visual Studio 2008 Remote Debugger	Allows me...		Disabled	Local System
Visual Studio Analyzer RPC bridge			Manual	Local System
VMware Authorization Service	Authorizati...	Started	Automatic	Local System
VMware DHCP Service	DHCP serv...	Started	Automatic	Local System
VMware NAT Service	Network a...	Started	Automatic	Local System
VNC Server			Manual	Local System
VNC Server Version 4			Manual	Local System
Volume Shadow Copy	Manages a...		Disabled	Local System
WebClient	Enables Wi...		Manual	Local Service
Windows Audio	Manages a...	Started	Automatic	Local System
Windows CardSpace	Securely e...		Manual	Local System
Windows Firewall/Internet Connection Sha...	Provides n...		Manual	Local System
Windows Image Acquisition (WIA)	Provides i...	Started	Automatic	Local System
Windows Installer	Adds, mo...		Manual	Local System
Windows Live Setup Service	Windows L...		Manual	Local System
Windows Management Instrumentation	Provides a...	Started	Automatic	Local System
Windows Management Instrumentation Dri...	Provides s...		Manual	Local System

Windows Management Instrumentation Properties (... ? X)

General | Log On | Recovery | Dependencies

Service name: winmgmt

Display name: Windows Management Instrumentation

Description: Provides a common interface and object model to access management information about operating

Path to executable: C:\WINDOWS\system32\svchost.exe -k netsvcs

Startup type: Automatic

Service status: Started

Start Stop Pause Resume

You can specify the start parameters that apply when you start the service from here.

Start parameters:

OK Cancel Apply

Some applications have additional prerequisites.

Billy Blue's Prerequisites

To configure and run Billy Blue's you have to install the following additional components beside the general prerequisites. All of them are available for download from the Microsoft web site:

- [Microsoft Visual C++ 2005 Redistributable Package SP1 \(x86\)](#)
- [ASP.NET AJAX 1.0](#)
- [Microsoft Report Viewer 2008 SP1 Redistributable](#)
- [Microsoft SQL Server 2005 Management Objects Collection \(SQLServer2005_XMO.msi\)](#)

Note: You must install the .NET Framework Redistributable Package version 3.5 sp1 prior to installing the Microsoft Report Viewer 2008 SP1 Redistributable

If you choose to use BillyBlue's with SQL Server 2005 Express Edition installed on the same machine:

- [Microsoft SQL Server 2005 Express Edition with SP3 \(32 bit\)](#)

You could also reuse an existing local MSDE instance. For fresh installations always prefer SQL server 2005.

Warning: a local database installation is allowed for a small number of extensions with few calls per user / per day. If your company generates large telephony traffic, a remote SQL server installation is required.

If you do not install SQL Server 2005 Express Edition on the same machine, you will also need:

- [Microsoft SQL Native Client \(sqlncli.msi\)](#)
- [Security Update for Microsoft XML Core Services 6.0 and Service Pack 1 \(KB933579\)](#)

Note: for an updated list of the compatible databases please consult the Hardware and Software Compatibility list

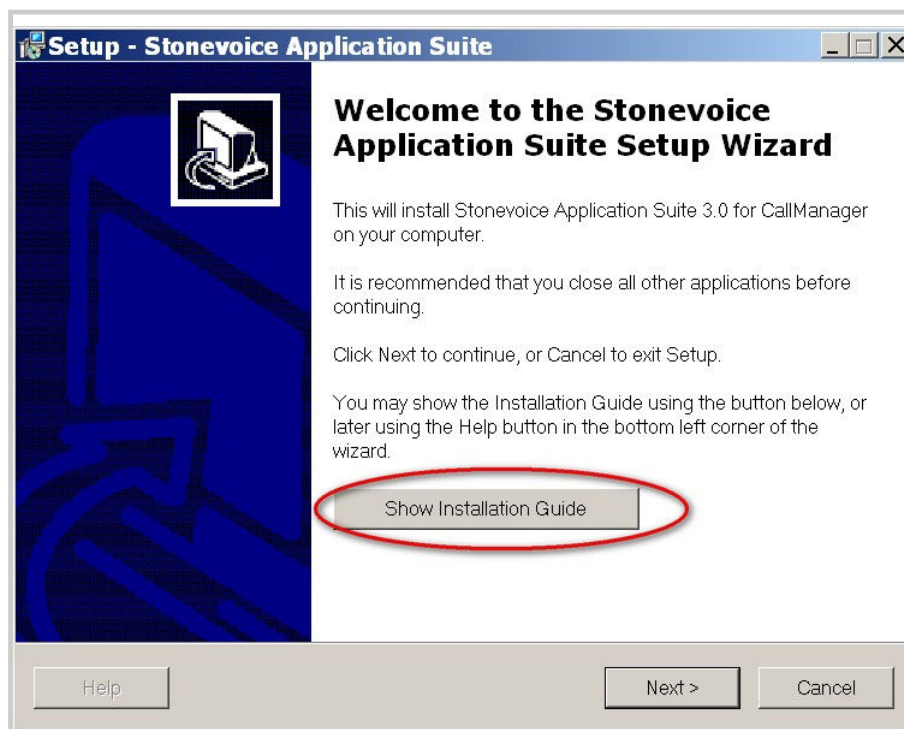
Stonevoice strongly recommends to install Microsoft Management Studio Express for maintenance purposes:

- [Microsoft SQL Server Management Studio Express](#)

Downloading and Installing The Package

You can freely download the Stonevoice Application Suite (SAS) from Stonevoice Download Area (www.stonevoice.com/auto/downloads). The creation of an account with a valid email address may be required.

Before installing the Stonevoice Application Suite, please ensure that Terminal Services are not installed in Application Mode. Disable all the Antivirus, Firewalls, Cookie blockers and similar. Then download the latest package from Stonevoice download area, run the installer and click the "Show Installation Guide" button. [The Installation Guide](#) will lead you through the simple installation steps.



Upgrading

Upgrading Having a Maintenance Agreement

Upgrading to the latest version requires: performing a full backup, installing the latest installation package over the existing installation, and check the configuration. Upgrading Billy Blue's also requires to fully run the Configuration Wizard to the last step.

You may always upgrade to the latest version of the Stonevoice Application Suite without the need to upgrade your applications licenses.

Remember that upgrading to the latest version is often a more complex process than just installing the new package over an existing one. Upgrades should be performed by personnel skilled in both system administration and telephony system configuration, after reading the appropriate release notes and updated technical documentation.

Therefore, **Stonevoice requires the specific installations being upgraded to be covered by a suitable Maintenance Agreement.** Please refer to the official web site <http://www.stonevoice.com> for more information on licensing and upgrading.

Compatibility with Older Stonevoice Products

The following information applies to the **Stonevoice Application Suite version 3.0 or newer**.

Depending on the version of the Application Suite that is already installed, you may have to uninstall the old package before upgrading to the latest version.

The following products, including any Service Packs and SSAM upgrades, are *incompatible*. They **must be uninstalled** before installing the new SAS 3.x package, and you cannot reuse their configuration backups.

- **Stonevoice SSAM Standalone**
- **Stonevoice Application Suite 1.0**
- **Stonevoice Application Suite 2.01** (any platform)
- **Stonevoice Application Suite 2.0** for Cisco CallManager
- **Stonevoice Application Suite 2.1** for Cisco CallManager Express
- **Stonevoice Application Suite 2.2** (any platform)
- **Stonevoice Application Suite 2.3** (any platform)
- **Stonevoice Application Suite 2.4** (any platform)
- **Stonevoice Application Suite 2.5** (any platform)
- **Stonevoice Application Plugins** for Cisco CallManager
- **Stonevoice Billy Blue's 3.0** for Cisco CallManager

Warning: the upgrade may overwrite existing patches. If you installed a patched or custom version of the Application Suite, please contact Stonevoice Technical Support before the upgrade.

Note: SAS 2.x and 3.x cannot be installed on the same machine at the same time.

The following products must be uninstalled before running SAS 3.x setup, but you can reuse their configuration backup:

- **Stonevoice Billy Blue's 3.1 Standalone** for Cisco CallManager

The [upgrade from Billy Blue's 3.1 to Stonevoice Application Suite 3.x](#) may be performed through a special tool.

Accessing the SAS Web Interface

The Stonevoice Application Suite provides a web interface for both administrator and users purposes. You can reach the web interface using the Desktop shortcut created during installation, by selecting the link from the Stonevoice Program Group, or typing this URL in the web browser:

`http://Server_SAS/fw/`

where Server_SAS is the IP address or DNS name of the server the SAS is installed on.



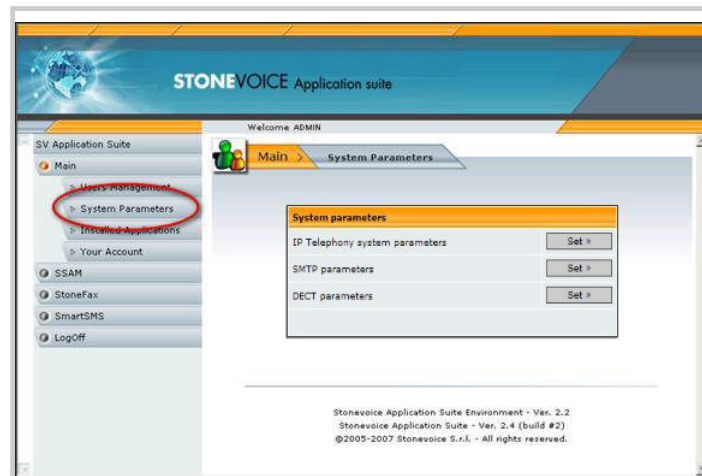
To log in as administrator, enter the username and password you provided during installation.

Default values are **admin/admin**.

Shared System Parameters

The "System parameters" link in the Main menu gives access to the system parameters configuration where you can configure:

- IP Telephony system parameters
- Email sending global settings (SMTP)



IP Telephony system parameters

With IP Telephony system we mean the Cisco Unified CallManager and the parameters shared by all Stonevoice applications.

Here you have set these parameters:

- System name: a label to identify the system. This parameter is mandatory but can be any string.
- IP address: address of the IP PBX on your network. This parameter is mandatory.
- Voicemail number. This is the pilot number of the voicemail. It is used only by the SSAM application and must match the PBX configuration.
- CallManager Admin Username (used for some SPEEDY features only)
- CallManager Admin Password (used for some SPEEDY features only)

Warning: Any change to IP Telephony parameters requires stopping and restarting each SAS application through its Start/Stop button under the Manage Service link.

SMTP Parameters

These are the parameters needed to reach a mail server to send e-mails from the applications. For example, the SAS applications use SMTP to forward voicemail messages, incoming faxes and to notify to the administrators the applications events.

- Enable Outgoing Mail: must be flagged for the SAS applications to send emails.
- Email Form Address: this is cosmetic. It is the address which appears in the "From" field of the mail sent by the SAS
- Server Name: enter the DN name or the IP address of the mail server.
- Use authentication, Username, and Password: fill these fields if authentication is required.

Press the "Test" button to test the connection. Remember to press the "Update" button to save the changes before leaving.

Users Management

Through the "Users management" link in the Main menu you can add or remove users from you system, edit the details and modify the permissions.

The screenshot shows the "Users Management" page. At the top, there are links: "Main > Users Management". Below this, there are three links: "Create new user >>", "Import users from CSV >>", and "Add or modify personal filters >>". A search bar is present with a dropdown menu showing "(no filter defined)" and a "Load" button. Below the search bar is a table with columns: Name, View, Modify, Permissions, Delete, and Accesses. The table contains two rows of user data:

Name	View	Modify	Permissions	Delete	Accesses
Giuseppe Rossi					5
Mario Bianchi					1

Below the table, it says "Users 1-2 of 2 selected (2 total)". There is a "Show" button and a dropdown menu set to "20" users per page. At the bottom, there is a "Selected users" section with buttons: "Export as CSV", "Export as XML for Excel 2003", and "Delete from database".

Click on the link on the top of the "User management" page to create a new user. Press the Modify icon to edit user details. Click the Delete icon to permanently remove a single user or the "Delete from database" button to remove all the selected users.

Adding or Editing User Details Manually

The screenshot shows the "Create New User" form. At the top, there are links: "Main > Users Management - Create New User". Below this, there is a link: "<< Back to users management". The form is titled "Add new user" and contains the following fields:

Username *	jsmith	Password *	*****
First name *	John	Last name *	Smith
Email	john.smith@yourdomai	User PIN *	****
Enable billing for first extension number	<input checked="" type="checkbox"/>	First extension number	646
MAC address	112233445566	Original username	jsmith
Cost center	INT	Department	Sales
Office Location	Piccadilly Circus	Number of masked digits in billing *	3
Enable billing for voicemail number	<input checked="" type="checkbox"/>	Voicemail number	946
Do not keep sent voicemails	<input type="checkbox"/>	Voicemail address *	john.smith@yourdomai
Enable billing for fax number	<input checked="" type="checkbox"/>	Fax number	246
Fax: enable send	<input checked="" type="checkbox"/>	Fax: enable receive	<input checked="" type="checkbox"/>
Enable Fax2Email	<input checked="" type="checkbox"/>	Fax2Email address	john.smith@yourdomai
Fax2Email attach fax	<input checked="" type="checkbox"/>	User address	James St.
Home phone			

At the bottom of the form, there is an "Add new user" button.

These fields are mandatory:

- Username: Unique identifier for the SAS user, case-insensitive. It is requested when logging in the web interface. Only digits and the underscore character are allowed.
- Password: password requested when logging in the SAS web interface. Case sensitive.
- First Name
- Last Name
- Pin number (4 digits): the user must insert it to log to his/her voice box.

Then you will need to fill the other parameters depending on the application you are going to configure.

These parameters are required by Billy Blue's:

- First Extension Number: the internal phone number of the user.
- Enable billing for first extension number: check box to enable call processing for this extension

Flag the other two "Enable billing" checkbox on this page to let Billy Blue's import the calls for the user's fax and voicemail extensions.

These parameters are required by SSAM:

- First Extension Number: the internal phone number of the user.
- Voicemail number: the number you have to digit in order to leave voicemail messages to this user.
- Voicemail address: the e-mail address that will receive the voicemail messages. Enter the word "None" if you do not want to receive voicemail.

These parameters are required by StoneFax:

- Fax number: the virtual fax number reserved to the user.
- Fax enable send: to allow the user to send faxes (all modes).
- Fax enable receive: to allow the user to receive faxes (all modes).
- Enable Fax2Email: to allow the user to receive faxes by email.
- Fax2Email address: the e-mail address to which StoneFax will forward incoming faxes addressed to this user.
- Fax2Email attach fax: if you check this box, a copy of the fax will be attached to the notification.

These parameters are required by Speedy:

- MAC address – the MAC address of your IP phone;
- Department – the user department to filter the address book access

The "Show in the home page" checkbox makes the Application Suite show the primary extension of the user in the web interface home page, which is available to all the SAS users. This works as simple web-based directory of internal phone numbers.

If you fill other personal details, such as home phone, office location... They could be displayed on the cover pages of the faxes sent by the user or in Billy Blue's reports. He/she will be able to review these details by logging in the SAS web interface with his username and password. The URL is the same:

`http://Server_SAS/fw/`

where Server_SAS is the IP address or DNS name of the server the SAS is installed on.

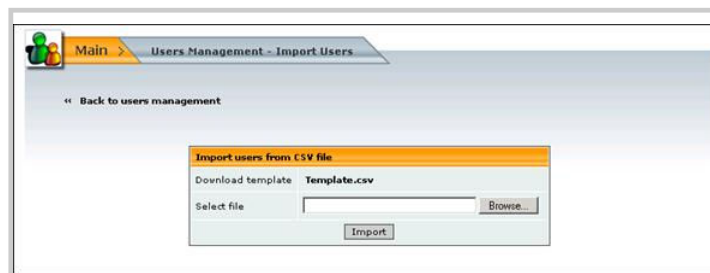
Bulk Editing - Importing users from CSV files

To quickly add users to the SAS, or to modify the same property of a group of users, you can export the data to a CSV or to a Microsoft Excel XML file, modify it and import it again in the SAS database.

Warning: all fields that are modified are overwritten when you import the .csv file in your Application Suite (including empty fields).

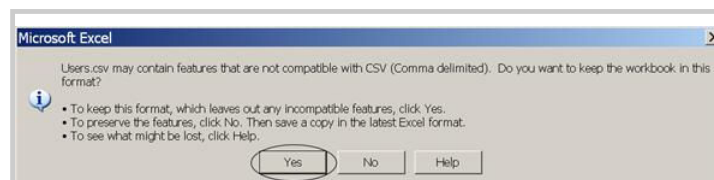
Besides, some fields may not be included in the import/export process. They are only modifiable from the User Management of the web interface.

Let us see some example.



Example 1: create a group of users

- Select the "Import users from CSV" link.
- Click the "Template.csv" link and save the file to a temporary folder.
- Open the file with a CSV editor. For example, you can use Microsoft Excel™.
- Fill all the mandatory fields columns
- Save the file. If asked to preserve CSV format, press "Yes".



- Return to the "Import Users" page, click "Browse..." to select the file and press "Import". If you are loading a huge number of users, you may have to wait for some minute.
- Press the "Import" button. If you are loading a huge number of users, you may have to wait for some minute.

Operation	Confirm import	Username	First extension number	Voicemail number	MAC address
Modify	<input checked="" type="checkbox"/>	gRossi	101	99101	

Work on the temporary table above

changes to temporary table

form fields to previous values

Save changes in the main database

values into users table (including hidden fields not listed above)

Example 2: enable fax for all the SAS users

- Click the "Export as CSV" button and save the file
- Open the file with a CSV editor. For example, you can use Microsoft Excel™.
- Write the digit "1" in the "Fax Send Enabled", "Fax Receive Enabled", "Fax2Email Enabled", and "Fax2Email Attach Fax" columns of each user.
- Copy the email address from the "E-mail" column to the "Fax2Email Address".
- Save the file. If asked to preserve CSV format, press "Yes".
- In the SAS "user Management", click the "Import Users from CSV" link.
- Click "Browse..." to select the file and the press "Import". If you are loading a huge number of users, you may have to wait for some minute.
- If you want to exclude some user from the process, uncheck the "confirm" checkbox and press the "confirm" button.
- Press the "Import" button.

Example 3: add voicemail to all users who have a primary extension which starts by 3

- Click "Customize search criteria" to filter the right users.
- In the drop down boxes choose "First Extension Number" and "Begins With". In the textbox enter "3". Click "Add Condition". See 2.2.4 for the details.
- Click the "Export to CSV" button.
- Fill the "First Extension Number", "Voicemail Number", "Voicemail Address" columns.
- Save and import the file as in the examples above. The other users, that is the ones excluded by the filter, will remain unchanged.

Customize search criteria [no filter defined]

Add filter condition

First extension number ☐ show all fields in list

begins with ☐ use wildcards

3

Setting User Permissions

The "Modify Users Permissions" page lets you decide who can access specific features or specific application. For example, a user can have administrative rights for StoneFax but may not be authorized to restart the SSAM engine. Permissions can be set for each user and for each SAS application.

Modify permissions for user gRossi

User status:

		Default permission
Framework (main menu)	[default for application]	(1) Base access
SSAM	[default for application]	(1) Base access
StoneFax	[default for application]	(2) Send / receive faxes
SmartSMS	[default for application] (1) No access (2) Send / receive faxes (10) Complete management	(1) No access

Permissions have a range that goes from 1 (low) to 10 (high). When a user has permission 1 ("No access") for an application, he or she cannot see it in the SAS menu after login. Permission 10 ("Complete management") enables administrative access. For example, changing to 10 the permissions on the "Framework" entry for a user grants him administrator rights for the shared system parameters area.

For information about each value meaning for a specific application, please refer to its description in this guide.

If you leave an entry set to "[Default for application]", the users permissions will be derived by default values. You can edit them by selecting the "Modify Default Permissions" link on the top of the page.

Application	Default permission
Framework (main menu)	(1) Base access
SSAM	(1) Base access
StoneFax	(2) Send / receive faxes
SmartSMS	(1) No access

Save default permissions Close

In this way you could grant or revoke access to an application to all the users at a time.

Searching and Selecting Groups of Users

By default, the "Users Management" form shows all the SAS users.

Name	View	Modify	Permissions	Delete	Accesses
Giuseppe Rossi					5
Mario Bianchi					1

Users 1-2 of 2 selected (2 total)

Show 20 users per page

Selected users

Export as CSV Export as XML for Excel 2003

Delete from database

You can restrict the number of items shown in the users table by clicking the "Customize search criteria" link and adding conditions. All the conditions impose restrictions (i.e. are considered in a boolean "and" relation), so the more conditions you add, the fewer will be the items shown.

Customize search criteria [no filter defined] Load

Add filter condition

[select a field] [select a field]

Username
Name and surname
First name
Last name
First extension number
MAC address
Voicemail number
Cost center
Department
Email
Voicemail address
Enable SMS
Street
ZIP code
City
Province
Country
Home phone
Mobile
Date of birth
Role
Fax number
Fax: enable send
Fax: enable receive
Enable Fax2Email
Fax2Email address
Fax2Email attach fax
Show in the home page
Original username
Accesses

☒ show all fields in list

☐ use wildcards

With filter capabilities you can search users by any of available parameters and use the following conditions:

- Is exactly
- Begins with
- Ends with

- Contains
- Does not begin with
- Does not end with
- Does not contain
- Is empty
- Is not empty

You can use wildcards in the field to be searched by the filter:

- * (asterisk) : means any character sequence of any length
- _ (underscore) : means any single character
- [abc] : means a,b or c character
- [a-z] : means any character from a to z

For example, to select all the users who have a first extension number which is 2xx together with those who have 4xx, use this filter:

"First extension number" is exactly "[24]_" (use wildcards)

Filters can also be saved for later use by clicking the "Manage personal filters" link.

Applications License Status

The "Installed Applications" link in the Main menu shows the list of the available applications and if they are licensed, in evaluation mode or if the license is expired.

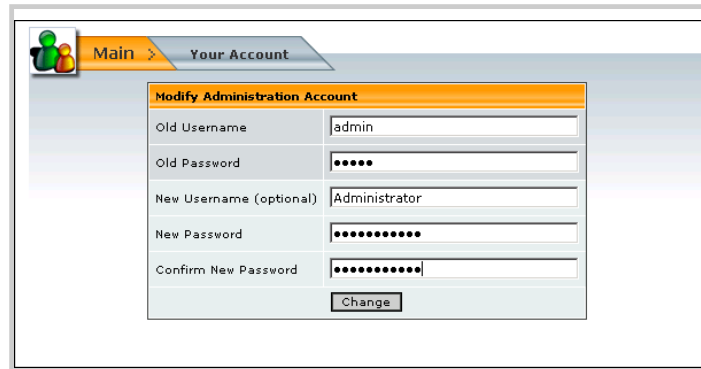
In the "General Information" form you can check the Operating System, the SAS version and the telephony platform. The Support Key will be requested when contacting [Stonevoice Technical Support](#)

General Information				
Detected Operating System	Windows 2003 Server Enterprise 5.2 (Build 3790 SP 1.0) Service Pack 1			
SAS Version and Platform	2.4 (build #2) for Innovaphone			
Support Key	1LE9 - EK23 - L26L			
Customer Name	Customer Company			
Reseller Name	Reseller Company			
Save				

Installed Applications				
Name	Version	License Status	Number of Ports	License Number
Framework (main menu)	2.2	Present		
SSAM	2.2	Evaluation	2 ports	
StoneFax	2.3	Evaluation	2 ports	
SmartSMS	1.0	Present		
Save				

Editing Administrator's Details

From the "Your Account" link, you can edit the main SAS administrator username and password.



The screenshot shows a web application interface with a navigation bar containing 'Main' and 'Your Account'. Below the navigation bar is a form titled 'Modify Administration Account'. The form contains five input fields: 'Old Username' (containing 'admin'), 'Old Password' (containing six dots), 'New Username (optional)' (containing 'Administrator'), 'New Password' (containing ten dots), and 'Confirm New Password' (containing ten dots). A 'Change' button is located at the bottom right of the form.

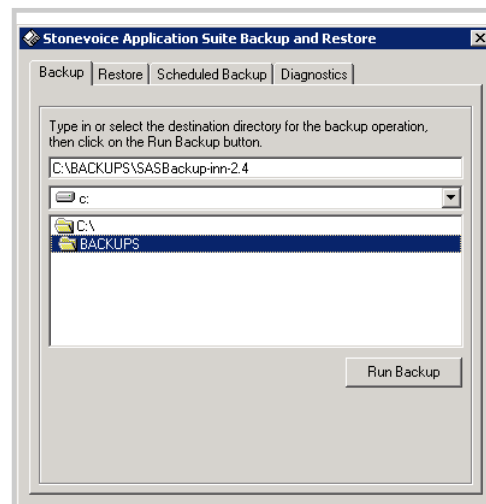
If you did forget the main administrator password, you can reset it by reinstalling the SAS package in the same installation folder. The same procedure applies if you want to change the system account under which the SAS web application runs.

The Backup/Restore Tool

Backup procedure

You can easily backup the whole SAS configuration by logging onto the SAS server and selecting this link from the start menu:

"Programs"-> "Stonevoice Application Suite" -> "Backup and Restore"

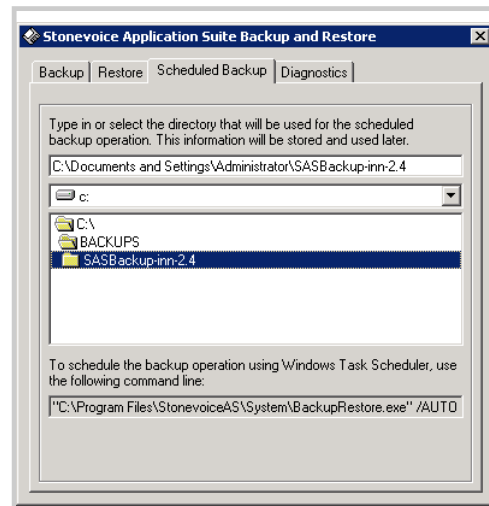


Backups are forward - compatible. This means that if you have the backup of a 3.0.0.1 configuration, you will be able to restore it over a 3.0.0.2 installation.

Warning: user customized files, such as report templates or wave files, will NOT be stored.

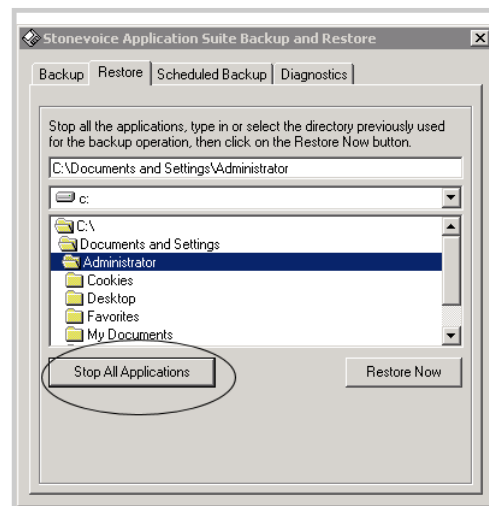
Backups can be easily scheduled by Windows' Task Scheduler, selecting a destination folder in "Scheduled backups" tab of the Backup/restore tool and entering this command line in the scheduled task "Run" field:

"C:\Program Files\StonevoiceAS\System\BackupRestore.exe" /AUTO

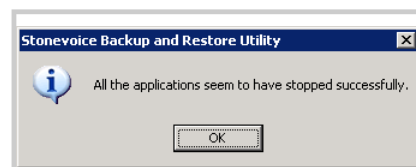


Restore

A backup may be taken even if the SAS services are running. On the contrary, the restore procedure requires that all the SAS engines are stopped. So click the "Stop all applications" button first. Should some service fail to stop, please stop it by the web interface.



When this message appears you can go on with the restore:

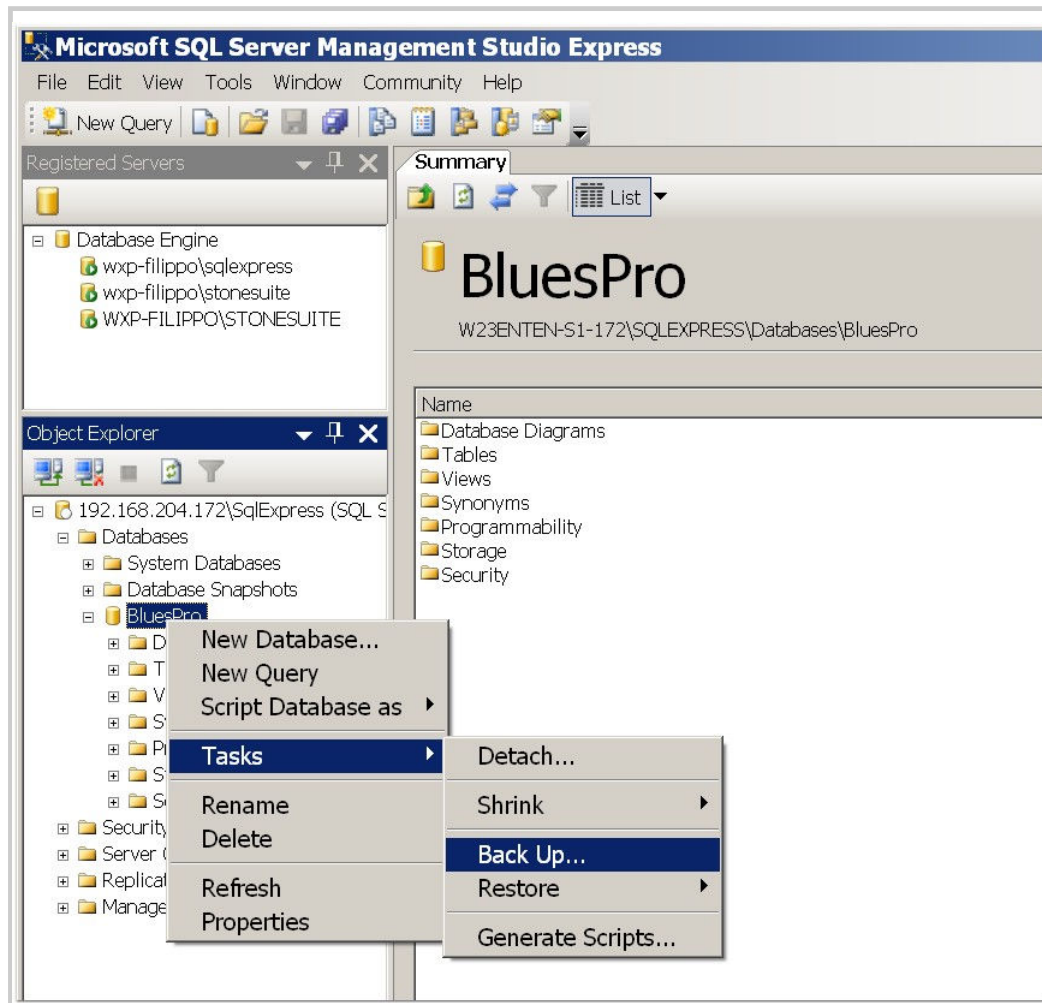


Billy Blue's

Billy Blue's stores most of its data and configuration in a SQL server database which can run on a remote server. For this reason to fully backup and restore Billy Blue's configuration and call data, additional steps are needed.

Backup procedure

- Backup the SAS configuration using the Backup/Restore tool
- Backup Billy Blue's SQL Server database. The name of the SQL server database is BluesPro. To perform the backup the you can use a variety of tools. For example you could install SQL Server Management Studio Express. Please refer to the documentation of the Microsoft SQL server version you are using.



Restore procedure

- Stop all the SAS services
- Stop Billy Blue's services from the web interface - Administrative page
- Restore the database backup
- Restore the SAS backup **into the original folder**
- Run the configuration wizard completely Check also the FTP service configuration.

Product Description and Architecture

Product Description

Billy Blue's is the ideal solution for the analysis and the accounting of the telephony traffic in a Cisco Unified Communication Manager environment, applicable to midsize companies as well as large enterprises.

Easy to use, multicarrier and ready to deploy, thanks to Billy Blue's, both single site and multi site companies will be able to centrally document and manage telephone statistics and traffic.

Billy Blue's is based on a Microsoft® SQL Server database, thus granting maximum security with high level performance even when archives reach millions of entries.

Billy Blue's automatically organizes data into tables, produces preconfigured statistics and, thanks to the dashboard, provides ready to use access to the needed data.

Scheduled Reports and alarms are available to send email concerning information, costs, use, efficiency, proper functioning and more to help administrators, supervisors and users to get the needed information automatically.

Architecture

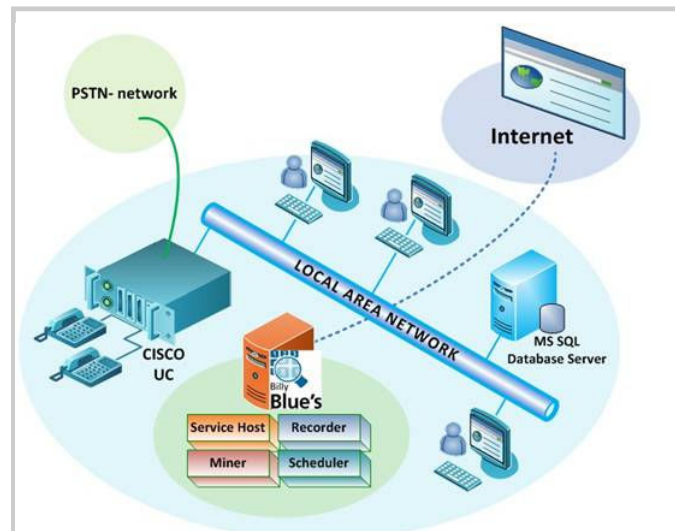
Billy Blue's is a software only product that can be installed on a server running a Microsoft Operating System.

Billy Blue's interacts with Cisco Unified Communications environment through a simple IP connection used to get the CDRs to process: more specifically the Cisco Unified CallManager cluster will send the CDRs via FTP to the FTP Server running on the Stonevoice Application suite.

Billy Blue's processes the CDRs and inserts the data in a Microsoft SQL database that can run on the same server or on a different one.

Having processed the calls, Billy Blue's provides a web interface integrated in the Stonevoice Application Suite to access the different kind of available

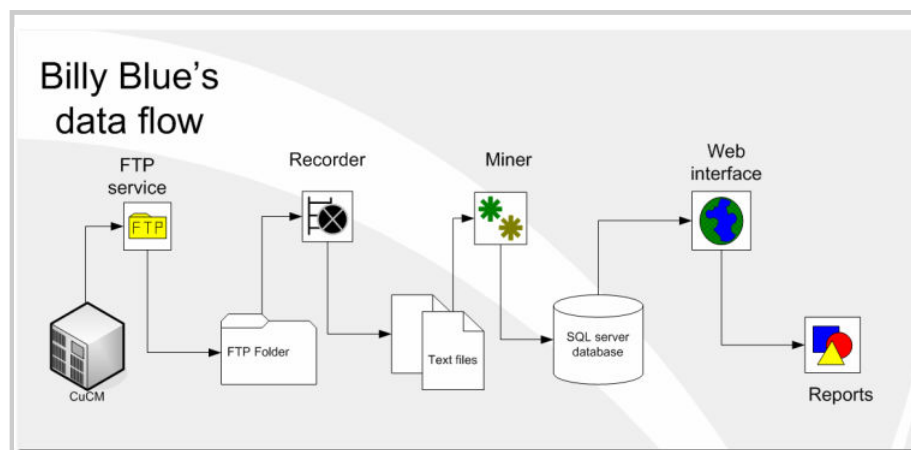
reports, dashboard, alarms.



Warning: Billy Blue's identifies a user making or receiving calls only through his/her extension number, so no overlapping dialing plan is supported on the Cisco Unified Communications deployment. Billy Blue's can support single site and multisite environments based on a single CallManager cluster or multiple clusters where different phones/users cannot have the same extension number.

Billy Blue's processes the calls with these independent steps:

The CDRs are sent by the PBX to the SAS server through FTP and dropped in a folder. The folder is monitored by a service (Billy Blue's Recorder) which parses the data and stores them in files with a standard format. A second service (Billy Blue's Miner) reads the files, calculates call costs and stores the result in the database. Once the calls are written into the database, reports can be directly generated or scheduled through the web interface.



Configuration Task List

For best results, Stonevoice recommends configuring Billy Blue's performing the following steps in exact order.

- Install and configure the prerequisites, including the database. Take note of the database administrative account (username and password)
- Install the SAS Setup package
- The Setup will ask some general information and execute Billy Blue's Configuration Wizard. During execution, take note of the CDR destination folder. Configure all the gateways and tariffs.
- Configure Windows FTP service
- When the Wizard closes log into the web interface and enter the user list
- Configure SAS general parameters
- Through the Administrative Page check that all Billy Blue's services are running
- If you have a valid license, activate it now using the License Activation Tool. If you do not have it yet, the application will run in evaluation mode
- Configure CuCM to send CDRs through FTP to the SAS server

Billy Blue's Prerequisites - Database configuration

After the database installation you should:

- Ensure that the TCP/IP network protocol is enabled on SQL Server (see below)
- Ensure that no antivirus, firewall or security software is blocking TCP communication to and from the SAS server

[SQL Server 2005 installation and configuration](#)

If Microsoft SQL Database is not available on the customer's company network, you can download the free Express version which is suitable for small environments (see the Hardware and Software Compatibility List on <http://www.stonevoice.com/auto/requirements> for more details).

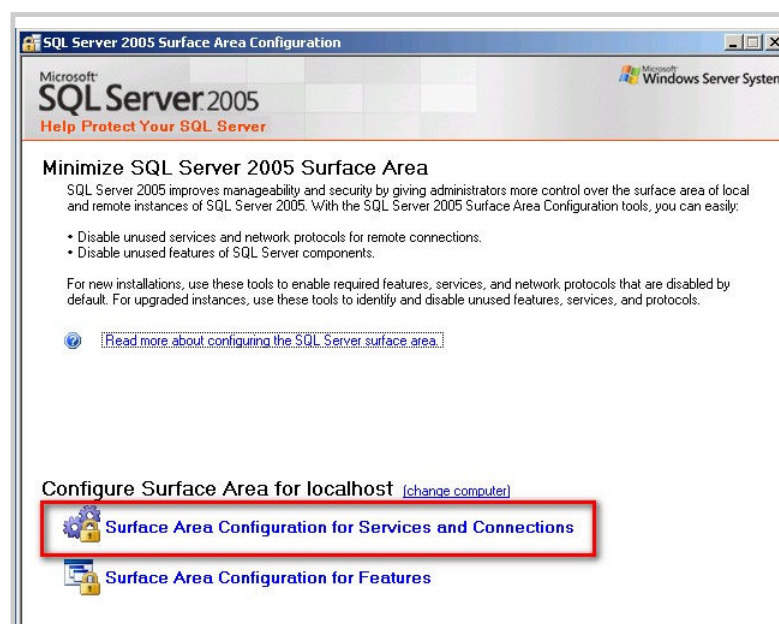
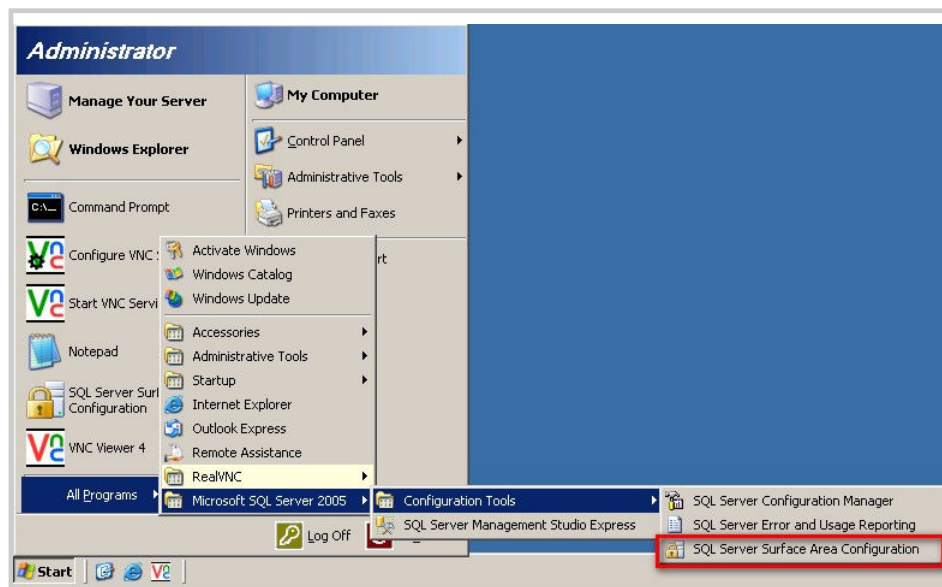
- Download and install the package
- During installation, you will be asked the credentials to be assigned to the default administrative access. Enter "**sa**" as user and "**SvBillyBlues**" as password
- Enable TCP communication (see below)
- To create a new administrative login on an existing instance, download and install SQL Management Studio Express and open the database instance using windows authentication. Then add the new database administrator with the **sa/SvBillyBlues** credentials

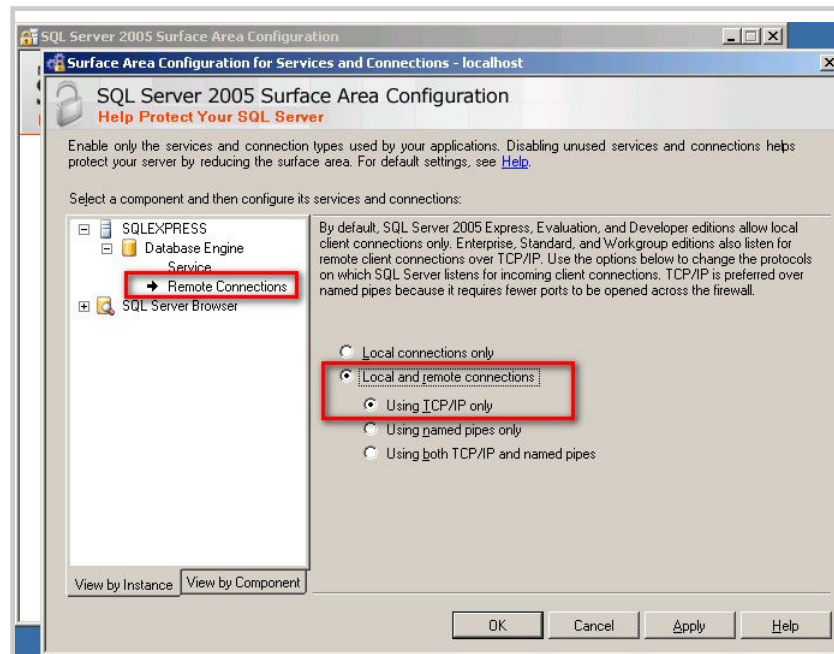
The following installation screenshot show suggested setup options.



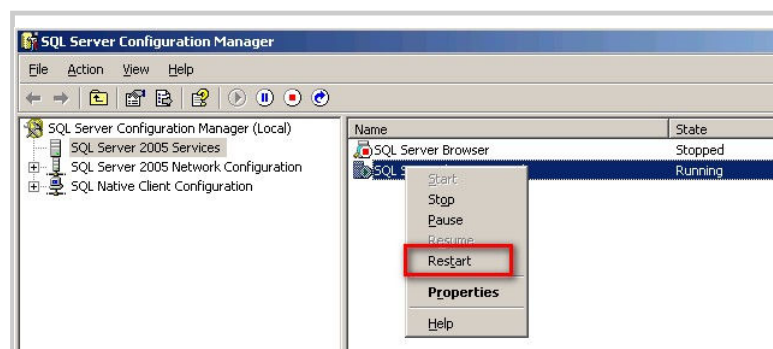
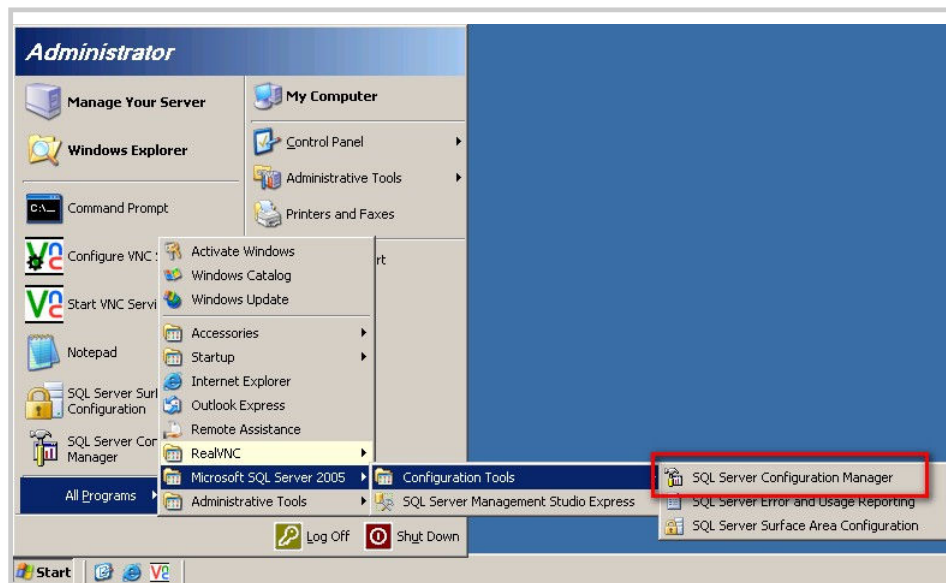


To enable TCP communication on Sql Server 2005, follow these steps:





After enabling TCP, please restart the database instance:



Billy Blue's Configuration Wizard

At the end of the Stonevoice Application Suite setup, the Billy Blue's wizard is started automatically.

Note: the Wizard can be manually started through the "Configure Billy Blue's" link from the Stonevoice Application Suite program group on the Stonevoice server. This operation is NOT available through the Web interface.



Click on 'Next' button to move forward with the wizard.

Gateway Setup

This is the most important configuration step: Billy Blue's MUST be configured with the gateway list to differentiate internal, incoming and outgoing calls.

Gateways are the VoIP equipment in the Cisco Unified Communications infrastructure able to connect to the PSTN, regardless the interfaces (Analog, Digital) or the VoIP protocol (H.323, SIP, MGCP, SCCP) activated.

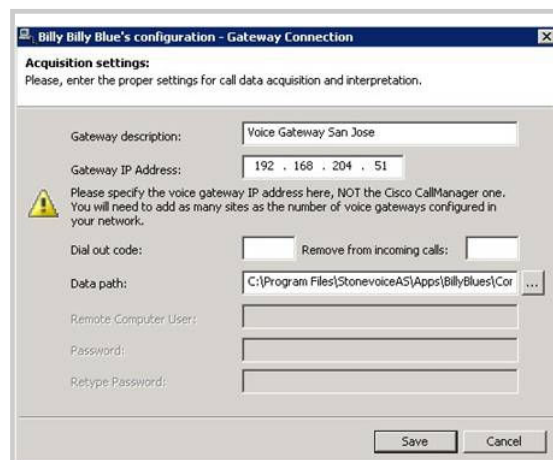
Warning: If a gateway is used in the Cisco Unified Communications infrastructure but not configured in Billy Blue's, the calls through this gateway will be discarded.

To add more gateways simply run the Configuration Wizard again. Manually start it from the Stonevoice Application Suite program group on the Stonevoice server. This operation is NOT available through the Web interface.

While adding a new Gateway, the following parameters are required:

On Cisco Unified CallManager 5.x/6.x/7.x environments:

- Gateway description: label representing the gateway
- Gateway IP Address: IP Address of the voice gateway (this is NOT the CuCM address)
- Data path: leave as suggested. Take note of this folder. You'll need it to configure the FTP service later
- Dial out code: if a code is used to get PSTN access (e.g. 0), enter the code
- Remove from incoming calls: if a prefix is automatically added to calling numbers (e.g. 0), enter the code



On Cisco Unified CallManager 4.x environments:

- Gateway description: label representing the gateway
- Gateway IP Address: IP Address of the voice gateway (this is NOT the CuCM address)
- Data path: change to \\CUCM\CDR\CDR where CuCM is the CallManager UNC name
- Set username and password of a local user on CUCM windows machine to access that folder (i.e. a local administrator)
- Dial out code: if a code is used to get PSTN access (e.g. 0), enter the code
- Remove from incoming calls: if a prefix is automatically added to calling numbers (e.g. 0), enter the code

Billy Blue's configuration - Gateway Connection

Acquisition settings:
Please, enter the proper settings for call data acquisition and interpretation.

Gateway description:

Gateway IP Address:

Please specify the voice gateway IP address here, NOT the Cisco CallManager one. You will need to add as many sites as the number of voice gateways configured in your network.

Dial out code: Remove from incoming calls:

Data path: ...

Remote Computer User:

Password:

Retype Password:

Dial out code – if the Cisco Unified CallManager has been configured with the typical access code for PSTN (0 or 9), Billy Blue's needs to be aware of this to remove it from called numbers and correctly identify the destination (National, International, Mobile,...). If several access codes are used, please provide the list separated by comma. Do not enter any space.

Remove from incoming calls – if the Cisco Unified CallManager (or any gateway) has been configured to add a prefix to caller numbers on incoming calls for being able to recall them without modification (the prefix added is usually the Dial out code), Billy Blue's needs to be aware of this to remove the code and correctly identify the caller number (National, International, Mobile,...). If several access codes are used, please provide the list separated by comma. Do not enter any space.

Push the "New gateway" button to add more gateways. Repeat the procedure for each gateway.

When you're done click on 'Next' button to move forward with the wizard.

Billy Blue's Configuration - Gateway Connection

Configuration summary
You can edit a Gateway already configured or add a new one. Press Finish to complete the configuration.

List of configured Gateways

Gateway	Connection	Registration
San Jose	TCP/IP Network	Demo

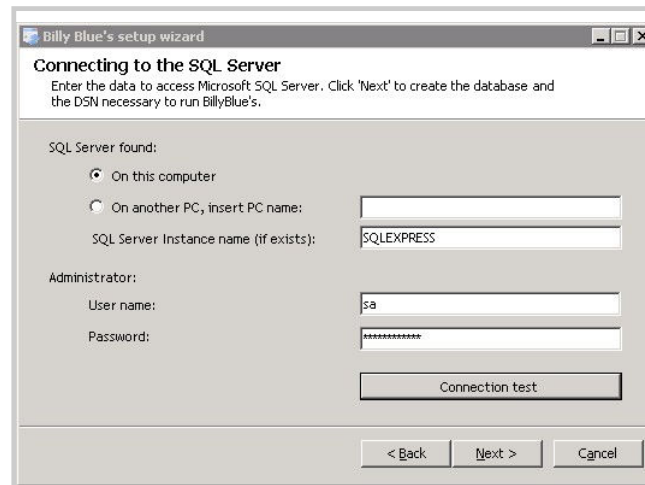
Database configuration

The wizard tries to connect to a SQL Server database to setup and configure the needed tables.

Note: Microsoft SQL Database in Express or Standard edition is needed on the local or a remote machine. See the prerequisites section for more details.

The parameters required are:

- SQL Server found: insert the Microsoft SQL Server address if different from the Local Computer, i.e. installed on a remote server



- Administrator: insert SQL Server username and password of a user with the privileges of adding a new database and manage tables. Click on Connection test to check the connection with the Database.

Note: Username and Password suggested for local dedicated installation of SQL is sa as username, SvBillyBlues as password.

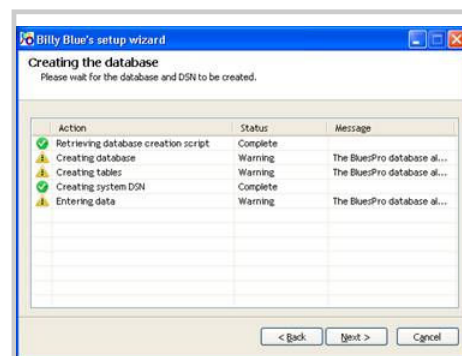


Click on 'Next' button to move forward with the wizard.

In the next step the Wizard will try to access the database, create tables and needed elements.

Every operation is listed with the related Status:

- ✓ operation successful
- ✗ operation failed
- ⚠ operation without a blocking problem but needing further verifications. Click on the table row to view the message details



It is normal to have warnings when running the Wizard over an existing database installation. On the contrary, on Billy Blue's first setup all the icons should turn green.

Click on the 'Next' button to move forward with the wizard.

Email Server Setup

The email server configuration allows Billy Blue's to send reports and alarms via email.

You can skip the configuration by selecting "Do not activate sending of statistics and alarms via e-mail" and accessing to the Email server configuration later through the Web interface.

The parameters to be entered in the form are:

- E-mail: this is cosmetic. The email "from" address configured for sending the reports and alarms
- SMTP Server: the email server UNC name/IP address

Select "Activate authentication for sending e-mails" if the SMTP server requires authentication and insert a valid account (user and password).

Click on "Account settings test" to test the connection to the SMTP server and send a test email.

Click on 'Next' button to move forward with the wizard.

Importing Data

After having added/configured the Gateways, it is needed to move forward with the data importation and tariff configuration for EACH gateway (Gateway setup).

Enabled	Gateway	Country	Area	PBX	Import	File
<input checked="" type="checkbox"/>	San Jose				Oraria	C:\Program File...
<input type="checkbox"/>						
<input type="checkbox"/>						
<input type="checkbox"/>						
<input type="checkbox"/>						
<input type="checkbox"/>						
<input type="checkbox"/>						
<input type="checkbox"/>						
<input type="checkbox"/>						
<input type="checkbox"/>						

Click on 'Enable' button to move forward with the Gateway setup wizard.

The importation frequency and the correct importation driver for each gateway must be selected:

Billy Blue's setup wizard

Importing data
Enter the gateway's name, the call file and the data importing rate.

Name of office:

Import from: ...

Import every:

< Back **Next >** Cancel

Billy Blue's setup wizard

Driver
Select the driver that Blue's Miner should use to correctly interpret the call tickets provided by the PBX.

☐ Use the driver found by the automatic search

Driver found: Details

Find driver automatically

☒ Select the driver manually

PBX brand:

Model: Import

< Back **Next >** Cancel

Click on 'Next' button to move forward with the wizard.

Billy Blue's supports reporting for internal calls (between extensions on same or different sites). If you need processing calls and producing reports for internal calls, select "Import internal calls" and make sure the list of available voice gateways is complete to correctly identify internal calls.

Note: Importing internal calls will stress the SQL database. If your organization has a lot of extensions, it is recommended using non - express edition installed on another server. See the [Hardware and Software Compatibility List](#) for details.

Billy Blue's setup wizard

Internal calls
Select the type of management for internal calls.

☒ Do not import internal calls

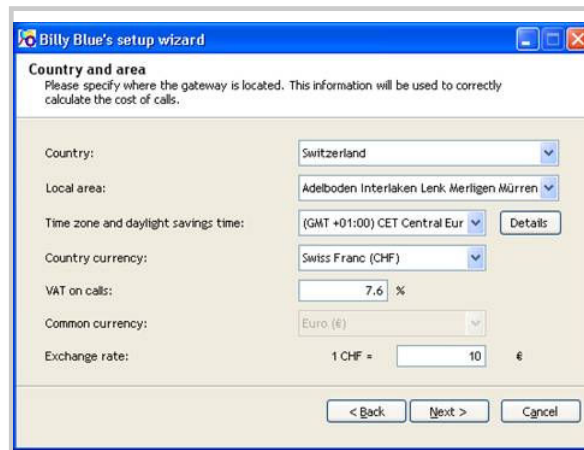
☐ Import internal calls

For internal calls to be imported correctly, you need to specify the complete list of Gateways configured on CISCO:

Gateway IP address Add Delete

< Back **Next >** Cancel

With the next steps it is possible to configure the tariff for outgoing calls through the gateway.



Billy Blue's setup wizard

Country and area
Please specify where the gateway is located. This information will be used to correctly calculate the cost of calls.

Country: Switzerland

Local area: Adelboden Interlaken Lenk Merligen Mürren

Time zone and daylight savings time: (GMT +01:00) CET Central Eur Details

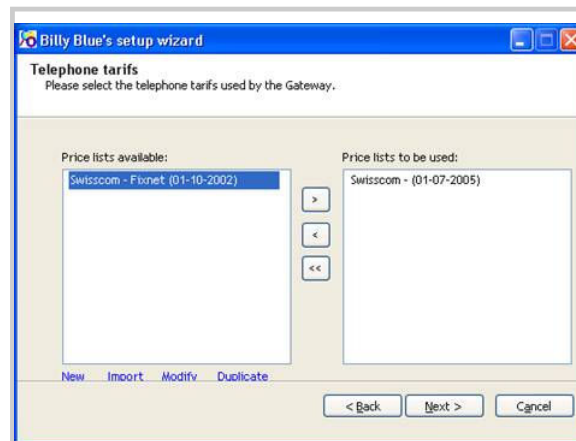
Country currency: Swiss Franc (CHF)

VAT on calls: 7.6 %

Common currency: Euro (€)

Exchange rate: 1 CHF = 10 €

< Back Next > Cancel



Billy Blue's setup wizard

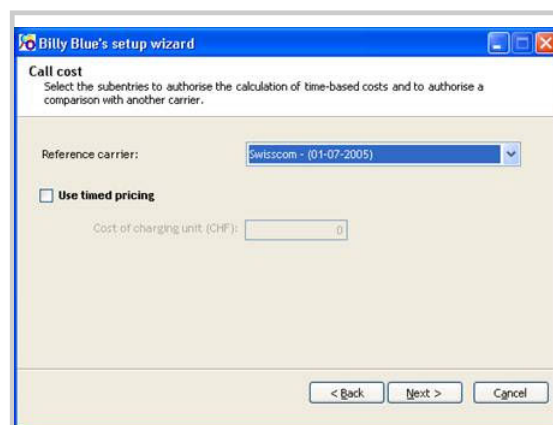
Telephone tariffs
Please select the telephone tariffs used by the Gateway.

Price lists available:
Swisscom - Fixnet (01-10-2002)

Price lists to be used:
Swisscom - (01-07-2005)

New Import Modify Duplicate

< Back Next > Cancel



Billy Blue's setup wizard

Call cost
Select the subentries to authorise the calculation of time-based costs and to authorise a comparison with another carrier.

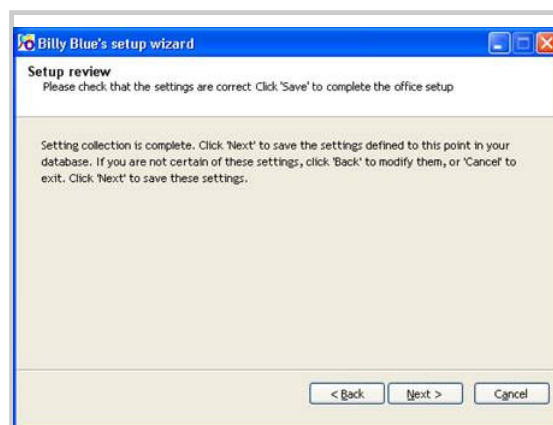
Reference carrier: Swisscom - (01-07-2005)

☐ Use timed pricing

Cost of charging unit (CHF): 0

< Back Next > Cancel

It is possible to leave "None" to not compare cost with other carriers.



Billy Blue's setup wizard

Setup review
Please check that the settings are correct. Click 'Save' to complete the office setup.

Setting collection is complete. Click 'Next' to save the settings defined to this point in your database. If you are not certain of these settings, click 'Back' to modify them, or 'Cancel' to exit. Click 'Next' to save these settings.

< Back Next > Cancel

The wizard has completed the step by step configuration.

Note: the Wizard can be manually started through the "Configuration Wizard" link from the Stonevoice Application Suite program group on the Stonevoice server. This operation is NOT available through the Web interface

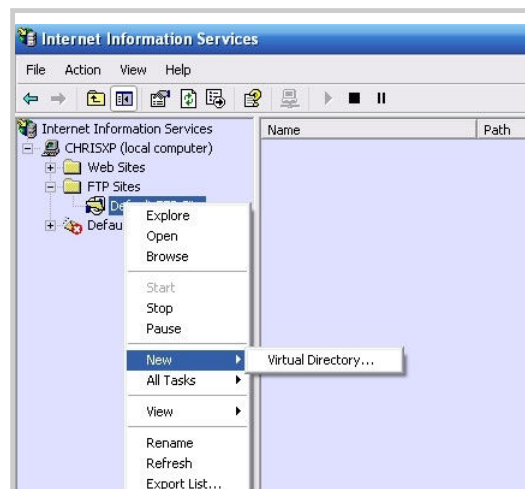


Next steps are based on the Web interface provided by the Stonevoice Application Suite, giving a user friendly access for recurrent operations.

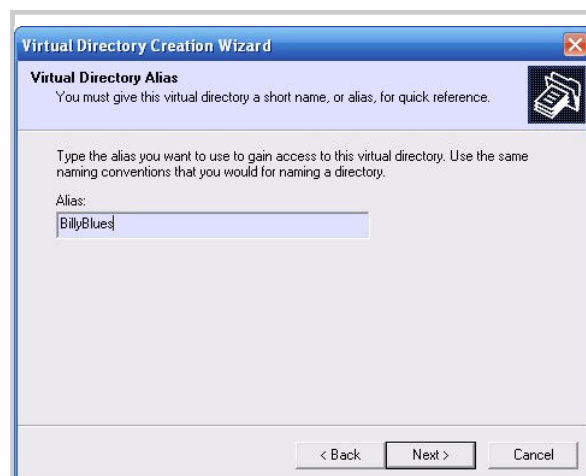
Configuring the FTP Service

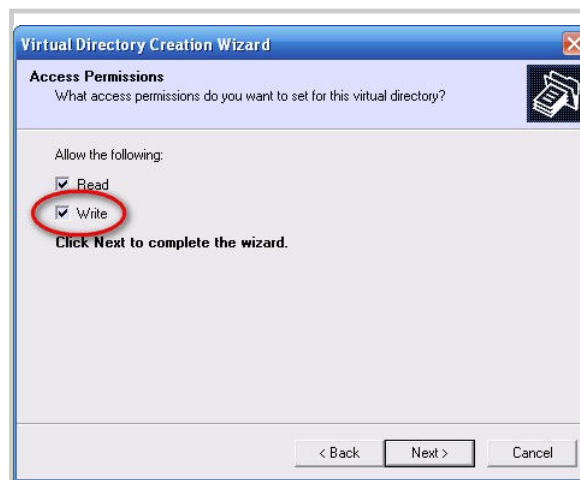
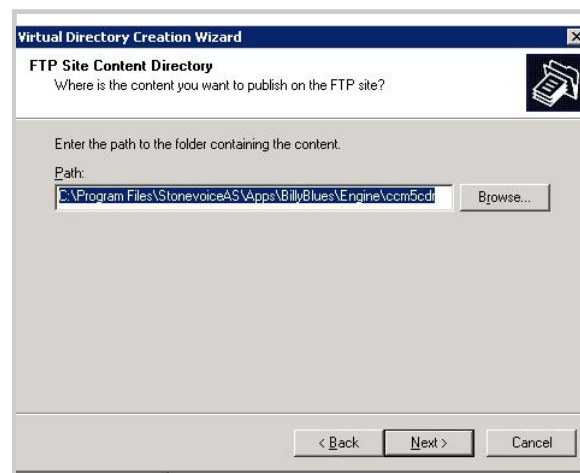
A FTP server is needed on the Stonevoice Server for CDR to be acquired from CallManager. Configure the Microsoft FTP Server through this procedure:

- Click on Control Panel-> Administrative Tools-> Internet Information Services
- Select FTP Site folder, Right Mouse Key and select New->Virtual Directory



- Set BillyBlues as Alias
- Set the ccm5cdr/ccm6cdr folder as path, depending on where you installed Billy Blue's
- Assign Read/Write permissions





Click on 'Next' button to complete the FTP Server configuration.

Configuring users

As any Stonevoice Application, Billy Blue's needs the users to be configured with specific parameters through the [Web interface](#).

User Parameters

These are the fields which you need to configure for each user:

- First Extension Number: the internal phone number of the user
- Enable billing for first extension number: check box to enable call processing for this extension.

Warning: Only calls of configured users with extension numbers will be processed by Billy Blue's. Other calls will be discarded until the user and extension are added and the calls processed again.

Welcome ADMIN

Main > Users Management - Create New User

<< Back to users management

Add new user			
Username *	JHudson	Password *
First name *	Jay	Last name *	Hudson
User PIN *	First extension number	1008
Enable billing for first extension number	<input checked="" type="checkbox"/>	MAC address	
Voicemail number		Enable billing for voicemail number	<input type="checkbox"/>
Cost center		Department	
Email		Voicemail address *	None
Enable SMS	<input type="checkbox"/>	Street	
ZIP code		City	

User Permissions

By selecting the "User permissions" icon from the "Main"->"User Management" link, you can specify the user's level of permission for Billy Blue's:

- Permission Level 1, normal user: access to personal reports only
- Permission Level 6, supervisor: access to department reports
- Permission Level 10, administrator: access to all features and reports

Modify permissions for user JHudson		Default permission
User status	Enabled ▾	
Framework (main menu)	[default for application] ▾	(1) Base access
SSAM	[default for application] ▾	(1) Base access
Speedy	[default for application] ▾	(2) View directories
Billy Blue's	[default for application] ▾	(2) View personal calls
Idle URL Manager	<div> [default for application] ▾ <ul style="list-style-type: none"> (1) No access (2) View personal calls (6) View department calls (10) Complete management </div>	(1) No access

License Model

Billy Blue's is licensed per user regardless the number of sites or gateways.

After installation, the application will run for 15 days in evaluation mode. In evaluation mode, the following restrictions apply:

- The number of supported users is unlimited
- The total number of processed calls is 5000

The license can be activated by purchasing the product from Stonevoice. To enable the application license, log onto the SAS server, click the Start button and run this tool:

"Programs"-> "Stonevoice Application Suite" -> "License Activation " -> "Activate BillyBlues"



The image shows a Windows-style window titled "Registration - Billy Blue's". Inside, there's a section "Insert your details" with instructions: "In this section it is possible to insert your details and register the program." Below this, a paragraph explains how to obtain an enabling code: "To obtain the enabling code: If you have an internet connection on this PC, click on 'Request on-line' and insert all the required information. If you do not have an internet connection, please read the instructions on the end user licence agreement." There are three input fields: "Computer code:" with the value "6306415", "Serial number:" with a masked value "#####", and "Enabling code:" which is empty. To the right of the "Enabling code" field is a button labeled "On-line...". At the bottom of the window are three buttons: "< Back", "Register", and "Exit".

Starting Services

The latest step to complete the configuration is starting the Billy Blue's services by accessing the "Manager Service" link through the Billy Blue's menu:



The following icons will appear:



Here you can manage the different components of Billy Blue's.

The icon on each service shows the status:

- is running
- is stopped
- is running in debug/manual mode



For Billy Blue's to correctly import and report calls, all the services must be running. Start each component one by one.

Warning: The services will be running with the administrative account you choosed during the SAS package setup. If you experience problems in starting them through the web interface you can try changing the account through the "Change Service Account " button.

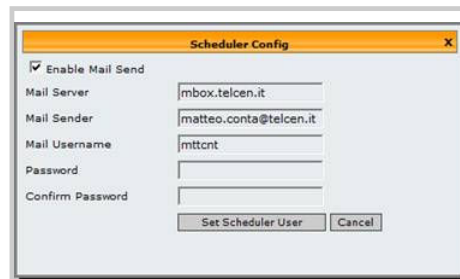
For Billy Blue's to send reports and alarms via email, a configuration of the Scheduler is needed. This is also available through the Configuration wizard detailed on the previous chapters and should already have been done.

Scheduler configuration

For Billy Blue's to send reports and alarms via email, Scheduler Service configuration is needed. This is also available through the Configuration wizard and should already have been done. You can edit the Scheduler configuration by clicking on the "Configure" button close to the Scheduler section and set the following parameters:

- Mail Sender: the email address configured for sending the reports and alarms
- Mail Server: the email server UNC name/IP address

If the STMP server requires authentication, specify also a valid account (user and password)

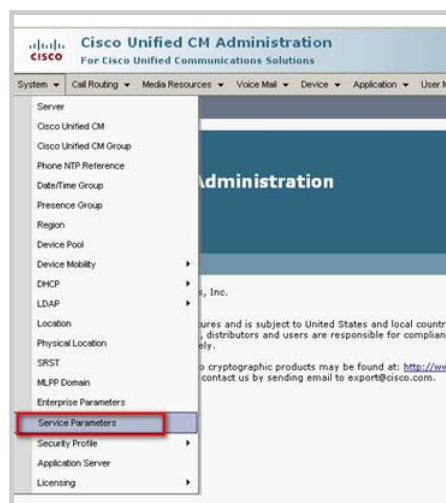


NOTE: This is only needed if skipped during the Configuration wizard.

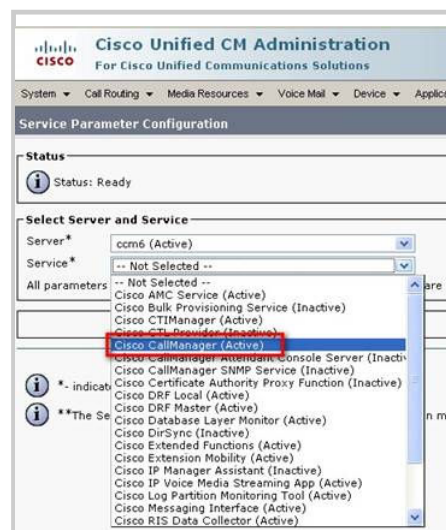
Cisco Unified CallManager Configuration

Billy Blue's with Cisco CallManager 5.x/6.x/7.x Configuration

On the Unified CallManager enable CDR by selecting the "System" -> "Service Parameters" menu.



Then from the select box click on "CallManager service"



On the System section, set the 'CDR Enable Flag' to TRUE

Status
 Status: Ready

Select Server and Service
 Server*: ccm6 (Active)
 Service*: Cisco CallManager (Active)
 All parameters apply only to the current server except parameters that are in the Clusterwide group(s).

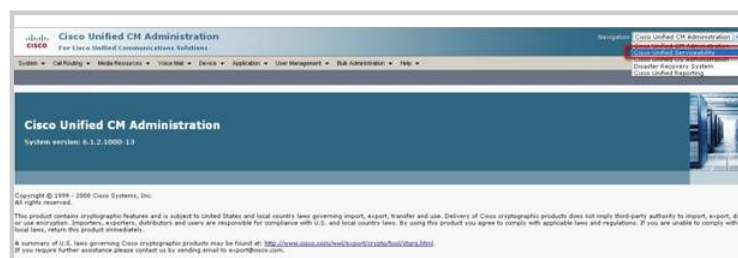
Cisco CallManager (Active) Parameters on server ccm6 (Active)

Parameter Name	Parameter Value
ECM Call Throttling	
Code Yellow Entry Latency *	20
Code Yellow Exit Latency Calculation *	40
Code Yellow Duration *	5
Max Events Allowed *	2000
System Throttle Sample Size *	10
System	
CDR Enabled Flag *	True
CDR Log Calls with Zero Duration Flag *	True
Digit Analysis Complexity *	StandardAnalysis
Database Debounce Timer *	0

As of CDR enablement, the CDRs will be generated by the Cisco Unified Communications cluster.

Warning: Calls made before enabling CDR will NOT be available as no CDR was provided by the Cisco Unified Communications cluster.

Then on the top right select "Navigation" -> "Cisco Unified Serviceability"



And from the "Tools" menu select "CDR Management"



Select Add new from Billing Application Server Parameters

Billing Application Server Parameters

Server Number	Host Name / IP Address*	User Name*
<input type="button" value="Add new"/> <input type="button" value="Delete Selected"/>		

Click on the Add New button to add a new Billing Application Server
 Click on the corresponding Server Name to Update the Billing Application Server details
 Select corresponding Checkbox and click on Delete Selected button to Delete Billing Application Server details

Insert the name/IP address of the SAS server where is running the Billy Blue's with following parameters:

- username: anonymous
- password: billyblues
- directory path: /billyblues/

Click on the "Add" button. If the FTP connection to the server running on the Stonevoice Application Suite (SAS) is successful, the Billing Application will be added. If no connection can be established the operation will fail.

Billy Blue's with Cisco CallManager 4.x Configuration

On the Unified CallManager enable CDR by selecting the "System" -> "Service Parameters" menu, and from the select box click on "CallManager service" and set the 'CDR Enable Flag' to TRUE (see the above section for more details)

Parameter Name	Parameter Value	Suggested Value
Dial Plan Path*	C:\Program Files\Cisco\DialPlan\	C:\Program Files\Cisco\DialPlan\

Parameter Name	Parameter Value	Suggested Value
CDR Enabled Flag*	True	False
CDR Log Calls with Zero Duration Flag*	False	False
Digit Analysis Complexity*	StandardAnalysis	StandardAnalysis
Database Debounce Timer (sec)*	0	0

Then select the Enterprise Parameters menu and set "CDRs will be kept in flat files" option for CDR Format.

As CDR UNC path set "\\CUCM\CDR\CDR" where CUCM is the UNC name or IP address of the Cisco Unified CallManager 4.x server.

Warning: This parameter is needed for the CDR files to be published as a shared Windows folder for Billy Blue's to retrieve them.

Parameter Name	Parameter Value	Suggested Value
CDR File Time Interval (min)*	1	1
CDR Format*	CDRs will be kept in flat files. Note: Files will not be deleted	CDRs will be inserted into database.
CDR UNC Path	\\CUCM\CDR\CDR	
Cluster ID*	CCMCD-Cluster	StandAloneCluster
Local CDR Path*	C:\Program Files\Cisco\CallDetail	C:\Program Files\Cisco\CallDetail
Off Cluster CDR Connection String		

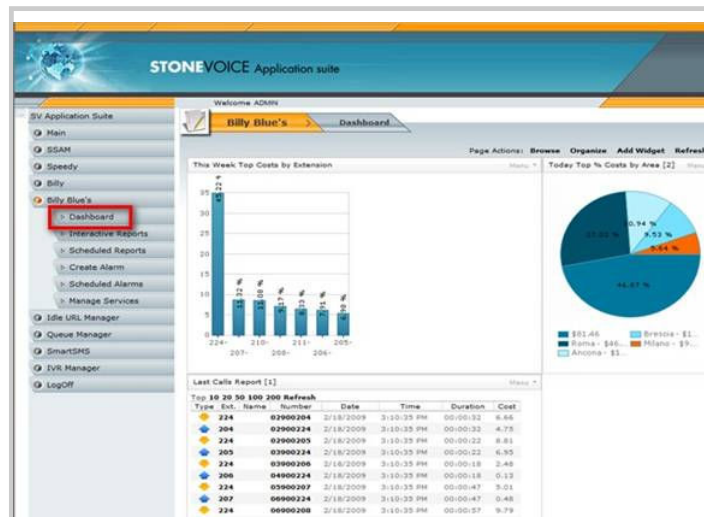
How to use Billy Blue's

Administrators, Supervisor and Normal users have access to reports, alarms and dashboard base on their [privileges](#).

The reports are similar, but the calls shown in the reports are filtered. E.g. a normal user will be allowed to see his/her own calls only.

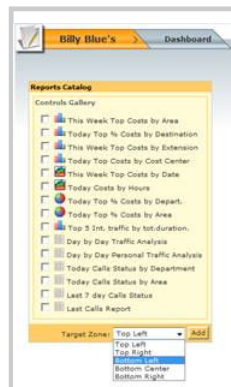
Dashboard

The dashboard is designed to provide a real-time control interface for specific information and view, for example the cost trends for outgoing calls or response times for incoming.

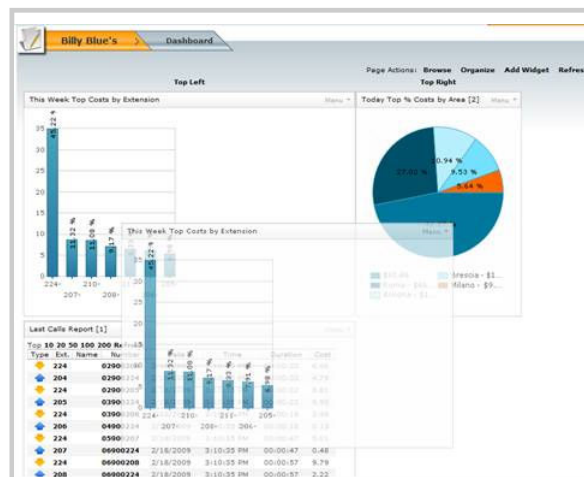


The dashboard is fully customizable for selected panels (reports) and number of these.

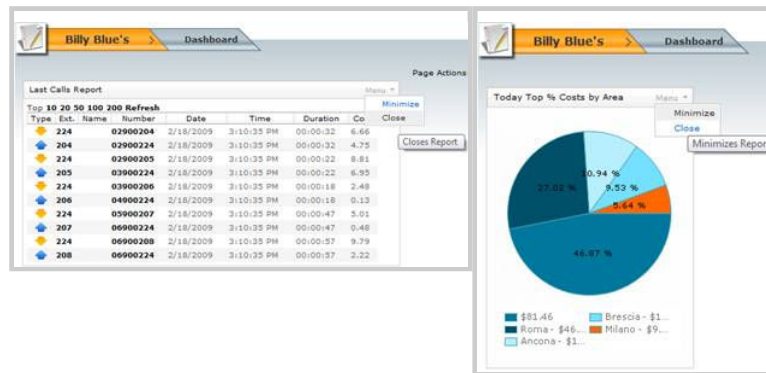
Clicking on the "Add Widget" it is possible to add a new report and select positioning on the screen.



Clicking on "Organize" let's you change the position of the widgets through simple drag and drops.



It is also possible to remove one of the available widgets:

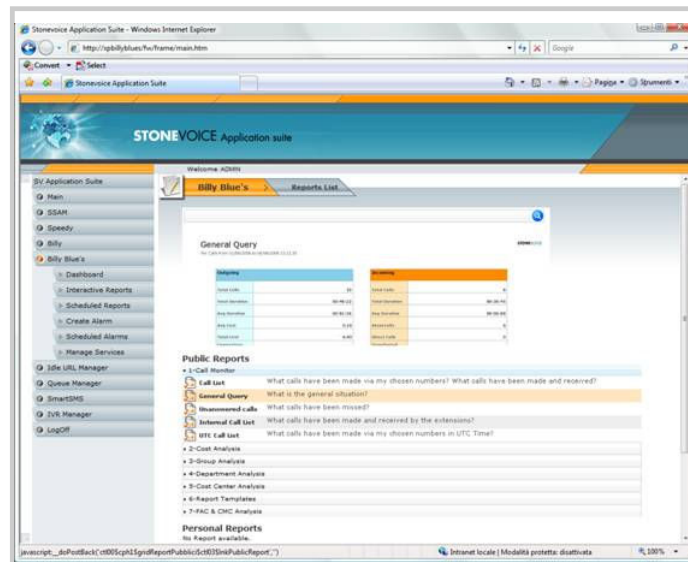


Interactive Reports

Billy Blue's provides a set of reports on internal, incoming, and outgoing calls organizing them based on different goals.

The interactive reports are grouped per categories, each one with a brief description and a short preview. They include:

- Public Reports: available to all normal users, supervisors and administrators
- Personal Reports: custom reports, available only to the user who customizes them



You can access to a specific report (e.g. Call List) simply by clicking on it.

Call List (hide options)

☒ Traffic type: All

☒ Per calls with date: This month

☐ Per restricted group of: One or more extensions...

☐ Per calls of type: Inc.&Out. Answered

☐ With destination/origin: One or more city...

☐ Maximum number of calls:

☐ More restrictions >> % Change Different

Fields Selection: [...]

Execute Report Save Report Send Mail Schedule

For each report you can select which kind of conditions (filter) to apply before it goes to processing, ex: filter on a specific department or only on incoming calls, etc..

- Traffic Type: filter based on the call scope (all, outgoing, incoming)
- Per calls with date: time interval of interested calls
- Per restricted group of: filter on a specific group of users (extensions, departments, cost centers, ecc.)
- Per calls of type: filter on the call type (answered, unanswered, ..)
- With destination/origin: filter on called number (National, International, Mobile ecc.)
- Maximum number of calls: set the max numbers of calls to analyze
- More restrictions: to add additional fields for filters, ex: only calls with cost over a certain amount,...

Moreover, based on the selected Report, Billy Blue's provides other options like showing details, additional fields to be shown, levels of grouping.

Once the conditions have been applied, it is possible to generate the Report by clicking on "Execute Report"

Nr.	Day	Date	Duration	Traff.	Number	Name	Area	Extension	Ext. name	Department	Cost	Type	Status	Ringt
1	Wed	18-12-09 15:10:20	00:00:22	In	02900204	Milano	224		Rapace w	Amministrazione	6.6940	In	Area	
2	Wed	18-12-09 15:10:20	00:00:22	In	02900224	Bari	204		Rapace w	Amministrazione	4.7512	In	Area	
3	Wed	18-12-09 15:10:20	00:00:22	In	02900205	Imperia	224		Rapace w	Amministrazione	8.9076	In	Area	
4	Wed	18-12-09 15:10:20	00:00:22	In	02900224	Severia	202		Rapace w	Amministrazione	6.6036	In	Area	
5	Wed	18-12-09 15:10:20	00:00:18	In	02900204	Milano	224		Rapace w	Amministrazione	2.6347	In	Area	
6	Wed	18-12-09 15:10:20	00:00:18	In	04900224	Imperia	204		Rapace w	Amministrazione	6.1228	In	Area	
7	Wed	18-12-09 15:10:20	00:00:47	In	02900207	Severia	224		Rapace w	Amministrazione	2.2132	In	Area	
8	Wed	18-12-09 15:10:20	00:00:47	In	04900224	Varese	207		Rapace w	Amministrazione	6.4789	In	Area	
9	Wed	18-12-09 15:10:20	00:00:57	In	04900208	Brescia	224		Rapace w	Amministrazione	8.7927	In	Area	
10	Wed	18-12-09 15:10:20	00:00:57	In	04900224	Roma	208		Rapace w	Amministrazione	2.2138	In	Area	
11	Wed	18-12-09 15:10:20	00:00:27	In	04900209	Roma	224		Rapace w	Amministrazione	0.8409	In	Area	
12	Wed	18-12-09 15:10:20	00:00:27	In	04900224	Roma	208		Rapace w	Amministrazione	4.3885	In	Area	
13	Wed	18-12-09 15:10:20	00:00:27	In	04900210	Roma	224		Rapace w	Amministrazione	7.4008	In	Area	
14	Wed	18-12-09 15:10:20	00:00:37	In	04900224	Roma	208		Rapace w	Amministrazione	2.2918	In	Area	
15	Wed	18-12-09 15:10:20	00:01:07	In	04900211	Roma	224		Rapace w	Amministrazione	2.0538	In	Area	

To modify the conditions and execute the Report again, click on "show options" or on ☒ to get access to the previous filter area and being able to modify the conditions.

It is possible to send the report via email, print it or export to Excel, CSV, PDF,...

If the selected conditions need to be saved for quick access to the report, it is possible to save the report:

You can:

- Save: the original report will be changed (for administrators only)
- Save as new: a new report in the "Public Reports" is added (for administrators only)
- Save in personal: a new report in the "Personal Reports" is added

NOTE: Normal users and Supervisors can only modify and save their personal reports

Scheduled Reports

It is possible to schedule for reports to be automatically sent via email

Scheduled reports are available through the "Scheduled Reports" link on the Billy Blue's menu:

Active	User	Planning Description	Last Execution	Last Message	Next Execution	Delete
<input checked="" type="checkbox"/>	superadmin_evns	Call List:Call List:Call List Send Report via Email every 1 Days in PDF format to info@stonevoice.com	2/19/2009 3:33:01 PM	✓ Attivo	Tomorrow 12:00 AM	Delete
<input checked="" type="checkbox"/>	superadmin_evns	Internal Call List:Internal Call List: Send Report via Email every 1 Days in PDF format to sales@stonevoice.com	2/19/2009 3:34:52 PM	✓ Attivo	Tomorrow 12:00 AM	Delete
<input checked="" type="checkbox"/>	superadmin_evns	Unanswered calls:Unanswered calls: Send Report via Email every 1 Days in PDF format to support@stonevoice.com	2/19/2009 3:36:40 PM	✓ Attivo	Tomorrow 12:00 AM	Delete

Create Alarms

With Billy Blue's it is possible to setup alarms being sent via email generated when something specific happens, like unanswered calls, prohibited calls, budget exceeding and other.

The next step in configuring an alarm is set when the alarm will start and the recurrence, i.e. how often will be executed.

The next step is set the Title and the destination email address

Active	User	Planning Description	Last Execution	Last Message	Next Execution	
<input checked="" type="checkbox"/>	superadmin_svs	Missed Calls: Send Alarm via Email every 1 Days in HTML format to 1	2/20/2009 12:00:01 AM	✓ Attivo	Tomorrow 12:00 AM	Delete Edit
<input checked="" type="checkbox"/>	superadmin_svs	Calls outside working hours: Send Alarm via Email every 1 Days in HTML format to 1	2/20/2009 12:00:01 AM	✓ Attivo	Tomorrow 12:00 AM	Delete Edit
<input checked="" type="checkbox"/>	superadmin_svs	Calls outside working hours: Send Alarm via Email every 1 Days in HTML format to 1	2/20/2009 9:15:38 AM	✓ Attivo	Tomorrow 12:00 AM	Delete Edit
<input checked="" type="checkbox"/>	superadmin_svs	Missed Calls: Send Alarm via Email every 1 Minutes in HTML format to 1	2/20/2009 10:33:01 AM	✓ Attivo	Today 10:54 AM	Delete Edit

Customize Reports

Accessing the "Administrative Page" link through the Billy Blue's menu, it is possible to get access to the Manage Reports page to customize some report's characteristics.

[Upload Logo](#)

Billy Blue's adds a logo on the top right corner of each report. It is possible to customize the logo by browsing a bmp, jpg, gif, png, ico image to upload. It is also possible to restore the original logo through the "Restore Default" link.



Upload Report

Billy Blue's allows the uploading of new reports (created by Stonevoice, please ask Stonevoice Technical Support for details).

Manage Reports

The Manage Reports section allows administrators to apply changes on Public Reports.

Report Name	Group	Minimum Role	Question	Order	
Call List	1-Call Monitor	0	What calls have been made via my	1	Update Cancel
Group Query I Len.	6-Report Templates	0	What is the distribution of the calls?	2	Edit
Group Query II Len.	6-Report Templates	0	What are the call trends?	3	Edit
General Group Cost Analysis	6-Report Templates	0	What is the cost distribution?	4	Edit
General Query	1-Call Monitor	0	What is the general situation?	5	Edit
Unanswered calls	1-Call Monitor	0	What calls have been missed?	6	Edit
Calls Count	6-Report Templates	0	What is the distribution of the calls?	9	Edit
Phone Bill	2-Cost Analysis	0	What is the cost of the calls?	1	Edit
Internal Call List	1-Call Monitor	0	What calls have been made and received by the extensions?	7	Edit
UTC Call List	1-Call Monitor	0	What calls have been made via my chosen numbers in UTC Time?	7	Edit

By clicking on the "Edit" button, it is possible to modify:

- Report Name: the displayed name of the report
- Group: the category of the report used to group on the Interactive Reports page.
- Minimum Role: who can access the report
 - 0: All users
 - 1: Normal Users
 - 2: Supervisors
 - 3: Administrators
- Question: Report description
- Order: Report position on the list

Manage User Reports

The Manage Reports section allows administrators to apply changes on Personal Reports.

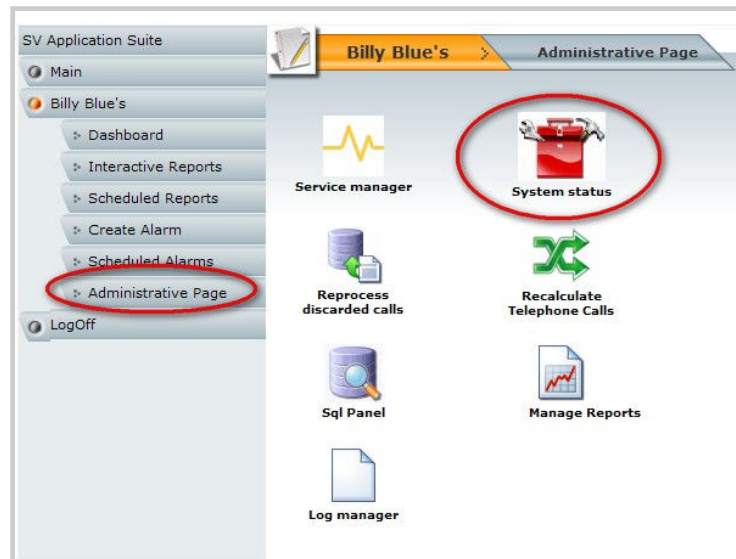
Simplified Diagnostics and Troubleshooting

If you were able to configure and run Billy Blue's services, but you think that Billy Blue's is not behaving as it should:

- Access and review the System Status page in the administrative panel
- Run the Configuration Wizard again to correct the problem

System Status Page and basic diagnostics

You can easily diagnose configuration problems through the Service Status page:

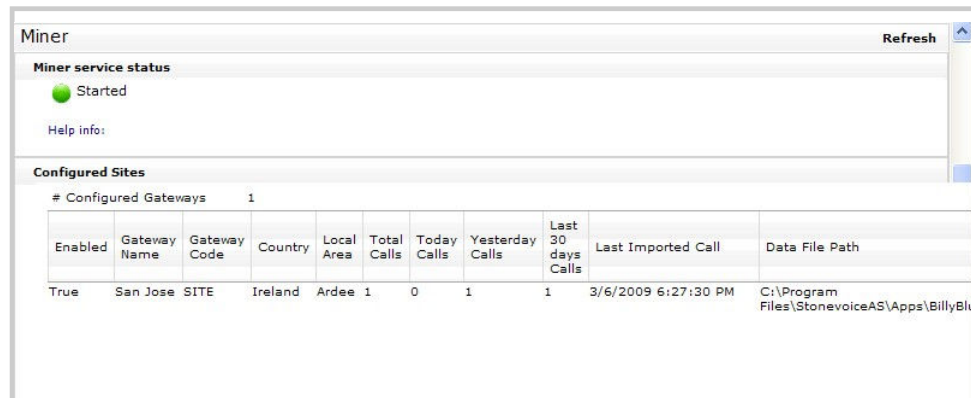


Basic test: Check the gateway configuration, make a test call and see if it has been received. If the "Last acquisition date" in the Recorder panel changes then the call has been transferred from the CDR file to a local backup file which will be read by the Miner. This means that the PBX is correctly configured and that the FTP service is working. Check also the "Last Successfully Imported Calls" list.

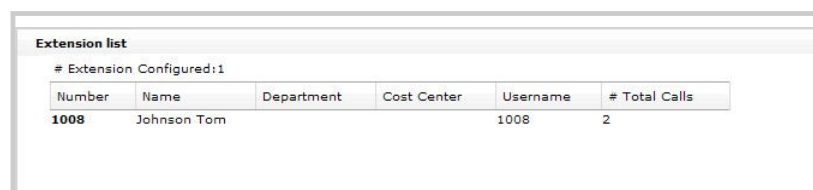


Tariffs and call costs: When the miner is able to calculate call costs, the "Last Imported Call" date and time changes in the Miner panel.

Note: You might see an old date such as 1981... This means that no call has been imported.



Extension List: on this panel you can verify that the monitored extensions are the one you expect.



Issues on call importation (i.e. when the call is dropped) are mostly related to extensions which are not configured or enabled. In the following table you can check the number of the extensions being monitored. The maximum number of monitored extension is limited by the product license.



Here you can see if your call has been imported into Billy Blue's database:

Last Successfully Imported Calls								
Type	Ext.	Name	Number	Date	Time	Duration	Cost	Gateway
✗	1008	Johnson Tom	1007	3/6/2009	6:27:33 PM	00:00:00	0.00	SITE
✗	1007		1008	3/6/2009	6:27:33 PM	00:00:00	0.00	SITE
✗	1008	Johnson Tom	02987200	3/6/2009	6:27:30 PM	00:00:00	0.00	SITE

If scheduled reports do not run, check the service status here:

Scheduler & Email

Refresh

Scheduler service status

 Started

[Help info:](#)

Press the "Refresh" link to update the panels.

Advanced Diagnostics and Troubleshooting

If you experience problems of technical nature, before calling technical support please:

- Read the Most Common Issues section to have hints on what the cause of the problem might be
- Review the advanced checklist

Common issues

This section describes typical problem scenarios and their causes. Please test incoming and outgoing calls first. When they work you can test calls between internal extensions. Then test international calls.

No call is imported

You made both internal and external calls from and to different numbers but the calls do not appear in the Call List report.

-> In this case review the license status first, then the rest of the checklist.

My calls are not imported

External calls from an extension are billed regardless the gateway used. External calls originated from another one are not.

-> The call has been discarded. Check the user configuration first. Then you can try re-importing discarded calls (Administrative Page->Reprocess discarded calls).

Calls are imported randomly

Some extension has the call reported, other extensions do not, but you cannot tell which one and why.

-> This is a license issue or a voice gateway not listed during gateway setup. Register the product, run the configuration wizard again and add the missing gateway.

Billy Blue's suddenly stops importing calls

-> This could be a license issue (e.g. evaluation limit) or one of the services not running.

My call has been discarded

-> Check the user configuration first, then the gateway list. Then try to import the discarded calls (Administrative Page->Reprocess discarded calls).

All internal calls are being discarded

-> The internal calls have to be activated during gateway configuration.

The call is reported but some information is missing

You can check this condition by the Call List report.

-> Configure all the user's fields. Updated information will be available for new calls. If you want to update report information for old calls, recalculate the Telephone calls costs.

You can get reports by the web interface but you cannot get them by email

You configured a report, tested it interactively to ensure that it does not produce an empty report, but still you cannot get the scheduled reports through email.

-> The issue is probably related to an antispam program or to the maximum attachment size on the email server. Try also a different report.

The phone numbers in the reports are not as expected

-> Probably the international prefixes configured on the gateway list do not match the incoming number format. Enter the right prefix through the Configuration Wizard or change the PBX configuration, then Reprocess the discarded calls.

The call costs are not as expected

-> Probably the exit codes configured on the gateway list do not match the incoming number format.

Advanced Checklist

- Check that CuCM is sending CDRs through FTP
- Check that the FTP service is running
- Check that all Billy Blue's the services are running
- Ensure the database tables have been created
- Check that the Application Suite Users List is complete
- Check that System Requirements are met
- Check that the application is licensed
- Check exit codes, Voice Gateway translation rules, and CallManager's translation patterns

Reviewing these conditions and running the Configuration Wizard again solves most problems. Should the problem remain, you may:

- Set the log files to a higher level, and collect them for further analysis
- Send the log files to Stonevoice Technical Support

Check FTP

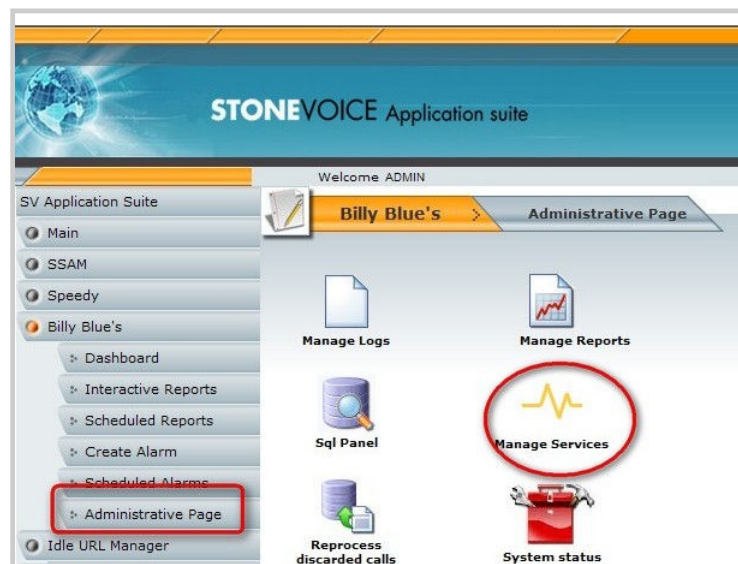
To ensure that the FTP service and the CuCM are properly configured, make a test call, wait five minutes and check the FTP log files located in this folder: C:\WINDOWS\system32\LogFiles.

Check Billy Blue's services

Billy Blue's engine relies on four different windows services and one database, as described in the [application architecture](#) chapter:

- Billy Blues Recorder parses the CRDs generated by the PBX and stores call data in standard format
- Billy Blues Miner reads the stored calls, calculates call costs and puts them in the database
- Billy Blues Scheduler manages scheduled alarms
- Billy Blues Service Host starts and stops the other three services

You can check the status of Billy Blue's services, start and stop them through the Manage Services Administrative page of the web interface.



Recorder

If the recorder does not start check the gateway configuration by running the Billy Blue's Configuration Wizard from the Start menu. When the Recorder is working and the CuCM is sending CDRs, the file StoricoSITE.txt located in the c:\Program Files\StonevoiceAS\Apps\BillyBlues\Engine\BluesRecPro gets bigger.

If the CDR are dropped to the local folder but the file StoricoSITE.TXT does not grow, the CuCM driver is not configured.

Miner

The miner cannot run if the database is inaccessible or not configured. To setup the database connection Billy Blue's Configuration Wizard from the Start menu. See also Database Maintenance.

The files BluesRecSIT*.txt located in the c:\Program Files\StonevoiceAS\Apps\BillyBlues\Engine\BluesRecPro are reset when the Miner service writes the call information into the database. On the contrary, if they continuously grow, the Miner is not working. If they are empty but your calls are not reported, the Miner is working but the calls are being discarded.

Scheduler

The scheduler sends reports by SMTP. Ensure that the email parameters are correct and test them through the Configuration Wizard. Ensure that no firewall or antivirus is blocking outgoing SMTP connections or email attachments. Check also the Email server log files.

Service Host

The service host is always running and usually there is no need to restart it. Billy Blues Service Host status can be checked through Windows service management console (the name of the service is "Blue's Service Host"). If none of the other three services can be started, check the status of the Billy Blues Service host on the machine.

Service account

If the services do not start the issue may be related to users' security permissions on the server.

By default the services are run using the account which has been created by the SAS setup package (StonevoiceAppSuite). If Blues Service Host is running but BillyBlues services do not start, try changing the service account through the "Change Service Account" button on the web interface. Enter the credentials of a local administrator or domain administrator. If you use a local administrator, in the "domain" field enter "local", "." (dot), or the Computer Name.

Database Maintenance

The first time you run the Configuration Wizard, it creates connection to the SQL server. Then it creates a database named "BluesPro". Once it is created, the Wizard adds tables and stored procedures.

The database structure is automatically updated by the Miner service. If this service cannot start the database structure can be corrupt or incomplete.

You can check the presence of the tables by accessing it through a suitable tool, such as Microsoft Management Studio Express.

Check that System Requirements are met

Poor machine performance may affect Billy Blue's functionality. If the web interface is slow, or if you cannot access reports, log onto the SAS server to check memory usage and free disk space.

Please ensure that the server or the virtual machine conforms to minimum system requirements stated in the [Hardware and Software compatibility list](#).

Check Billy Blue's license

If BillyBlue's seems to discard calls randomly it can be that your license doesn't cover all the extensions you need. You must not enable billing form more extensions than your license permits.

If Billy Blue's suddenly stops importing calls, it can be that it runs in evaluation mode and the limit of 5000 calls have been reached. Enter a valid license code through the [license Activation Tool](#) to remove the call limit. Also mind that the evaluation mode last for 15 days; after that time no call will be imported anymore.

Check Number Translations

The exit codes configured on each gateway must match the Voice Gateway translation rules, and the number transformations configured into the Call Manager's translation patterns. When they do not, you'll experience problems with cost calculations and some call will be dropped.

Manage Logs

This page lets you tune the way log files are generated. Do not change these parameter under normal circumstances, since the log level affects performance.





You can enable log separately for each service. You can also enable log files for the web interface.

The "Clear" button resets log files, while the Create Info File generates an archive which contains useful information to be sent to Stonevoice Technical Support. No personal information is collected.

Getting Technical Support

In order to receive technical assistance you have to update your SAS the latest version (minor upgrades are free). Older versions are not supported. You may need new license code, to backup your data or to uninstall the old version before upgrading, this depending on the version of the application installed and the Operating System running on the server.

Standard Technical Support via e-mail during the evaluation period is free. All Stonevoice products are bundled with a one year of Standard Technical Support, starting from the date of the application license activation. Other kinds of technical assistance are subject to separate agreement.

For more information and technical support please visit:

<http://support.stonevoice.com>

Here you will find FAQs, technical whitepapers and other useful information.

You can find the latest product upgrades on the Stonevoice download area:

<http://www.stonevoice.com/auto/downloads>

You can find up to date online documentation on:

<http://docs.stonevoice.com>

If you need further assistance, please send an email to:

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