Integrating the Veramark VeraSMART Call Accounting Solution with the Cisco Unified Communications 500 Series for Small Business

This application note provides guidelines and configuration instructions for the Cisco® Unified Communications 500 Series System for Small Business and Veramark’s VeraSMART Call Accounting software.

Many small businesses require that all (or most) phone calls be tracked for legal reasons and also for accounting and billing purposes. Veramark is the market leader in Call Detail Records (CDR) interpretation. The following application note explains how to integrate the Veramark VeraSMART on-premise server with the Cisco Unified Communications 500 Series for Small Business.

The information in this document applies to Cisco Configuration Assistant Version 2.0 and Cisco UC Unified Communications 500 Series software pack Version 7.0.3.
Scope and Assumptions

The information in this application note is intended for use by Cisco small and medium-sized VARs and Cisco SMB Specialized Partners. We strongly recommend that users have a Cisco Express Foundation Specialization. It is assumed that users are familiar with configuration of voice and security features on the Cisco Smart Business Communications System (SBCS) and are also familiar with the Cisco IOS® command-line interface. It is also assumed that users are familiar with fundamental data and voice networking.

The scope of this application note is limited to the basic configuration of the VeraSMART software application and provisioning the Cisco Unified Communications 500 Series in the context of the proposed topology. This document does not cover configuration of additional or optional voice and networking features.

The target customer for this integration is a small to medium-sized customer site, with up to five offices and a maximum of 500 users total.

The procedures in this application assume the following:

- All network components have been upgraded and configured for basic connectivity.
- Each site has been provisioned for voice users and for public switched telephone network (PSTN) termination (if required).

The information in this document applies to Cisco Configuration Assistant Version 2.0 and Cisco Unified Communications 500 Series software package Version 7.0.3.
Solution Overview and Benefits

VeraSMART eCAS Call Accounting Software can help to significantly reduce telecom expenses. This web browser-based application is designed for organizations with a PBX (TDM) or IP PBX system, such as Cisco Unified Communications 500 Series. VeraSMART eCAS software enables organizations to collect, analyze, and report on telecom activity. A conduit to telecom cost management, Veramark's software enables organizations to increase staff productivity, and control and reduce telecom operating costs.

Combining the ease of point-and-click navigation with the control of a built-in, robust reporting engine, VeraSMART eCAS offers all the flexibility you'll need to effectively manage your telecom system. Our software provides easy integration with existing technology by including features such as simplified reporting, advanced import-export capability, single and multiswitch configurations, a built-in SQL database engine, extensive security, and system and call alerts.

Figure 1 shows some sample VeraSMART reports. The VeraSMART eCAS reporting engine works the way you want, and delivers what you need, when you need it. Use it to analyze telecom expenses and team productivity, as well as trunk and system utilization. This powerful reporting engine sifts through thousands, even millions, of call records with remarkable speed. It also has extensive drill-down capabilities, plus features such as VIP masking of digits—letting you protect sensitive data. The entire organization benefits from efficiencies and business intelligence opportunities gained through the software's centralized call accounting and data management. With VeraSMART eCAS report templates you can include or exclude data, change column order, and re-sort information on demand.

VeraSMART eCAS Call Accounting Benefits

- Powerful and flexible reporting engine
- Measure productivity and identify ways to decrease telecom expenses
- Boost revenues by ensuring trunking is optimized
- Track emergency calls and suspicious calling activity
- Isolate important telecom metrics in seconds
- 3D dashboards for monitoring key data trends
- Tested and certified by most leading switch manufacturers
- Support for VMware ESX Virtual Server
- Quickly export reports as HTML or ASCII delimited text for hassle-free use in applications such as Microsoft Excel
- Easy setup wizards and context-sensitive help
- Support for Windows Vista and Mozilla Firefox
- Features the MySMART™ web portal, a configurable, streamlined user interface
- Additional functionality available with optional components

To learn more about VeraSMART Call Accounting, watch an online demonstration at:
Basic Network Topology

As Figure 2 shows, the VeraSMART server connects to the Cisco Unified Communications 500 Series LAN ports. In a multisite deployment, remote Cisco Unified Communications 500 Series ports may access the server as long as IP connectivity exists between LANs across the WAN. The Cisco Unified Communications 500 Series will send CDR information to the VeraSMART server using the RADIUS protocol.

Figure 2  Basic Network Topology for the Cisco Unified Communications 500 Series and the Veramark VeraSMART Server

[[Replace UC500 in the figure with Cisco Unified Communications 500 Series]]
Configuring the VeraSMART Server for CDR Collection

Follow these steps to enable CDR collection on the VeraSMART server. To view the complete user manuals, visit:  http://www.veramark.com/

1) Ensure that IP connectivity exists between the VeraSMART server and the Cisco Unified Communications 500 Series.

2) Once the software is installed, log in as the administrator using your browser. The administrator username and password are the same as the ones you specified during installation.

3) Under the Call Accounting > CDR Source tab, click Add CDR Source to run the Cisco Unified Communications 500 Series configuration wizard. Follow the simple on-screen steps. There will be an option to select Cisco Unified Communications 500 Series as the CDR source.

Figures 3 through 6 show some of the pages presented by the configuration wizard.

Figure 3 Welcome Page in the Configuration Wizard

![Welcome Page](image)

To use the Call Accounting System, you will need to create a CDR Source for each call record source. If you are collecting calls from two phone systems, then you will need to create two CDR Source records. Each CDR Source will be given a name, and it will be configured so that you can collect, filter, and report on call records.

You will need to provide specific instructions in a series of steps. This will include information related to the local exchange and rate services. Then, depending on the call collection method to be used, you may need to identify the source IP, modem, or CDR port used, the CDR source-based rate, analog modem phone number, call volume, etc.

Not all of these items need to be addressed at once, since the wizard can resume the setup where you left off. Consult your CDR Source technician or vendor, if needed.

Please click Next to continue.

Figure 4 Identifying CDR Sources
Integrating Cisco Unified Communications 500 Series with VeraSMART Call Accounting Software

Identify the source of call records.

Create a CDR Source name. Use up to 25 alphanumeric characters for a unique name (this can be anything that makes sense to you to reference).

Enter the CDR Source area code, local exchange, and local rating method (this depends on the rate service used locally - for example: measured).

| **CDR Source name**: |  |
| Country: |  |
| Area code*: |  |
| Local exchange*: |  |
| Local rate method: | Measured |

Do you want to discard the following types of calls for this CDR Source? These choices can be changed later through the 'edit' CDR Source function:

<table>
<thead>
<tr>
<th>Internal</th>
<th>Store</th>
<th>Discard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incoming</td>
<td>Store</td>
<td>Discard</td>
</tr>
</tbody>
</table>

* denotes a required field

Figure 5 Selecting the CDR Source Manufacturer

Select the CDR Source manufacturer.

Every telephone system produces call records in a specific format. The system uses "format" software to interpret call record data.

From the list, select the manufacturer of the CDR Source, or if collecting call records from another call accounting system select "Call Accounting Sys."

Currently assigned Format: None

Manufacturer: Cisco

Figure 6 Selecting the CDR Format
During the configuration process, the configuration wizard will prompt you for the IP address and the RADIUS key, in order to configure authentication between the Cisco Unified Communications 500 Series and the VeraSMART server (Figure 7).

**Figure 7 Entering the IP Address and RADIUS Server Key**

Finally, you will need to provide the privileged username and password to access the Cisco Unified Communications 500 Series (Figure 8). VeraSMART uses this information to connect to the device and automatically deliver the necessary configuration in order to enable RADIUS accounting generation on the Cisco Unified Communications 500 Series.

**Figure 8 Entering the Administrator Username and Password**
After a few seconds, the Cisco Unified Communications 500 Series is provisioned and the configuration is complete.
Creating and Running Reports

By navigating to the Reporting > Reporting tab, the administrator can generate reports from a preconfigured list or create customized reports (Figures 9 and 10).

Figure 9 The Reporting Tab Page

![Figure 9 The Reporting Tab Page](image)

Figure 10 Sample Report
Integrating Cisco Unified Communications 500 Series with VeraSMART Call Accounting Software

Application Note

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Caveats and Limitations

The following is a list of known limitations and special considerations:

- Up to five Cisco Unified Communications 500 Series sites and a total of 500 users are supported by this solution.
Support Information

For more information, visit the SBCS Small Business Support Community at:

http://www.myciscocommunity.com/community/smallbizsupport

For Cisco technical support information, please contact the Planning, Design and Implementation help desk at www.cisco.com/go/pdihelpdesk (Cisco.com login required) or call 800 GO CISCO and select PDI.

For Veramark technical support, please contact: