



## 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.

Figure 1 Sample VeraSMART eCAS Reports



### 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:

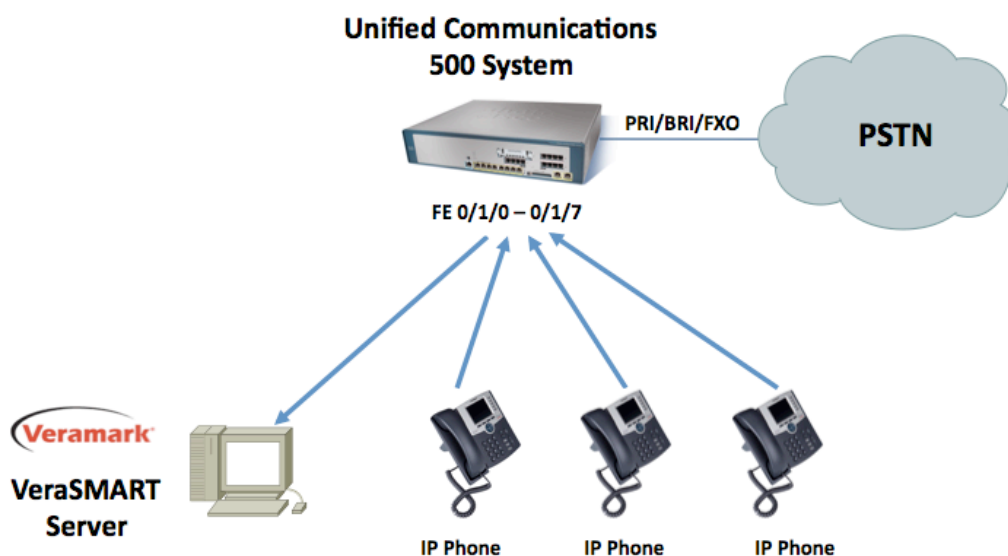
<http://www.call-accounting-solutions.com/Resources/product-demo.aspx>

## 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]]



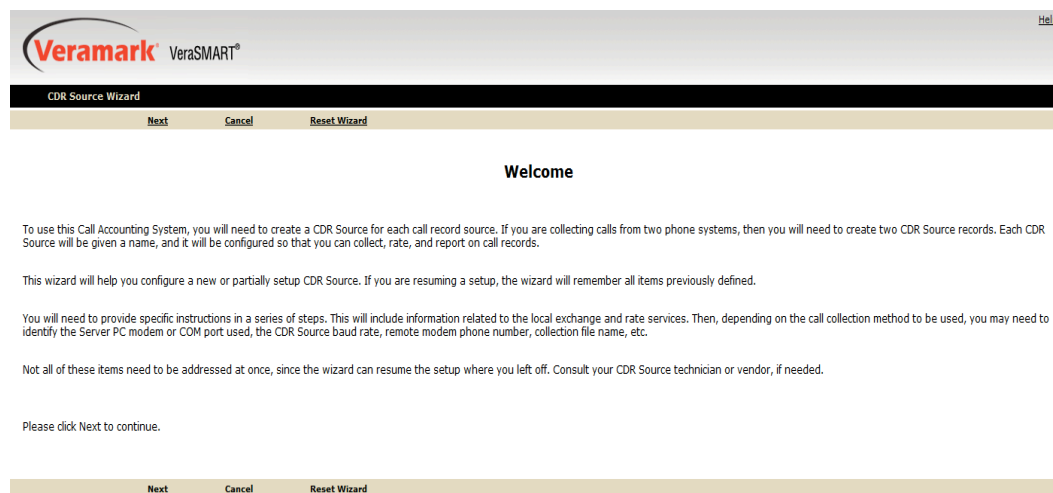
## Configuring the VeraSMART Server for CDR Collection

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**



**Figure 4 Identifying CDR Sources**

Store  Discard' and 'Incoming:  Store  Discard'. A note at the bottom states '\* denotes a required field'."/>

**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:

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

Internal:  Store  Discard      Incoming:  Store  Discard

\* 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:

Figure 6 Selecting the CDR Format



**Select the call record format.**

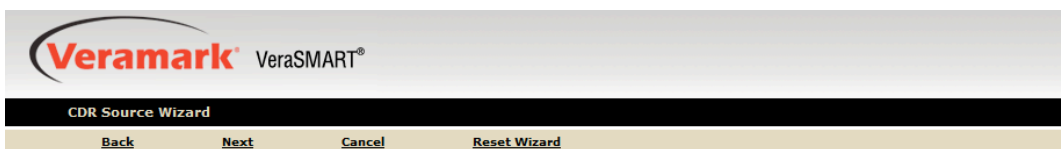
Below you will see a list of CDR Source formats for this manufacturer. Select the call record format used by your CDR Source (if you need help to decide on a specific choice, click its help icon)

	Format name	Format description	CDR Source software release
<input type="radio"/>	(344) Cisco CallMan	Cisco CallManager 3.1 and 3.2 CDR	3.1, 3.2
<input type="radio"/>	(345) Cisco CallMan	Cisco CallManager 3.1 and 3.2 with 7+ dig Ext	3.1, 3.2
<input type="radio"/>	(346) Cisco CallMan	Cisco CallManager 3.3 CDR	3.3
<input type="radio"/>	(347) Cisco CallMan	Cisco CallManager 3.3 with 7+ dig Ext	3.3
<input type="radio"/>	(348) Cisco CallMan	Cisco CallManager 4.0, 4.1, and 4.2 CDR with less than 7 dig Ext, extensions assigned to partitions - Legacy	4.0,4.1,4.2
<input type="radio"/>	(349) Cisco CallMan	Cisco CallManager 4.0, 4.1, and 4.2 CDR with 7+ dig Ext, extensions assigned to partitions - Legacy	4.0,4.1,4.2
<input type="radio"/>	(352) Cisco CallMan	Cisco CallManager 4.0, 4.1, and 4.2 CDR	4.0,4.1,4.2
<input type="radio"/>	Cisco Unified Communications Manager	Cisco Unified Communications Manager 5.0+	5.0, 5.1, 6.0
<input type="radio"/>	Cisco UCME/UC500	Cisco Unified Communications Manager Express and Unified Communications Series 500	3.2 and higher



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**



**Cisco UCME/UC500 Configuration**

Please enter the IP Address of the Cisco UCME/UC500 device, and the radius server key. The radius server key is used by the device to communi

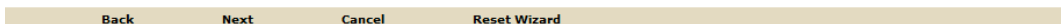
Call collection method: Cisco UCME/UC500

Device IP address\*:

Radius server key\*:

\* denotes a required field


[Cisco UCME/UC500 Help](#)



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**





CDR Source Wizard

[Back](#)   [Next](#)   [Cancel](#)   [Reset Wizard](#)

### Cisco UCME/UC500 Device Configuration

Please enter the Cisco administrator username and password, and the password to enable EXEC mode. The factory default for these values is 'cisco'. Please use an IP Address other than the default.

- Skip device auto-configuration
- Auto-configure device using settings below:

<b>Cisco Administrator Username*:</b>	<input type="text" value="cisco"/>
<b>Cisco Administrator Password*:</b>	<input type="text" value="cisco"/>
Cisco EXEC Mode Password(if required):	<input type="text"/>
<b>VeraSMART Server IP address*:</b>	<input type="text" value="192.168.10.25"/>

\* denotes a required field

[Cisco UCME/UC500 Help](#)

[Back](#)   [Next](#)   [Cancel](#)   [Reset Wizard](#)

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 10 Sample Report**


[Favorites](#) [Home](#) [MySMART](#) [Logout](#) [Help](#) [About VeraSMART](#)

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**Veramark** VeraSMART®

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[Home](#) | [Create/Run Reports](#) | [View Report Log](#) | [View Saved Reports](#) | [EZ-Burst@ Distribution](#) | [Report Criteria](#)

 **The report has been processed and launched in a new window. If the report does not appear, make sure that your browser is not config**

[Save Criteria As New Report](#)   [Run Report](#)   [Reset Fields](#)   [Advanced Criteria](#)

**Report Name**

Report name:   
System report name: Call Detail by Organization Report [Help](#)

**Date Criteria**

Date range:  Current Month including Today   
 From   To   
 Previous  days (excludes today)

**Output Methods And Distribution**

Output as HTML report to browser  Printer friendly format  
 Output as HTML report for later viewing in Saved Reports  Printer friendly format  
 Output as EZ-Burst@  Printer friendly format  
EZ-Burst@ distribution list:   
 Output as HTML report and E-mail link to E-mail addresses selected below  Printer friendly format  
 Output as HTML report and E-mail zipped files to E-mail addresses selected below  Printer friendly format  
E-mail addresses:  [Select E-mail Addresses](#)  
 Output as ASCII text to specified output file

### **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](http://www.cisco.com/go/pdihelpdesk) (Cisco.com login required) or call 800 GO CISCO and select **PDI**.

For Veramark technical support, please contact:

<http://www.call-accounting-solutions.com/Support/Default.aspx>