



Security Removable Media Manager

secRMMCentral
for AD domain
environments

Version 7.0.8.0

(December 2015)

Protect your valuable data



secRMMCentral Administrator Guide

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If you have any questions regarding your potential use of this material, contact:

Squadra Technologies, LLC
7575 West Washington Ave
Suite 127-252
Las Vegas, NV 89128 USA
www.squadratechnologies.com
email: info@squadratechnologies.com

Refer to our Web site for regional and international office information.

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Squadra Technologies secRMMCentral Administrator Guide
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Contents

| | |
|---|-----------|
| INTRODUCTION | 4 |
| OVERVIEW | 4 |
| ARCHITECTURE | 4 |
| <i>Microsoft Event Forwarding</i> | <i>4</i> |
| secRMMCentral Event Log..... | 4 |
| secRMMCentral Event Log Subscription..... | 4 |
| Types of Event Log Subscriptions..... | 5 |
| Microsoft Event Forwarding references | 5 |
| <i>Microsoft WinRM Overview.....</i> | <i>5</i> |
| Supported Operations System Versions for WinRM..... | 5 |
| Microsoft versions of WinRM..... | 5 |
| Detecting which version of WinRM is installed | 6 |
| WinRM service is running | 6 |
| WinRM service is not running..... | 7 |
| Microsoft WinRM references | 8 |
| Comments about WinRM | 8 |
| INSTALLATION USING ACTIVE DIRECTORY | 9 |
| CREATE THE AD GPO..... | 9 |
| CONFIGURE THE “EVENT COLLECTOR” COMPUTER | 13 |
| <i>Enable “event collector” permission to Event log</i> | <i>14</i> |
| <i>Install secRMMCentral on the “event collector” system.....</i> | <i>15</i> |
| <i>Configure the Event Forwarding Subscription</i> | <i>17</i> |
| <i>Set the secRMMCentral event log to roll when full</i> | <i>18</i> |
| <i>Install secRMM on the event collector computer</i> | <i>19</i> |
| VIEWING THE SECRMMCENTRAL DATA..... | 19 |
| MICROSOFT SYSTEM CENTER OPERATIONS MANAGER..... | 19 |
| CONTACTING SQUADRA TECHNOLOGIES SUPPORT | 19 |
| ABOUT SQUADRA TECHNOLOGIES, LLC..... | 20 |

Introduction

Overview

secRMMCentral lets you collect the secRMM events from all the computers in your network into a central event log on a single computer. This is useful for environments that are not running Microsoft Operations Manager (or another similar systems management product) or if you need to implement fault-tolerant functionality for your removable media events. At a bare minimum, combined with the secRMM Excel AddIn, you can use secRMMCentral to centrally monitor and manage the secRMM product in your environment.

The remaining subsections in this section can be skipped and you can proceed directly to the “Installation using Active Directory” section if you are already familiar with the Microsoft Event Forwarding technology.

Architecture

Microsoft Event Forwarding

secRMMCentral is an implementation of the Microsoft Event Viewer Event Forwarding/Subscription technology. The Microsoft documentation uses the term “event collector” as the Windows computer that will receive the events (i.e. the central event log). The computers that forward the events (to the “event collector”) are called the “event source” computers. The “event source” computers are running the secRMM product and generating events into their local secRMM event log. The Microsoft Event Forwarding/Subscription technology relies upon the Microsoft WinRM technology. The section below (titled “Install/Configure WinRM”) will guide you through installing Microsoft WinRM if it is not already installed in your environment.

secRMMCentral Event Log

For secRMMCentral, we are going to create a new event log named secRMMCentral on the “event collector” computer. The event log named secRMMCentral will receive all the secRMM events from the “event source” computers. The “event collector” can act as both an “event collector” and an “event source” so if an end user uses the “event collector” computer to copy files to a removable media device, these events will be collected just like any other “event source” computer. Creating the secRMMCentral event log is done using a standard Windows Installation which will be downloaded from the Squadra Technologies web site.

secRMMCentral Event Log Subscription

Once the secRMMCentral event log is created, we will create an “event log subscription” on the “event collector” computer. The “event log subscription” tells the “event collector” computer (actually, the service running on the “event collector” computer named “Windows Event Collector” [Wecsvc]) which “event source” computers will participate, from what event log to collect events from (in our specific case, this will be secRMM), what event log to put them in (in our specific case, this will be secRMMCentral) and how the event log data will be forwarded (either push [called Source-initiated] or pull [called Collector-initiated]) to the “event collector” computer.

secRMMCentral Administrator Guide

Types of Event Log Subscriptions

Microsoft lets you associate the “event source” computers to the “event collector” computer in two different ways:

1. Source-initiated subscriptions
2. Collector-initiated subscriptions

When you define a Source-initiated subscription, you use an Active Directory (AD) Group Policy Object (GPO) to tell the event log subscription on the “event collector” computer what computers are the “event source” computers. This is recommended if you have many computers in your network and they all have secRMM deployed on them. The Source-initiated subscription uses a “push” architecture.

When you define a Collector-initiated subscription, you manually add the computers to the event log subscription on the “event collector” computer. This is recommended if you only have a small number of computers in your environment. The Collector-initiated subscription uses a “pull” architecture. For the collector-initiated subscription, there is a configuration difference based on if your computers are in a domain or workgroup. We will point out these configuration differences in the installation steps below.

Microsoft Event Forwarding references

Before moving on to the installation, it might be beneficial to first read the following Microsoft links to increase your understand of the Microsoft event forwarding technology:

Configure Computers to Forward and Collect Events at:

<http://technet.microsoft.com/en-us/library/cc748890.aspx>

Microsoft WinRM Overview

Supported Operations System Versions for WinRM

Windows Server 2003 R2, Windows Vista with Service Pack 1 (SP1), Windows 7, Windows 8, Windows Server 2008, Windows Server 2008 R2, Windows 2012, or Windows 2012 R2 can be the “event collector” computer.

Windows XP with Service Pack 2 (SP2), Windows Server 2003 with Service Pack 1 (SP1), Windows Server 2003 with Service Pack 2 (SP2), Windows Server 2003 R2, Windows Vista, Windows Vista with SP1, Windows 7, Windows 8 or Windows Server 2008 can be “event source” computers.

Note: Windows Vista, Windows 7 and Windows 2008 come with WinRM 2.0 as part of the Operating System installation. Windows 8 uses WinRM 3.0. WS-Management 2.0 is not installed by default for computers running on Windows XP with SP2, Windows Server 2003 with SP1, Windows Server 2003 with SP2, or Windows Server 2003 R2, so you must install WS-Man 2.0 before these computers can become “event source” computers. To get the download for WS-Management 2.0 go to [Windows Management Framework Core package \(Windows PowerShell 2.0 and WinRM 2.0\)](#).

Microsoft versions of WinRM

secRMMCentral Administrator Guide

If you are using the older Operating Systems (Windows XP with SP2, Windows Server 2003 with SP1, Windows Server 2003 with SP2, or Windows Server 2003 R2) and have already deployed WinRM 1.1, you need to decide whether you want to upgrade the WinRM 1.1 deployment to WinRM 2.0 first. You can choose not to upgrade to WinRM 2.0 (from WinRM 1.1), just be sure you enable the WinRM “EnableCompatibilityHttpListener” property when you configure WinRM in the section below. WinRM1.1 used (uses) ports 80 and 443 while WinRM2.0 uses 5985 and 5986 (for HTTP and HTTPS respectively). This impacts the WinRM service listener as well as the Windows Firewall settings. Compatibility between WinRM 2.0 and WinRM 1.1 is possible by using WinRM compatibility listeners (please read <http://blogs.msdn.com/b/wmi/archive/2009/07/22/new-default-ports-for-ws-management-and-powershell-remoting.aspx>). Note also that WinRM 2.0 requires the .Net 2.0 sp1 framework (at a minimum).

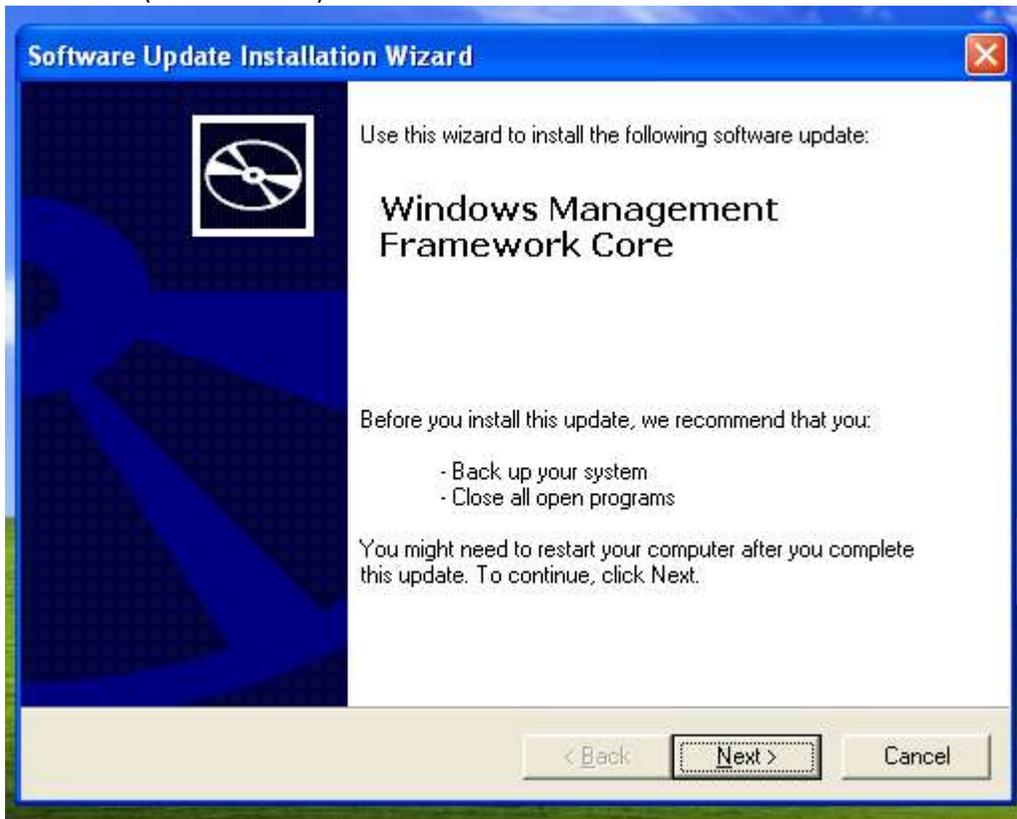


Figure 1 - Install WinRM 2.0 on older Windows OS

Lastly, Windows 8 and better are using WinRM 3.0. WinRM 3.0 and WinRM 2.0 appear to coexist without any need for special configuration.

Detecting which version of WinRM is installed

WinRM service is running

If the WinRM service is running, from an elevated command prompt, type: **winrm id** and then look in the table below using the first part of the ProductVersion line in the output.

secRMMCentral Administrator Guide

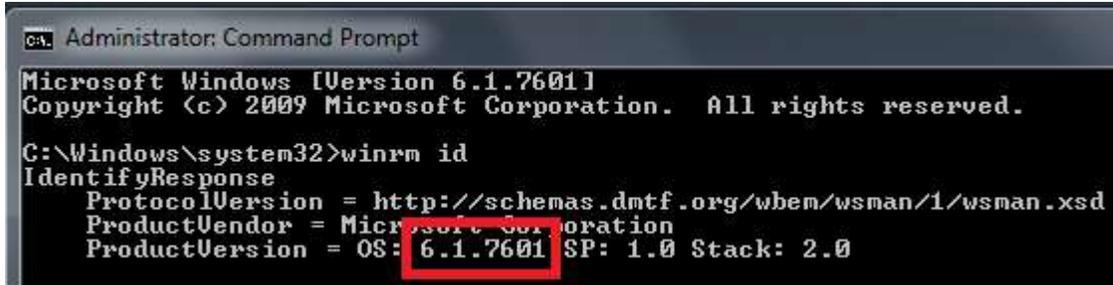


Figure 2 - Checking the WinRM version using WinRM command

Note: If you get an access denied error when you issue winrm id (see screen shot below), be sure that the Administrator userid you are using has a password. Also, issue the following command so that your local Administrator account can get past User Access Control (UAC):

```
reg add HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System /v
LocalAccountTokenFilterPolicy /t REG_DWORD /d 1 /f
```

If you still get an error after the steps above, then you should go to the section below titled “Install/Configure WinRM” to issue the command **winrm quickconfig** since it is likely that winrm has not yet been configured on the computer.

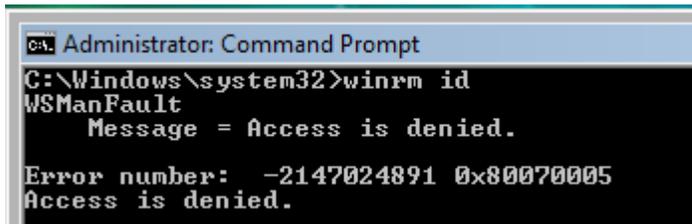


Figure 3 - Access denied error issuing WinRM command due to UAC

WinRM service is not running

If the WinRM service is not currently running, you can determine the version of WinRM installed on your system by checking the version of the file **%Windir%\System32\wsmsvc.dll**. You need to use Windows Explorer to do this. Using Windows Explorer, right mouse click on **%Windir%\System32\wsmsvc.dll** and select the Properties menu item. In the tabbed Properties window, click the Details tab. Look at the Property named “Product version”. The table below outlines the WinRM version number that is indicated by the various possible file version numbers of **%Windir%\System32\wsmsvc.dll**:

| Version number for %Windir%\System32\wsmsvc.dll | WinRM version |
|--|---------------|
| 5.2.3790.2075 | 0.5 |
| 6.0.6000.16386 | 1.0 |
| 5.1.2600.3191 | 1.1 |
| 5.2.3790.2990 | 1.1 |

secRMMCentral Administrator Guide

| | |
|----------------|-----|
| 5.2.3790.4131 | 1.1 |
| 6.0.6001.18000 | 2.0 |
| 6.0.6002.18111 | 2.0 |
| 6.1.7600.16385 | 2.0 |
| 6.1.7601.17514 | 2.0 |
| 6.2.8102.0 | 3.0 |

Microsoft WinRM references

Before moving on to the installation, it might be beneficial to first read the following Microsoft links to increase your understanding of the Microsoft WinRM technology:

Installation and Configuration for Windows Remote Management at:

[http://msdn.microsoft.com/en-us/library/aa384372\(v=vs.85\).aspx](http://msdn.microsoft.com/en-us/library/aa384372(v=vs.85).aspx)

Details on the changes in Windows Remote Management behavior in Windows Server 2008 R2 and Windows 7

[http://technet.microsoft.com/en-us/library/ee922649\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/ee922649(WS.10).aspx)

Comments about WinRM

We chose to use the Microsoft Windows Event Forwarding technology since it comes as a core component of the newer Microsoft Operating Systems. The steps to setup the Event Forwarding Technology are not difficult. We wish that could be said of WinRM. WinRM is not difficult to install if your environment is entirely comprised of the newer Microsoft Operating Systems and you are running in a domain environment. In this case, you can simply use Active Directory Group Policy to install and configure WinRM. Where it becomes more challenging is when you also are still running the older Microsoft Operating Systems and have already deployed WinRM version 1.1. Installing WinRM in a non-domain (i.e. WORKGROUP) environment also requires additional steps. In this document, we give you all the commands you need to handle a mixed WinRM versioned environment and for a non-domain environment. All that said, there are security considerations that need to be made. While we make every attempt to answer these questions in this documentation, you will need to factor in the security policies of your environment and weave them into the steps in the Installation sections below. Squadra Technologies is always willing to provide free technical support during the secRMMCentral deployment so if you have questions and need assistance, please call us.

With all that said, you might be somewhat hesitant about using WinRM. However, the advantages of using this technology, combined with Windows Event Forwarding technology make it attractive to implement. First off, since these technologies come as part of the OS, there is no agent needed (although running the WinRM service could be argued that it is an agent). The solution is very scalable and the collector is capable of supporting 100s or 1000s of computers. If you are working in a domain, Microsoft has made the configuration available in Active Directory Group Policy. This is useful in a large deployment. Finally, a huge benefit of the Microsoft Event Forwarding technology is for systems that

secRMMCentral Administrator Guide

are mobile (i.e. sometimes on the network and sometimes not on the network), the Windows Event Forwarding technology will pick up all the events once the system comes onto the network.

Installation using Active Directory

The following sections describe how to deploy WinRM, Microsoft Event Forwarding and secRMMCentral. These 3 components are all inter-related to allow you to forward the secRMM events from all the computers in your environment into one computers event log (this event log will be named secRMMCentral and the computer is the “event collector”).

Before you start, you will need to choose a computer in your environment that will act as the “event collector” (i.e. the computer that will receive all the forwarded secRMM events). This computer is where you will install secRMMCentral.

Since the Microsoft Event Forwarding technology relies on WinRM. WinRM must be installed and configured on both the “event collector” and “event source” computers. These steps are outlined below.

NOTE: If your domain controller is not yet on W2008 and you do not see the “Windows Remote Management” System Service in step 1 below, you can download the Windowsremotemanagement.adm from <http://support.microsoft.com/kb/936059>.

Create the AD GPO

Using the Group Policy Management MMC, create a Group Policy Object with the following 4 settings:

1. Set the WinRM service to auto start:
 - A. In the Group Policy Editor, navigate to Computer Configuration \ Policies \ Windows Settings \ Security Settings \ System Services.
 - B. Double click Windows Remote Management (WS-Management)
 - C. Set it to Automatic.

secRMMCentral Administrator Guide

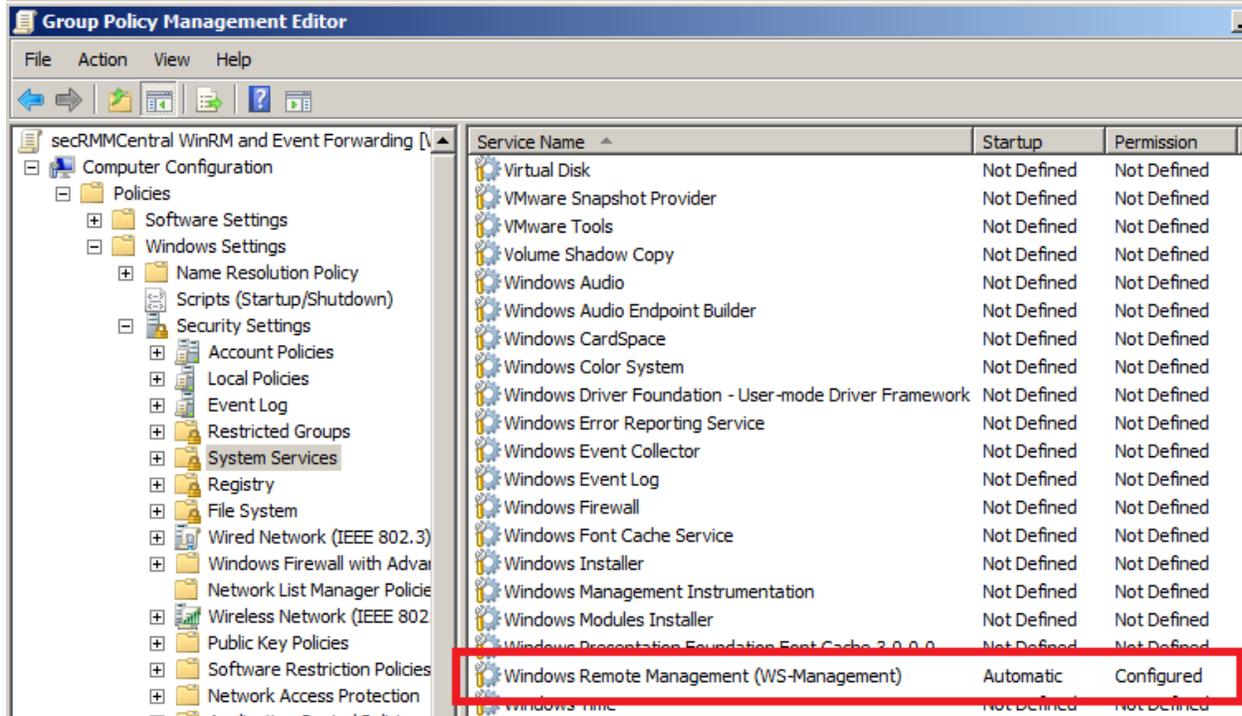


Figure 4 - Group Policy Object for WinRM Service

2. Create the WinRM listener:

- A. In the Group Policy Editor, navigate to Computer Configuration \ Policies \ Administrative Templates \ Windows Components \ Windows Remote Management (WinRM) \ WinRM Service.
- B. Double click:
 - a. For pre-W2012: Allow automatic configuration of listeners
 - b. For W2012: Allow remote server management through WinRM
- C. Set the IPv4 and IPv6 filters to * (an asterisk).
- D. [Optional] If you have any older Windows systems using WinRM 1.1 AND they are still using the old WinRM service listener port numbers (i.e. 80 and 443), then you should also enable "Turn On compatibility HTTP[S] Listener"

secRMMCentral Administrator Guide

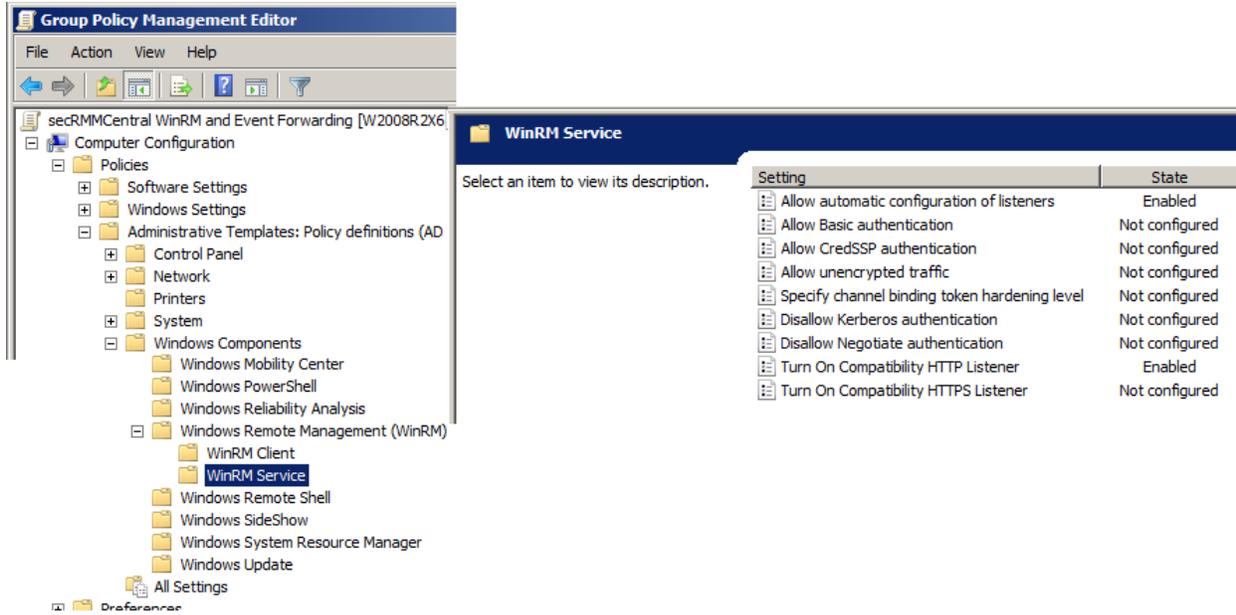


Figure 5 - Group Policy Object for WinRm Service Listener Component

3. Create a firewall exception for WinRM:
 - A. In the Group Policy Editor, navigate to Computer Configuration \ Policies \ Windows Settings \ Security Settings \ Windows Firewall with Advanced Security \ Inbound Rules.
 - B. Create an Inbound Rule for WinRM for port 5985. Select the “Predefined” radio button and select the “Windows Remote Management” in the drop-down listbox.



Figure 6 - Group Policy Object for WinRM (Remote Windows Management Instrumentation)

4. Specify the “event collector” computer for the “event source” computers
 - A. In the Group Policy Editor, navigate to Computer Configuration \ Policies \ Administrative Templates \ Windows Components \ Event Forwarding.

secRMMCentral Administrator Guide

- B. Double click either (whichever is listed in your environment):
 - a. Configure target subscription manager
 - b. Configure the server address
- C. Click the Enable button.
- D. Click the Show button (to the left of the button, it says subscription managers)
- E. Add the value `Server=TheCollector.YourDomain.com`
 - a. Where *TheCollector.YourDomain.com* is the FQDN name of the “event collector” computer in your environment
 - b. **NOTE: Make sure you type in the “Server=” text**

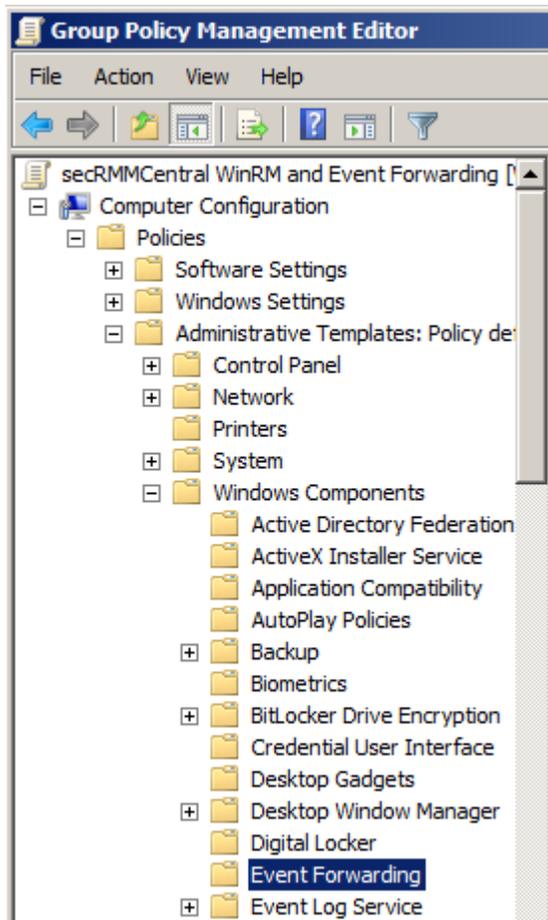


Figure 7 - Group Policy Object for the event forwarding subscription

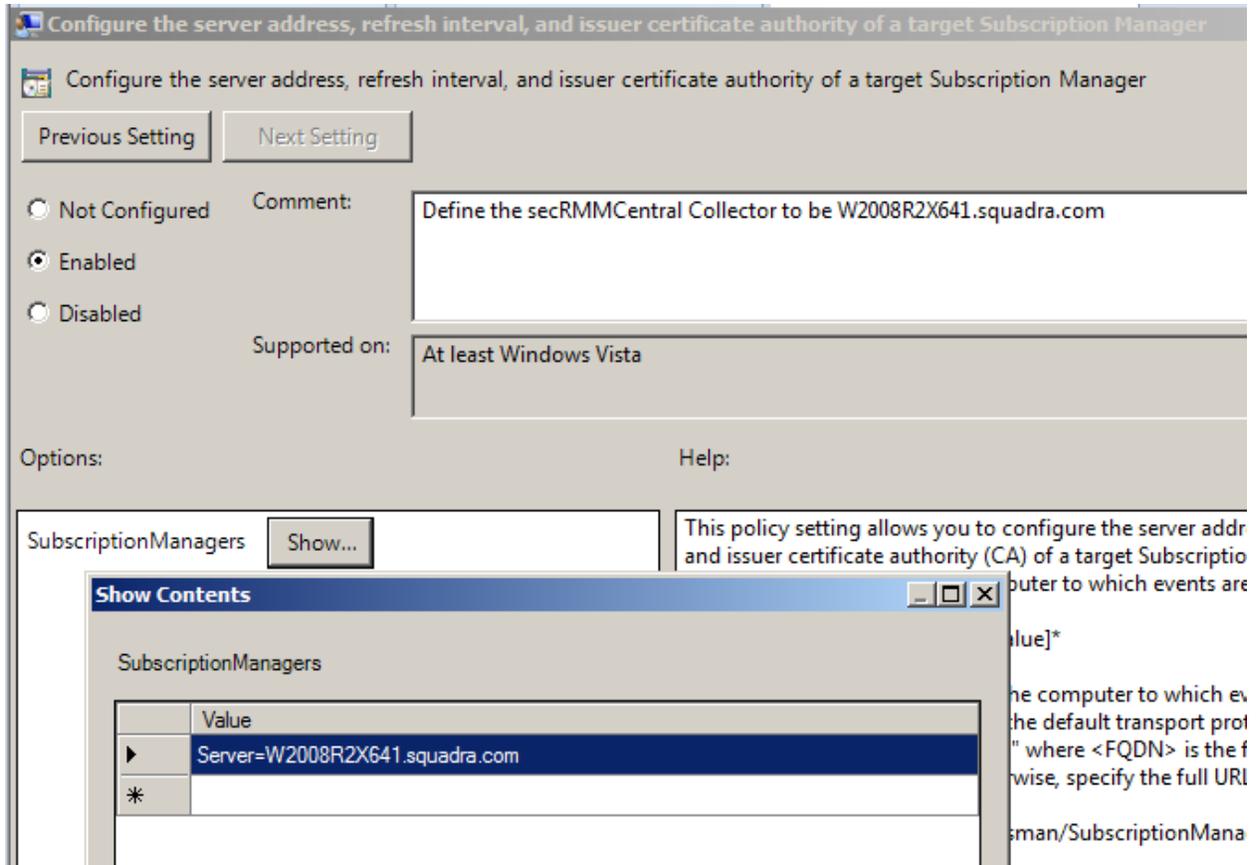


Figure 8 - Group Policy Object for the event forwarding subscription -> specifying the "event collector" computer

Configure the "event collector" computer

The "event collector" computer must be running Windows Server 2003 R2, Windows Vista with Service Pack 1 (SP1), Windows 7, Windows 8 Windows Server 2008, Window Server 2008 R2, Windows 2012 or Windows 2012 R2.

1. You must login to the "event collector" computer using an Administrators account.
2. Run **winrm qc**
3. At the command prompt, type: **wecutil qc**

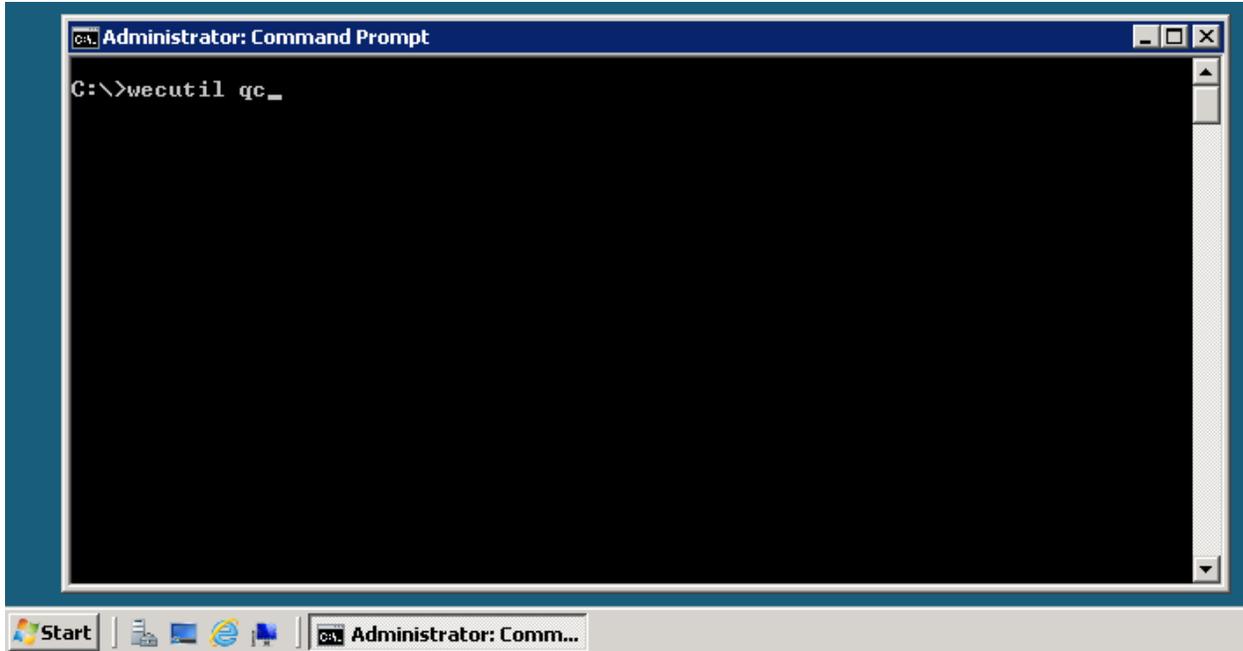


Figure 9 - Issuing wecutil qc

4. Respond Y if you get the prompt in the screen shot below.

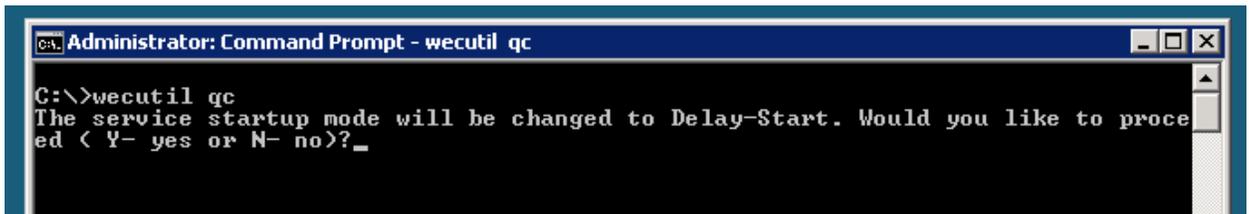


Figure 10 - Responding to wecutil qc

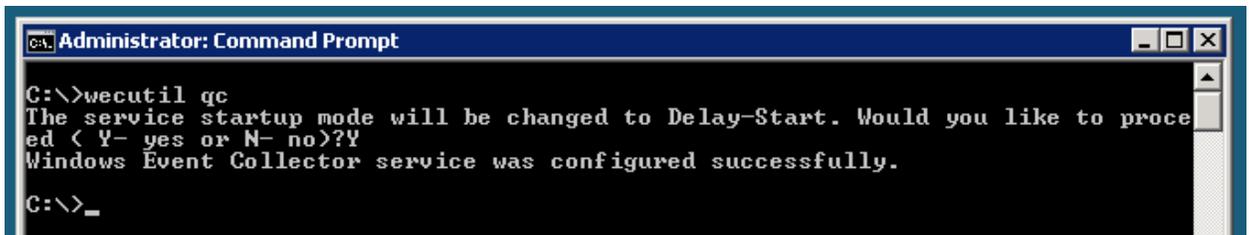


Figure 11 - Successful wecutil install message

Enable “event collector” permission to Event log

Add the “Network Service” built-in user account (i.e. not from the domain but from the local computer) to the “Event Log Readers” Group.

secRMMCentral Administrator Guide

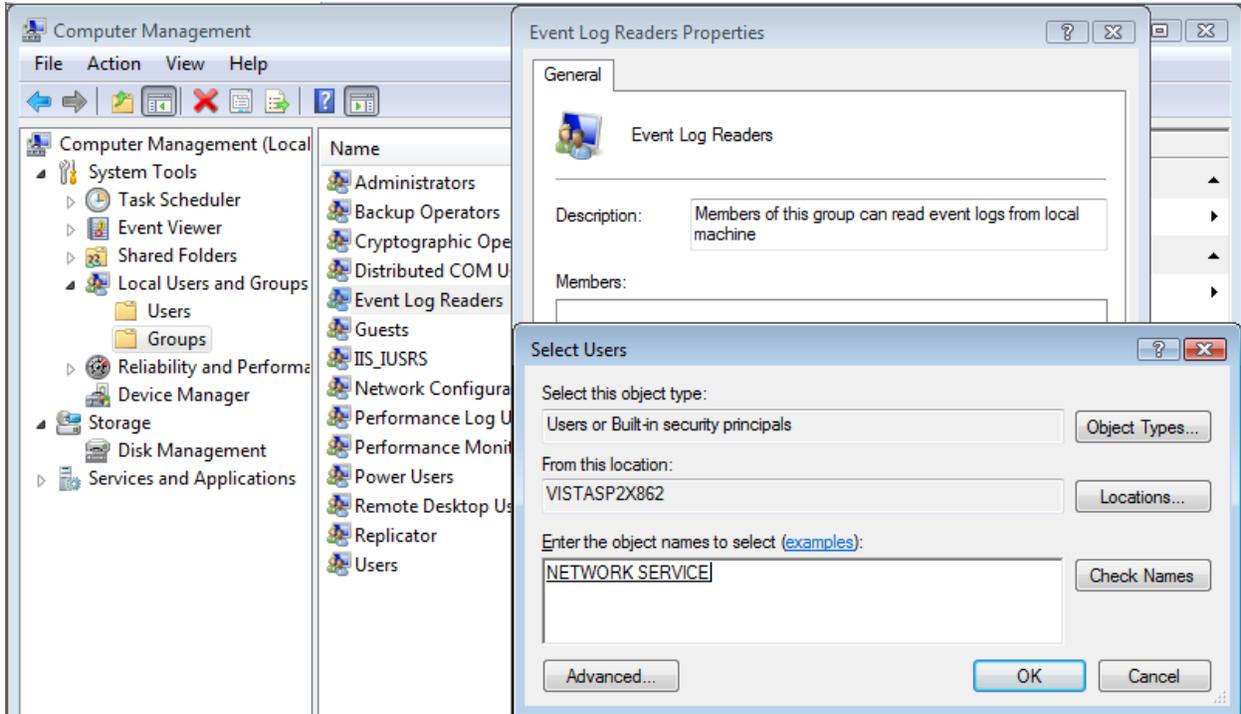


Figure 12 - Add network service built-in account to Event Log Readers group

Install secRMMCentral on the “event collector” system

1. On the “event collector” system, download the secRMMCentral installation program from the Squadra Technologies web site at <http://squadratechnologies.com/secRMMDownloads.aspx> . The secRMMCentral download is under the optional downloads link on the Squadra Technologies download page.

Please select a link(s) from the list below.

| Item | Download link |
|---------------------------|--|
| secRMMCentral x64 install | secRMMCentralInstallx64.zip |
| secRMMCentral x86 install | secRMMCentralInstallx86.zip |
| Administrators Guide | secRMMCentralAdministratorGuide.pdf left click to view online right click and then "Save As" to download |

Figure 13 - Download secRMMCentral installation from Squadra Technologies web site

2. Perform the secRMMCentral installation **only on** the “event collector” system:

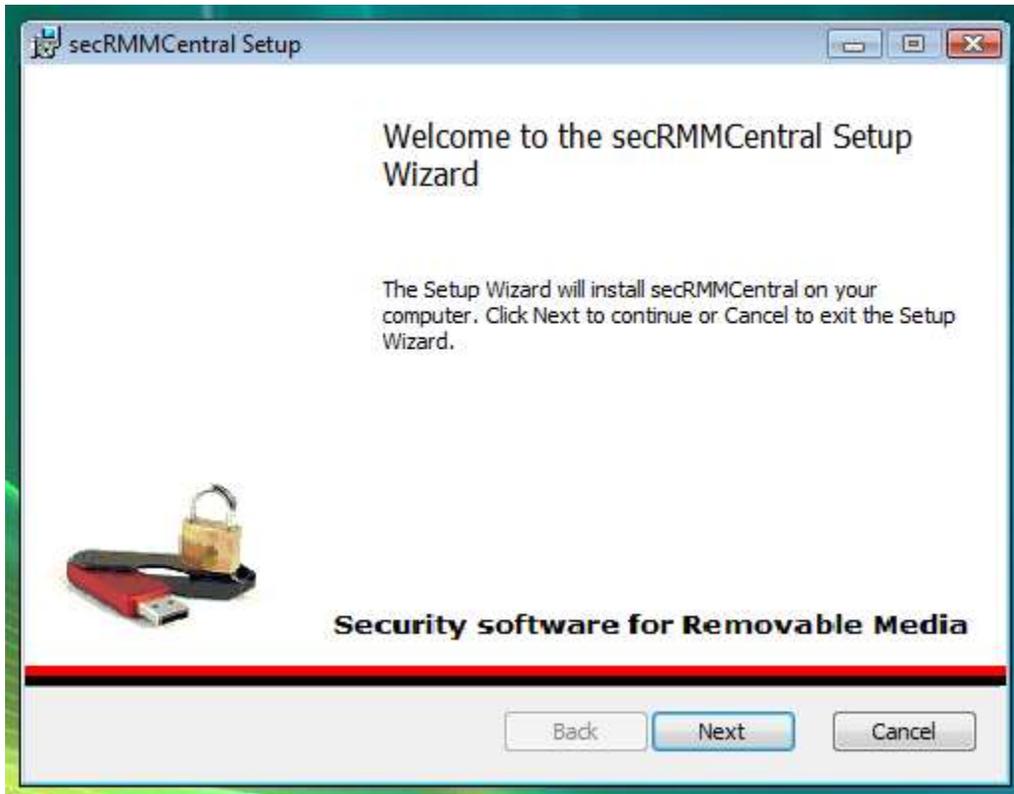


Figure 14 - secRMMCentral installation

3. Once the installation is complete, you will see the secRMMCentral event log in the event log viewer:

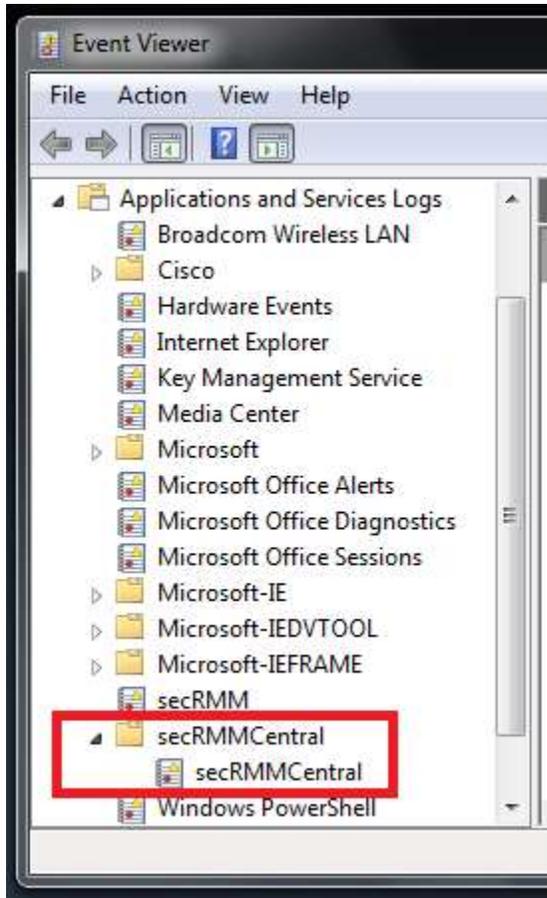


Figure 15 - secRMMCentral Event Log

Configure the Event Forwarding Subscription

In the secRMMCentral installation directory on the “event collector” computer (you performed this installation in the previous section), there is an XML file that get installed called: SubscriptionSourceInitiated.xml

secRMMCentral Administrator Guide

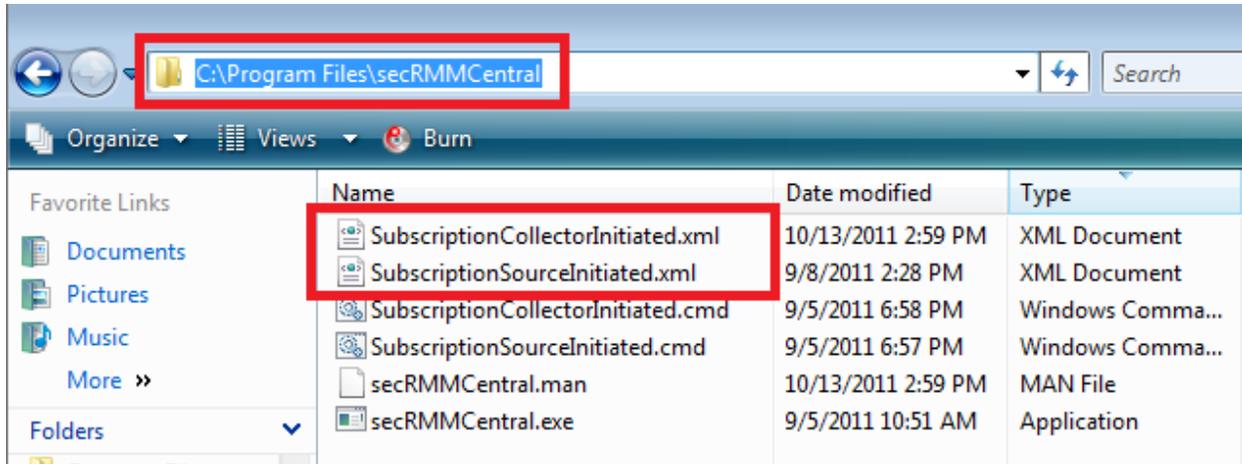
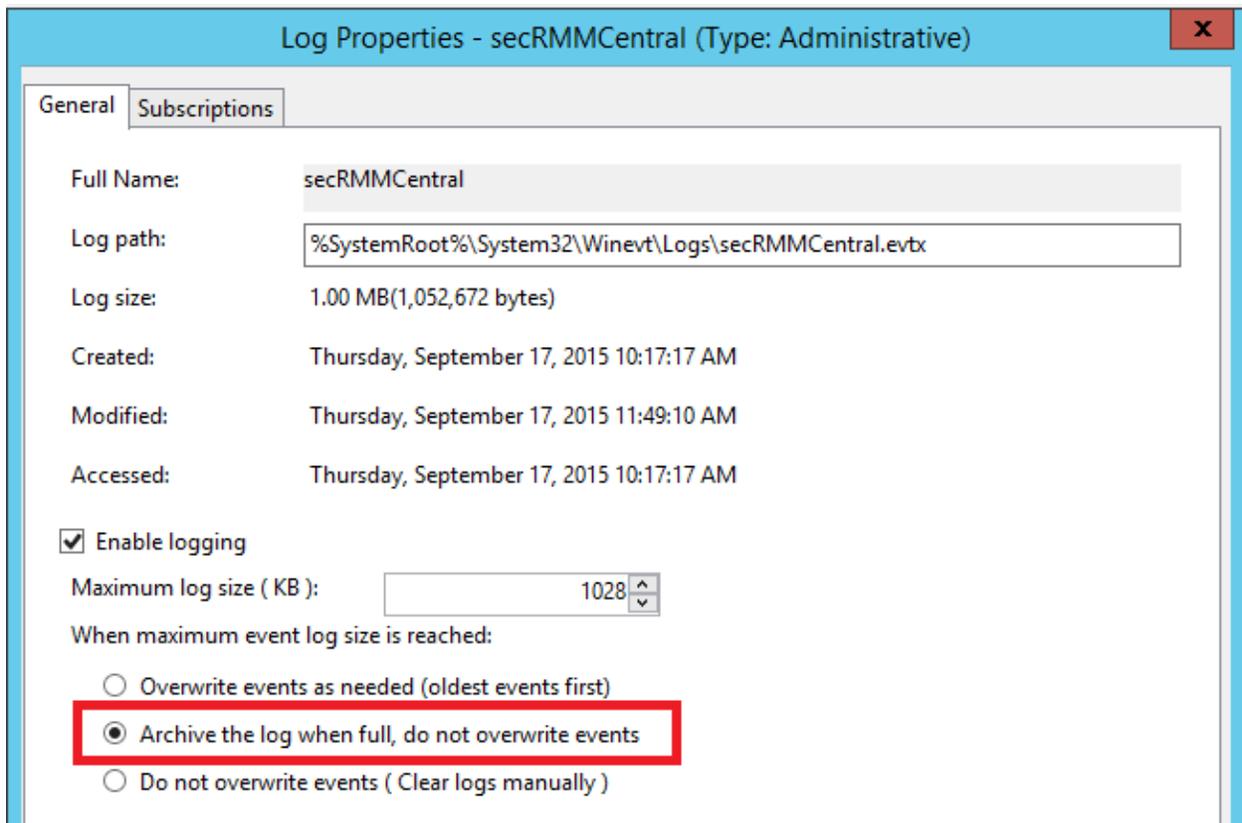


Figure 16 - secRMMCentral Installation directory

Using a CMD window in Administrator mode, change into the directory where secRMMCentral is installed (this is C:\Program Files\secRMMCentral by default) and execute the SubscriptionSourceInitiated.cmd. This cmd file will use the xml file SubscriptionSourceInitiated.xml to create the subscription.

Set the secRMMCentral event log to roll when full

Right mouse click on the secRMMCentral event log and select “Properties”. In the “General” tab, set “Archive the log when full, do not overwrite events”.



secRMMCentral Administrator Guide

Install secRMM on the event collector computer

The last step on the secRMMCentral (collector) computer is to make sure you have secRMM installed.

Viewing the secRMMCentral data

Now that the installation is complete, you will start to see the secRMM events from the “source event” computers showing up in the secRMMCentral event log on the “collector event” computer.

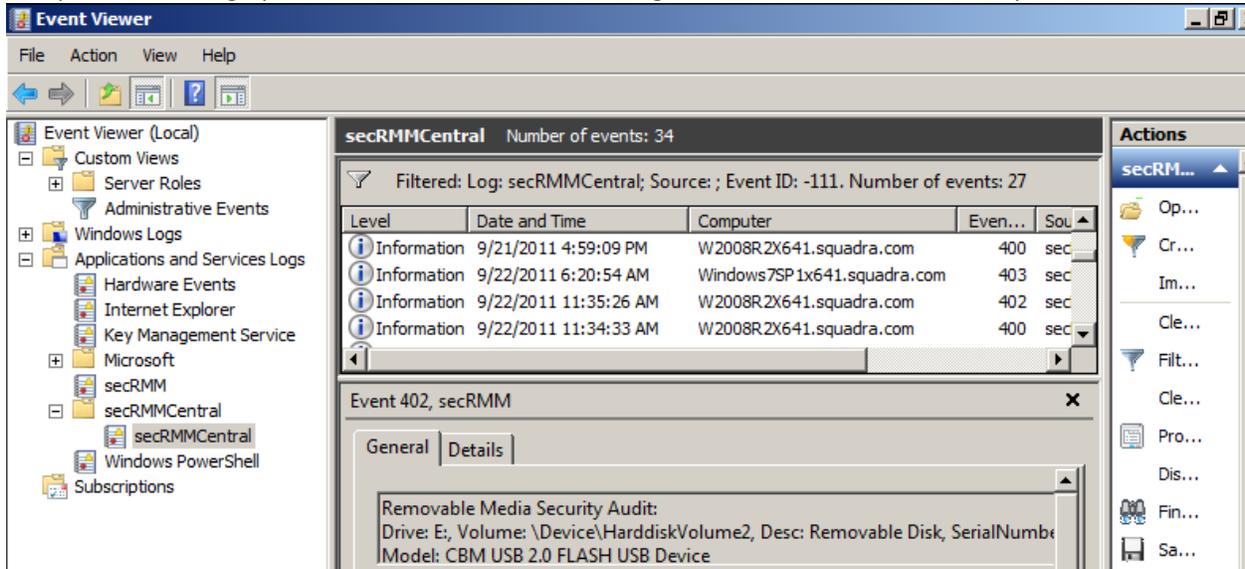


Figure 17 - secRMMCentral Event Log

Microsoft System Center Operations Manager

secRMMCentral has a System Center Operations Manager (SCOM) Management Pack available. The SCOM Management Pack allows you to see the secRMMCentral events as SCOM alerts. It also gets the secRMMCentral events into the SCOM databases (Datawarehouse and ACS) for reporting purposes. To get the secRMMCentral SCOM Management Pack, please go to

<http://www.squadratechnologies.com/Products/secRMM/SystemCenter/secRMMSystemCenterOperationsManager.aspx> .

Contacting Squadra Technologies Support

Squadra Technologies Support is available to customers who have purchased a commercial version of secRMM and have a valid maintenance contract or who are in a trial mode of the product.

When you contact Support please include the following information:

1. The version of secRMM you have installed.
2. The Windows versions you have installed: XP, 2003 Server, 2008 Server R2, Vista, Windows 7, etc.
3. Whether the Windows Operating System is 32bit or 64bit.

4. The specific issue you are contacting support for.

About Squadra Technologies, LLC.

Squadra Technologies delivers innovative products that help organizations get more data protection within the computer infrastructure. Through a deep expertise in IT operations and a continued focus on what works best, Squadra Technologies is helping customers worldwide.

Contacting Squadra Technologies, LLC.

| | |
|----------|---|
| Phone | 562.221.3079 (United States and Canada) |
| Email | info@squadratechnologies.com |
| Mail | Squadra Technologies, LLC. World Headquarters 7575 West Washington Ave. Suite 127-252 Las Vegas, NV 89128 USA |
| Web site | http://www.squadratechnologies.com/ |