

Installing the Sentry Power Manager (SPM) Management Pack for the Microsoft® System Center Operations Manager (SCOM) 2007 R2

Introduction

This technical note provides a brief overview of the systems integration between SCOM, the SPM Management Pack, and the SPM Application Program Interface (API). Also provided are the step-by-step instructions for importing the SPM management pack and making it available through the SCOM interface.

SCOM and the SPM Management Pack

SCOM enables the reduction of data center management costs across multiple platforms with an interface that monitors device alerts, system performance, and the health of network operations.

The Server Technology SPM management pack is an XML-based file (SPM.mp) used by SCOM as a set of filtering rules that are specific to the SPM software product. The SPM management pack enables graphical measuring, monitoring, and trending of network power data throughout the data center enterprise. When SPM reports critical rack-level events, configured data in SPM is made available through SCOM to support decisions for improving data center uptime, increasing energy efficiency, reducing operating costs, and minimizing the carbon footprint.

The SPM API

Based on industry standard SOAP and REST web interface services, SPM's API has the capability of communicating data center information to existing management operations systems, such as SCOM. The API allows SPM to stream data to existing systems while still being active for configuration, control, and management of Server Technology's Cabinet Distribution Units (CDUs) in your network.

Supported Values

The SPM management pack supports the following values from the SPM software product:

CDU	Tower	Infeed
alarms	power	power
power	capacity used	load
temperature		voltage
humidity		power factor
		capacity used
		phase current

Default Interval Values

By default, the SPM management data in SCOM is configured to update at the following specified intervals:

- Object Discovery interval is 4 hours.
- Status/Alerts (health monitoring data) interval is 1 minute.
- Plot (performance data) intervals are 5 minutes.

Installing the SPM Management Pack on SCOM

The following step-by-step instructions make the SPM management pack available to the SCOM architecture and user interface.

The 2-part installation process includes: (1) importing the management pack into SCOM and, (2) setting up the Run As Profile/Run As Account to specify the unique rules and credentials of the SPM management pack under an action account targeted for the SCOM computer.

System Requirements

Ensure the following system requirements are in place before starting the SPM management pack installation process:

Host Operating System:

- Windows 2003 or later updated to the latest Service Pack.

Microsoft's System Center Operations Manager (SCOM):

- Microsoft SCOM 2007 R2 or later.
- SCOM administrator-level capability.

Server Technology's Sentry Power Manager (SPM):

- SPM versions 4.3, 5.0 or later.
- SPM API versions 4.3, 5.0, or later.
- SPM administrative-level capability.

Server Technology's SPM Management Pack

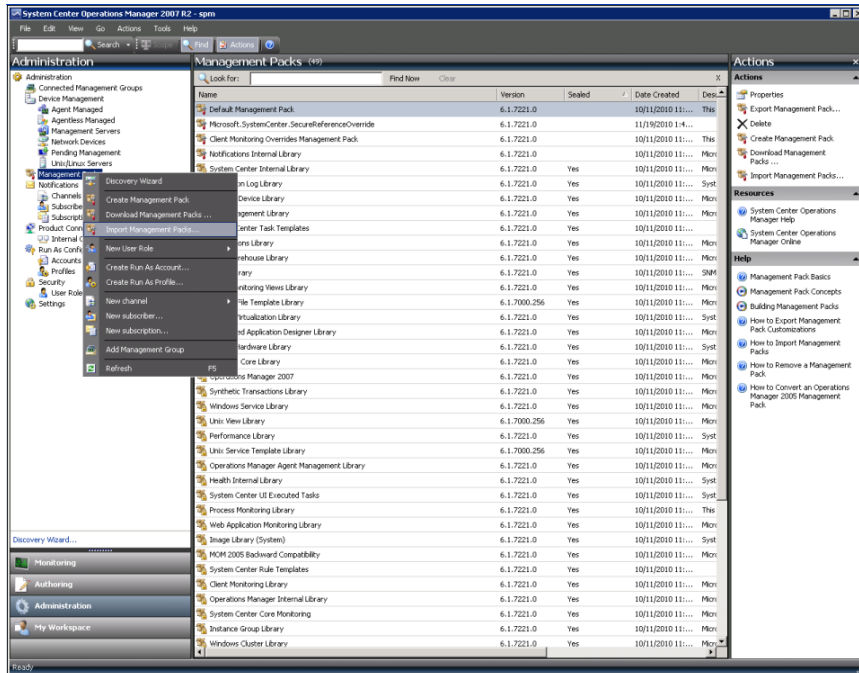
- As a Microsoft System Center Alliance Partner, Server Technology has posted its SPM management pack on the Microsoft website. Contact Server Technology's Technical Support for instructions to access the management pack from the Microsoft website.

☒ **Note:** The use of SCOM 2007 with the SPM management pack does not require additional software or significant computing resources.

Part 1 of 2: Importing the SPM Management Pack

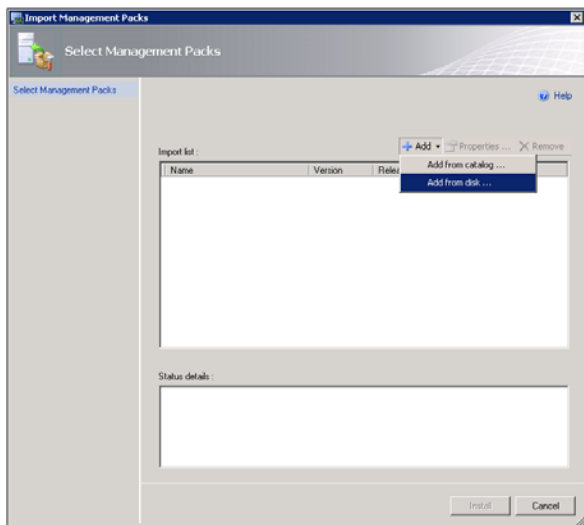
☒ **Note:** Assumes SCOM 2007 R2 (or later) and SPM (versions 4.3, 5.0, or later) are already installed and configured.

1. Log into the System Center Operations Manager (SCOM) 2007 server with an administrative-level account.
2. From the Operations Console window, select the Administration tab in the left-pane.



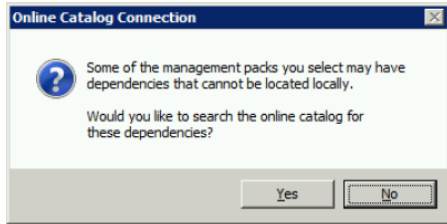
3. From the left-pane list, right-click **Management Packs** and select **Import Management Packs** as shown above.

The *Import Management Packs* dialog box (*Select Management Packs* step) displays:

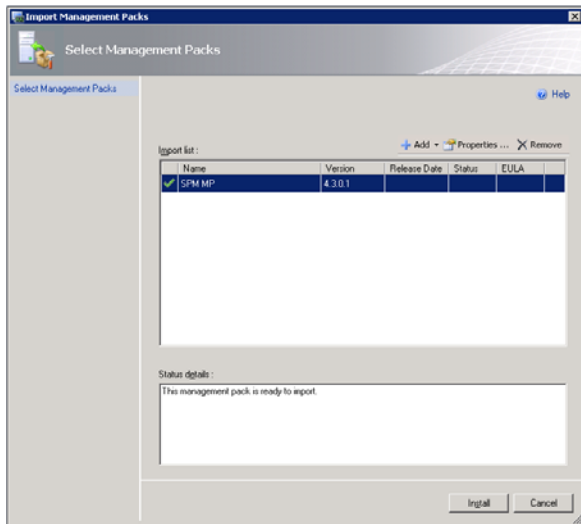


4. Click **Add**, and then select **Add from disk** from the menu. This action loads management packs directly from disk rather than from online catalogs.

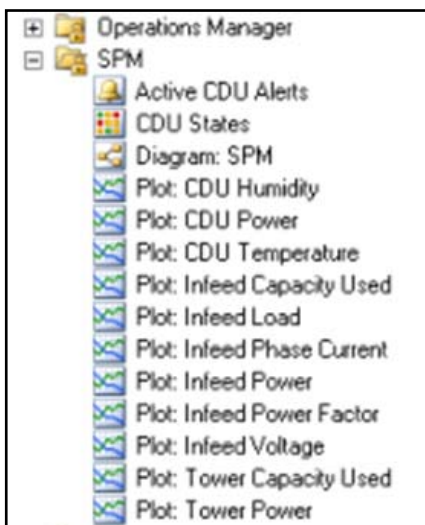
- The following message popup *may* appear asking to search online for the latest management packs from Microsoft. It might be good to check for management packs through Microsoft’s Catalog Connection, and you may click **Yes**, but in the event you don’t have an internet connection, this step will not be useful. It is recommended to click **No**. Your response (whether Yes or No) will not have an affect on the rest of this SPM MP import process.



- You will be prompted for the SPM MP file. Locate the file and open it.



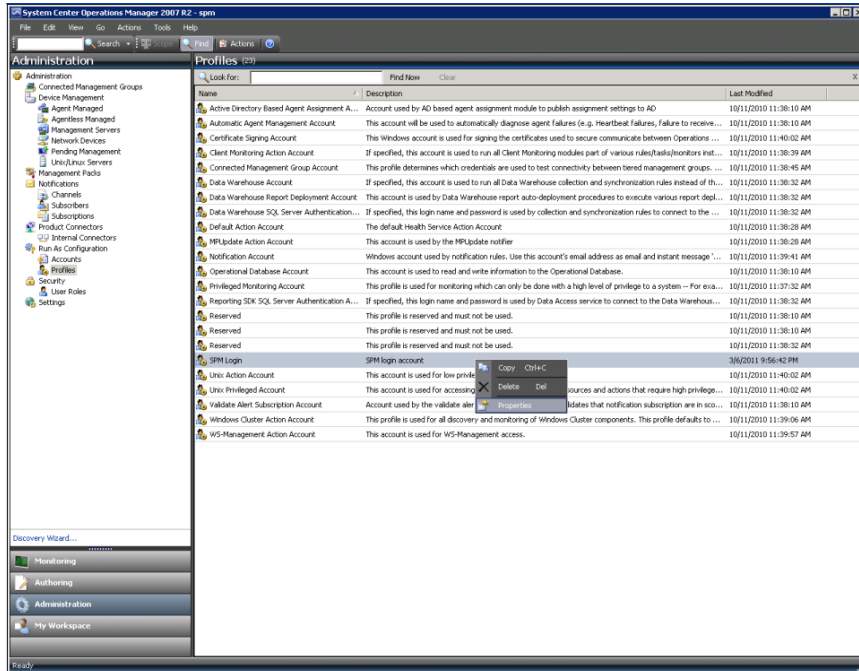
- The SPM management pack (SPM MP) has now been added to the Import List. Notice that Status Details also indicates “the management pack is ready to import.”
- To import the SPM management pack, click **Install**.
- When the management pack is imported (the Status Details change to “Imported”), click **Close**.



⊠ **Note:** When the SPM management pack is imported to SCOM, you will see “SPM” displayed in the left-pane of the SCOM Monitoring tab.

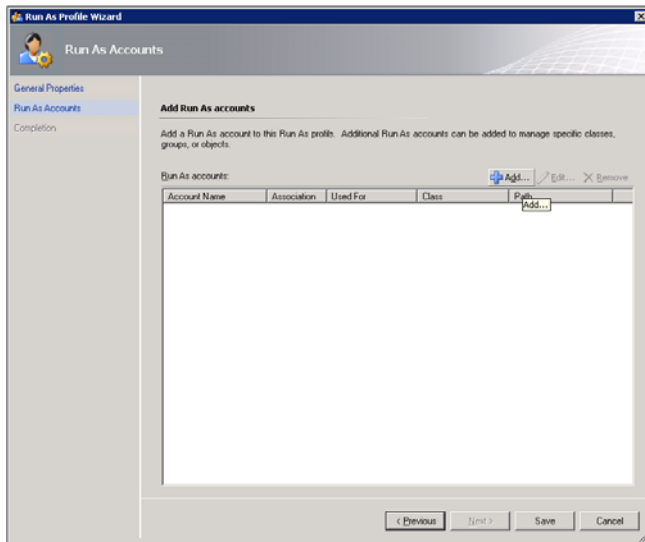
Part 2 of 2: Setting Up a Run As Profile Account

- 10. From the Operations Console window, select the Administration tab in the left-pane.
- 11. From the left-pane list, select the **Profiles** option (in the Run As Configuration category).



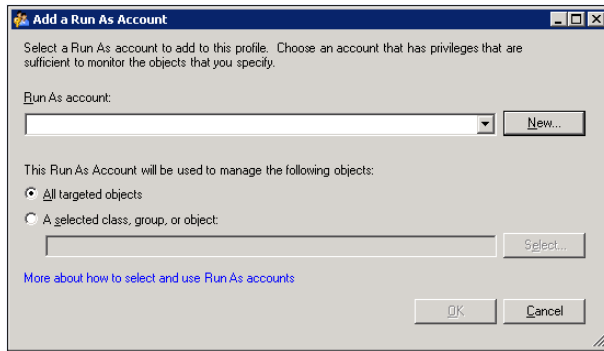
- 12. The Profiles list displays as shown above. From the Profiles list, right-click **SPM Login** and select **Properties**.

The Run As Profile Wizard (Run As Accounts step) starts:



- 13. Select the **Run as Accounts** step of the wizard on the left.
- 14. Click **Add**.

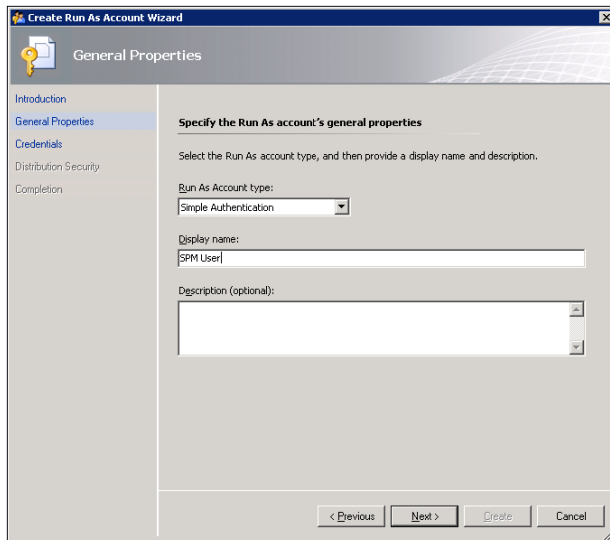
The Add a Run As Account dialog box displays:



Note: To continue creating a new account, proceed to **step 15**. If you already have an account, skip to **step 28**. If you already have an account, it will be displayed in the Run As Account drop-down list in the dialog box shown above.

15. Click **New**.

The Create Run As Account Wizard dialog box (General Properties step) displays:



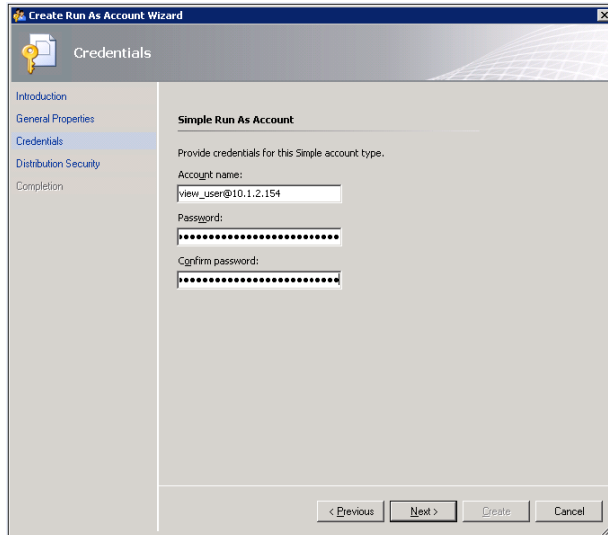
16. From the Run As Account Type drop-down list, select **Simple Authentication**.

17. Type a display name, such as “SPM User” shown above.

18. (Optional) Type a description for the account.

19. Click **Next**.

The Create Run as Account Wizard dialog box (Credentials step) displays:



20. Type the account name in the format of **username@ipaddress**, where username is a specific user already configured in SPM, and ipaddress is the IP address of SPM.

Note: If the user is not an SPM administrator-level account, make sure SPM administrator-level capabilities are configured for this user's account.

21. Provide the password as an MD5 checksum.

For example, if the password **adm**n, the MD5 checksum is 854f36c709b662f53c00ea2c11a40f7a.

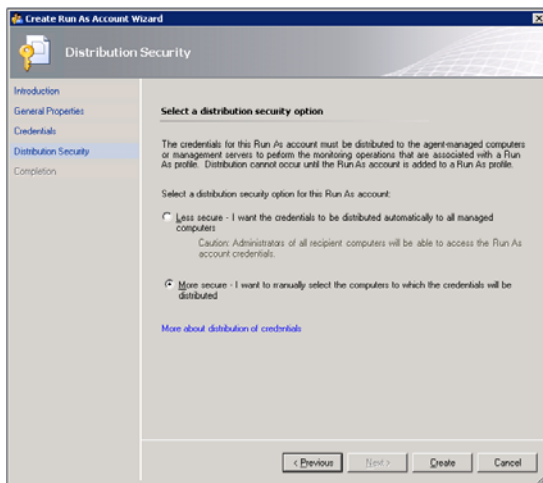
Copy the password from your MD5 checksum utility and paste it into the Password field.

Note: Server Technology's Technical Support can provide a utility for you that calculates MD5 checksums, or you may use the checksum calculator of your choice.

22. Copy the MD5 checksum password from the checksum utility and paste it in the Confirm field.

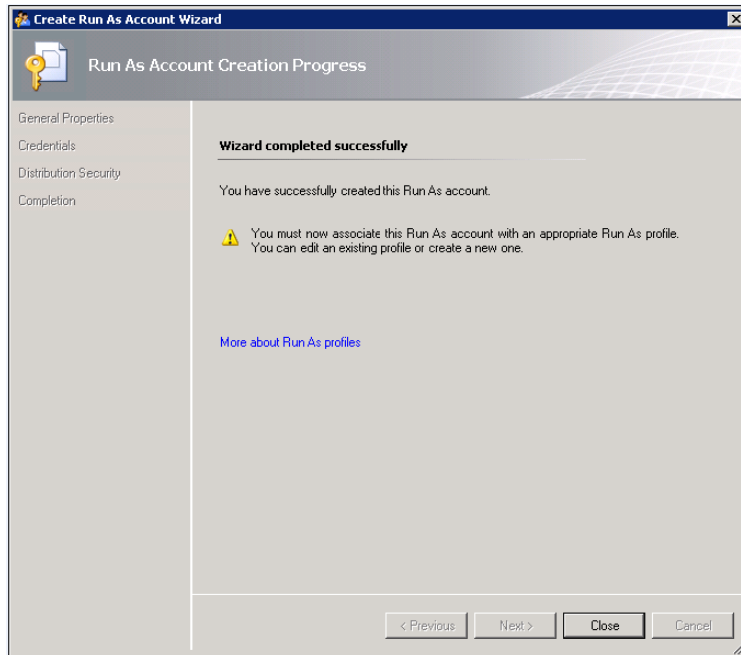
23. Click **Next**.

The Create As Account Wizard (Distribution Security step) dialog box displays:



24. Select the **More Secure** option. This option is recommended because it offers higher security by allowing you to manually select a computer that will receive distributed credentials.
25. Click **Create**.

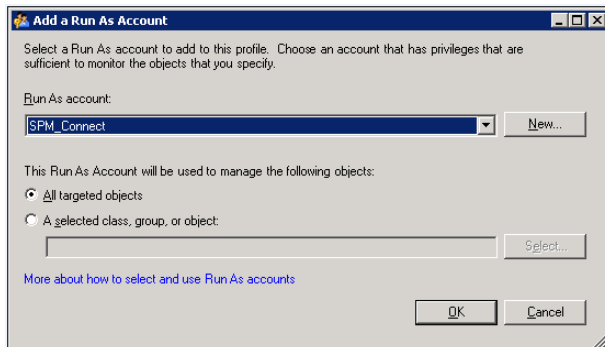
The *Run As Profile Wizard (Completion step)* dialog box displays:



26. Click **Close**. The Run As Profile Wizard is now successfully completed.

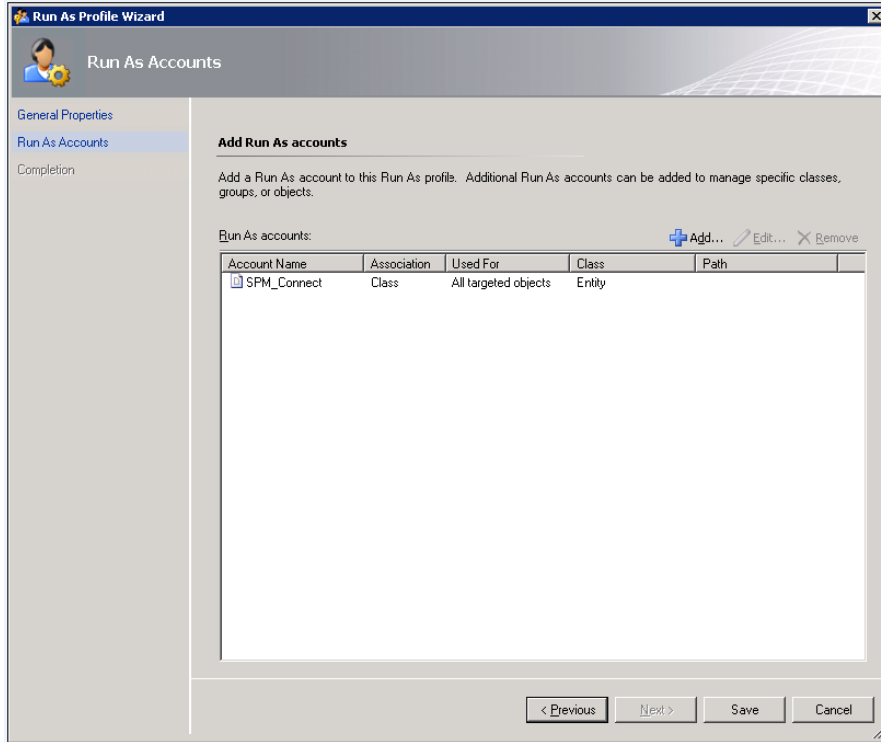
Existing account instructions – continued from step 14 above ...

The *Add a Run As Account Wizard* dialog box displays:



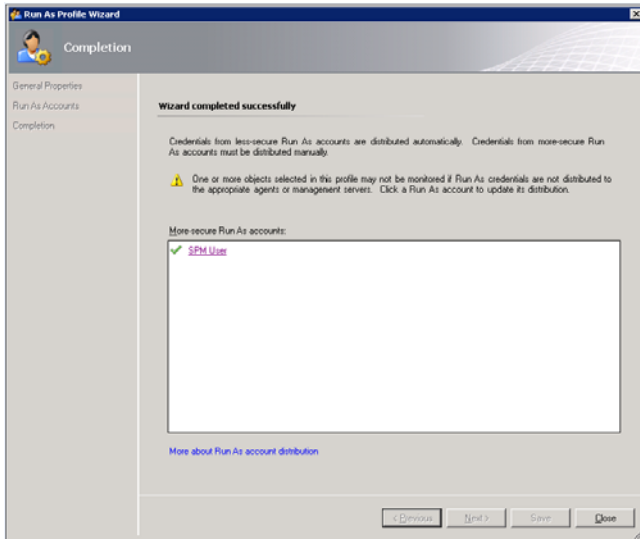
27. Select the account from the Run As Account drop-down list, such as SPM_Connect is shown above.
28. Make sure the option All Targeted Objects is selected.
29. Click **OK**.

The Run As Profile Wizard dialog box (Run As Accounts step) displays:



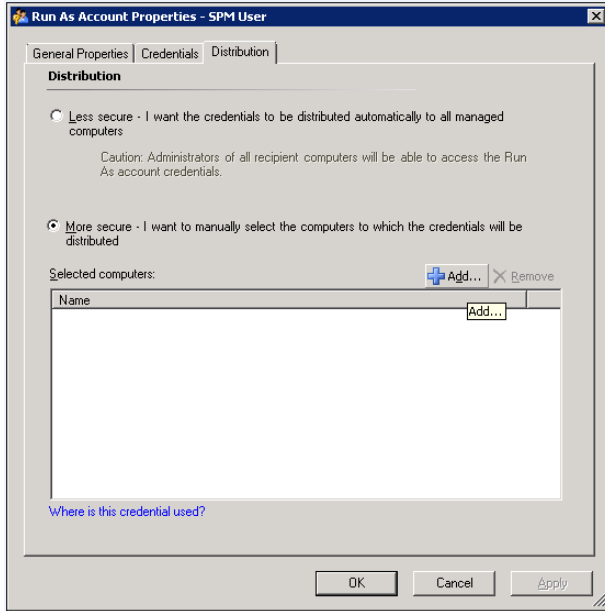
30. Notice the SPM_Connect account name listed. Select it and click **Save**.

The Run As Profile Wizard dialog box (Completion step) displays:



31. Click **Close**.

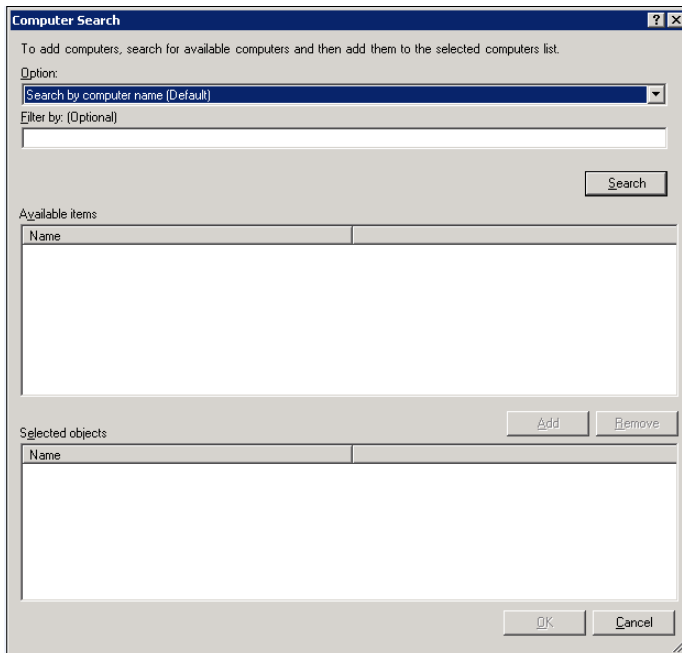
The Run As Account Properties for the SPM User dialog box (Distribution tab) displays:



32. The **More Secure** option should be selected.

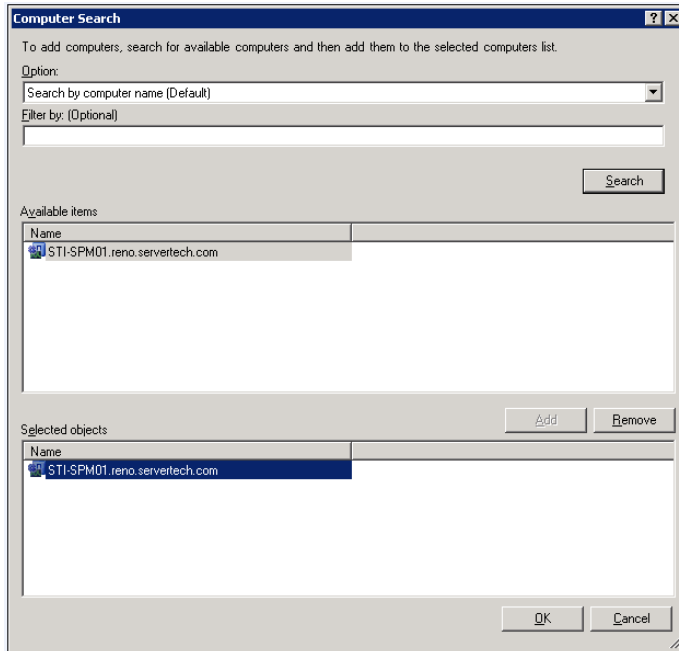
33. Click **Add**.

The Computer Search dialog box displays:



34. Click **Search**.

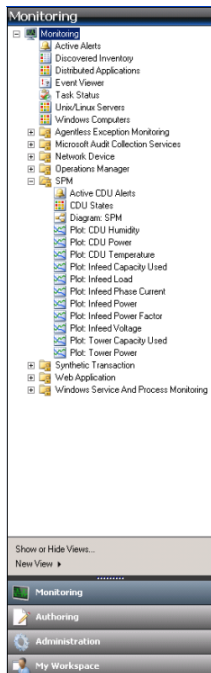
The Computer Search dialog box redisplay to show all the computers that SCOM manages. Select the SCOM management server.



- 35. Click **Add**
- 36. Click **OK**. Then click **OK** again.
- 37. Click **Close**.

Note: The Run As Profile process is now successfully completed. You may need to wait up to ten minutes for monitoring to start.

Contents of the SPM Management Pack (Monitoring tab)



The Monitoring tab allows the viewing of the SPM management pack on the SCOM Operations Console.

The contents of only one SPM application can be viewed at a time. From the SCOM Operations Console, click the Monitoring tab in the left-pane and view the imported and installed SPM management pack objects listed in the SPM folder, as shown

