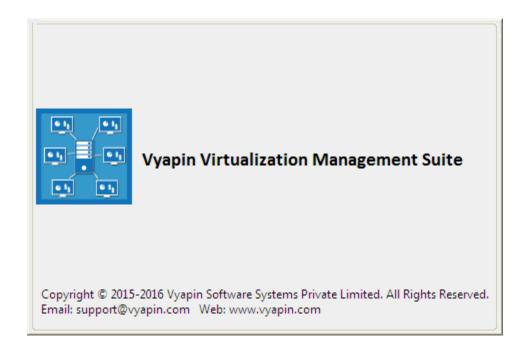
Vyapin Virtualization Management Suite



Last Updated: June 2016

Copyright © 2016 Vyapin Software Systems Private Limited. All rights reserved.

This document is being furnished by Vyapin Software Systems Private Ltd for information purposes only to licensed users of the Hyper V Management Suite software product and is furnished on an "AS IS" basis, that is, without any warranties, whatsoever, express or implied. Hyper V Management Suite is a trademark of Vyapin Software Systems Private Ltd. Information in this document is subject to change without notice and does not represent any commitment on the part of Vyapin Software Systems Private Ltd. The software described in this document is furnished under a license agreement. The software may be used only in accordance with the terms of that license agreement. It is against the law to copy or use the software except as specifically allowed in that license. No part of this document may be reproduced or retransmitted in any form or by any means, whether electronically or mechanically, including, but not limited to the way of: photocopying, recording, or information recording and retrieval systems, without the express written permission of Vyapin Software Systems Private Ltd.



Vyapin Software Systems Private Limited

Website: http://www.vyapin.com/
Sales Contact: sales@vyapin.com/

Technical Support: support@vyapin.com

GENERAL INFORMATION	1
About Vyapin Virtualization Management Suite	2
System Requirements	3
How to Purchase?	4
How to register the software?	5
Technical Support	8
GETTING STARTED	9
Database Settings	
Configure Host Credentials (Optional)	
Add a Host	15
Edit a Host	18
Delete a Host	20
Configure SMTP Server	22
User Connection profiles	23
VM REPORTS	26
About VM Reports	27
How to view Summary Reports?	29
How to view Memory Reports?	31
How to view Networking Reports?	33
How to view Processor Reports?	35
How to view Replication Reports?	38
How to view Current Status Reports?	
How to view Snapshots Reports?	41
How to view Virtual Hard Disk Reports?	47
How to view Integration Services Reports?	50
How to view DVD Drives Reports?	51
How to view All VM Settings Reports?	52
SCHEDULE	53
About Schedule Reports	54
Schedule Task Manager	55
How to Schedule Reports?	
VM PERFORMANCE ANALYZER	64
DATA COLLECTOR	65
About Data Collector	
How to configure a host and VM for data collection?	
LIVE PERFORMANCE DATA	73
How to view the occurrence of configured performance counters in Data Collector?	74

PERFORMANCE REPORT	76
About Performance Reports	
How to generate Host Performance Summary Reports?	
How to generate VM Performance Summary Reports?	83
VM PERFORMANCE MONITOR	88
How to view the performance metrics in Live Monitor?	89
ADDITIONAL FEATURES	93
How to Add host?	
How to Customize fields?	96
How to apply Filters?	97
How to Refresh Data?	99
How to Export Data?	
How to Email Data?	
REFERENCES	105
Troubleshooting	
How to uninstall Vyapin Virtualization Management Suite	

General Information

About Vyapin Virtualization Management Suite

System Requirements

How to purchase?

How to register the software?

Technical support

Vyapin Virtualization Management Suite is a powerful solution for auditing, managing and monitoring virtual machines across your entire Windows network. The Vyapin Virtualization Management Suite consists of three modules - the VM Reports module, the VM Performance Analyzer module and the VM Performance Monitor module.

VM Reports Module: With the VM Reports module you can perform a complete scan for all installed VMs in your network. You can perform an automated inventory of VMs and their configuration at regular intervals and keep a constant watch on the health of your Hyper-V Servers. The solution provides a variety of audit reports that are simple, elegant and highly customizable for System Administrators, IT infrastructure Managers and Systems Audit personnel to use and act on.

VM Performance Analyzer Module: With the VM Performance Analyzer module you can analyze the performance history of Hosts and VMs in your network. You can collect performance metrics at regular intervals of time and then analyze these performance metrics over a period of time. You can perform a Trend analysis of various loads by charting the history of important performance variables related to CPU, Memory, IO and Network. The Analyzer module assists you in Capacity Planning of future workloads by letting you analyze current workloads by aggregating data from pre-defined intervals of time such as Daily, Weekly and Monthly subsets of data.

VM Performance Monitor Module: VM Performance Monitor module is a resource monitoring tool that collects performance metrics for Hyper-V hosts and their VMs and lets you monitor important CPU, Memory, IO and Network resources in real time using charts and tables.

Vyapin Virtualization Management Suite has been architected using the latest Microsoft .NET technology, bringing you the best-in-breed reporting solution for your entire Hyper-V Servers. Vyapin Virtualization Management Suite is highly optimized for performance (using native Windows API calls wherever appropriate), resulting in fast data collection of deeply embedded configuration data. Imagine scanning your vast network of Hyper-V servers without having to wait forever to see your reports! You can create data subsets for your network using our powerful scan options and meaningfully segment your entire network for data collection and reporting.

System Requirements

For the computer running Vyapin Virtualization Management Suite

Processor	Intel Pentium processor
Disk space & Memory	512 MB RAM and minimum of 20 MB of free disk
	space
Operating Systems	Windows 10 / Windows 8.1 / Windows 8 / Windows 7 / Windows Server 2012 R2 / Windows Server 2012 / Windows Server 2008 R2 / Windows Server 2008 / Windows Server 2003 with .NET Framework 4.0 or higher with the latest service
	packs
Database	Microsoft SQL Server 2012 (Enterprise / Standard / Developer / Express edition) or Microsoft SQL Server 2008 (Enterprise / Standard / Developer / Express edition) or Microsoft SQL Server 2005 (Enterprise / Standard / Developer / Express edition) running in local / remote computer with latest Service Pack
Software	MDAC v2.5/2.6/2.8

For the Hyper-V Servers reported by Vyapin Virtualization Management Suite

Microsoft Hyper-V Server 2012 R2 / Microsoft Hyper-V Server 2012 / Microsoft Hyper-V Server 2008 R2 / Microsoft Hyper-V Server 2008 with Microsoft Windows Management Instrumentation Service enabled.

How to Purchase?

You can purchase Vyapin Virtualization Management Suite online from our website http://www.vyapin.com/. Please contact our Sales department at sales@vyapin.com for sales and price related queries.

How to register the software?

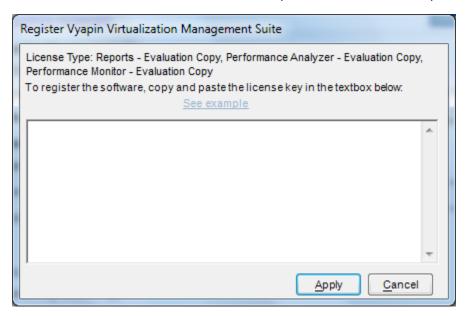
Once you purchase the software online or through any one of our resellers, you will receive a sale notification through e-mail from our sales department. We will send you an e-mail with the necessary instructions to activate the software.

In case you do not receive an e-mail from our sales team after you purchase the software, please send the following information to our sales department at sales@vyapin.com with the sales order number:

• Company Name : End-user Company Name

Location : City & Country for the Company Name given above

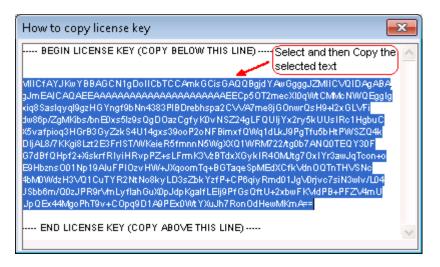
Please allow 12 to 24 hours from the time of purchase for our sales department to process your orders.



Register screen

Perform the following steps to activate the software:

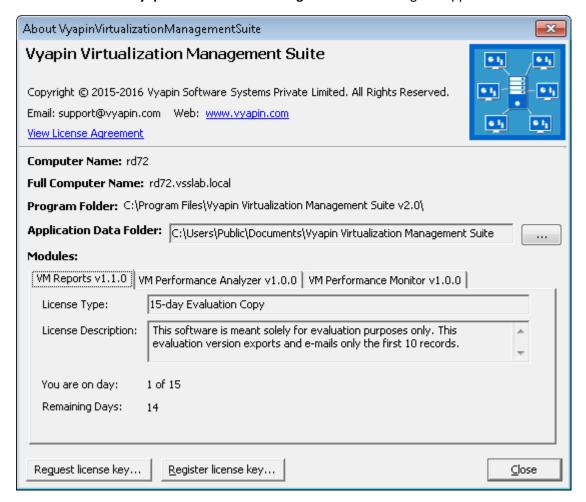
- Download evaluation/trial copy of software from the respective product page available in our website at http://www.vyapin.com/
- 2. Install the software on the desired computer.
- 3. You will receive a license key through e-mail as soon as the purchase process is complete.
- 4. Click 'Activate' in File -> About -> Activate menu to see the Activate dialog (as shown in Image 1).
- 5. Copy the license key sent to you through email and paste it in the 'License Key' textbox. For help on how to copy the license key, click 'Click here to see how to copy and paste the license key' link in the Activate dialog (as shown in Image 2).



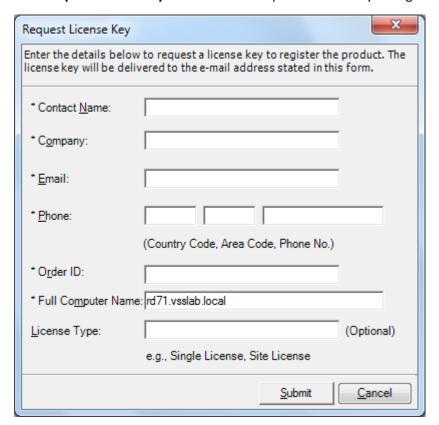
How to copy license key screen?

Request License Key:

- 1. Select Help -> About Vyapin Virtualization Management Suite from File.
- 2. The About Vyapin Virtualization Management Suite dialog will appear as shown below:



Click **Request license key...** button. The Request License Key dialog will appear as shown below:



Request License Key screen

Enter the following details and click Submit to place the license key request through email.

- **Contact Name**: End-user of the product.
- Company: End-user Company Name.
- Email: Email address where the license key has to be sent.
- **Phone:** Phone number with country code and area code.
- Order ID: Order/Transaction ID reference.
- **License Type**: License that was purchased.

Technical Support

Vyapin Virtualization Management Suite Frequently Asked Questions (FAQ) section is available online at our website http://www.vyapin.com.

Please direct all technical support questions to support@vyapin.com. Include the following information to expedite a response:

- a) Include the version of the product you are using.
- b) If the problem is associated with installation, include the steps that led to the problem.
- c) If the problem is associated with usage, please state the series of steps you performed.
- d) Include the version of the OS, info about any service packs or hot-fixes and local language of the OS installed.
- e) Attach the Error Log File available in the common application data path of Vyapin Virtualization Management Suite (e.g., <Application Data Folder> \ Vyapin Virtualization Management Suite.Log).

Note:

<Application Data Folder> is the common area where Vyapin Virtualization Management Suite settings will be stored in the machine running Vyapin Virtualization Management Suite. The <Application Data Folder> can be found from the File -> About screen. The default path of <Application Data Folder> is as follows:

Windows 7, Windows 8, Windows 8.1, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2 - C:\Users\Public\Documents\Vyapin Virtualization Management Suite

Getting Started

Configuration Settings

Database Settings

Configuring Host Credentials

Add a host

Edit a host

Delete a host

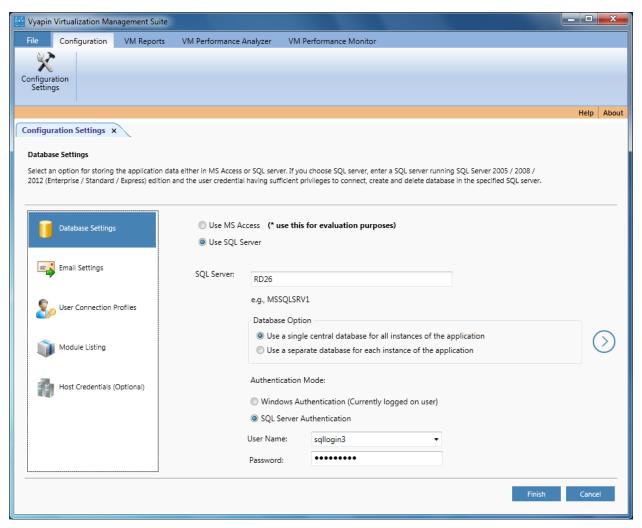
Configure SMTP Server

User Connection Profiles

Database Settings

Vyapin Virtualization Management Suite may be configured to use either MS-Access MDB or SQL Server database for its data storage to generate reports. If you choose SQL server Vyapin Virtualization Management Suite requires an SQL Server running SQL Server 2005 / 2008 / 2012 (Enterprise / Standard / Express editions) to connect and create a new application database. Vyapin Virtualization Management Suite will connect to the specified SQL Server based on authentication mode and user credentials to manage its own application database.

You can access the Database settings by clicking **Configuration -> Configuration Settings** tab in the Vyapin Virtualization Management Suite main application window and choose Database settings, as shown below



User Authentication

To connect to SQL Server, Vyapin Virtualization Management Suite uses the relevant user accounts based on the authentication mode as listed below:

- **A. Windows Authentication:** In this method, Vyapin Virtualization Management Suite uses the currently logged on user account while running reports
- B. **SQL Authentication:** In this method, Vyapin Virtualization Management Suite uses the specified SQL user account and password while running reports. Vyapin Virtualization Management Suite stores the SQL user name and password as a user profile in 'Stored User Names and Passwords' applet for its usage.

Read User Connection Profiles for more details.

Note: Vyapin Virtualization Management Suite expects the user account to have sufficient privileges to create, add to and delete database in the SQL server.

Database creation

Vyapin Virtualization Management Suite creates databases in SQL Server based on the following database options (whichever is selected) as outlined below:

1. Use a single central database for all instances of the application

A new database will be created in the SQL server by the name Vyapin Virtualization Management Suite. Inside the Vyapin Virtualization Management Suite database, separate tables will be created for each installation of Vyapin Virtualization Management Suite. The table names will be prefixed with the computer name that is running Vyapin Virtualization Management Suite application. Thus, each installation of Vyapin Virtualization Management Suite will deploy its own tables based on the computer where Vyapin Virtualization Management Suite is installed. For example, if you install the software on 3 different computers, single database with 3 different tables will be created inside the single database and each installed application will generate reports separately independent of each other.

2. Use a separate database for each instance of the application

Vyapin Virtualization Management Suite creates a single application database in the default data storage location used by the SQL Server during application launch. Vyapin Virtualization Management Suite uses the following naming convention: VyapinVirtualizationManagementSuite-<COMPUTERNAME>, where COMPUTERNAME is the name of the computer running Vyapin Virtualization Management Suite.

For example, if the computer running Vyapin Virtualization Management Suite is 'CLIENTO1', Vyapin Virtualization Management Suite creates 'Vyapin Virtualization Management Suite-CLIENTO1' with data ('Vyapin Virtualization Management Suite-CLIENTO1.mdf') and log (''Vyapin Virtualization Management Suite-CLIENTO1_log.LDF') files stored in the default SQL data folder in the SQL server (for example, C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\Data).

Database cleanup

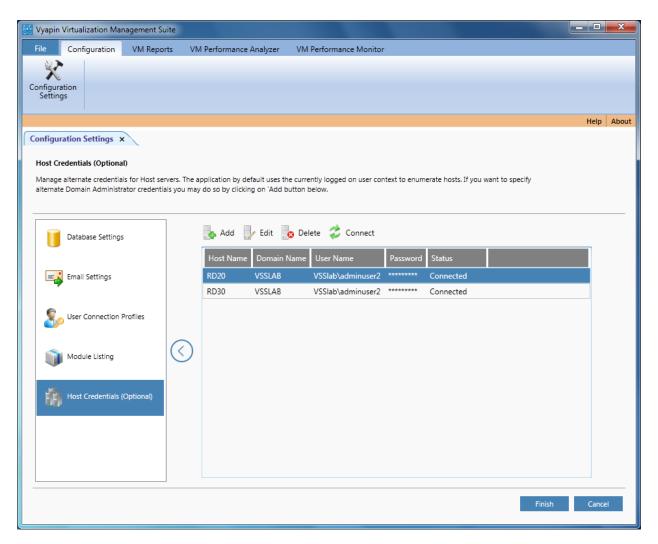
Vyapin Virtualization Management Suite will delete the application database while uninstalling the Vyapin Virtualization Management Suite application from the computer.

Manage alternate credentials for Host Servers. The application by default uses the currently logged on user context to enumerate Hyper-V Servers and its virtual machines and to collect report data. If you want

to specify alternate Domain Administrator credentials you may use this option.

Configuring Host Credentials (Optional)

You can access the Host Credentials settings by selecting the Host Credentials (Optional) option in the Configuration Settings window.



The various operations that can be performed in the Host Credentials screen are given below:

Operation	Description
Add	To Add a new host to the list.
Edit	To Edit the properties of a host in the list. Select a host and click Edit button.
Delete	To Delete a host from the list. Select a host and click Delete button.
Connect	To connect to a host in the list. Select a host and click Connect button.

Add a Host

feature.

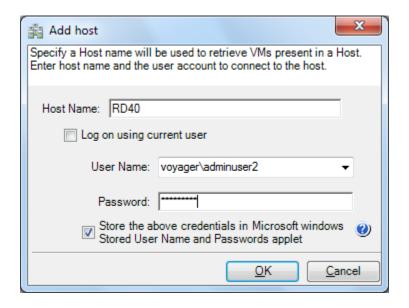
You may also add one single host at a time to the list of host in the credentials list by using Add Host

Add a domain to the list

- 1. <u>Launch Host Credentials (Optional)</u> window.
- 2. In the Host Credentials (Optional) window, click Add button to add a domain to the list.
- 3. The New **Add Host** dialog will be displayed as shown below:



Enter the name of a host.

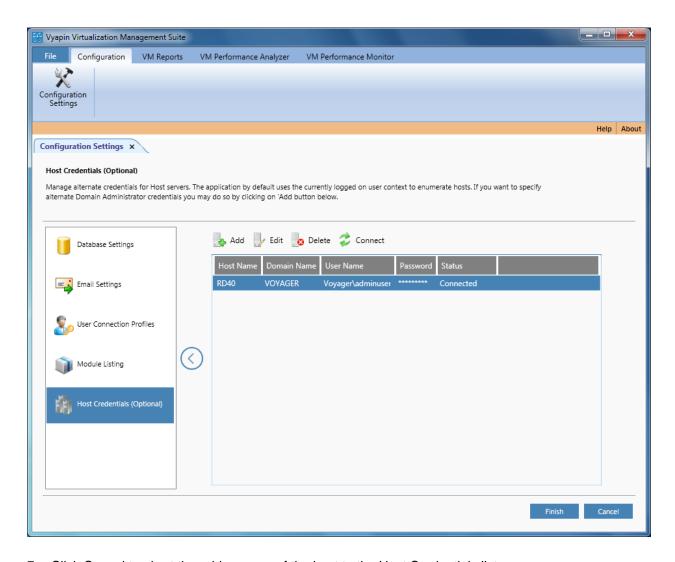


4. Specify user name and the corresponding password to connect to the specified host.

Store the above user credential in Microsoft Windows Stored User Names and Passwords applet - Vyapin Virtualization Management Suite allows the user to enter different user credentials to connect to the host. Uncheck the checkbox 'Log on using current user' if you like to connect to the host using a different user context.

Vyapin Virtualization Management Suite will store the user credential to connect to domain in the Microsoft Windows Stored User Names and Passwords applet / Credential Manager for security reasons. The stored user profile is tied to the user context (currently logged on user account) in which the profile is created.

- 5. Click OK to add the host to the Host Credentials list.
- 6. Vyapin Virtualization Management Suite will connect to the host with the newly provided connection parameters and add it to the list, upon successful connection to the Host.

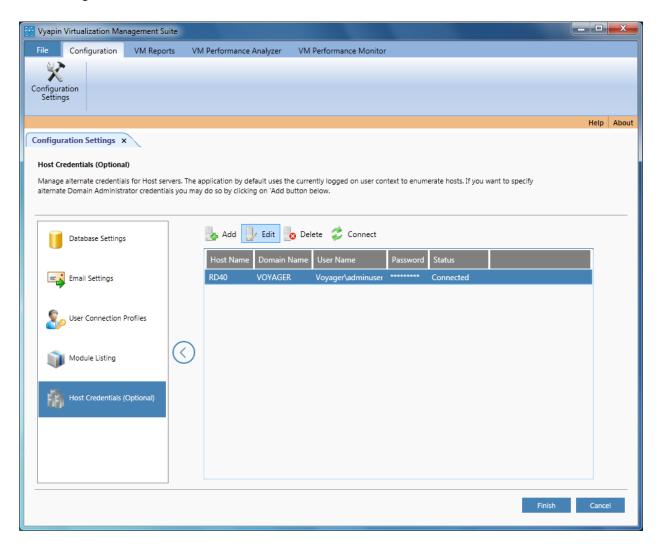


7. Click Cancel to abort the add process of the host to the Host Credentials list.

Edit a Host

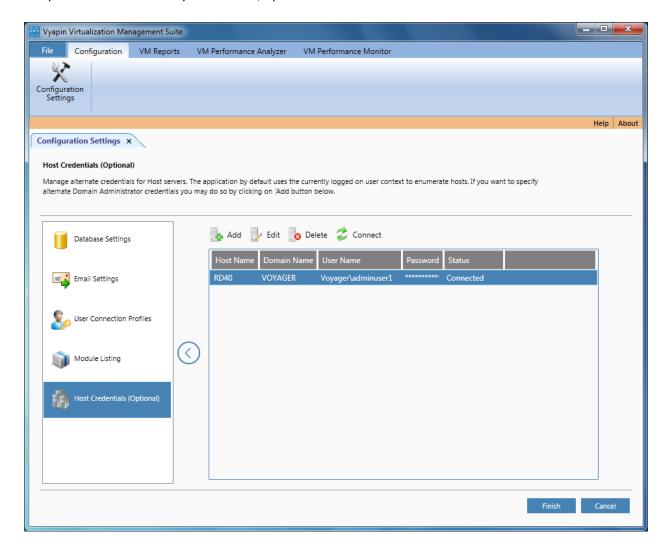
To Edit a host in the Host Credentials (Optional), follow the steps given below:

- 1. Launch Host Credentials (Optional) window.
- 2. In the Host Credentials (Optional) window, select any row (host), **Click** button to Edit an existing host in the list, as shown below:



- 3. The host name cannot be modified during the edit operation.
- 4. Specify user name and the corresponding password to connect to the specified host.
- 5. **Click** OK to save and connect to the host with the newly provided connection parameters and update the host in the Host Credentials (Optional) list.

6. Vyapin Virtualization Management Suite will connect to the host with the newly provided connection parameters and modify it in the list, upon successful connection to the host.

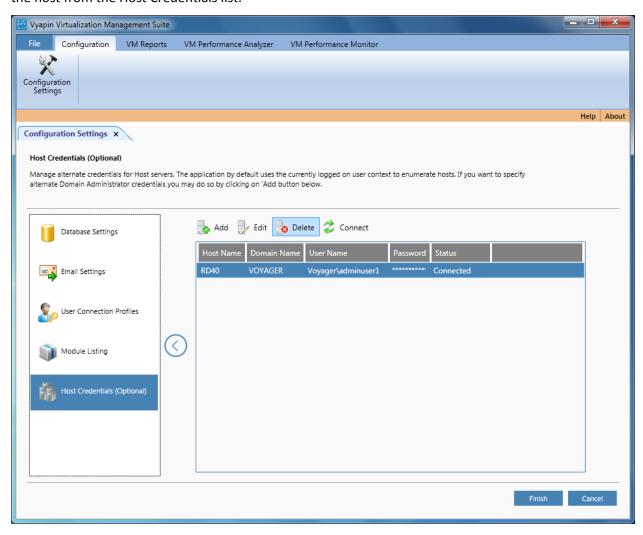


7. Click Cancel to retain the existing connection parameters of the host in the Host Credentials list.

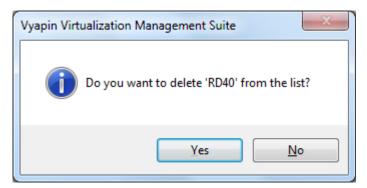
Delete a Host

Perform the following steps to delete a host:

- 1. Launch Host Credentials (Optional) window.
- 2. In the Host Credentials (Optional) window, select any row (host), click the host from the Host Credentials list.



3. An alert message asking for confirmation to delete the host will be displayed as shown below:

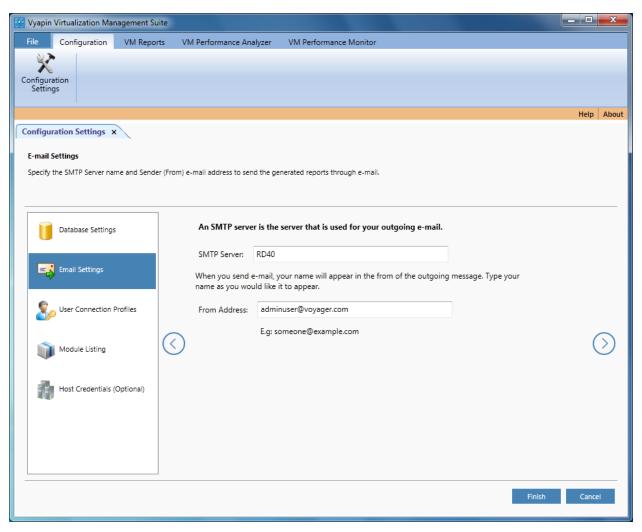


- 4. Click **Yes** to delete the selected host.
- 5. Click **No** to abort the delete process of the selected host.

Configure SMTP Server

Vyapin Virtualization Management Suite provides the option to e-mail the reports generated. For e-mailing reports, Vyapin Virtualization Management Suite requires SMTP Server, From E-mail Address, To E-mail Addresses (recipients separated by semicolon) and the e-mail report format. Vyapin Virtualization Management Suite maintains a single SMTP Server and a From E-mail Address for use by all reports. You can specify a separate set of To e-mail addresses (recipients), e-mail report format, subject and body of the message for each reports.

You can set SMTP Server and From Address by clicking Configuration -> Configuration Settings tab in the Vyapin Virtualization Management Suite main application window, as shown below:



User Connection profiles

Vyapin Virtualization Management Suite creates a user profile in **Windows Stored User Names and Passwords** applet / **Credential Manager**, in order to store the domain user context for enumerating servers using ADSI.

The stored user profile will be useful for generating reports using Vyapin Virtualization Management Suite under the following scenarios:

- Using an alternate user account to connect to the domain to retrieve servers using ADSI.
- Providing credentials that have sufficient rights to enumerate shares present in computers within a domain.

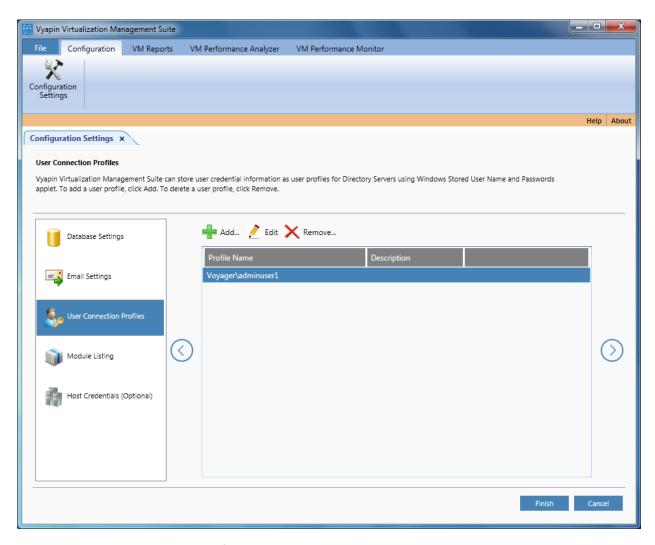
The stored user profile persists for all subsequent logon sessions on the same computer where Vyapin Virtualization Management Suite is installed. The stored user profiles are visible to the application under other logon sessions on the same computer.

The stored user profile created by Vyapin Virtualization Management Suite is restricted to the Windows User Profile context. If the Windows User Profile is maintained locally, Vyapin Virtualization Management Suite stored user profile is accessible only by the same user in the same computer. If the user who creates Vyapin Virtualization Management Suite stored user profile, has a Roaming user account in the enterprise, the Vyapin Virtualization Management Suite stored user profile can be accessed by the same user in any computer in the Windows enterprise.

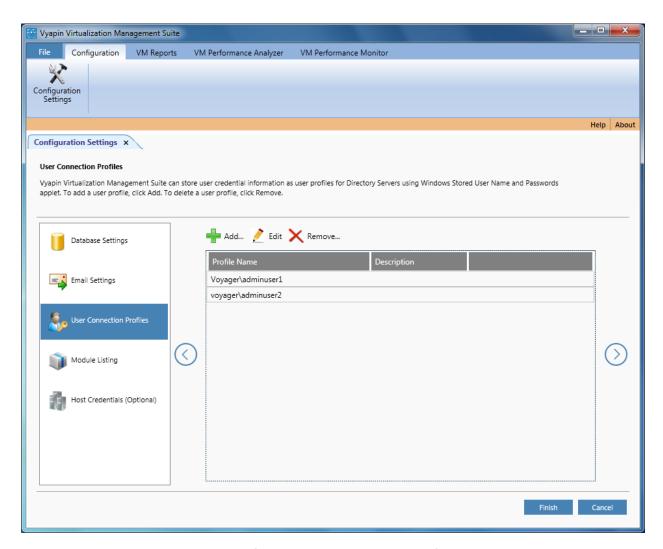
The stored user profile is a generic credential of **Windows Stored User Names and Passwords** applet / **Credential Manager** and can be used by the application only. The credential information is stored securely in an *256 bit encrypted format* in **Windows Stored User Names and Passwords** applet / **Credential Manager**.

The stored user profile corresponding to the user account will be used by the application in order to connect to the domain, if 'Use ADSI' is selected in Vyapin Virtualization Management Suite Enumeration Settings.

Using the Connection Profile dialog shown below, new profile can be created and available profiles can be removed from the profiles list.



Click Add button to add a new profile and a dialog will appear as shown below:



Click **Edit** button in the Connection Profile dialog to edit available profiles.

Click **Remove** button in the Connection Profile dialog to remove available profiles.

VM Reports

About VM Reports

How to view Discovery Reports?

How to view Memory Reports?

How to view Networking Reports?

How to view Processor Reports?

How to view Replication Reports?

How to view Current Status Reports?

How to view Snapshot Reports?

How to view Virtual Hard Disk Reports?

How to view Integration Services Reports?

How to view DVD Drive Reports

How to view All VM Settings Reports?

Introduction

VM Reports Module is used to perform a complete scan for all installed VMs in your network. You can perform an automated inventory of VMs and their configuration at regular intervals and keep a constant watch on the health of your Hyper-V Servers.

Please be aware that the VM Reports Module uses WMI (Windows Management Instrumentation) to collect report data. Hence, all reports require WMI to be installed and enabled on the Hyper-V host server and its VMs. For more information, refer to "Prerequisites and Initial Configuration" section.

Prerequisites and Initial Configuration

The VM Reports Module uses WMI to collect report data. WMI uses DCOM protocol and is affected by Windows Firewall and DCOM security settings. In order to generate the reports both Windows Firewall and DCOM must be properly configured. Windows Firewall and DCOM, when not properly configured on your remote computers, can cause errors such as an "RPC Server Unavailable" error or an "Access is denied" error. Also, ensure that the current user context or specified user context, under which the application runs, is a local administrator on target computers.

In order to generate the reports ensure the following settings are set appropriately:

- Remote Administration setting is enabled on Windows Firewall. By default, Windows Firewall blocks all unsolicited incoming traffic except for Group Policy. This is a common issue you might encounter while generating the reports. To resolve this issue, you need to enable the remote administration setting on the Firewall. For more information about configuring the Windows Firewall connections with a script, see
 - http://www.microsoft.com/technet/community/columns/scripts/sg1104.mspx#EJAA.
- WMI is installed and the Startup Type for WMI service is set to Automatic and the service is running under Local System Account.
- DCOM is enabled and ensure that security settings for DCOM allow remote connections
 - 1. Run the DCOM Configuration Utility (dcomcnfg.exe)
 - 2. In the Component Services dialog box, expand Component Services, expand Computers, and then right-click My Computer and click Properties
 - 3. In the My Computer Properties dialog box, click the Default Properties tab
 - 4. Select Enable Distributed COM on this computer
 - 5. The Default Authentication Level is set to Connect and the Default Impersonation Level is set to Identify in Windows XP and later operating systems. For Windows NT, however, the Default Authentication Level is set to Connect and Default Impersonation Level is set to Impersonate
 - The default DCOM security settings for Access Permissions and Launch and Activation
 Permissions in the COM Security tab in the My Computer Properties dialog includes at least INTERACTIVE, SYSTEM and Administrators

- In Windows XP SP2 and later operating systems the SERVICE account is granted Impersonate a client after authentication right under User Rights Assignment under Local Policies
- The **Data Execution Prevention** in Windows XP SP2 and Windows 2003 SP1 is enabled for essential windows programs only.

System Info Reports

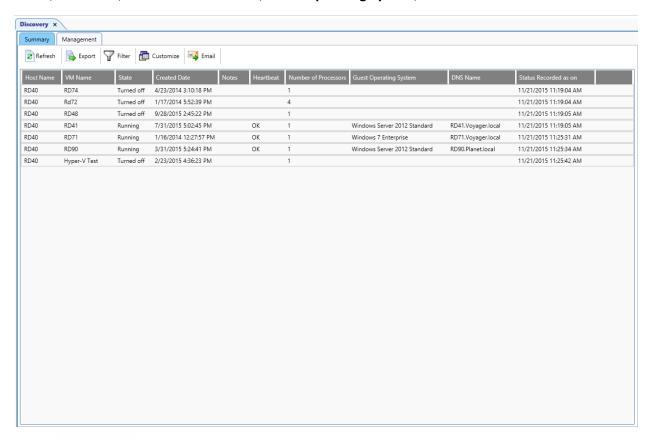
The VM Reports Module provides reports on the following resource categories:

- Summary
- Memory
- <u>Networking</u>
- Processor
- Replication
- Current Status
- <u>Snapshots</u>
- <u>Virtual Hard Disks</u>
- <u>Integration Services</u>
- DVD Drives
- All VM Settings

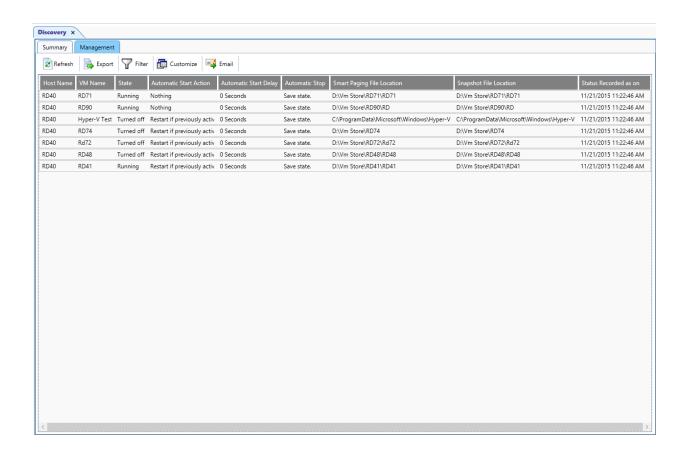
Summary

Click on under VM Reports to view Summary information available under each tab as listed below.

Click Summary tab to view the following information: Host Name, VM Name, VM State, Created Date, Notes, Heartbeat, Number of Processors, Guest Operating System, DNS Name.



Click Management tab to view the following information: Host Name, VM Name, Automatic Start Action, Automatic Start Delay, Automatic Stop Action, Smart Paging File Location, Snapshot File Location.

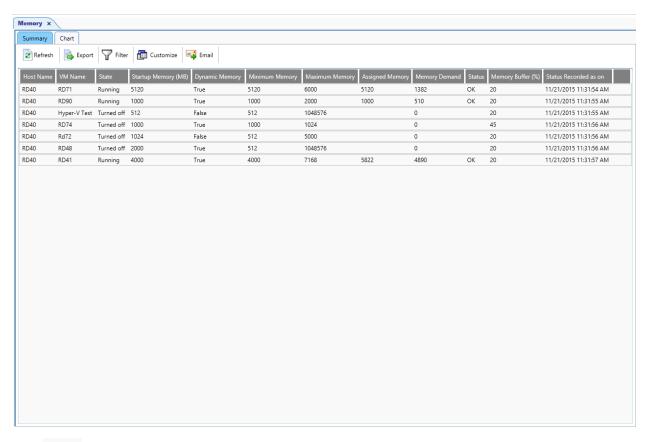


10000

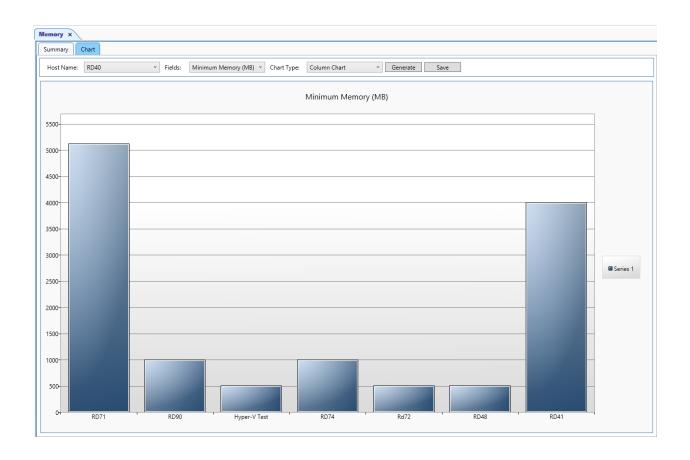
Memory

Click on under VM Reports to view Memory information available under each tab as listed below.

Click Summary tab to view the following information: Host Name, VM Name, State, Startup Memory (MB), Dynamic Memory Enabled, Minimum Memory (MB), Maximum Memory (MB), Assigned Memory (MB), Memory Demand (MB), Status, Memory Buffer (%), Memory Weight, Status Report as on.

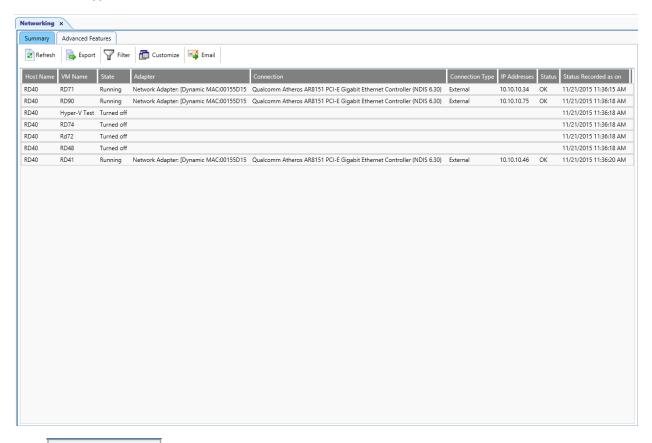


Click Chart tab to view the following information:

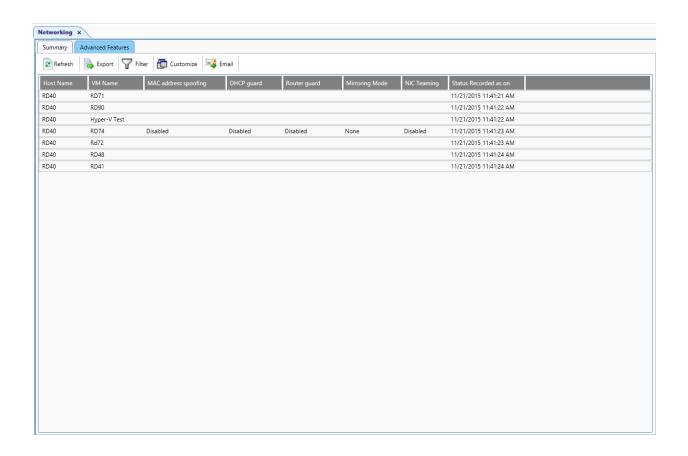


Click on Networking under VM Reports to view Networking information available under each tab as listed below.

Click Summary tab to view the following information: Host Name, VM Name, State, Adapter, Connection, Connection Type, IP Address, Status, Status Recorded as on.

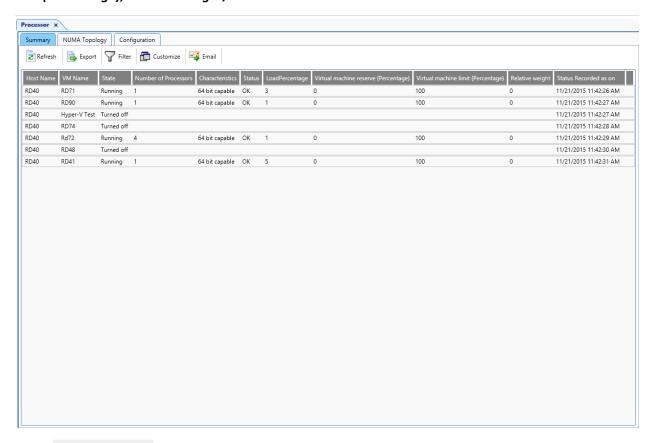


Click Advanced Features tab to view the following information: Host Name, VM Name, MAC Address Spoofing, DHCP guard, Router guard, Mirroring Mode, NIC Teaming, Status Recorded as on.

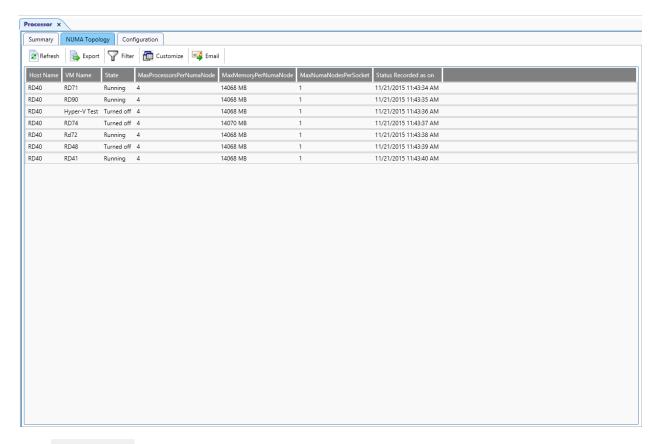


Click on under VM Reports to view Processor information available under each tab as listed below.

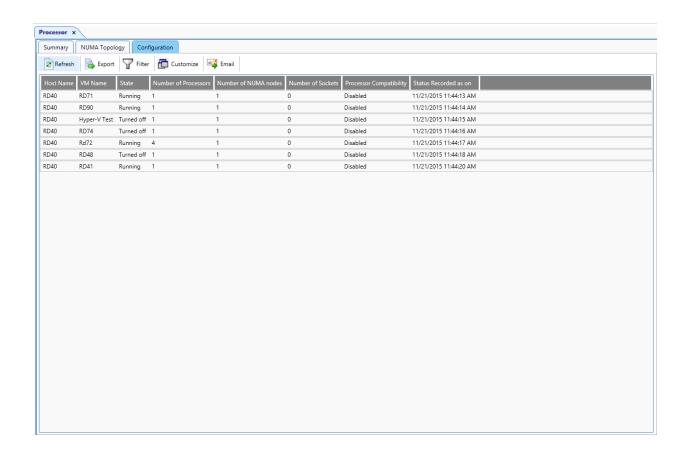
Click Summary tab to view the following information: Host Name, VM Name, State, Number of Processor, Characteristics, Status, LoadPercentage, Virtual machine reserve (Percentage), Virtual machine limit(Percentage), Relative weight, Status Recorded as on.



Click NUMA Topology tab to view the following information: Host Name, VM Name, State, MaxProcessorPerNumaNode, MaxMemoryPerNumaNode, MaxNumaNodesPerSocket, Status Recorded as on.

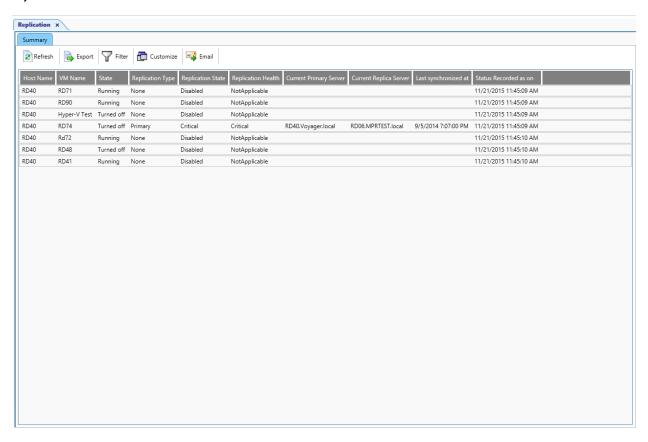


Click Configuration tab to view the following information: Host Name, VM Name, State, Number of Processor, Number of NUMA nodes, Number of Sockets, Processor Compatibility, Status Recorded as on.



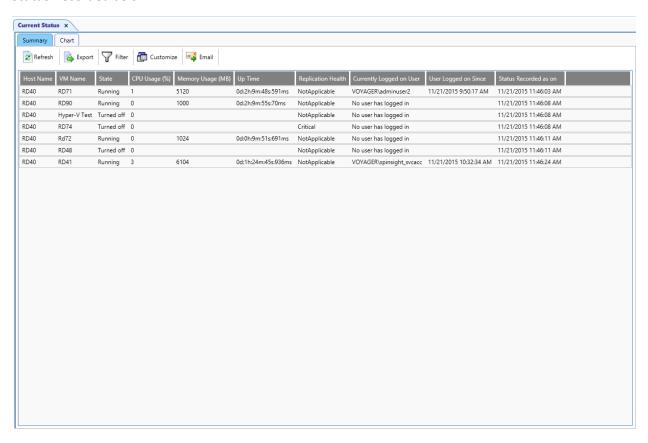
Click on Replication under VM Reports to view Replication information available under each tab as listed below.

Click Summary tab to view the following information: Host Name, VM Name, State, Replication Type, Replication State, Replication Health, Current Primary Server, Current Replica Server, Last synchronized at, Status Recorded as on.

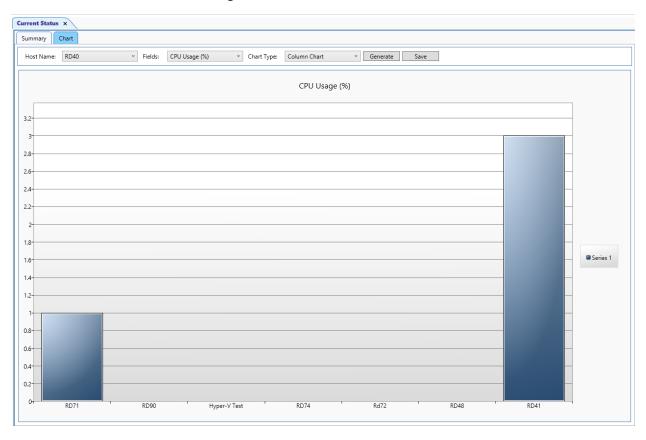


Click on Status under VM Reports to view Current Status information available under each tab as listed below.

Click Summary tab to view the following information: Host Name, VM Name, State, CPU Usage (%), Memory Usage (MB), Up Time, Replication Health, Currently Logged on User, User Logged on Since, Status Recorded as on.



Click Chart tab to view the following information:



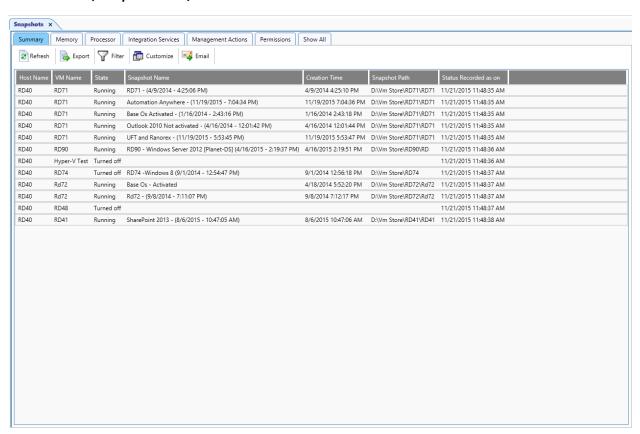
Click on Snapshots

<u>0000</u>

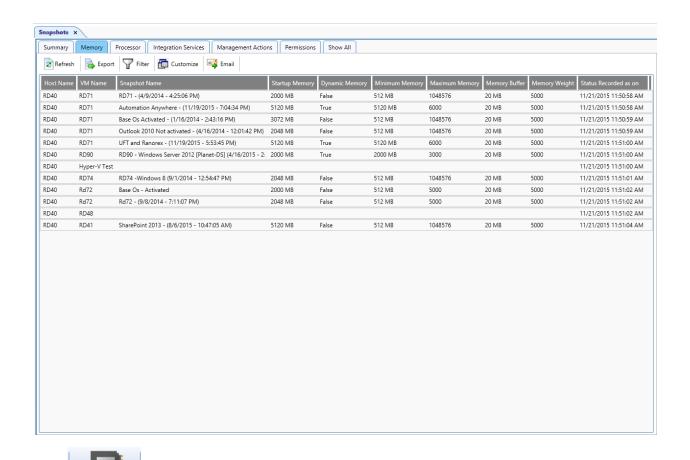
Memory

Click on Snapshots under VM Reports to view Snapshot information available under each tab as listed below.

Click Summary tab to view the following information: Host Name, VM Name, State, Snapshot Name, Creation Time, Snapshot Path, Status Recorded as on.

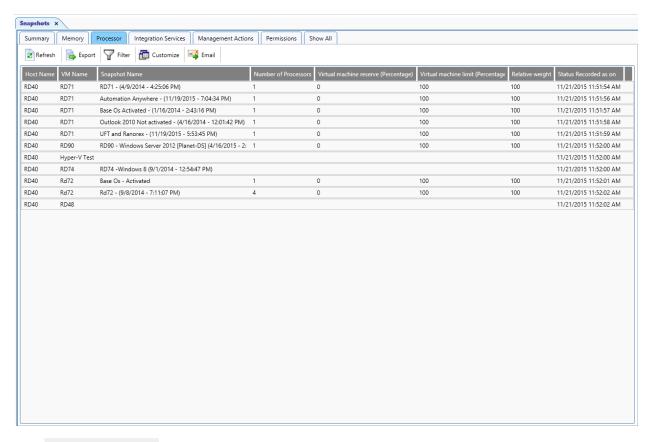


Click tab to view the following information: Host Name, VM Name, Snapshot Name, Startup Memory, Dynamic Memory Enabled, Minimum Memory, Maximum Memory, Memory Buffer, Memory Weight, Status Recorded as on.

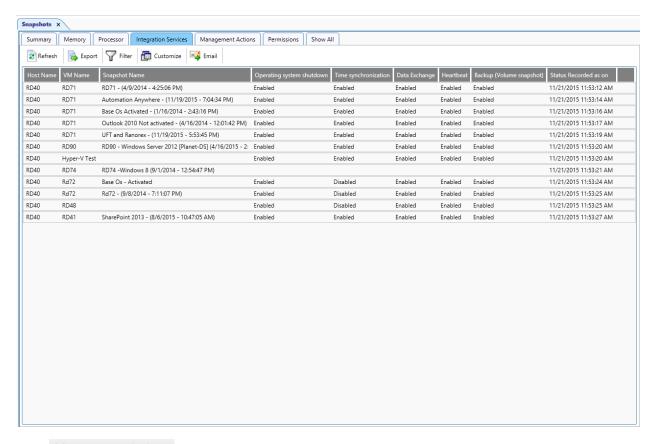


Click tab to view the following information: Host Name, VM Name, Snapshot Name, Number of Processors, Virtual machine reserve (Percentage), Virtual machine limit (Percentage), Relative weight, Status Recorded as on.

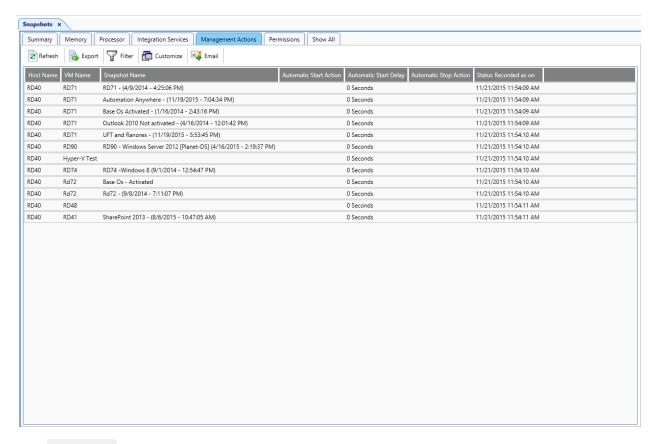
Processor



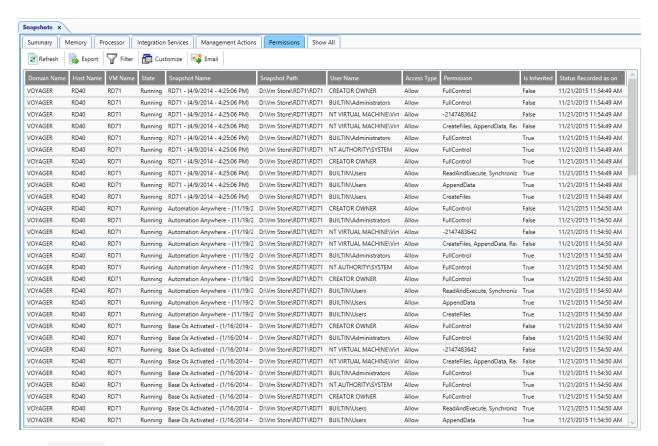
Click Integration Services tab to view the following information: Host Name, VM Name, Snapshot Name, Number of Processors, Virtual machine reserve (Percentage), Virtual machine limit (Percentage), Relative weight, Status Recorded as on.



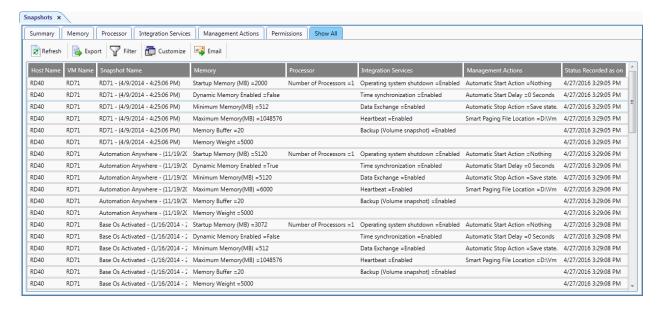
Click Management Actions tab to view the following information: Host Name, VM Name, Snapshot Name, Number of Processors, Virtual machine reserve (Percentage), Virtual machine limit (Percentage), Relative weight, Status Recorded as on.



Click Permissions tab to view the following information: Host Name, VM Name, Snapshot Name, Number of Processors, Virtual machine reserve (Percentage), Virtual machine limit (Percentage), Relative weight, Status Recorded as on.

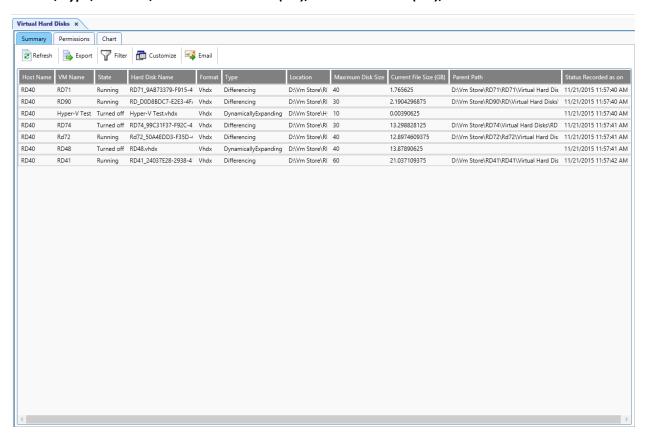


Click Show All tab to view the following information: Host Name, VM Name, Snapshot Name, Number of Processors, Virtual machine reserve (Percentage), Virtual machine limit (Percentage), Relative weight, Status Recorded as on.

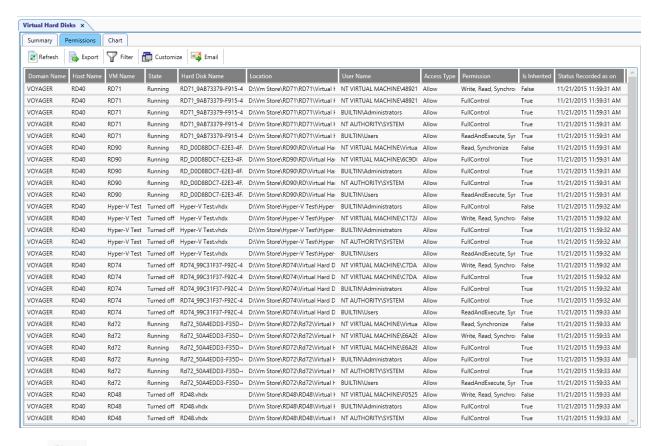


Click on Hard Disks under VM Reports to view Virtual Hard Disks information available under each tab as listed below.

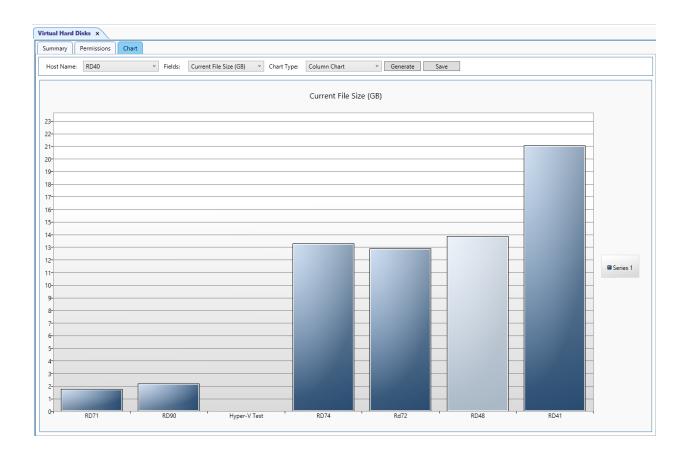
Click Summary tab to view the following information: Host Name, VM Name, State, Hard Disk Name, Format, Type, Location, Maximum Disk Size (GB), Current File Size (GB), Parent Path.



Click Permissions tab to view the following information: VM Name, State, Hard Disk Name, Location, User Name, Access Type, Permission, Is Inherited, Status Recorded as on.

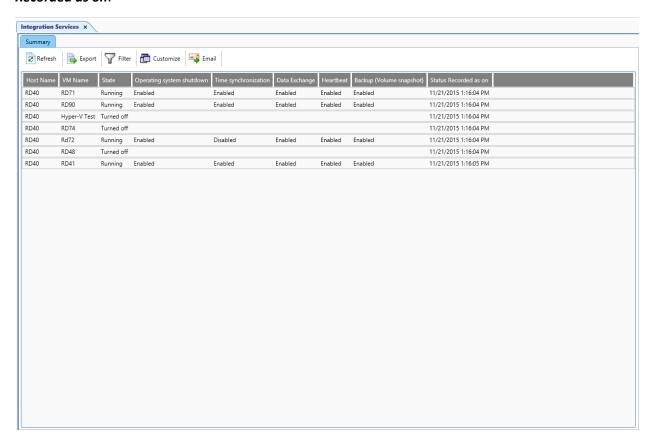


Click Chart tab to view the following information:



Click on Services under VM Reports to view Integration Services information available under each tab as listed below.

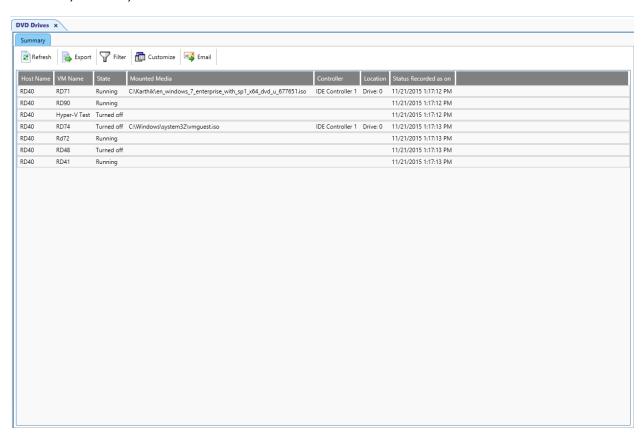
Click Summary tab to view the following information: Host Name, VM Name, State, Operating system shutdown, Time synchronization, Data Exchange, Heartbeat, Backup (Volume snapshot), Status Recorded as on.



Click on below.

Drives under VM Reports to view DVD Drives information available under each tab as listed

Click Summary tab to view the following information: Host Name, VM Name, State, Mounted Media, Controller, Location, Status Recorded as on.





Click on

Settings under VM Reports to view All VM Settings available under each tab as listed below.

VM Settings ×							
All Settings Refresh Export Email							
Memory							
Startup Memory (MB)	5120	1000	512	1000	1024	2000	4000
Dynamic Memory Enabled	True	True	False	True	False	True	True
Minimum Memory (MB)	5120	1000	512	1000	512	512	4000
Maximum Memory (MB)	6000	2000	1048576	1024	5000	1048576	7168
Assigned Memory (MB)	5120	1000			1024		6534
Memory Buffer (%)	20	20	20	45	20	20	20
Memory Demand (MB)	1434	670	0	0	0	0	5423
Processor							
Number of Processor	1	1	0	0	4	0	1
Role	Virtual Processor	Virtual Processor	Virtual Processor	Virtual Processor	Virtual Processor	Virtual Processor	Virtual Processor
Characteristics	64 bit capable	64 bit capable	64 bit capable	64 bit capable	64 bit capable	64 bit capable	64 bit capable
CurrentClockSpeed	2993 megahertz	2993 megahertz	2993 megahertz	2993 megahertz	2993 megahertz	2993 megahertz	2993 megahertz
ExternalBusClockSpeed	100 megahertz	100 megahertz	100 megahertz	100 megahertz	100 megahertz	100 megahertz	100 megahertz
Virtual machine limit (Percentage)	100	100	0	0	100	0	100
Virtual machine reserve (Percentage)	0	0	0	0	0	0	0
Network							
Adapter	Network Adapter: [Dynan	Network Adapter: [Dynami			Network Adapter: [Dynamic I		Network Adapter: [Dyna:
Connection	Qualcomm Atheros AR81	Qualcomm Atheros AR815			Qualcomm Atheros AR8151		Qualcomm Atheros AR8
Connection Type	External	External			External		External
IP Addresses	10.10.10.34	10.10.10.75			10.10.10.56		10.10.10.46
Replication							
Replication Type	None	None	None	Primary	None	None	None
Replication State	Disabled	Disabled	Disabled	Critical	Disabled	Disabled	Disabled
Replication Health	NotApplicable	NotApplicable	NotApplicable	Critical	NotApplicable	NotApplicable	NotApplicable
Current Primary Server				RD40.Voyager.local			
Current Replica Server				RD06.MPRTEST.local			
Hard Disk							
Hard Disk Name	RD71 9AB73379-F915-49	RD_D0D8BDC7-E2E3-4FA0	Hyper-V Test.vhdx	RD74 99C31F37-F92C-	Rd72 50A4EDD3-F35D-467C	RD48.vhdx	RD41 24037E28-2938-4

Schedule

About Schedule Reports

Task Manager

How to Schedule Reports?

About Schedule Reports

Vyapin Virtualization Management Suite provides a powerful offline report generation feature called Schedule Report. Schedule Report allows the user to select multiple reports to be run for several hosts and VMs across the enterprise at scheduled intervals. The Schedule Report feature has the ability to export and/or e-mail the reports in different file formats.

Please note the following while using the Schedule Report Wizard:

- a) Scheduled reports will be created as a "task" in Windows Task Scheduler.
- b) The scheduled job will generate and export/email the reports in different file formats (HTML, CSV and XLSX) to the desired folder path/printer.
- c) By default, for each task, a sub-folder with the task name will be created under the specified export path. All selected Reports will be exported to a time-stamped sub-folder, in the format "yyyy-mm-dd hh.mm.ss", under the task name folder. Therefore, the full folder path for all the exported reports refers to the following directory: <Export path><Task name><Time stamp>.
- d) A separate file will be created for each report in the desired file format. For example, in the HTML file format, each report will be created as a .html file.

Note: Schedule Report Wizard will help you create and store the settings for a task, which you may view or modify later using the Scheduled Tasks Manager. The task will be created with the settings (Schedule Type and Run As parameter) provided using the Schedule Report Wizard. A valid password must be specified for the Run As parameter of the task.

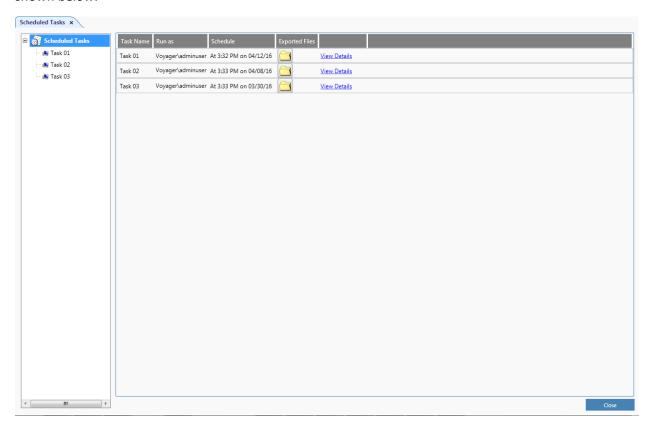
Schedule Task Manager

The Scheduled Tasks Manager allows you to perform the following operations:

- View summary information for the tasks created
- View exported files of the task
- Edit an existing task
- Delete a task

View summary information of a task

The pane on the left hand side in the Scheduled Tasks Manager window lists the tasks maintained in Vyapin Virtualization Management Suite. To view summary information of a task, select the desired task on the left pane. The summary information of the selected task will be displayed in the right pane as shown below:



The task summary includes information about the task information, reports selected, export/e-mail settings.

View exported files

To view the reports generated and exported by the task, perform either one of the following steps:

• Select **Scheduled Tasks** node on the left pane, and then click on the hyperlink in the **Exported Files** column in the right pane for the desired task.

View Details

To view the details of the reports generated and exported folder path by the task, perform either one of the following steps:

• Select **Scheduled Tasks** node on the left pane, and then click on the **View Details** hyperlink in the right pane for the desired task.

OR

• Select the desired task on the left pane, and then click on the hyperlink next to Exported Files.

Edit Task

- 1. Select a task from the Scheduled Tasks Manager Window and Click Edit Task.
- 2. Perform the steps as in <u>How to Schedule reports?</u> While proceeding through the wizard, you may change the settings, add a new report, delete a report, edit a report, change the export path etc.
- 3. The new settings will be used when the task runs the next time.

Delete Task

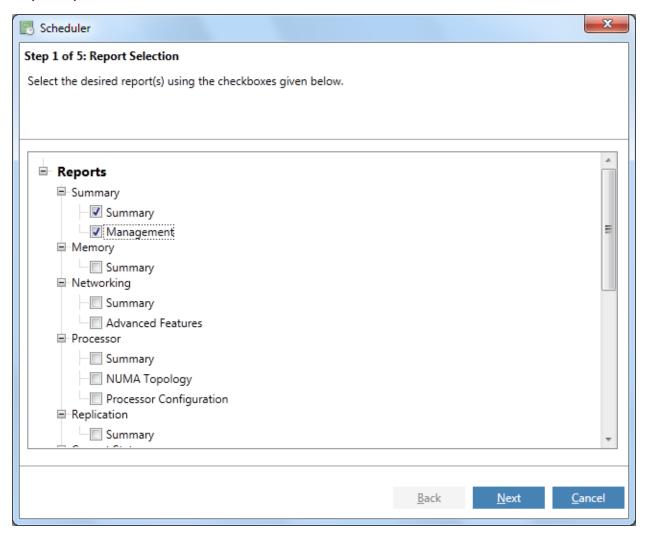
To delete a task from the Scheduled Tasks Window, select the task and click Delete Task. The deleted task will be removed permanently from the Windows Task Scheduler.



Select

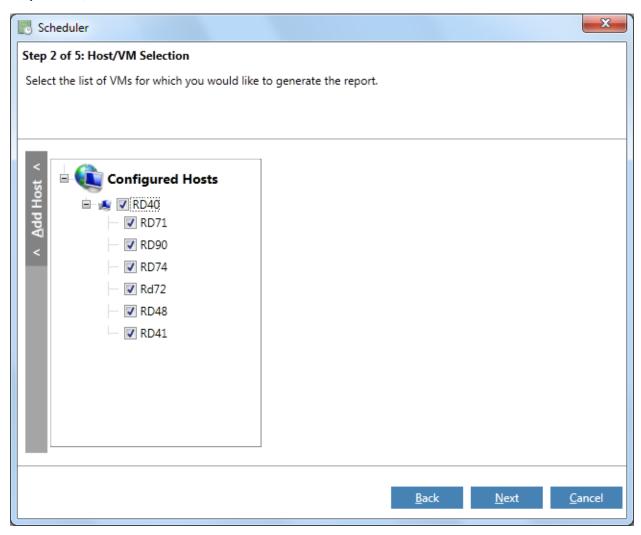
option under Reports. This will bring up the Schedule Report Wizard.

Step 1: Report Selection



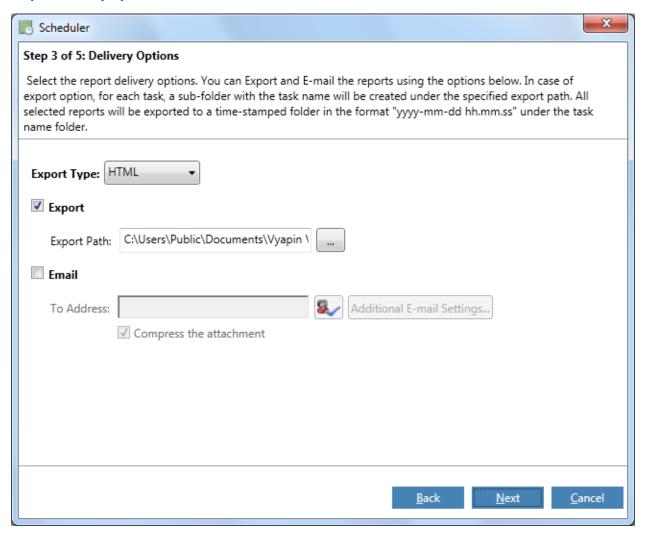
- 1. **Select** the report(s) using the checkboxes to the left of the reports. You may select any number of reports to run in a single task.
- 2. Click **Next** to proceed to the next step.

Step 2: Host/VM Selection

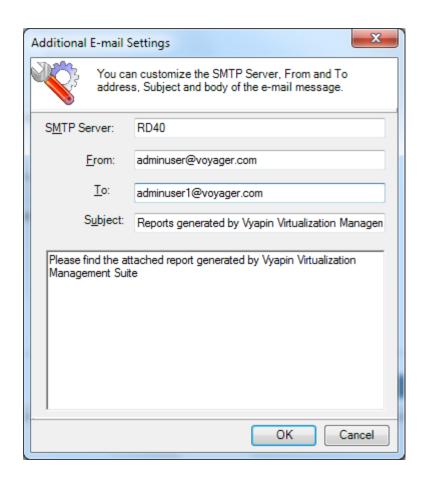


- 1. Select the Hosts and VMs for which you wish to run the reports selected in Step 1.
- 2. Click Next to proceed to the Next step.

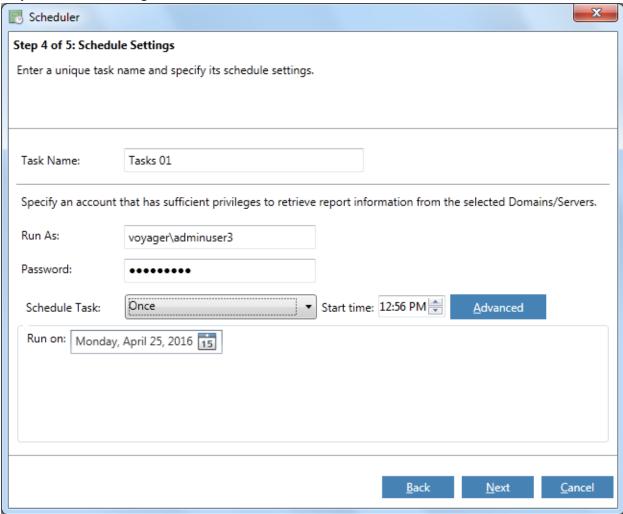
Step 3: Delivery Options



- 1. Change the Export or E-mail settings as necessary.
- 2. Use Browse button to change the export path.
- Click **Additional E-mail Settings** button to specify optional e-mail settings as shown below.

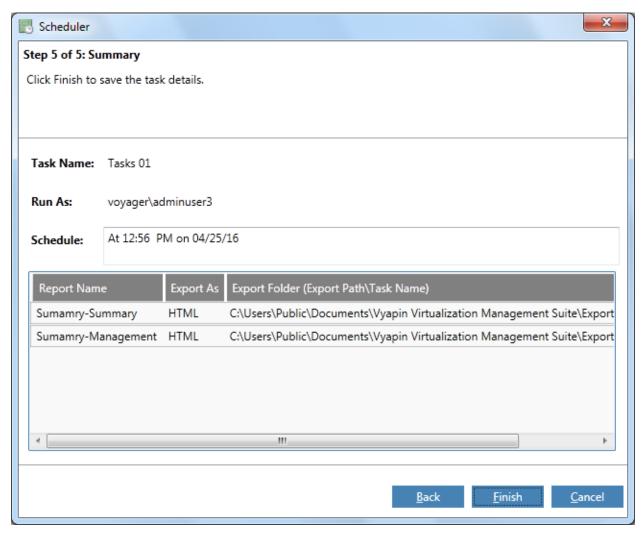


Step 4: Schedule Settings

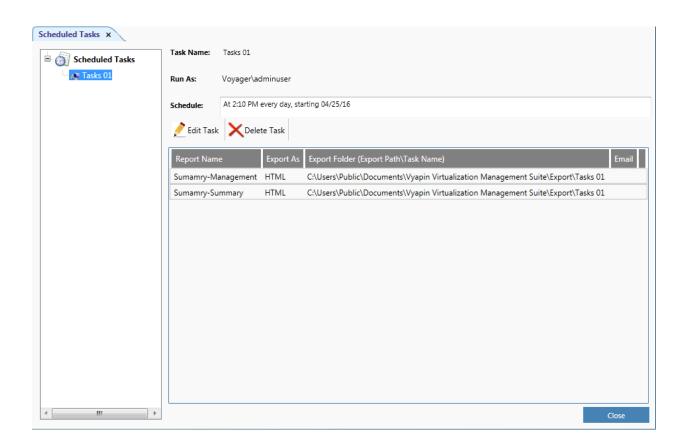


- 1. Enter a unique name for the task.
- 2. Change the Run as parameter, if necessary and set the password for the specified user.
- 3. Change the task schedule settings as required.
- 4. Click Next to proceed to the next and final step.

Step 5: Summary



- 1. This step displays the summary information of the task.
- 2. Click Finish to save the task details.
- 3. The task will be added to Windows Scheduled Tasks and will be displayed in the Scheduled Tasks Manager Window as shown below:



VM Performance Analyzer

Data Collector

Live Performance Data

Performance Reports

Data Collector

About Data Collector

How to configure a host and VM for data collection?

About Data Collector

The **Data Collector** feature provides the option to configure hosts and virtual machines for collecting their performance counter data at regular interval of time. Based on the setting, it collects the performance counter data to report any changes made to the host/virtual machine. Data Collector feature allows you to create a schedule task for a host and its virtual machines in a single task.

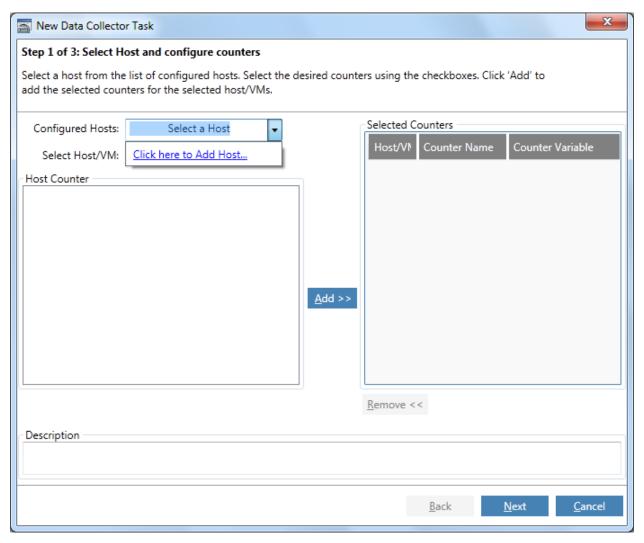
For more information about data collector, follow the links given below:

How to configure a host and VM for data collection?

Click under VM Performance Analyzer module. This will bring up the New Data Collector Task Wizard as displayed below:

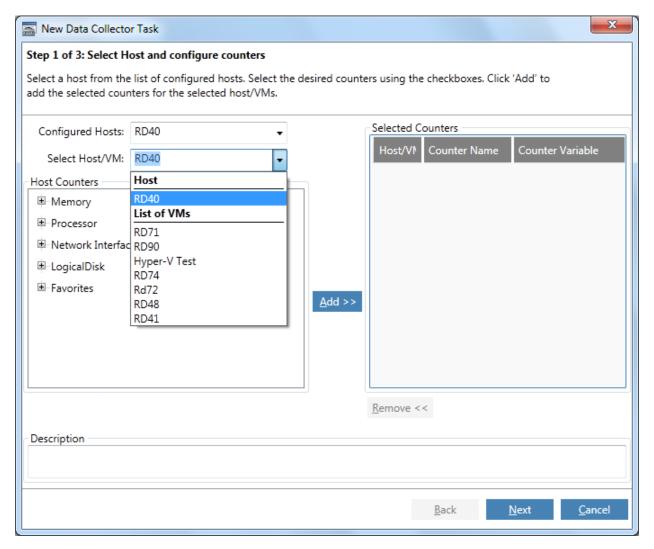
Step 1: Select Host and configure counters

Data Collector

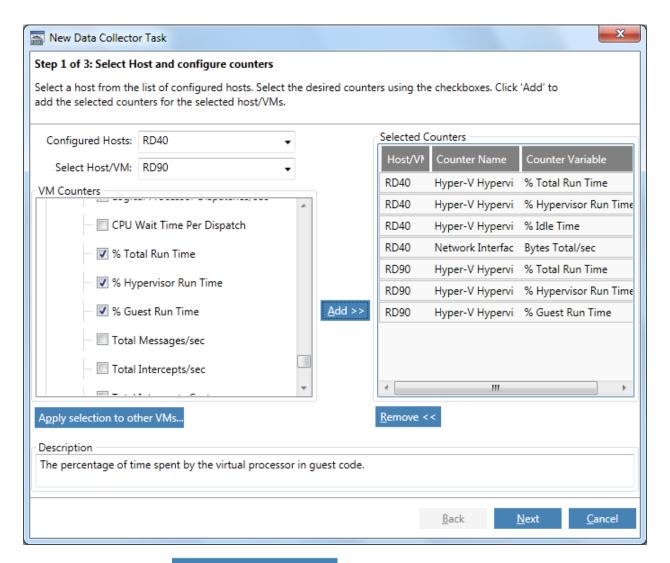


To configure a host for analysis, click <u>Click here to Add Host...</u> menu.

Select a host from the list of **Configured Hosts** drop-down. The list of VMs in the selected host will be displayed in the **Select Host/VM** drop-down, as shown below:

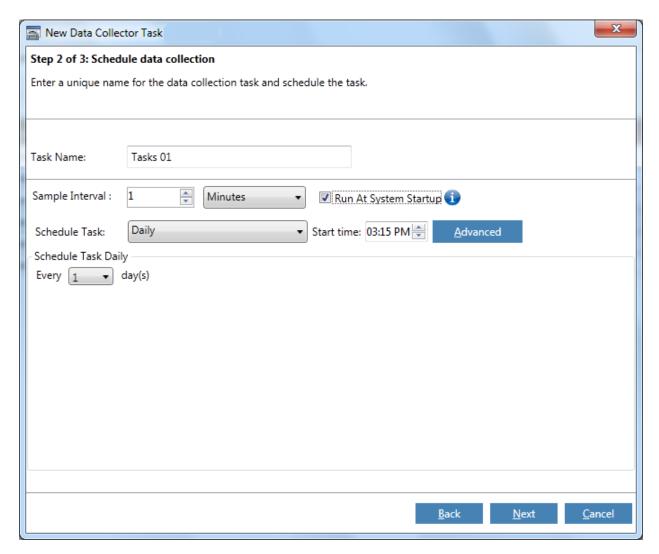


- 1. Select a host/VM. This will display the Performance counters for the selected host/VM in the tree view.
- 2. Select the desired counters using the checkboxes.
- 3. Click Add >> to add the selected counters for the selected host/VMs.



- 4. You may also use Apply selection to other VMs... option to apply the selected counters to the desired VMs.
- 5. Use Remove << button to remove the selected counters.

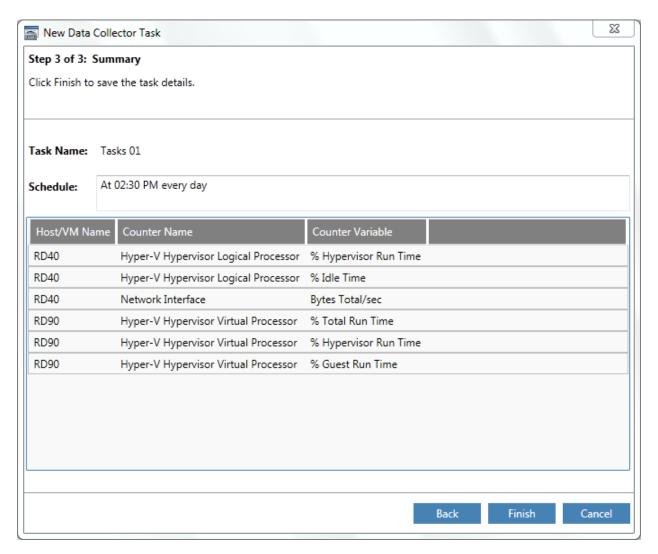
Click Next to proceed.



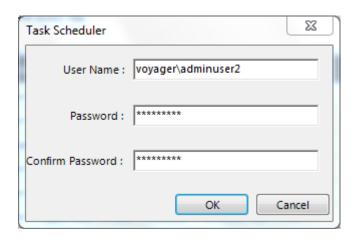
- 1. Enter a unique name for the data collection task and schedule it.
- 2. Change the data collection task schedule settings as required.
- 3. Select a Sample Interval time at which the selected counters have to be collected.
- 4. Use **Run At System Startup** option as required. To set this option in the scheduled task, the currently logged on user to have administrative privileges. If User Access Control (UAC) is enabled and if the currently logged on user does not have administrative privileges, UAC prompt will appear to elevate the user's privileges.
- 5. Click **Next** to proceed to the final step.

Step 3: Summary

1. This step displays the summary information of the task.

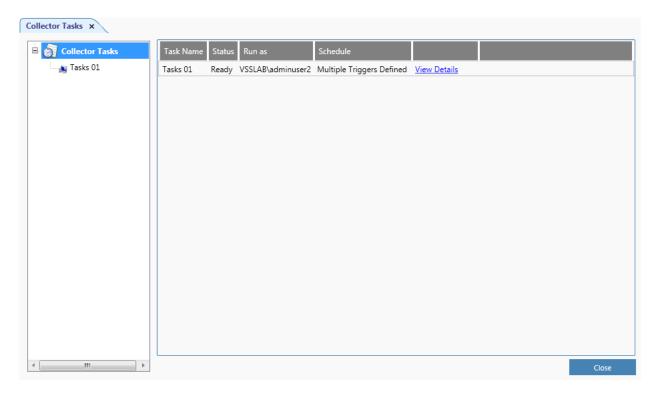


2. Click **Finish** to save the task details. User credential dialog will appear, as shown below:



Specify Run As account and password, click **OK** to create a Data Collector Task.

3. The task will be added to Windows Scheduled Tasks and will be displayed in the Collector Tasks window as shown below:



Live Performance Data

How to view the occurrence of configured performance counters in Data Collector?

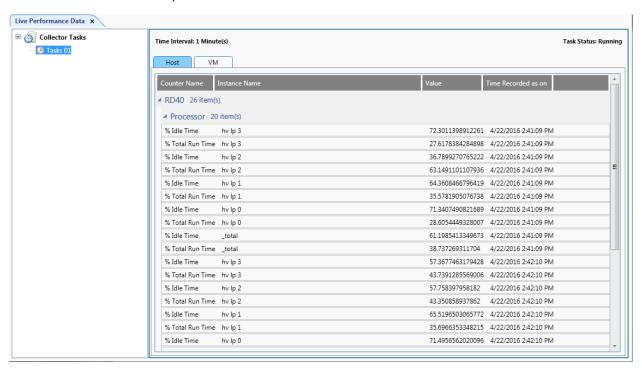
How to view the occurrence of configured performance counters in Data Collector?

Live Performance Data

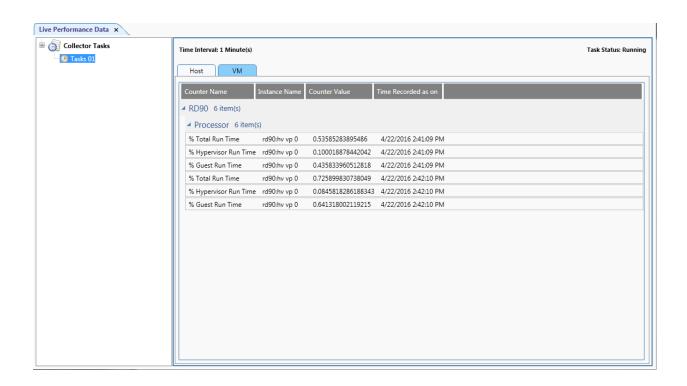
Live Performance Data feature allows you to view the occurrence of all performance counters for the host or virtual machines configured in the Data Collector Task in the application. This feature will display you the collected performance counters at the time intervals specified in the data collector task.

Click under Performance Analyzer module. This will launch the Live Performance Data window as shown below.

In the left pane, it will show the list of tasks configured in the **Data Collector** feature. Select a task and view the occurrence of the performance counters for a host and virtual machines at different times.



You can also view the performance of Virtual Machines as shown below:



Performance Report

About Performance Report

How to generate Host Performance Summary reports?

How to generate VM Performance Summary reports?

About Performance Reports

The Performance Reports in VM Performance Analyzer module is a powerful feature that shows reports of host and virtual machine performance counters that are configured in the Data Collector feature. This feature also displays the summarized reports of performance counters such as "By Every 15 minutes of the day", "By Every Half hour of the day", "By Day" etc.,. It may be useful to analyze the workload by aggregating data from pre-defined time intervals such as Daily, Weekly and Monthly as subsets of data.

See also

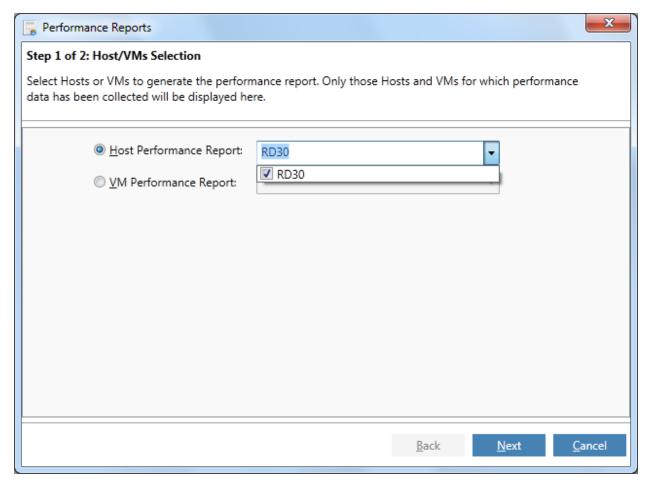
- How to generate Host Performance Summary Reports?
- How to generate VM Performance Summary Reports?

Click under VM Performance Analyzer module. This will bring up the Performance Reports Wizard as shown below:

Step 1: Host/VMs Selection

Performance Reports

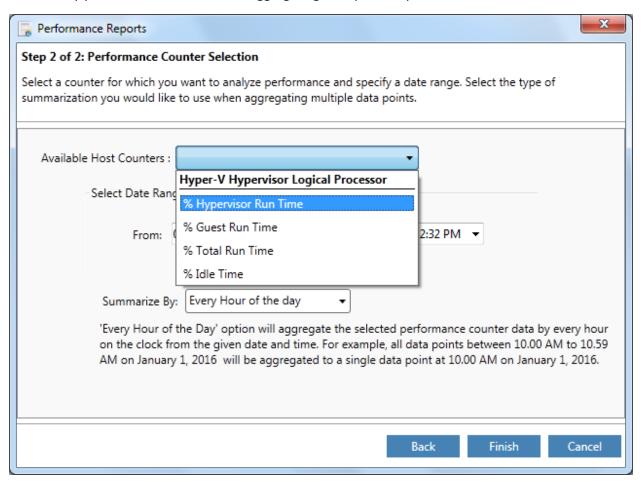
Select the hosts from the list of Host Performance Report drop-down. The hosts for which performance counter data has been collected will be displayed here.

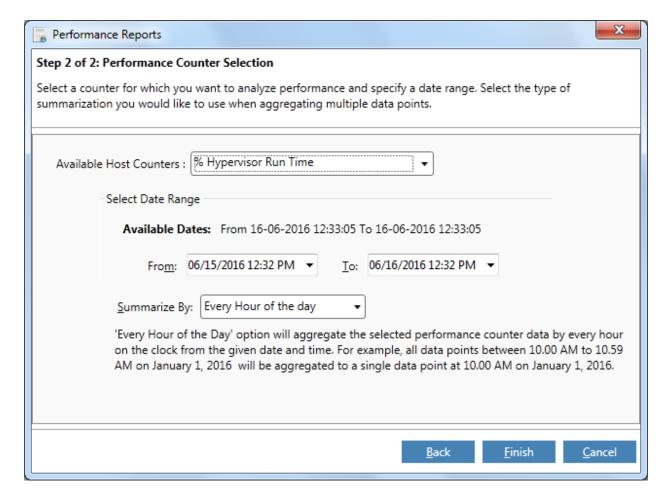


Click Next to proceed.

Step 2: Performance Counter Selection

Select a Performance counter from the list of Available Host Counters. Select a Date Range and the type of summary you would like to use when aggregating multiple data points.





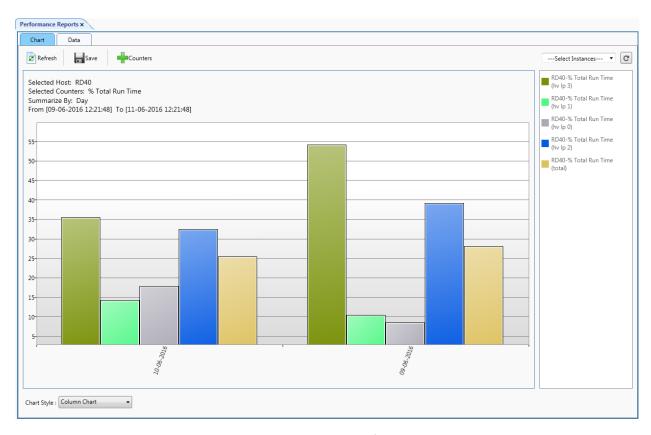
Available Dates shows the start and end date range value for which collected data of the selected counter is available.

Summarize By option shows the following details as shown below:

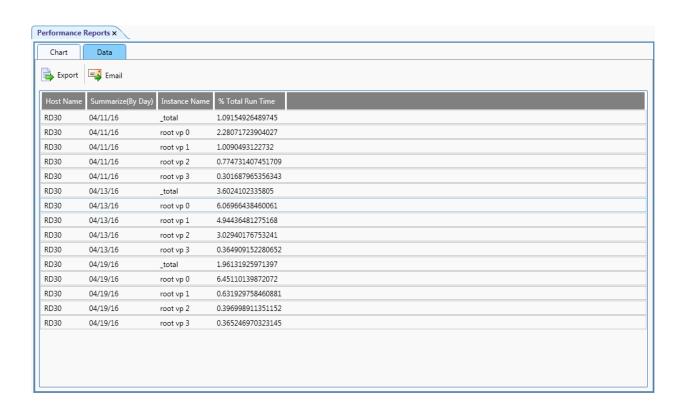
- Every 15 minutes of the day 'Every 15 minutes of the day' option will aggregate the selected performance counter data by every 15 minutes on the clock from the given date and time. For example, all data points between 10.00 AM to 10.14 AM on January 1, 2016 will be aggregated to a single data point at 10.00 AM on January 1, 2016.
- Every Half hour of the day 'Every Half Hour of the day' option will aggregate the selected performance counter data by every half hour on the clock from the given date and time. For example, all data points between 10.00 AM to 10.29 AM on January 1, 2016 will be aggregated to a single data point at 10.00 AM on January 1, 2016.
- Every Hour of the day 'Every Hour of the day' option will aggregate the selected performance counter data by every hour on the clock from the given date and time. For example, all data points between 10.00 AM to 10.59 AM on January 1, 2016 will be aggregated to a single data point at 10.00 AM on January 1, 2016.
- **Day** 'Day' option will aggregate the selected performance counter by every day from the given date and time.
- Day of week 'Day of week' option will aggregate the selected performance counter by every day
 of the week such as Monday, Tuesday and so on from the given date and time. For example, all

- data points of Mondays will be collected and aggregated as a single data point called Monday. This will help you compare performance of each day of the week with the other days of the week.
- **Week** 'Week' option will aggregate the selected performance counter by the week number from the given date and time.
- Month 'Month' option will aggregate the selected performance counter by month, such as
 January, February and so on, from the given date and time. This will help analyze performance of
 workload with respect to seasonal variations such as holiday months.
- **Do Not Summarize** 'Do Not Summarize' option will show the raw data point for selected performance counter from given date and time.

Click Finish to generate the report.



- You can use Chart Style option to change the view of the chart style.
- You can use Select Instances option to filter the instances of the performance counter.

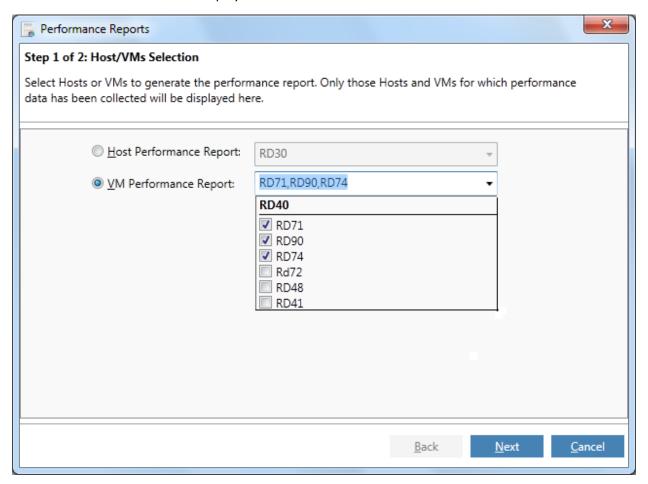


Click under VM Performance Analyzer module. This will bring up the Performance Reports Wizard as shown below:

Step 1: Host/VMs Selection

Performance Reports

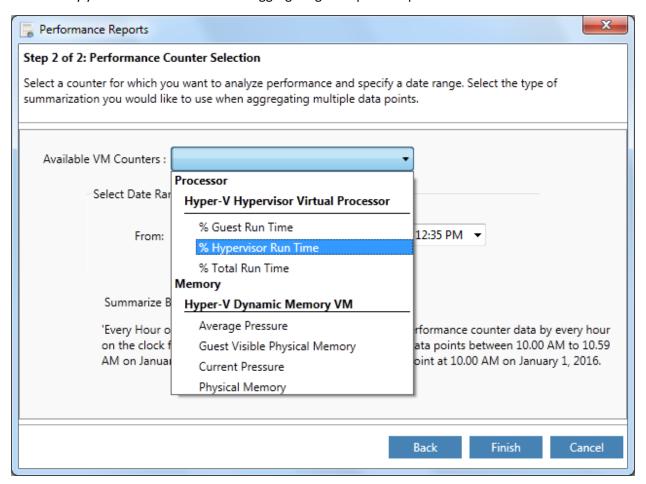
Select the VMs from the VM Performance Report drop-down. The VMs for which performance counter data has been collected will be displayed here.

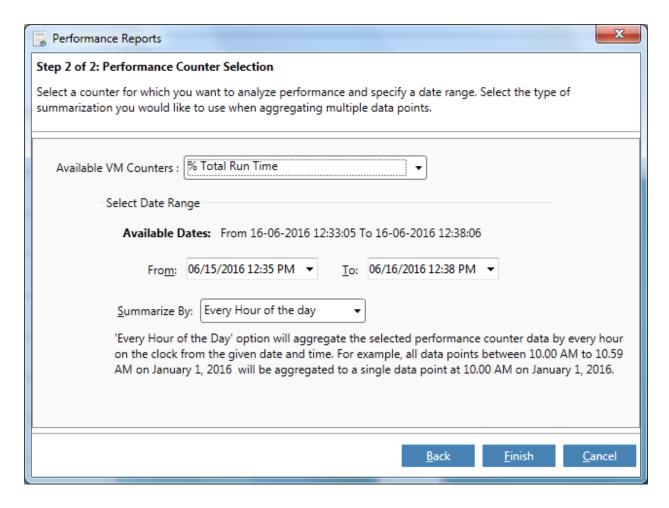


Click Next to proceed.

Step 2: Performance Counter Selection

Select a Performance counter from list of Available VM counters. Specify a Date Range and Select the type of summary you would like to use when aggregating multiple data points.





Available Dates shows the start and end date range value for collected data of the selected counter

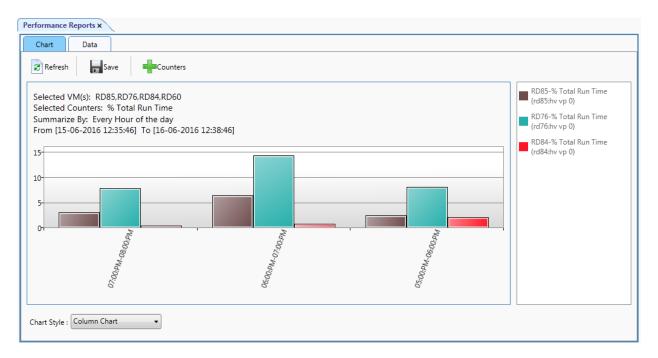
Summarize By option shows the following details as shown below:

- Every 15 minutes of the day 'Every 15 minutes of the day' option will aggregate the selected performance counter data by every 15 minutes on the clock from the given date and time. For example, all data points between 10.00 AM to 10.14 AM on January 1, 2016 will be aggregated to a single data point at 10.00 AM on January 1, 2016.
- Every Half hour of the day 'Every Half Hour of the day' option will aggregate the selected performance counter data by every half hour on the clock from the given date and time. For example, all data points between 10.00 AM to 10.29 AM on January 1, 2016 will be aggregated to a single data point at 10.00 AM on January 1, 2016.
- Every Hour of the day 'Every Hour of the day' option will aggregate the selected performance counter data by every hour on the clock from the given date and time. For example, all data points between 10.00 AM to 10.59 AM on January 1, 2016 will be aggregated to a single data point at 10.00 AM on January 1, 2016.
- **Day** 'Day' option will aggregate the selected performance counter by every day from the given date and time.
- Day of week 'Day of week' option will aggregate the selected performance counter by every day
 of the week such as Monday, Tuesday and so on from the given date and time. For example, all

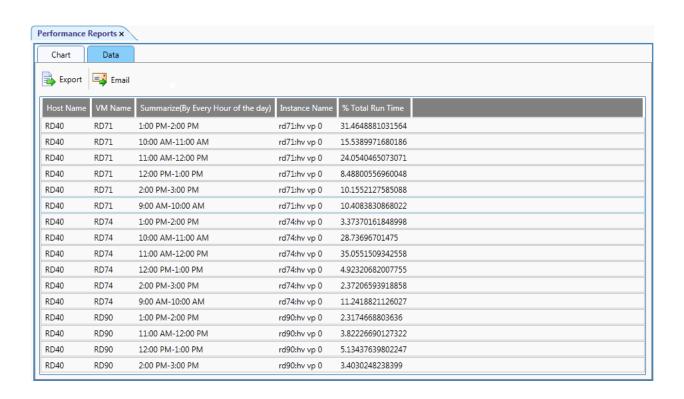
- data points of Mondays will be collected and aggregated as a single data point called Monday. This will help you compare performance of each day of the week with the other days of the week.
- **Week** 'Week' option will aggregate the selected performance counter by the week number from the given date and time.
- **Month** 'Month' option will aggregate the selected performance counter by month, such as January, February and so on, from the given date and time. This will help analyze performance of workload with respect to seasonal variations such as holiday months.
- **Do Not Summarize** 'Do Not Summarize' option will show the raw data point for selected performance counter from given date and time.

Click **Finish** to generate the report.

Once the data collection process is complete, the report would be generated in a report window as shown below:



You can use **Chart Style** option to change the view of the chart style.



VM Performance Monitor

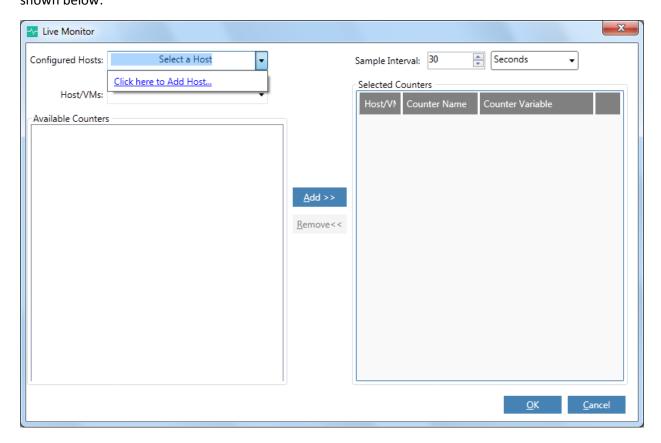
Live Monitor

How to view the performance metrics in Live Monitor?

Live Monitor

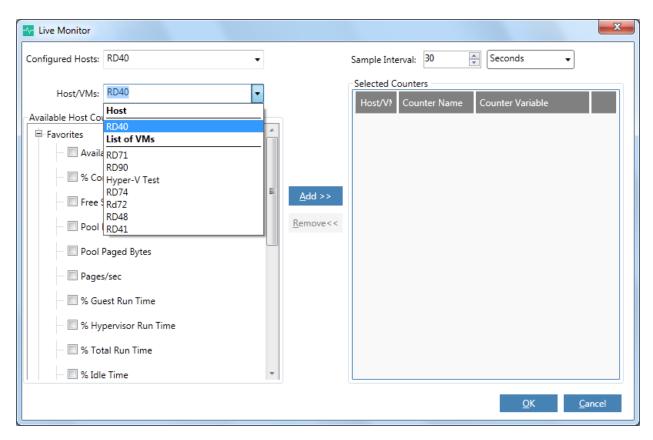
Live Monitor allows the administrators to keep a tab on the performance metrics of Hyper-V hosts and their VMs. It enables them to monitor important CPU, Memory, IO and Network resources using charts and tables in their environment.

Click under VM Performance Monitor module. This will show the Live Monitor window as shown below:

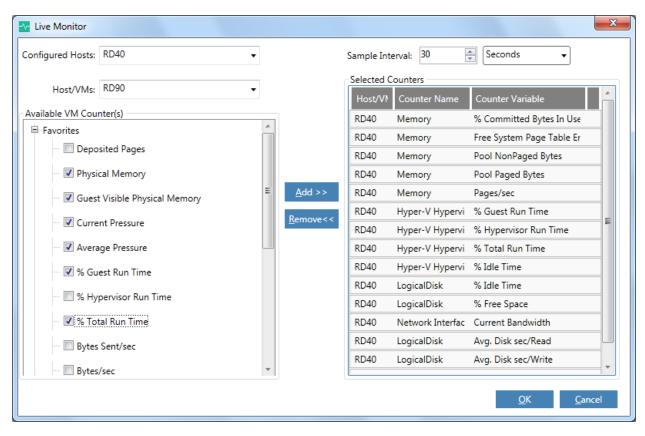


To configure a host for monitoring, click Click here to Add Host... menu.

Select a host from the list of Configured Hosts drop-down. The list of VMs in the selected host will be displayed in the Host/VM drop-down, as shown below:



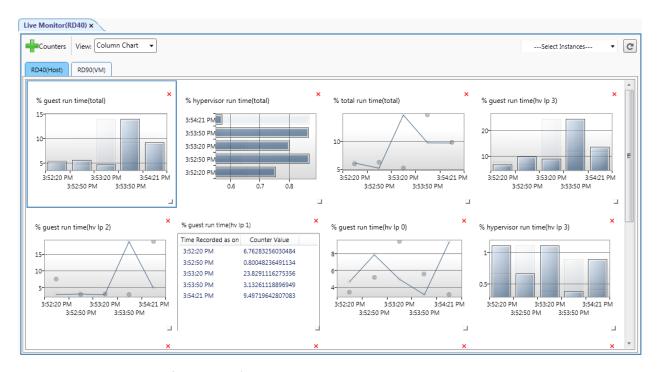
- 1. Select a host/VM. This will display the Performance counters for the selected host/VM in the tree view.
- 2. Select the desired counters using the checkboxes.
- 3. Click Add >> to add the selected counters.



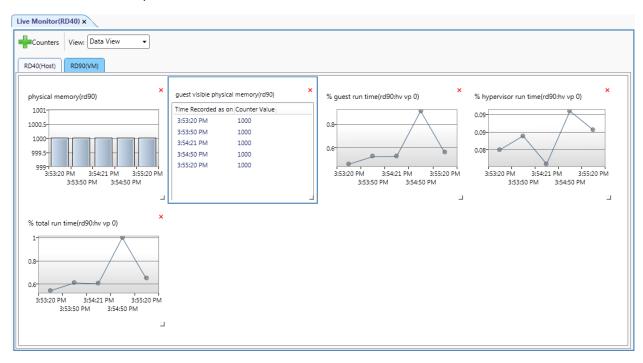
- 4. Set a Sample Interval time to collect and display the selected counters every sample interval.
- 5. Use Remove << button to remove the selected counters.

Click **OK** to proceed.

Once the data collection process is complete, the report would be generated in a report window as shown below:



You can also view the performance of Virtual Machines as shown below:



Additional Features

How to Add host?

How to Customize Fields?

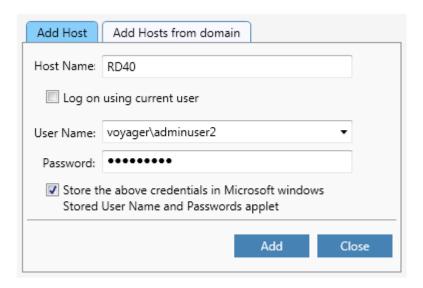
How to Apply Filters?

How to Refresh Data?

How to Export data?

How to E-mail data?

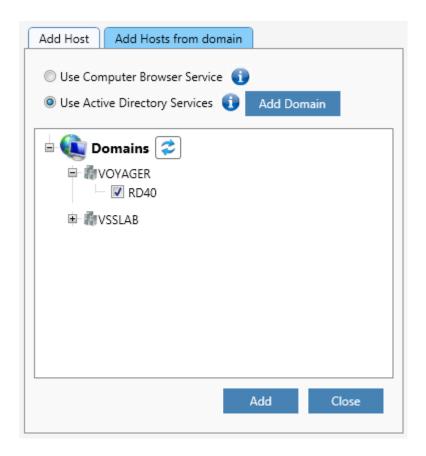
Click **Add Host** tab to enter the host details manually.



- Enter a valid host name.
- Deselect the 'Log on using current user' checkbox, if you like to connect to the host using a different user context.
- Specify an user name and the corresponding password to connect to the specified host.
- Click
 Add button to configure the specified host

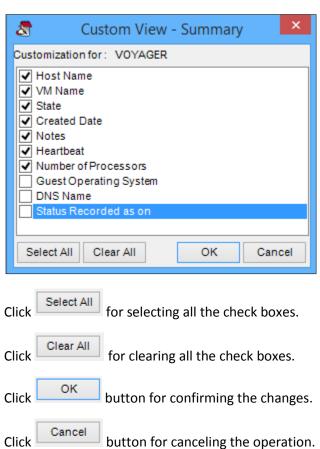
Click Add hosts from domain tab for enumerating hosts in your network automatically.

Vyapin Virtualization Management Suite uses either Computer Browser Service or Active Directory Services to enumerate computers in a network. You may use the Use Computer Browser service option if you have a smaller network, as it may take time for the Browser service to respond to data requests on large networks. The advantage of a Browser service is that it lists only those computers that are currently active/alive on your network. You may use the Active Directory Services option if you have a large network and you need a quicker enumeration of computers in your domain. However, this option requires that the domain controller is contacted and queried by using an user account. Accordingly, the currently logged on user must have sufficient privileges to connect to a domain controller or you may specify an alternate domain user credential for a domain controller. Select an option for enumerating computers in your domain as shown below:



- Expand the desired domain to enumerate the list of hosts that are available in the domain.
- Click Add Domain to add a new domain to the domain list.
- Click
 Add button to add the selected host for using it across the product.

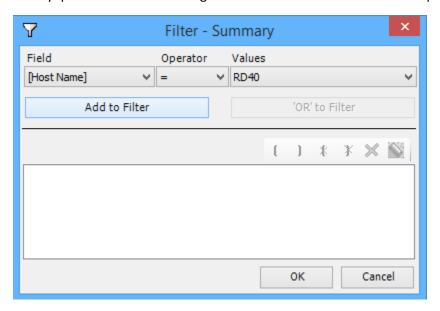




Click

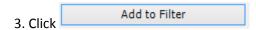
for setting filter options.

The Vyapin Virtualization Management Suite Filter window will be displayed.

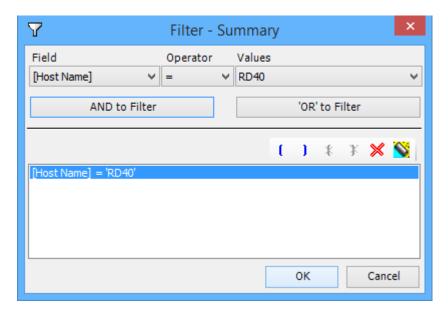


To set a filter condition, follow these steps.

- 1. Click (Clear All) button and clear the filter.
- 2. Choose a field name, an operator and a possible value from the respective dropdown options.



4. The **Add to Filter** will change to **AND to Filter**. The **OR to Filter** button will be enabled. The selected condition will be set as a filter and displayed (as shown below).



5. Click OK to apply the filter.

Note:

- * Use the AND to Filter and to build enhanced filter condition as shown below:
- * (Field A = Value 1 AND Field B = Value 2) OR (Field C = Value 3 AND Field D = Value 4)
- * Use to remove the parenthesis
- * Use X to delete a selected condition.

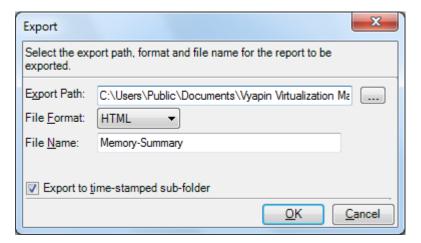
How to Refresh Data?

Refresh the current report data to view the latest information.

Click button in the toolbar available in the report window to refresh report data. The existing data will be cleared and latest data will be loaded in the report window.

The Export feature helps the user to export report data generated by Vyapin Virtualization Management Suite to a file using various formats namely HTML/CSV/XLSX.

Click for exporting the information in the desired format or select Export option to export report data to a file in the desired format.



Specify a file name to export report data to or accept the default file name. Specify the export path and select a desired file format. The path refers to the destination location where the output file generated should be stored. It can be given using the Browse button. To avoid overwrite existing files, if any, in the specified export path, By default, the report will be exported to a time-stamped sub-folder, in the format 'YYYY-MM-DD HH.MM.SS', under the specified export path.

In XLSX file format, the information is stored as sheets in Excel file. For each report, a XLSX file will be generated. The name of the XLSX file will be the name of the report and is stored in the specified destination path if "Export to time-stamped folder" option is cleared. The XLSX file will be stored under a sub-folder, of the form YYYY-MM-DD HH.MM.SS, under the specified export path, if "Export to time-stamped folder" option is set.

In CSV file format, the information is stored as comma separated values. For each report, a CSV file will be generated. The name of the CSV file will be the name of the report and is stored in the specified destination path if "Export to time-stamped folder" option is cleared or under a sub-folder, of the form YYYY-MM-DD HH.MM.SS, under the specified export path if "Export to time-stamped folder" option is set.

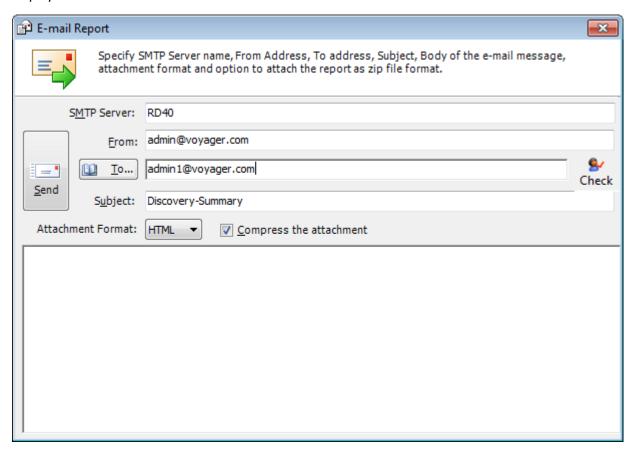
In HTML file format, the information is stored as a html file. For each report, a HTML file will be generated. The name of the HTML file will be the name of the report and is stored in the specified destination path if "Export to time-stamped folder" option is cleared or under a sub-folder, of the form YYYY-MM-DD HH.MM.SS, under the specified export path if "Export to time-stamped folder" option is set.

How to Email Data?

= "

Vyapin Virtualization Management Suite provides the option to e-mail the reports generated.

Click button in the toolbar to e-mail the report to e-mail recipients. E-mail dialog will be displayed as shown below:



For e-mailing reports, Vyapin Virtualization Management Suite requires SMTP Server, From E-mail Address, To E-mail Addresses (recipients separated by semicolon) and the report attachment format.

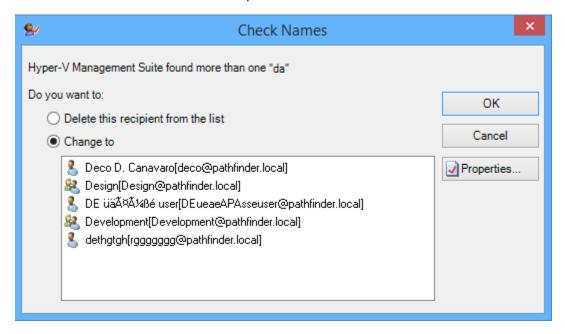
Specify SMTP server name, from Address, To address, mail subject, mail content, attachment format and option to compress the attachment.

Click button to send the report by e-mail to the selected recipients.

Check names

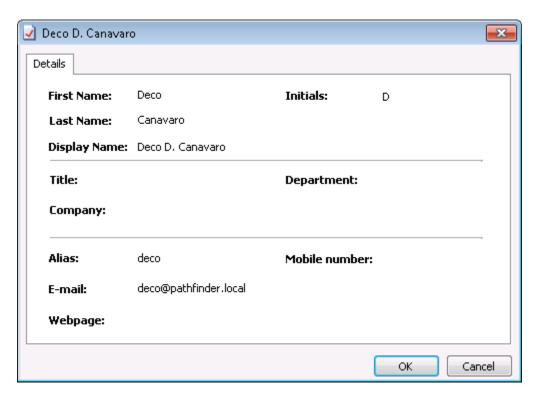
Vyapin Virtualization Management Suite provides check name feature to check the existence of

corresponding mail-enabled recipient object in Active Directory. To check name, click Check button. If the entered name matches with a mail object in the Active directory / its trusted domain, name entered in From address textbox will be replaced by the corresponding active directory recipient object. If there is more than one match, a dialog which contains matching Active Directory recipients will appear as shown below. You can select one or more recipient and click OK.

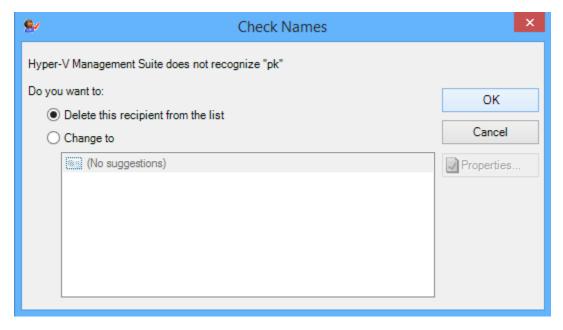


* To get more information about the listed recipients under Change to, select the name, and then click.





If there is no match for the name entered by the user in Active Directory, a dialog will appear as shown below:

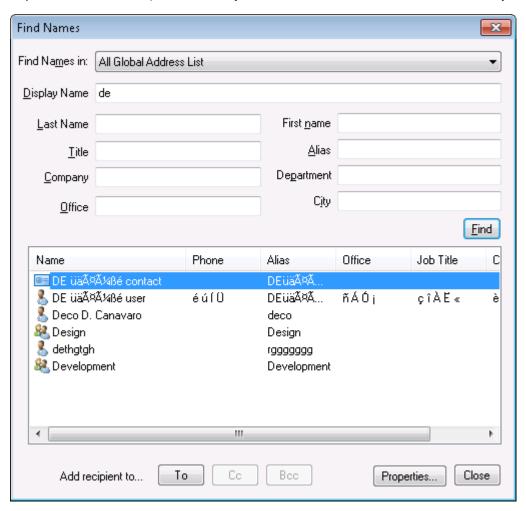


Select Delete option in the above dialog to remove the recipient name from To address text box. Click Cancel button to close this dialog and the unresolved recipient(s) will appear in red color.

Address Book

Vyapin Virtualization Management Suite provides Address Book feature to search for any mail enabled recipient object (say, person, distribution list, contact, public folder) you want to send a message to. Click

button and then use the **Find Names** dialog box to search for the recipient object you want to send a message to. (Note that you can't use the **Find Names** dialog box to search for distribution lists in your Contacts folder.) Select the object's name in the list and then click **Add recipient to...To**.



To get more information about one of the names in the list, such as department or phone number, select the name, and then click. Properties...

References

Troubleshooting

How to uninstall Vyapin Virtualization Management Suite?

Troubleshooting

If and when a problem arises, please forward the following information to support@vyapin.com to revert back to you with a solution. These files will be available where Vyapin Virtualization Management Suite is installed.

Error Log File

E.g., < Application Data Folder>\Vyapin Virtualization Management Suite.Log

Note

<Application Data Folder> is the common area where Vyapin Virtualization Management Suite settings will be stored in the machine running Vyapin Virtualization Management Suite. The <Application Data Folder> can be found from the Help -> About screen. The default path of <Application Data Folder> is as follows:

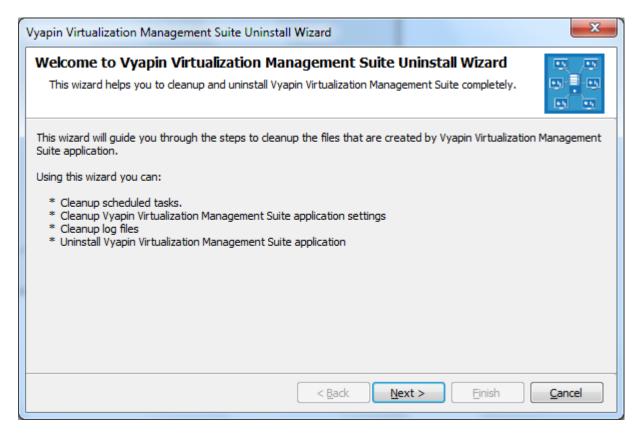
Windows 7, Windows 8, Windows 8.1, Windows 10, Windows Server 2008, Windows Server 2008 R2 Windows Server 2012, Windows Server 2012 R2 - C:\Users\Public\Documents\Vyapin Virtualization Management Suite

When you uninstall Vyapin Virtualization Management Suite through Control Panel - Add / Remove Programs applet, Windows Installer program will remove only the application files from your machine. But, the application related files created by Vyapin Virtualization Management Suite remain in the computer. In order to remove Vyapin Virtualization Management Suite worker files completely, the uninstall wizard provides a set of cleanup options to perform the cleanup operation based upon your selection.

Use this wizard to cleanup the files that are created by Vyapin Virtualization Management Suite application selectively and uninstall Vyapin Virtualization Management Suite completely from the machine.

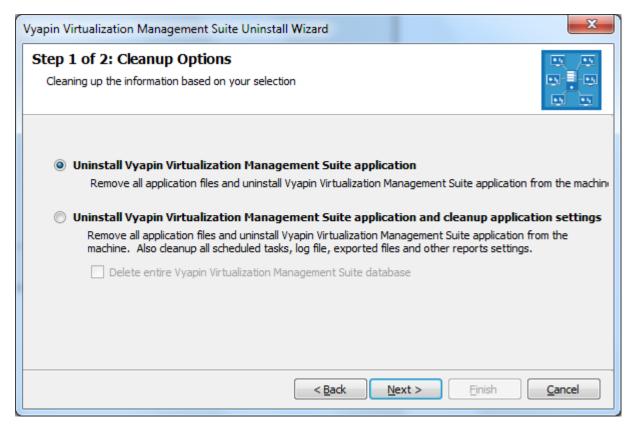
1. Launch the uninstall wizard by clicking Start -> Programs -> Vyapin Virtualization Management Suite -> Uninstall Hyper-V Management Suite.

The Vyapin Virtualization Management Suite Uninstall Wizard dialog will be shown as below:



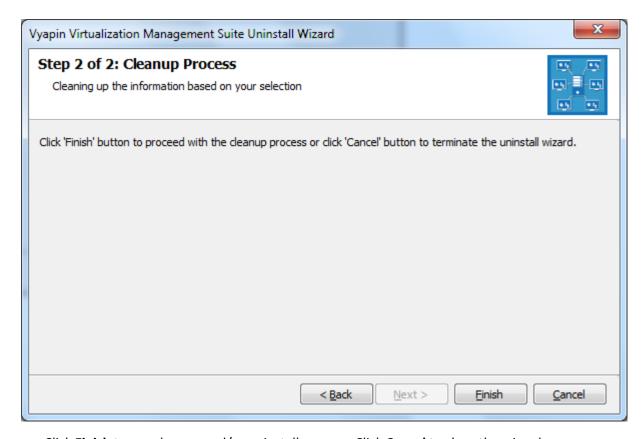
Click Next to proceed.

2. Select required cleanup options as shown below:



Click Next to proceed.

3. Confirm the cleanup and/or uninstall process.



Click **Finish** to run cleanup and/or uninstall process. Click **Cancel** to close the wizard.

4. Once the file cleanup process is complete, the uninstall wizard will automatically run Windows Installer program to remove **Vyapin Virtualization Management Suite** application from the machine.