



VMware Remote Analysis Tool User Guide

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1. About this guide

This document guides you through analyzing the remote Windows virtual machine image using the VMware Remote Analysis tool. This guide helps the administrators to add the remote machine for analysis and analyze the parameters of registry, services and schedules using the remote analysis tool efficiently.

2. Introduction

2.1 VMware Remote Analysis Tool Overview

The VMware Remote Analysis Tool is a graphical user interface based tool, which helps you to analyze the components like registry entries, services, and schedules on remote machine. It displays the status of these components in the graphical form, which helps you understand the current state of system optimization.

You can analyze the remote machine using Remote Analysis Tool. The remote analysis tool fetches all the details from the connection server and is displayed in the inventory tree view.

2.2 Supported Desktop Operating System

- Windows 7
- Windows XP
- Windows 8

2.3 Remote Analysis Tool Pre-requisite

- .Net Framework 3.5 and above required
- You need to configure Winrm before using remote analysis tool. To configure Winrm:
 - The connection server should be pingable using the Host-name (hostname.domain.<suffix>) and IP address.
 - The Windows Remote Management service should be enabled on the connection server. You also need to add an exception to the Firewall for port 5985. Use winrm command [winrm quickconfig] on the connection server.
 - The connection server needs to be added to the trusted host list of the client machine. The command for the same is as follows:

```
[winrm set winrm/config/client @{TrustedHosts="host1, host2, host3,.. hostn"} ]
```

Note The `hostn` place holder may be an IP address or a host-name based on the login requirements. The hostname needs to be in the format `hostname.domain.<suffix>`.

- To check if winrm is properly configured on the connection server, use the following command. If this command gives an error, it means that winrm is not configured properly.

```
[winrm identify -r:http://<hostname>:5985 -u:<user_name> -p:<password> -encoding:utf-8 ]
```

3. Using VMware Remote Analysis Tool

You can view the virtual machine inventory and analyze the parameters of components namely registry, services and schedules for each virtual machine. After analyzing the virtual machine, the analysis result is displayed based on the step category as mandatory, optional and recommended.

3.1 Logging in Remote Analysis Tool

Remote analysis tool uses connection server details to fetch all the details of the desktop pools and virtual machines.

To login the remote analysis tool

1. Click RemoteAnalysisTool.exe.
2. Enter the following connection server details and click Login, else click Close.
 - Host Name/IP Address
 - Username
 - Password
 - Domain name

3.2 Loading From Profile

Loading from profile enables you to restore the settings made on inventory of the previous login session to the connection server. All the changes made in the session are saved in the profile, to save the profile see, [Saving Profile](#).

Note You will not see any saved profiles on the first login using remote analysis tool.

To load from profile:

1. Click RemoteAnalysisTool.exe.
2. Click Load From Profile button in the Login screen.
3. Select the IP address or the host name of the connection server from the list available, from the Select Cache section.
4. Click Login.

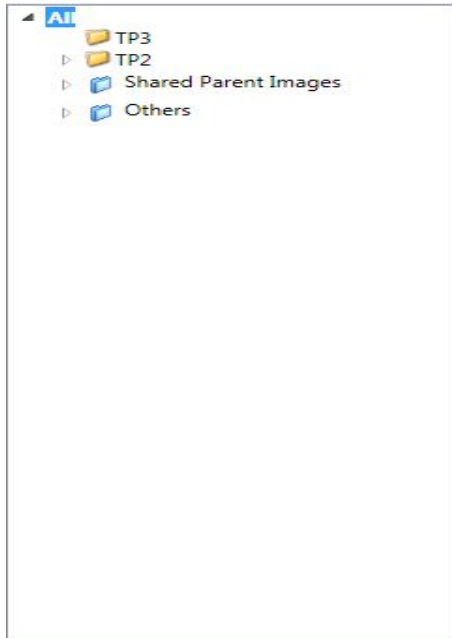
3.3 Understanding Inventory Tree View

The inventory tree is listed with automated and manual pools. All the automated pools, shared parent images, and virtual machine that are not in pool (referred as Others) appear, are in a collapsed view.

By default the root or the global node (represented by All) is selected.

Note You can view the count of sub nodes under all the automated pools, shared parent images, Others node and virtual machine container by placing the cursor on respective nodes.

The following image displays the inventory tree view.

Figure 3-1 Inventory Tree

3.3.1 Viewing the Automated Pools

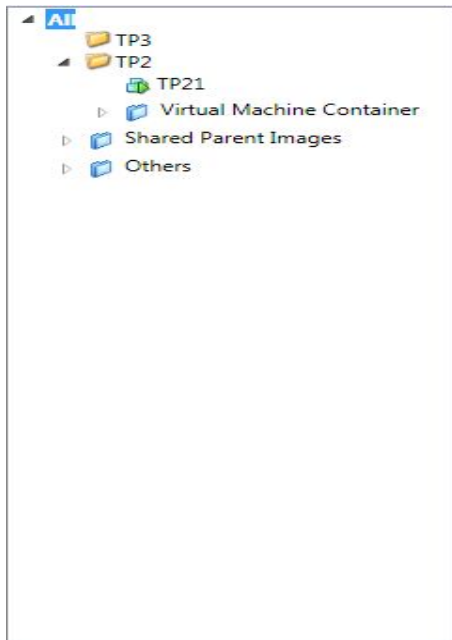
The automated pool may consist of one parent, one virtual machine, and one virtual machine container which encapsulate rest of the virtual machines in the automated pool.

To view the virtual machines in the automated pools:

1. Login to the remote analysis tool.
2. Expand the pool in the inventory tree.

You can view the parent image and virtual machine container as child nodes for the automated pool.

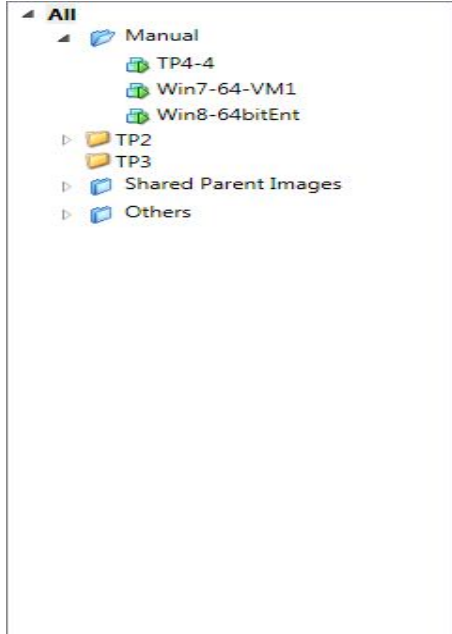
The following image displays the expanded view of the automated pool.

Figure 3-2 Automated Pools

3.3.2 Viewing Manual Pools

Manual pool container lists all the virtual machines assigned to that pool.

The following image displays the expanded view of the manual pool.



3.3.3 Viewing Virtual Machine Container

The Virtual Machine Container lists the virtual machines created from the parent image for an automated pool. The parent image is listed below the automated pools, however if the parent image is base image for multiple desktop pools, it will be listed under Shared Parent Image, see [Viewing Shared Parent Images](#)

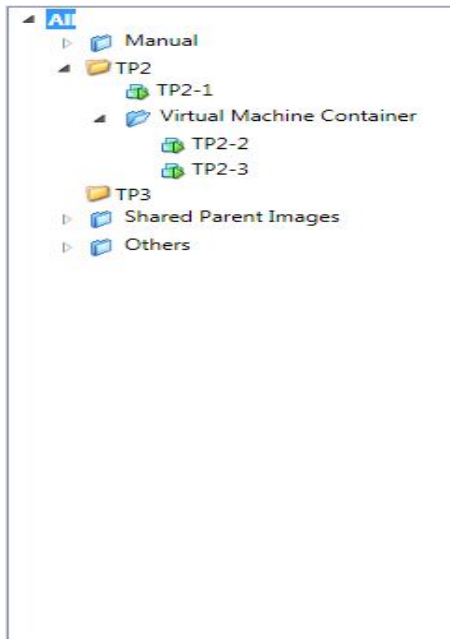
To view the virtual machine container:

1. Login to the remote analysis tool.
2. Expand the Virtual Machine Container Pool in the inventory tree view.

You will see list of Virtual machines, the parent image of all the virtual machine in the Virtual Machine Container.

The following image displays the expanded view of Virtual Machine Container.

Figure 3-3 Virtual Machine Container



3.3.4 Viewing Shared Parent Images

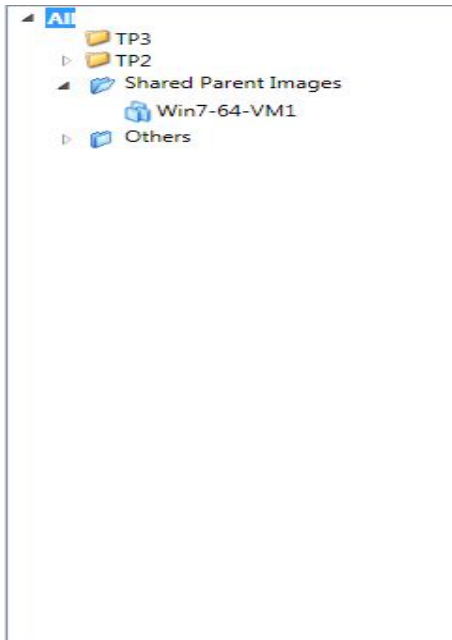
The virtual machines that are parent images for multiple desktop pools are available under the Shared Parent Images container.

To view the shared parent images:

1. Login to the remote analysis tool.
2. Expand Shared Parent Images container in the inventory tree.

You can view the entire list of parent images assigned to multiple desktop pools.

The following image displays the expanded view of shared parent images container.

Figure 3-4 Shared Parent Images

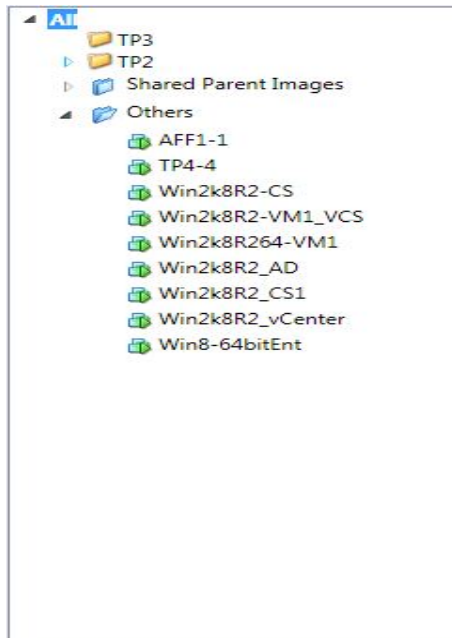
3.3.5 Viewing Others

The other folder contains all the virtual machines that are not in a pool.

To view machines those are not in pool:

1. Login to the remote analysis tool.
2. Click the Others node in the inventory tree.

The following image displays the virtual machines that are not in pool.

Figure 3-5 Others

3.4 Turning On and Off the Virtual Machine

You can check the current power status of the Virtual Machine listed in the inventory tree view using the Remote Analysis Tool, based on this status remote analysis tool enables you to, turn On and Off the Virtual Machine.

To turn On and Off the virtual machine:

1. Login to remote analysis tool.
2. Expand the Automated Pools, Manual Pools, Viewing Virtual Machine Container, Viewing Shared Parent Images, or Others.
3. Right-click the virtual machine, and click Power Options.
4. Enter the following vCenter Credentials in the vCenter Credentials dialog box.
 - a. vCenter Server
 - b. User Name
 - c. Password
5. Click Check Status.

You can view the status as poweredOn or poweredOff, for the virtual machine in the Virtual Machine State section.

6. Click On or Off, to turn On or Off the virtual machine.

3.5 Viewing Settings

The following table describes the default credential details for the root node.

Table 1 Default Credentials

Screen Item	Description
User Name	User Name used to login to the connection Server.
Password	Password used to login to the connection server.

Note The Default credentials are already set. You can change the User Name and Password see [Changing the User Credentials](#),

3.6 Viewing General Information

You can view the general information, on selecting the pool and the virtual machine.

The following table describes the general information of the selected pool.

Table 2 General Information of Pool

Screen Item	Description
Display Name	Displays the name assigned to the pool.
VCenter Server Name	Displays the name or Ip address of the vCenter Server which contains the pool.
Pool Type	Displays the type of the created pool
Parent VMPATH	Displays the path of the virtual machine which is used as a parent for the virtual machines in the pool.

The following table describes the general information of the selected virtual machine.

Table 3 General Information of Virtual Machine



Screen Item	Description
Path	Displays the path of the VM in the view infrastructure.
Guest Name	Displays the name of the operating system on the virtual machine.
IP Address	Displays the IP address assigned to the virtual machine.
Host Name	Displays fully qualified domain name of the virtual machine.
IsLinkedClone	Displays if the specified virtual machine is a linked clone.

IsInPoolDisplays if the specified virtual machine belongs to a pool.

3.7 Changing the Login Credentials

The default credentials for the root node is same as the login credentials used for the connection server, however the remaining nodes in the inventory tree inherits the credentials from the respective parent nodes. You can change the login credentials for all the nodes in the inventory tree view.

To change the User Name and Password of the virtual machine:

1. Login to remote analysis tool.
2. Select the node in the inventory tree view.
3. Clear the check box Use same as parent, in the **Settings** tab.
4. Click the pencil icon  next to the Password field.
5. Type the User Name and Password in the field.
6. Click  to save the credentials.

3.8 Assigning Template to Virtual Machine

You can assign different template to different virtual machine for analysis.

To assign a template to the virtual machine:

1. Login the remote analysis tool.
2. Select the node in the inventory tree view in Analyze tab.
3. Clear the check box Use same as parent, in the **Settings** tab.
4. Select the template name from the **Templates** drop down list.

4. Analyzing system

You can analyze the registry entries, services, and scheduled tasks. The output after analyzing the operating system is a detailed stepwise summary of the current state of the system. The [Analysis Chart](#) displays the output in a graphical chart. The output Analysis Status is displayed in the grid as a color code which helps you to identify the real time result of the system. You can view the analysis result of all the analyzed virtual machines in the grid. To view the current analysis, it is recommended to clear the existing task prior to performing the new analysis, see [Clearing Tasks](#).

Note During analysis by default all the virtual machines in the manual pool, first two machines from the automated pool and all the machines under the shared parent images will be selected for analyzing.

To analyze the parameters of the remote system:

1. Click Analyze, in the Analyze tab.
2. Select the pool or virtual machine to analyze, and click OK.

Note

- By default master template is selected for the parent node.
- You can also set the concurrent tasks before analyzing the virtual machines, see [Setting Concurrent Tasks](#)

The grid below displays status and result of the analysis. You can click the analyze result as success or failed to view the details and export the details in form of .csv file.

Table 4 Status and Result of Analysis

Screen Item	Description
Target	Displays the name of the virtual machine.
Template Name	Displays the name of the template selected for analysis.
Start Time	Displays the start time of analyse
End Time	Displays the end time of analyse
Task Status	Displays the progress of the analysis

Analysis Result	Displays the result of analysis. Example: Success, Failed.
-----------------	---

4.1 Setting Concurrent Tasks

You can set the number of virtual machines for analyzing simultaneously in the status task bar. The default value is set to five and you can set the maximum number to 10.

To set the concurrent tasks:

1. Login the remote analysis tool.
2. Click the right or left arrow key in the task bar.

4.1.1 Viewing Tasks Status

You can view the tasks in queue, running tasks, and completed task status in the status task bar.

The following table describes the description of the task status.

Table 5 Viewing Tasks

Screen Item	Description
Tasks in Queue	Displays number of virtual machines in queue for analysing.
Running Tasks	Displays number of virtual machines in process for analysing.
Completed tasks	Displays number of virtual machines completed.

4.1.2 Clearing Tasks

You can clear the tasks that are displayed in the grid after analysis is completed for the selected virtual machines. The clearing tasks option is available as a context menu on the analysis task grid header.

To clear tasks:

1. Right click the header of the analysis grid.
2. Click Clear Tasks.
3. Click Yes in the Analysis Task Manager message box.

4.2 Analysis Result

Analysis result displays the Analysis Chart, Analysis Report, and Analysis Status.

The following table describes the fields of the server and the template.

Table 6 Fields of Server and Template

Screen Item	Description
Target Name	Displays the name of the virtual machine for which the result is displayed.
Template Name	Displays the name of the template selected for analysis.

4.2.1 Analysis Chart

The Analysis chart displays the output in the form of a graphical bar chart. The graphical chart displays the number of steps that are optimized and un-optimized based on the following step types:


- Mandatory
- Optional
- Recommended

The orange color in the graphical chart denotes the un-optimized status and the blue color denotes the optimized status.

4.2.2 Analysis Report

The Analysis report is the comparison of the expected and the actual result of Analyze which is displayed by color codes.

To view the Analysis report and export the result to a .csv file

1. Click **Success**, in the grid displayed after analyzing to view the Analysis result.
2. Click the  icon to export the report to a .csv file.
3. Type the File name and click Save, to save the report.

The following table describes the details of analysis result.

Table 7 Details of Analysis Result

Screen Item	Description
Groups	Displays the groups in the template.
Steps	Displays the steps performed for analyzing.
Description	Displays the description of the step.
Expected Result	Displays the expected result of the step.
Actual Result	Displays the actual result collected from the system.

Analysis Status	Displays the status of the analysis. The analysis status displays red, orange, yellow and green color. For more details see, Analysis Status .
-----------------	--

4.2.3 Analysis Status

The Analysis Status is the comparison of the expected and the actual result of Analyze which is displayed as a color code.

The following table describes the color code, which is displayed after system analysis.

Table 8 Color Code Details

Screen Item	Description
Green	The Analysis Status displays this color when the Actual Result is equal to the Expected Result for the following Step Types: <ul style="list-style-type: none">• Mandatory• Optional• Recommended
Red	The Analysis Status displays this color when the Actual Result is not equal to the Expected Result for the mandatory Step Type.
Orange	The Analysis Status displays this color when the Actual Result is not equal to the Expected Result for the optional Step Type.
Yellow	The Analysis Status displays this color when the Actual Result is not equal to the Expected Result for the recommended Step Type.

5. Understanding Template

The master template comprises of collection of groups and steps. You can perform analysis as per the master template or can design a new template. Each group has its own set of properties, and the names of these groups can be changed. The step also has its own set of properties and action parameters. The properties of all the steps can be changed as per the requirement.

5.1 Designing Template

You can design a new template by customizing the master template or existing templates. This can be done by creating a new group, step, or changing the order of the steps from the selected template. You can view and edit the properties of selected steps and the action types.

Note To revert all the changes made while designing you can click on the Discard button, however if the changes are saved you cannot revert the changes made.

You can design a new template by either of the following:

5.1.1 Creating Group

You can add, modify and remove a group to design and customize a template.

5.1.1.1. Adding Group

You can add a new group to the existing or new template.


To add a group in the template:

1. Click Templates tab and select the Template Name from the drop down.
2. Select the group and right-click, and then select Add Group.
3. Enter the Name of the group, in the Add Group window.
4. Enter the Description of the group.
5. Click Current Level or Nested Level check box and click Add.

Note The Current Level adds the group to the same level of the selected group, however the nested level adds the group as a subgroup of the selected group.

5.1.1.2. Modifying Group

To modify or edit the existing group:

1. Click Templates tab and select the Template Name from the drop down.
2. Select the group to modify or edit.
3. Modify the name and description of the group in Group Details section, and click Update.
4. Click OK in the Update Success message box.
5. Click  to save the group in the template.
6. Enter the File name in the Save As dialog box, and click Save.

5.1.1.3. Removing Group

You can remove the existing group from the Master Template, or a newly created group.

To remove a group:

1. Click Templates tab and select the Template Name from the drop down.

2. Select the group to be removed and click Remove.
7. Click Save As and enter the name of the template in the Save As dialog box and then click Save.

5.1.2 Creating Steps

You can create and add new steps, modify and remove steps in the group to design and customize the template.

5.1.2.1. Adding Steps

You can add a new step under a group.

To add a new step:

1. Click Templates tab and select the Template Name from the drop down.
2. Select a group to add a step and right-click, and select Add Step.
3. Enter the following details in Add Step dialog box and click Add.
 - Step Name
 - Step Description
 - Step Type
4. Enter the following details in Action Parameters for Registry type and click Add, else click Clear to edit the details.
 - Command
 - Keyname
 - ValueName
 - Type
 - Data


Note To select the Action Parameters for Service type and Schedule type, you need click Service or Schedule in Add Step dialog box and enter the following details.

The Action Parameters for Service type.

- Service Name
- Start Mode

The Action Parameters for Schedule type.

- Command
- Task Name
- Status

5. Click  to save the step in the template.
6. Enter the name of the template in the Save As dialog box and then click Save.

The following table describes the fields of Step Details.

Table 9 Properties of Step Details

Screen Item	Description
Step Name	Describes the name of the step to identify in the template.
Step Description	Describes the information of the step.
Step Type	Displays the category assigned to the new step. Example: Mandatory, recommended or Optional.

The following table describes the fields of Action Parameters for Registry type.

Table 10. Action parameters for Registry type

Screen Item	Description
Command	Displays the type of command to be executed on the specified type. Following commands are to be defined the registry type: <ul style="list-style-type: none"> • ADD • LOAD • UNLOAD
Key Name	Add: Describes the full path of the subkey or entry to be added. Load : Describes the full path of the subkey or entry to be added loaded. Unload: Describes the full path of the subkey to be unloaded
ValueName	Add: Describes the name of the registry entry to be added under the specified subkey.
File Name	Load: Describes the value name of the key.
Type	Describes the data type of the value. Following are the supported data types: <ul style="list-style-type: none"> • REG_BINARY • REG_DWORD • REG_EXPAND_SZ • REG_MULTI_SZ • REG_SZ
Data	Describes the data given for the value.

The following table describes the fields of Action Parameters for Service type.

Table 11. Action parameters for Service type

Screen Item	Description
Service Name	Describes the service name for which action is to be performed.

Start Mode	<p>Describes the expected Startup type of the service. Following are the Startup type for services:</p> <ul style="list-style-type: none"> • BOOT • SYSTEM • AUTO • MANUAL • DISABLED
------------	--

The following table describes the fields of Action Parameters for Schedule Tasks type.

Table 12. Action parameters for Schedule type

Screen Item	Description
Command	Describes the action to be performed for the task. Currently only the Change command is supported.
Task Name	Describes the path of the task.
Status	<p>Following are the supported status values:</p> <ul style="list-style-type: none"> • Enabled • Disabled

5.1.2.2. Modifying Steps

You can modify the step of the selected group in a template.

To modify the step:

1. Click Templates tab and select the Template Name from the drop down.
2. Select the steps for which the Step Details is to be edited.
3. Edit the following in the Step Details section.
 - Step Name
 - Step Description
 - Step Type
4. Edit the following details in Action Parameters for Registry type and click Update, else click Discard to edit the details.
 - Command
 - Key Name
 - FileName


Note To select the Action Parameters for Service type and Schedule type, you need click Service or Schedule in Add Step dialog box and enter the following details.

The Action Parameters for Service type.

- Service Name
- Start Mode

The Action Parameters for Schedule type.


- Command
- Task Name
- Status

5. Click  to save the step in the template.
6. Enter the name of the template in the Save As dialog box and then click Save.

5.1.2.3. Removing Steps

You can design a new template by removing the steps from the template.


To remove steps from the template:

1. Click Templates tab, and select the Template Name from the drop down.
2. Select the steps to be removed from the selected group and click Remove.
3. Click  to save the template.
4. Enter the name of the template in the Save As dialog box and then click Save.

5.1.3 Changing Order of Steps

You can design a new template by changing the order of the steps from the template.

To change order of the steps:

1. Click Templates tab and select the Template Name from the drop down.
2. Select the steps to be moved from the selected group and click Up or Down.
3. Click  to save the template.
4. Enter the name of the template in the Save As dialog box and then click Save.

5.1.4 Saving Profile

You can save the login credentials of the connection server, virtual machines, and templates used for the analysis of the each virtual machine.

To save the profile:

1. Login the remote analysis tool, see [Logging in remote analysis tool](#).
2. Select the automated pool, or parent image, or shared parent images, or virtual machine container or the virtual machines that are not in pool and change the credentials, see [Changing the User Credentials](#).
3. Select the template to analyze the automated pool, or parent image, or shared parent images, or virtual machine container or the virtual machines that are not in pool and change the template, see [Assigning Template to Virtual Machine](#)
4. Select ALL from the inventory tree.
5. Right click, and select Save Profile.

After logging out from the server, you can see the saved profile by clicking the Load From Profile button, see [Loading From Profile](#).

Note You can also analyze the parent image and virtual machines using various templates, see [Designing Template](#)

Troubleshooting Remote Analysis Tool

This section provides possible solutions to errors that may occur when you use VMware Remote Analysis Tool for Windows 7, Windows 8 and Windows XP desktop operating system.

Error

Access denied

Issue

You have entered incorrect login credentials.

Solution

Enter the correct login credentials.

Error

RPC server unavailable

Issue

- Windows firewall is turned ON.
- WMI service is not started.

Solution

- You need to turn off Windows firewall.
- You need to start the WMI service.

Error

Invalid parameter

Issue

The connection parameters used for WMI connection is invalid. It includes the target machine IP address, login credentials, and domain name.

Solution

- You need to verify the connection parameters for WMI.
- You need to install the VMware tools.