Readme - Sysload Analyst Plugin "add_vm_vmware_cluster_drs"

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Overview

Plugin for accepting/rejecting a VM request on a target that is VMware vSphere cluster

The scenario works on Sysload Agent Type "VMCLUSTER" - It verifies if at least one host in the given cluster has enough CPU and memory to run the VM and if at least one datastore amongst the given list has enough free storage for the VM - It takes into account the hosts that are up and not in maintenance mode around the time the Plugin is run - The analysis takes into account CPU and memory reservations made by existing VMs - The analysis takes into account a given room for manoeuver for CPU, memory and storage so that the VM request can be rejected if it would leave the resources without a desired amount of free capacity - The room for manoeuver can also be global to the cluster when defined as a number of hosts - When taking into account CPU and memory usage, maximum values over the given analysis period is taken into account

Version: 10

Provided by Automic

Prerequisites

Sysload Analyst v6.10

Sysload Management Server v6.00

Sysload Agent v5.80 for VMware Cluster

Implementation procedure

Have a Sysload Agent for VMware Cluser installed and operational

Make sure the Sysload Agent for VMware Cluster has a Monitored Object registered in Sysload Management Server

On Sysload Management Server, verify that you have a user with read access to the Monitored Object
- You may create a local user with read access only on all the Monitored Objects (example: a user "aso")

Test the Agent and Monitored Object in Sysload Analyst user interface
- Connect as the user dedicated to the Plugin
- Verify that you can display a Dashboard with data coming from the Monitored Object

Test the Plugin by running a query from a web browser or from a script
- (From a browser, you may obtain a timeout)
- (Remember to use HTTPS)

Integrate the Plugin in an ASO workflow

Example of utilization

https://vmstm2k126.orsyptst.com:8443/api/plugin?
plugin_type=vm_provisioning&plugin_name=add_vm_vmware_cluster_drs_sysload&plugin_version=10
&target_agent_list=VMCLUSTER;VMSDMINF03;TECHNO&request_vcpu_no=1&request_memory_gb=1
&request_storage_gb=0,06&target_datastore_list=CSErp-1,WlaErp-1,TipProd-1
&target_reserve_host_no=0&target_reserve_cpu_ratio=0&target_reserve_memory_ratio=10
&target_reserve_storage_ratio=0&analysis_duration=24
&analysis_duration_unit=day&analysis_duration_step=1%20hour&trace_level=1
&outputformat=html&username=aso&password=sysload&metric_col=onlyvalues

Sysload Analyst API Parameters for running this Plugin

username:
- • User for connecting to Sysload Analyst
- • Note: This parameter exists for all Plugins
- • Mandatory

password:
- • User password for connecting to Sysload Analyst
- • Note: This parameter exists for all Plugins
- • Mandatory

plugin_type:
- • Type of the Plugin - You must set the value to "vm_provisoning"
- • Note: This parameter exists for all Plugins

plugin_name:
- • Name of the Plugin - You must set the value to "add_vm_vmware_cluster_drs"
- • Note: This parameter exists for all Plugins
- • Mandatory

plugin_version:
- • Version of the scenario - You must set the value to "1"
- • Format: Integer
- • Note: This parameter exists for all Plugins
- • Mandatory

request_vcpu_no:
- • Number of virtual CPUs requested in the VM request, for the VM
- • Format: Integer
- • Optional
- • Default value set by the script if the value is not set when running the Plugin: 4

request_memory_gb:
- • Memory requested in the VM request, in GB, for the VM
- • Format: Decimal number (use "." as the decimal separator)
- • Optional
- • Default value set by the script if the value is not set when running the Plugin: 16

request_storage_gb:
- Storage requested in the VM request, in GB, for the VM
- Format: Decimal number (use "." as the decimal separator)
- Optional
- Default value set by the script if the value is not set when running the Plugin: 50

target_agent_list:
- Target Monitored Object to query for the analysis
- In the following syntax: "<agent type>;<agent name>;<agent instance name>
  - For this Plugin, "<agent type>" must equal "VMCLUSTER"
  - "<agent name>" and "agent instance name" shall be as registered in Sysload Management Server
- Mandatory

target_datastore_list:
- List of potential target datastores for storing the VM - Comma-separated list - There can be a single item in the list - Names as seen in Sysload = name as defined in VMware vCenter if the datastore name length is <= 132
- Mandatory

target_reserve_host_no:
- Number of hosts to keep as a room for manoeuver for CPU and memory - Shall correspond to the value of "HA Failover Level" defined in vCenter - There may be sufficient physical capacity for adding the VM but if this leaves the cluster without a desired amount of free capacity, then the VM cannot be added
- Format: Integer
- Optional
- Default value set by the script if the value is not set when running the Plugin: 0 (full utilization)

target_reserve_cpu_ratio:
- Room for manoeuver that is desired to keep on the hosts for CPU, as a ratio of the CPU capacity (as defined by the VMware administrators for example) - Shall correspond to "xxx" in Vmware vCenter - There may be sufficient physical capacity for adding the VM but if this leaves the hosts without a desired amount of free capacity, then the VM cannot be added
- Format: Integer
- Optional
- Default value set by the script if the value is not set when running the Plugin: 0 (full utilization)

target_reserve_memory_ratio:
- Room for manoeuver that is desired to keep on the hosts for memory, as a ratio of the memory capacity (as defined by the VMware administrators for example) - Format: Integer
- Shall correspond to "xxx" in Vmware vCenter - There may be sufficient physical capacity for adding the VM but if this leaves the hosts without a desired amount of free capacity, then the VM cannot be added
- Optional
- Default value set by the script if the value is not set when running the Plugin: 0 (full utilization)

target_reserve_storage_ratio:
- Room for manoeuver that is desired to keep on the hosts, as a ratio of the storage capacity (as defined by the VMware administrators for example) - There may be sufficient physical capacity for adding the VM but if this leaves the hosts without a desired amount of free capacity, then the VM cannot be added
- Format: Integer

- Optional
- Default value set by the script if the value is not set when running the Plugin: 0 (full utilization)

analysis_duration:
- Period to observe for the analysis of the cluster capacity and usage - Unit defined by "analysis_duration_unit"

analysis_duration_unit:
- Unit of the period definition
- There must be a coherence between "analysis_duration_unit" and "analysis_duration_step"

analysis_duration_step:
- Data step over the analysis period when getting Sysload Agent data
- There must be a coherence between "analysis_duration_unit" and "analysis_duration_step"

trace_level:
- Level of trace added in the Sysload NodeJs when debuging the Plugin
- Note: This parameter exists for all Plugins
- Optional
- Default value set by the script if the value is not set when running the Plugin: 0

output_format:
- "json" or "html"
- Note: This parameter exists for all Plugins