MCICOM - Cloudforms

July 17, 2014

Red Hat, Inc

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1 Document Information

1.1 Originator

Red Hat Consulting

Jose Simonelli

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Jose Simonelli

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2 Project Approach

2.1 Scope

2.1.1 Project Scope:

• [] Assist the Customer review and modification of the design and modification of the cloud management implementation, as applicable;

- [] Confirm appliance architecture & sizing
- [] Make adjustments to database cache for optimal performance
- [] General tuning and config (ie. excluding EMS event storm data)
- [] Determine and define database backup strategy
- [] Discuss and define load balancing plan for WebUI's (make appropriate changes to cache settings)
- [] Define and Implement tagging taxonomy
- [] Integrate with Active Directory
- [] Define and configure RBAC
- [] Identify additional point of integration
- [] Assist the Customer with the configuration and updates to the current implementation of Red Hat CloudForms per the architectural review as well as the below:
 - [] 2 node with HA to serve the dashboard functions
 - [] 2 node with HA to serve the snapshot scanning portion
 - [] 2 node with HA to handle the provisioning, lifecycle, automation, etc.
- [] Assist in the custom design, implementation, and integration of CloudForms with Netapp VSC plugin for enablement of rapid cloning;
 - [] Perform the customer implementation to have CloudForms automate and control the Netapp rapid cloning process;
 - [] Assist in defining and mentoring on best practices setting up dashboards
- [] Assist in the design and setup of Reporting and Dashboards that support the ability to do disk and registry scans/reports;
- [] Assist the Customer with the STIG of the CloudForms product

2.1.2 Proposed Schedule

- Duration
 - 6 weeks, Jul 14 Aug 22
- · Start Date
 - July 14, 2014 @ noon
- Travel Schedule
 - Week 1 (7/14 7/18)
 - * On-site support with 2 consultants and 2 DAs
 - Week 2-6 (7/21 8/22)
 - * On-site support with 2 consultants (1 DA available as needed)

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2.2 Logistics

- Place of Performance
 - 2306 E. Bannister Road, Kansas City, MO 64131-3088
- On-Site Customer Contact
 - Massimo Perreca: 816.394.7588
- Security Requirements
 - JPAS or background check
- Parking
 - [TBD]

2.3 Contact Information

Table 1: MCICOM Information

| Name | title | Phone | E-mail | |
|-----------------|-----------------|--------------|--------------------------|---------|
| Massimo Perreca | Project Manager | 816.394.7588 | Massimo.Perreca.CTR@mcw. | ismc.mi |

Table 2: Red Hat Contact Information

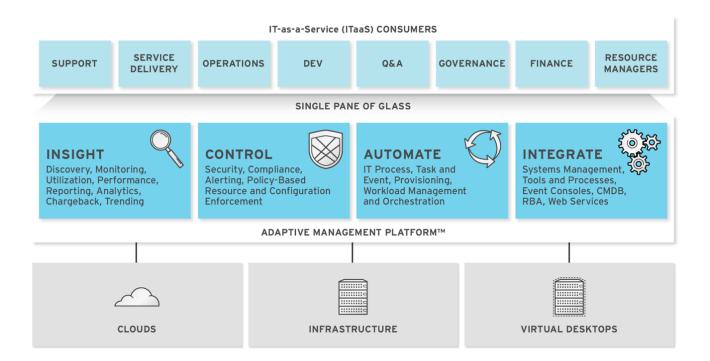
| Name | title | Phone | E-mail |
|-----------------|--------------------------|--------------|---------------------|
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| Jose Simonelli | Domain Architect | | jose@redhat.com |
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| Alex Smith | On-Site Consultant | | alsmith@redhat.com |

3 Cloudforms POC

3.1 Architecture

*The diagram below describes the capabilities of Red Hat CloudForms Management Engine. Its features are designed to work together to provide robust management and maintenance of your virtual infrastructure.

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Features

- The architecture comprises the following components:
 - The CloudForms Management Engine Appliance (Appliance) which is supplied as a secure, high-performance, preconfigured virtual machine. It provides support for Secure Socket Layer (SSL) communications.
- The CloudForms Management Engine Server (Server) resides on the Appliance. It is the software layer that communicates between the SmartProxy and the Virtual Management Database. It includes support for Secure Socket Layer (SSL) communications.
- The Virtual Management Database (VMDB) resides either on the Appliance or another computer accessible to the Appliance.
 It is the definitive source of intelligence collected about your Virtual Infrastructure. It also holds status information regarding Appliance tasks.
- The CloudForms Management Engine Console (Console) is the Web interface used to view and control the Server and Appliance. It is consumed through Web 2.0 mash-ups and web services (WS Management) interfaces.
- The SmartProxy can reside on the Appliance or on an ESX Server. If not embedded in the Server, the SmartProxy can be deployed from the Appliance. Each storage location must have a SmartProxy with visibility to it. The SmartProxy acts on behalf of the Appliance communicating with it over HTTPS (SSL) on standard port 443.

Note

Reference https://access.redhat.com/documentation/en-US/CloudForms/3.0/html/Management_Engine_5.2_Settings_And_Operations/-Architecture2.html

3.2 Cloudforms Appliance Allocations

3.2.1 CFME Appliance System Requirements

• POC CFME Appliance:

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- 10x CFME Appliance:
 - * 4 vCPU
 - * 6 GB of RAM
 - * 1x 40 Root Vol Disk
 - * 1x 160GB DB Disk
 - * 2x Network Interface

Note

Simplified-CFME-VMDB-Region-Zone-Global-Size-Estimator

3.3 CFME Appliance Setup

3.3.1 Initial Setup

- 1. Download the CFME appliance from the Red Hat Customer Portal (login required). The CFME appliance is available as an OVA (Open Virtualization Format) file from: Download Software > Red Hat Enterprise Linux (v. 6 for 64-bit x86_64) > Red Hat CloudForms Management Engine (v5.2) > VMware Virtual Appliance.
- 2. Upload the OVA file to the VMware Datastore and create the appliances virtual machines using this file. Convert the virtual machine into a template and use it to create all the appliances.

Note

To increase performance, increase the default 4 vCPUs/6GB RAM appliance configuration to 4 vCPUs/8GB RAM for the Web UI appliance and 4 vCPUs/8GB RAM for the DB and the Worker appliances.

3.3.2 Network Configuration

- Once started, the appliances need to be configured with basic network settings using the virtual serial console in the VMware client. Login as **admin / smartvm** and press Enter to go to the Advanced Settings menu. Set Static Network Configuration, Set Hostname, Set Timezone, Date, and Time. When done entering the settings, select Summary Information to review.
- Host & IP Allocations

Table 3: Primary Interface Configuration

| Host | IP Address | Netmask | Gateway | DNS Server | Notes |
|-------------------|------------------------|---------------|------------|---------------|-------------|
| zp11000.mcip.usmc | .n h0 .1.101.10 | 255.255.252.0 | 10.1.101.1 | 10.1.100.130, | CFME UI |
| | | | | 10.1.100.131 | Appliance |
| zp11001.mcip.usmc | .nh0.1.101.11 | 255.255.252.0 | 10.1.101.1 | 10.1.100.130, | CFME UI |
| | | | | 10.1.100.131 | Appliance |
| zp11002.mcip.usmc | .nh0.1.101.12 | 255.255.252.0 | 10.1.101.1 | 10.1.100.130, | CFME Worker |
| | | | | 10.1.100.131 | Appliance |
| zp11003.mcip.usmc | .nh0.1.101.13 | 255.255.252.0 | 10.1.101.1 | 10.1.100.130, | CFME Worker |
| | | | | 10.1.100.131 | Appliance |
| zp11004.mcip.usmc | .nh0.1.101.14 | 255.255.252.0 | 10.1.101.1 | 10.1.100.130, | CFME Worker |
| | | | | 10.1.100.131 | Appliance |
| zp11005.mcip.usmc | .nh0.1.101.15 | 255.255.252.0 | 10.1.101.1 | 10.1.100.130, | CFME Worker |
| | | | | 10.1.100.131 | Appliance |

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Table 3: (continued)

| Host | IP Address | Netmask | Gateway | DNS Server | Notes |
|-------------------|------------------------|---------------|------------|---------------|-------------|
| zp11006.mcip.usmo | .m h0 .1.101.16 | 255.255.252.0 | 10.1.101.1 | 10.1.100.130, | CFME Worker |
| | | | | 10.1.100.131 | Appliance |
| zp11007.mcip.usmo | .mh0.1.101.17 | 255.255.252.0 | 10.1.101.1 | 10.1.100.130, | CFME Worker |
| | | | | 10.1.100.131 | Appliance |
| zp11008.mcip.usmo | .m h0 .1.101.18 | 255.255.252.0 | 10.1.101.1 | 10.1.100.130, | CFME Worker |
| | | | | 10.1.100.131 | Appliance |
| zp11009.mcip.usmo | .mh0.1.101.19 | 255.255.252.0 | 10.1.101.1 | 10.1.100.130, | CFME DB |
| | | | | 10.1.100.131 | Appliance |

Table 4: Storage Interface Configuration

| Host | IP Address | Netmask | Gateway | DNS Server |
|-----------------------|------------|---------------|---------|------------|
| zp11000.mcip.usmc.mil | 10.1.130.0 | 255.255.252.0 | none | none |
| zp11001.mcip.usmc.mil | 10.1.130.1 | 255.255.252.0 | none | none |
| zp11002.mcip.usmc.mil | | 255.255.252.0 | none | none |
| zp11003.mcip.usmc.mil | | 255.255.252.0 | none | none |
| zp11004.mcip.usmc.mil | | 255.255.252.0 | none | none |
| zp11005.mcip.usmc.mil | | 255.255.252.0 | none | none |
| zp11006.mcip.usmc.mil | | 255.255.252.0 | none | none |
| zp11007.mcip.usmc.mil | | 255.255.252.0 | none | none |
| zp11008.mcip.usmc.mil | 10.1.130.8 | 255.255.252.0 | none | none |
| zp11009.mcip.usmc.mil | 10.1.130.9 | 255.255.252.0 | none | none |

3.3.3 Hostname Configuration

- a. Select Option 4
- b. Set the hostname of the CFME appliance. Refer to the table in Network Configuration section

3.3.4 Database Configuration

With the new appliance the Database is not shipped configured by default. There will need to be a separate Database disk created
outside of the appliance and then connected once the appliance has been started. In this case, after looking at where the current
VM count and number of VM's that will be coming over the next few years the Database has been sized to 100GB. This will
allow for growth over the next few years.

Note

The database uses LVM and storage can be extended at a later time

- a. On the main console window select Option 10 (To Configure Database)
- b. Select 1) Internal

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- c. Select 1) /dev/sdb
- d. Input Region 10 for the Region Selection
- e. Press Enter

| Region Name | Region # | Notes | |
|-------------|----------|----------------------------------|--|
| Region | 10 | POC to Production | |
| DBRegion | 99 | Optional: When MCICOM decides to | |
| | | scale to have DB Replication | |

Non-DB appliances configure an external database, using the DB appliance.

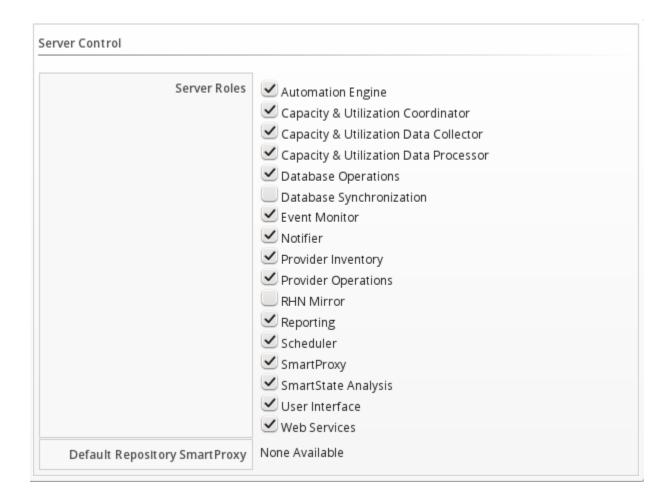
3.4 SMTP Configuration

| SMTP Server | 205.110.86.80 |
|-------------|---------------------------|
| email | mcicomcloud@mcip.usmc.mil |

3.5 Setup POC Cloudforms Appliance Roles

- Log in to the Cloudforms Web interface and go to Configure > Configuration > Select EVM Appliance > Server Tab
- Check the server roles using the following image as a guide

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3.6 Database Backups

Database backups are scheduled to occur daily at 2AM CST. Backups are saved to an NFS volume.

| NFS Volume Location | nfs://10.1.130.3:/vol/cf_nfs_data1 |
|---------------------|------------------------------------|
| Frequency | Daily |
| Time | 02:00 CST |

images/screenshots/db_backup_schedule.png // placeholder

3.7 Access URL

| UI URL | |
|-------------------------------|--|
| https://zp11000.mcip.usmc.mil | |

3.8 Configure Zones

- 1. Access the Web Interface and go to Configure > Configuration > Click on Zones
- 2. In the right frame use the Configuration Icon then select "Add a new zone"

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| Region Name | Region # | Notes |
|-------------|----------|----------------------------------|
| Region | 10 | POC to Production |
| DBRegion | 99 | Optional: When MCICOM decides to |
| | | scale to have DB Replication |

3.9 VMware Service Account



Important

Need a CFME Service Account in order to access VMware vCenter and be able to provision and manage the vCenter environment from Cloudforms

Note

See the VMware documentation for instructions on how to create a role. This role will need to be associated with whatever credentials you enter for the Management System's instance.

- From the Global group, check:
 - Cancel task
 - Diagnostics
 - Log Event
 - Set custom attribute
 - Settings
- The entire set of privileges for the following groups should be checked.
 - Alarms
 - Datastores
 - dvPort Group
 - Host
 - Network
 - Resource
 - Scheduled Task
 - Tasks
 - Virtual Machine
 - vSphere Distributed Switch

In addition, you must also have the following objects and new role in place:

- Datacenter: At the Datacenter the CloudForms Management Engine (CFME) (formerly EVM) user/group must have at least the read-only role at the Datacenter level (Not Propagated) to be able to see the datacenter. Without this access, relationships cannot be made. Specifically, the datastores will not show up.
- Cluster: Each Cluster that the CFME needs access to must have the new role assigned and propagated.
- Folders: Each Folder that CFME needs access to must have the new role assigned and propagated.

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- Datastores: Each Datastore that CFME needs access to must have the new role assigned and propagated.
- Networking: Each vLAN or Port Group that CFME needs access to must have the new role assigned and propagated.

Note

For latest update on this section refer to Creating Role for CFME in VMware article in Customer Portal

3.10 Install VMware VDDK

The integration of the VMware VDDK (Virtual Disk Development Kit) optimizes the execution of SmartState Analysis on Virtual Machines and is required for CFME Appliances to successfully collect insight information within VMware vCenter. The VDDK can be downloaded from the VMware website with a valid customer account.

- 1. Download the VDDK 1.2.2 from VMware's website at https://my.vmware.com
- 2. Download the file VMware-vix-disklib-5.1.1-1042608.x86_64.tar.gz
- 3. Copy the file to the /root folder of the CFME Appliances
- 4. Start an SSH session into the CFME Appliance
- 5. Run the following commands to extract and install vmware vddk, accept defaults during the installation process:

```
cd /root
tar xvzf VMware-vix-disklib-5.1.1-1042608.x86_64.tar.gz
cd vmware-vix-disklib-distrib
./vmware-install.pl
```

1. Once the VDDK is installed, run the ldconfig command in order for EVM to find the newly installed vddk library.:

ldconfig

1. Reboot the CloudForms Appliance. The VDDK is now installed on the CFME appliance.

Note

Reference: https://access.redhat.com/knowledge/articles/329683

3.11 User Roles

| Access Type | Super Admin | Admin | Developer | Manager |
|----------------------------|-------------|-------|-----------|---------|
| Everything | X | | | |
| l- Cloud Intelligence | X | X | X | X |
| l- Dashboard | X | X | X | X |
| l- View | X | X | X | X |
| l- Modify | X | X | X | X |
| l- Add and Remove a Widget | X | X | X | X |
| l- Reset Dashboard Widgets | X | X | X | X |
| l- Reports | X | X | | X |

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| Access Type | Super Admin | Admin | Developer | Manager |
|-------------------------|-------------|--------|-----------|---------|
| l- Dashboard Widgets | X | X | | X |
| l- Operate | X | X | | X |
| l- Generate Content | X | X | | X |
| l- Modify | X | X | | X |
| l- Add | X | X | | X |
| l- Copy | X | X | | X |
| l- Delete | X | X | | X |
| l- Edit | X | X | | X |
| l- Dashboards | X | X | | X |
| l- Modify | X | X | | X |
| l- Add | X | X | | X |
| l- Copy | X | X | | X |
| l- Delete | X | X | | X |
| l- Edit | X | X | | X |
| l- Edit Sequence | X | X | | X |
| l- Edit Sequence | X | X | | 71 |
| l- Import / Export | X | X | | X |
| l- Reports | X | X | | X |
| l- View | X | X | | X |
| l- Operate | X | X | | X |
| l- Operate | X | X | | X |
| | X | X | | X |
| l- Modify | | | | |
| l- Add | X X | X X | | X X |
| l- Copy | l l | | | |
| l- Copy | X | X | | X |
| l- Delete | X | X | | X |
| l- Download CSV Format | X | X | | X |
| l- Download PDF Format | X | X | | X |
| l- Download Text Format | X | X | | X |
| l- Edit | X | X | | X |
| l- Saved Reports | X | X | | X |
| l- Modify | X | X | | X |
| l- Delete | X | X | | X |
| l- Schedules | X | X | | X |
| l- Operate | X | X | | X |
| l- Run Now | X | X | | X |
| l- Modify | X | X | | X |
| l- Add | X | X | | X |
| l- Copy | X | X | | X |
| l- Delete | X | X | | X |
| l- Disable | X | X | | X |
| l- Edit | X | X | | X |
| l- Enable | X | X | | X |
| l- Chargeback | X | X | | X |
| l- Assignments | X | X | | X |
| l- Rates | X | X | | X |
| l- Add | X | X | | X |
| l- Copy | X | X | | X |
| l- Copy | X | X | | X |
| l- Delete | X | X | | X |
| l- Edit | X | X | | X |
| l- Reports | X | X | | X |
| Reports Timelines | X | X | X | X |
| Timemies | Λ | Λ | Λ | Λ |

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| Access Type | Super Admin | Admin | Developer | Manager |
|-------------------------------|-------------|--------|-----------|---------|
| l- RSS | X | X | X | X |
| l- Services | X | X | X | X |
| l- My Services | X | X | X | |
| l- All Services | X | X | X | |
| l- View All Services | X | X | X | |
| l- Operate | X | X | X | |
| l- Edit Tags | X | X | | |
| l- Retire Services | X | X | X | |
| l- Set Retirement Date | X | X | X | |
| l- Modify | X | X | X | |
| l- Set Ownership | X | X | | |
| l- Edit Services | X | X | X | |
| l- Remove Services | X | X | X | |
| l- Catalogs Explorer | X | X | X | |
| l- Catalog Items | X | X | 71 | |
| l- View Catalog Items | X | X | | |
| l- Operate | X | X | | |
| l- Operate | X | X | | |
| l- Edit Tags | X | X | | |
| | X | X | | |
| | X | X X | | |
| l- Add Composite Catalog Item | A | Χ | | |
| l- Edit Atomic Catalog Item | X | X | | |
| l- Edit Composite Catalog | X | X | | |
| Item | | | | |
| l- Remove Catalog Item | X | X | | |
| l- Catalogs | X | X | X | |
| l- View Catalogs | X | X | X | |
| l- Modify | X | X | | |
| l- Add Catalog | X | X | | |
| l- Edit Catalog | X | X | | |
| l- Remove Catalog | X | X | | |
| l- Service Catalogs | X | X | X | |
| l- Modify | X | X | X | |
| l- Provision Services | X | X | X | |
| l- Requests | X | X | X | X |
| l- View | X | X | X | X |
| l- View | X | X | X | X |
| l- Show | X | X | X | 1 |
| l- Operate | X | X | Λ | X |
| l- Operate | X | X | | X |
| l- Modify | X | X | X | Λ |
| i- Mouny | X | X | X | |
| l- Copy | X | X | X | |
| l- Delete | | | | |
| l- Edit | X | X | X | 37 |
| l- Workloads | X | X | X | X |
| l- Accordions | X | X | X | X |
| l- Templates & Images | X | X | X | X |
| l- VMs & Instances | X | X | X | X |
| l- Clouds | X | X | X | X |
| l- Cloud Providers | X | X | X | |
| l- View | X | X | X | |
| l- List | X | X | X | |

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| Access Type | Super Admin | Admin | Developer | Manager |
|--------------------------|-------------|-------|-----------|---------|
| l- Show | X | X | X | |
| l- Timeline | X | X | X | |
| l- Operate | X | X | | |
| l- Discover | X | X | | |
| l- Edit Tags | X | X | | |
| l- Manage Policies | X | X | | |
| l- Refresh | X | X | | |
| l- Modify | X | X | | |
| l- Add | X | X | | |
| l- Edit | X | X | | |
| l- Remove | X | X | | |
| l- Availability Zones | X | X | | |
| l- View | X | X | | |
| l- List | X | X | | |
| l- Show | X | X | | |
| l- Timeline | X | X | | |
| l- Utilization | X | X | | |
| l- Operate | X | X | | |
| l- Edit Tags | X | X | | |
| Flavors | X | X | | |
| l- View | X | X | | |
| l- View | X | X | | |
| l- List l- Show | X | X | | |
| | X | X | | |
| l- Operate | X | X | | |
| l- Edit Tags | | | | |
| l- Security Groups | X | X | | |
| l- View | X | X | | |
| l- List | X | X | | |
| l- Show | X | X | | |
| l- Operate | X | X | | |
| l- Edit Tags | X | X | | |
| l- Instances | X | X | X | X |
| l- Accordions | X | X | X | |
| l- Images | X | X | X | |
| l- Images by Provider | X | X | X | |
| l- Instances | X | X | X | |
| l- Instances by Provider | X | X | X | |
| l- Image Access Rules | X | X | X | |
| l- View | X | X | X | X |
| l- Compare | X | X | X | X |
| l- Drift | X | X | X | X |
| l- List | X | X | X | X |
| l- Show | X | X | X | X |
| l- Timelines | X | X | X | X |
| l- Utilization | X | X | X | X |
| l- Operate | X | X | | X |
| l- Check Compliance | X | X | | X |
| l- Edit Tags | X | X | | X |
| l- Manage Policies | X | X | | X |
| l- Policy Simulation | X | X | | X |
| l- Policy Simulation | X | X | | X |
| | Λ | | | |
| l- Set Ownership | X | X | | X |

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| Access Type | Super Admin | Admin | Developer | Manager |
|------------------------------------|-------------|--------|-----------|---------|
| l- Edit | X | X | | X |
| l- Edit EVM Server | X | X | | |
| Relationship | | | | |
| l- Remove | X | X | | X |
| l- Instance Access Rules | X | X | X | |
| l- View | X | X | X | X |
| l- Compare | X | X | X | X |
| l- Drift | X | X | X | X |
| l- List | X | X | X | X |
| l- Show | X | X | X | X |
| l- Timelines | X | X | X | X |
| l- Utilization | X | X | X | X |
| l- Operate | X | X | | |
| l- Check Compliance | X | X | | X |
| l- Edit Tags | X | X | | X |
| l- Manage Policies | X | X | | X |
| l- Policy Simulation | X | X | | X |
| l- Power Off | X | X | X | |
| l- Power On | X | X | X | |
| l- Refresh | X | X | X | |
| l- Reset | X | X | X | |
| l- Restart Guest | X | X | X | |
| l- Retire Instances | X | X | X | X |
| l- Set Ownership | X | X | 71 | 71 |
| l- Set Gwilership | X | X | X | X |
| l- Set Retirement Bate | X | X | X | Λ |
| l- Suspend | X | X | X | |
| l- Suspend | X | X | Λ | |
| l- Modify | X | X | X | |
| l- Mouny l- Edit | X | X | Λ | |
| l- Edit EVM Server | X | X | | |
| | Λ | Λ | | |
| Relationshipl- Provision Instances | X | v | X | |
| l- Provision instances | X | X X | Λ | |
| | | | V | V |
| - Infrastructure | X | X X | X | X X |
| l- Infrastructure Providers | X | | | |
| l- View | X | X | | X |
| l- List | X | X | | X |
| l- Show | X | X | | X |
| l- Timeline | X | X | | X |
| l- Operate | X | X | | |
| l- Discover | X | X | | |
| l- Edit Tags | X | X | | X |
| l- Manage Policies | X | X | | |
| l- Refresh | X | X | | |
| l- Modify | X | X | | |
| l- Add | X | X | | |
| l- Edit | X | X | | |
| l- Remove | X | X | | |
| l- Clusters | X | X | | X |
| l- View | X | X | | X |
| l- Compare | X | X | | X |
| l- Drift | X | X | | X |

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| Access Type | Super Admin | Admin | Developer | Manager |
|-----------------------------|-------------|----------|-----------|---------|
| l- List | X | X | | X |
| l- Show | X | X | | X |
| l- Timelines | X | X | | X |
| l- Utilization | X | X | | X |
| l- Operate | X | X | | |
| l- Analysis | X | X | | |
| l- Manage Policies | X | X | | |
| l- Tag | X | X | | X |
| l- Modify | X | X | | |
| l- Remove | X | X | | |
| l- Hosts | X | X | | X |
| l- View | X | X | | X |
| l- Compare | X | X | | X |
| l- Drift | X | X | | X |
| l- List | X | X | | X |
| l- Show | X | X | | X |
| l- Timelines | X | X | | X |
| l- Utilization | X | X | | X |
| | X | X | | Λ |
| l- Operate | X | X | | X |
| l- Analysis | X | X | | X |
| l- Analyze then Check | A | X | | X |
| Compliance | N/ | V | | 77 |
| l- Check Compliance | X | X | | X |
| l- Discover | X | X | | |
| l- Edit Tags | X | X | | X |
| l- Enter Maintenance Mode | X | X | | |
| l- Exit Maintenance Mode | X | X | | |
| l- Manage Policies | X | X | | |
| l- Power Off | X | X | | |
| l- Power On | X | X | | |
| l- Refresh | X | X | | |
| l- Reset | X | X | | |
| l- Restart Host | X | X | | |
| l- Shutdown Host | X | X | | |
| l- Shutdown Host to Standby | X | X | | |
| l- Modify | X | X | | |
| l- Add | X | X | | |
| l- Edit | X | X | | |
| l- Provision Hosts | X | X | | |
| l- Remove | X | X | | |
| l- Resource Pools | X | X | | X |
| l- View | X | X | | X |
| l- List | X | X | | X |
| l- Show | X | X | | X |
| l- Operate | X | X | | X |
| l- Edit Tags | X | X | | X |
| l- Manage Policies | X | X | | |
| l- Modify | X | X | | |
| l- Remove | X | X | | |
| l- Datastores | X | X | | X |
| - View | X | X | | X |
| l- View | X | X | | X |
| | X | X | | X |

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| Access Type | Super Admin | Admin | Developer | Manager |
|----------------------------------|-------------|-------|-----------|---------|
| l- Utilization | X | X | _ | X |
| l- Operate | X | X | | X |
| l- Analysis | X | X | | |
| l- Edit Tags | X | X | | X |
| l- Modify | X | X | | |
| l- Remove | X | X | | |
| l- Repositories | X | X | | |
| l- View | X | X | | |
| l- List | X | X | | |
| l- Show | X | X | | |
| l- Operate | X | X | | |
| l- Edit Tags | X | X | | |
| l- Manage Policies | X | X | | |
| l- Refresh | X | X | | |
| l- Modify | X | X | | |
| l- Modify | X | X | | |
| l- Add l- Edit | X | X | | |
| l- Ealtl- Remove | X | X | | |
| Virtual Machines | | X | V | v |
| | X | | X | X |
| l- Accordions | X | X | X | X |
| l- Templates | X | X | X | X |
| l- VMs | X | X | X | X |
| l- VMs & Templates | X | X | X | X |
| l- Template Access Rules | X | X | X | X |
| l- View | X | X | X | X |
| l- Compare | X | X | X | X |
| l- Drift | X | X | X | X |
| l- List | X | X | X | X |
| l- Show | X | X | X | X |
| l- Timelines | X | X | X | X |
| l- Utilization | X | X | X | X |
| l- Operate | X | X | | X |
| l- Analysis | X | X | | X |
| l- Check Compliance | X | X | | X |
| l- Edit Tags | X | X | | X |
| l- Manage Policies | X | X | | X |
| l- Policy Simulation | X | X | | X |
| l- Refresh | X | X | | X |
| l- Set Ownership | X | X | | X |
| l- Modify | X | X | | X |
| l- Clone Templates | X | X | | 7.1 |
| l- Edit | X | X | | X |
| l- Edit EVM Server | X | X | | 71 |
| Relationship | Α | Λ | | |
| | X | X | | X |
| | X | X | X | X |
| l- Snapshots | I I | | | |
| l- View | X | X | X | X |
| l- List | X | X | X | X |
| l- Operate | X | X | X | |
| l- Create new Snapshots | X | X | X | |
| l- Delete All Existing Snapshots | X | X | | |
| l- Delete Snapshots | X | X | | |

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| Access Type | Super Admin | Admin | Developer | Manager |
|--|-------------|--------|-----------|---------|
| l- Revert to selected | X | X | X | |
| snapshot | | | | |
| l- VM Access Rules | X | X | X | X |
| l- View | X | X | X | X |
| l- Compare | X | X | X | X |
| l- Drift | X | X | X | X |
| l- List | X | X | X | X |
| l- Show | X | X | X | X |
| l- Timelines | X | X | X | X |
| l- Utilization | X | X | X | X |
| | X | X | X | X |
| l- Operate | | | Λ | X |
| l- Analysis | X | X | | |
| l- Check Compliance | X | X | *** | X |
| l- Console using MKS | X | X | X | |
| l- Console using VMRC | X | X | X | |
| l- Console using VNC | X | X | X | |
| l- Edit Tags | X | X | | X |
| l- Extract Running | X | X | | |
| Processes | | | | |
| l- Manage Policies | X | X | | X |
| l- Policy Simulation | X | X | | X |
| l- Power Off | X | X | X | |
| l- Power On | X | X | X | |
| l- Refresh | X | X | X | |
| l- Reset | X | X | X | |
| l- Restart Guest | X | X | X | |
| l- Retire VMs | X | X | X | X |
| | X | X | 71 | X |
| l- Set Cwhershipl- Set Retirement Date | X | X | | X |
| l- Set Retirement Date | X | X | X | Λ |
| | X | | X | |
| l- Suspend | X | X X | X | v |
| l- Modify | | | A | X |
| l- Mark as VDI Desktops | X | X | | |
| l- Clone VMs | X | X | | |
| l- Edit | X | X | | X |
| l- Edit EVM Server | X | X | | |
| Relationship | | | | |
| l- Migrate VMs | X | X | | |
| l- Provision VMs | X | X | X | |
| l- Publish VMs to a | X | X | | |
| Template | | | | |
| l- Reconfigure VMs | X | X | | |
| l- Remove | X | X | | X |
| l- Right-Size VMs | X | X | X | X |
| l- Snapshots | X | X | X | X |
| l- View | X | X | X | X |
| l- List | X | X | X | X |
| l- Operate | X | X | X | Λ |
| l- Operate | X | X | X | |
| | X | X | Λ | |
| l- Delete All Existing Snapshots | Λ | Λ | | |
| l- Delete Snapshots | X | X | | |

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| Access Type | Super Admin | Admin | Developer | Manager |
|----------------------------|-------------|-------|-----------|---------|
| l- Revert to selected | X | X | X | |
| snapshot | | | | |
| l- PXE | X | X | | X |
| l- Customization Templates | X | X | | X |
| l- View | X | X | | X |
| l- Modify | X | X | | X |
| l- Add | X | X | | |
| l- Copy | X | X | | |
| l- Edit | X | X | | |
| l- Remove | X | X | | |
| l- ISO Datastores | X | X | | |
| l- View | X | X | | |
| l- Operate | X | X | | |
| l- Refresh | X | X | | |
| l- Modify | X | X | | |
| l- Add | X | X | | |
| l- Edit ISO Images | X | X | | |
| l- Remove | X | X | | |
| l- PXE Servers | X | X | | |
| l- View | X | X | | |
| l- Operate | X | X | | |
| | X | X | | |
| | X | X | | |
| l- Modify l- Add | X | X | | |
| l- Add l- Edit | X | X | | |
| Edit | X | X | | |
| l- Edit PXE Image | X | X | | |
| l- Edit Windows Image | X | X | | |
| | | | | |
| l- System Image Types | X | X | | |
| l- View | X | X | | |
| l- Modify l- Add | X | X | | |
| l- Add | X | X | | |
| l- Edit | X | X | | |
| l- Remove | X | X | | |
| l- Control | X | X | | X |
| l- Explorer | X | X | | X |
| l- View All Records | X | X | | X |
| l- Actions | X | X | | |
| l- Modify | X | X | | |
| l- Add | X | X | | |
| l- Delete | X | X | | |
| l- Edit | X | X | | |
| l- Alert Profiles | X | X | | |
| l- Modify | X | X | | |
| l- Add | X | X | | |
| l- Delete | X | X | | |
| l- Edit | X | X | | |
| l- Alerts | X | X | | |
| l- Modify | X | X | | |
| l- Add/Copy | X | X | | |
| l- Delete | X | X | | |
| Delete | | | | |
| l- Edit | X | X | | |

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| Access Type | Super Admin | Admin | Developer | Manager |
|---------------------------|-------------|-------|-----------|---------|
| l- Host Conditions | X | X | | |
| l- Modify | X | X | | |
| l- Add/Copy | X | X | | |
| l- Delete | X | X | | |
| l- Edit | X | X | | |
| l- VM Conditions | X | X | | |
| l- Modify | X | X | | |
| l- Add/Copy | X | X | | |
| l- Delete | X | X | | |
| l- Edit | X | X | | |
| l- Events | X | X | | |
| l- Policies | X | X | | |
| l- Compliance | X | X | | |
| l- Host Compliance Policy | X | X | | |
| l- Modify | X | X | | |
| l- Add/Copy | X | X | | |
| l- Delete | X | X | | |
| l- Edit | X | X | | |
| l- VM Compliance Policy | X | X | | |
| | X | X | | |
| l- Modify l- Add/Copy | X | X | | |
| Add/Copy | X | X | | |
| l- Delete | | | | |
| l- Edit | X | X | | |
| l- Control | X | X | | |
| l- Host Control Policy | X | X | | |
| l- Modify | X | X | | |
| l- Add/Copy | X | X | | |
| l- Delete | X | X | | |
| l- Edit | X | X | | |
| l- VM Control Policy | X | X | | |
| l- Modify | X | X | | |
| l- Add/Copy | X | X | | |
| l- Delete | X | X | | |
| l- Edit | X | X | | |
| l- Policy Profiles | X | X | | |
| l- Modify | X | X | | |
| l- Add | X | X | | |
| l- Delete | X | X | | |
| l- Edit | X | X | | |
| l- Simulation | X | X | | X |
| l- Import/Export | X | X | | |
| l- Log | X | X | | X |
| l- Automate | X | | | |
| l- Explorer | X | | | |
| l- Simulation | X | | | |
| l- Buttons | X | | | |
| l- Import/Export | X | | | |
| l- Log | X | | | |
| l- Optimize | X | X | | X |
| l- Utilization | X | X | | X |
| l- Planning | X | X | | X |
| l- Bottlenecks | X | X | | |
| l- Settings & Operations | X | X | X | X |
| , semings & operations | 71 | | 11 | 1 |

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| Access Type | Super Admin | Admin | Developer | Manager | | |
|--------------------------|-------------|-------|-----------|---------|--|--|
| l- My Settings | X | X | X | X | | |
| l- Modify | X | X | X | X | | |
| l- Default Filters | X | X | | | | |
| l- Default Views | X | X | X | X | | |
| l- Time Profiles | X | X | X | X | | |
| l- Visual | X | X | X | X | | |
| l- Tasks | X | X | | X | | |
| l- View | X | X | | X | | |
| l- All Other Tasks | X | X | | | | |
| l- All VM Analysis Tasks | X | X | | | | |
| l- Other UI Tasks | X | X | | X | | |
| l- VM Analysis Tasks | X | X | | X | | |
| l- Configuration | X | X | | | | |
| l- Access Control | X | X | | | | |
| l- Database | X | | | | | |
| l- Diagnostics | X | X | | | | |
| l- Settings | X | | | | | |
| l- SmartProxies | X | X | | | | |
| l- View | X | X | | | | |
| l- List | X | X | | | | |
| l- Show | X | X | | | | |
| l- Operate | X | X | | | | |
| l- Deploy | X | X | | | | |
| l- Modify | X | X | | | | |
| l- Add | X | X | | | | |
| l- Edit | X | X | | | | |
| l- About | X | X | X | X | | |

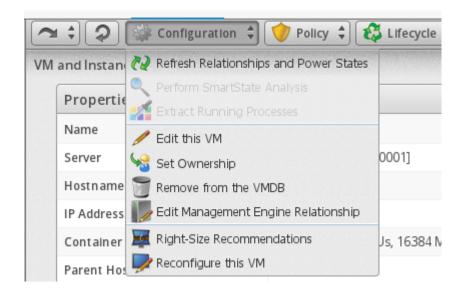
Note

CFME-rolematrix.xls or CFME-rolematrix.csv

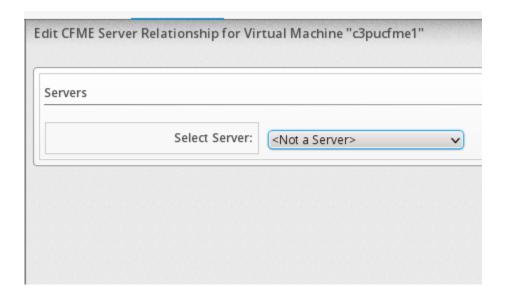
3.12 Associate Cloudforms Appliance as a VM within vCenter Provider

In order for Cloudforms to know which appliance is which VM to execute certain jobs it needs to be associated * Go to Infrastructure > Virtual Machines > Search for <appliance name> (i.e. c3pucfme1) > Click on VM * In the VM object view Use the VM Configuration menu > Select Edit Management Engine Relationship

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• Use the drop down menu to associate the EVM appliance that matches up with this VM. (i.e. EVM1000000000001)



• Click on Save

3.13 Configure NTP Server

• Go to Configure > Configuration > Select EVM Server > Click on Server Tab > Enter NTP Information

| Label | value |
|---------|--------------|
| Servers | 10.1.100.130 |
| Servers | 10.1.100.131 |

· Click on Save

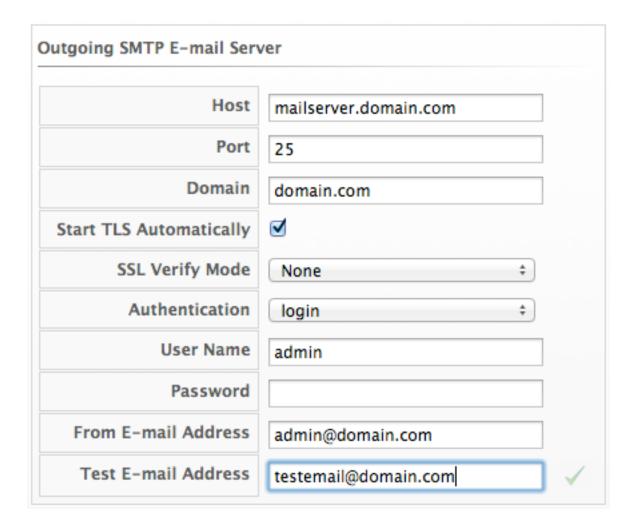
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3.14 Configure outgoing E-mail settings

To use the email action in CloudForms Management Engine, you need to set an email address that you will have the emails sent from.

Note

To be able to send any emails from the server, you must have the Notifier Server role enabled. You can test the settings without the role enabled.



• Environment Specific Settings:

| Label | value |
|-----------------|--|
| Host | mailhost.premierinc.com |
| Port | 25 |
| Domain | premierinc.com |
| Start TLS | <not checked=""></not> |
| Automatically | |
| SSL Verify Mode | None |
| Authentication | none |
| User Name | |

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| Label | value |
|---------------------|--|
| Password | |
| From E-mail Address | cloudforms@corp.premierinc.com |
| Test E-mail Address | |

- Use Host to specify the host name of the mail server.
- Use Port to specify the port for the mail server.
- Use Domain to specify domain name for the mail server.
- Check Start TLS Automatically if the mail server requires TLS.
- Select the appropriate SSL Verify Mode.
- Use the Authentication drop down to specify if you want to use login or plain authentication.
- Use User Name to specify the user name required for login authentication.
- Use Password to specify the password for login authentication.
- Use From Email Address to set the address you want to send the email from.
- Use To Email Address if you want to test your email settings.
- · Click on Save

3.15 Register Appliance

3.15.1 Editing Customer Information

The Red Hat Updates page allows the user to edit customer information.

- To edit customer information
 - Navigate to Configure → Configuration.
 - Click on the Settings accordion, then Region, then click on the Red Hat Updates tab.
 - Click Edit Registration in the Customer Information area
 - The Customer Information area will display options to edit registration, User ID and Password.
 - * Register to field provides options for the Customer Portal, RHN Satellite v5 for Red Hat Satellite 5.x servers, and RHN Satellite v6 for Red Hat Satellite 6.x servers. If switching to RHN Satellite v5 or v6, the page will refresh and a prompt for a Server URL will be included in the Customer Information area.
 - * The HTTP Proxy area displays options to enable usage of the HTTP Proxy.
 - * The User ID and Password are the customer account details for the Customer Portal or Satellite.

Note

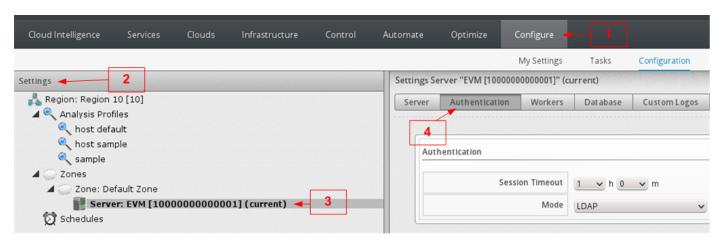
Reference https://access.redhat.com/documentation/en-US/CloudForms/3.0/html/Management_Engine_5.2_Installation_Guide/chap-Registering_and_Updating_CloudForms_Management_Engine.html

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3.16 AD Integration

3.16.1 Go to the LDAP Configuration Page:

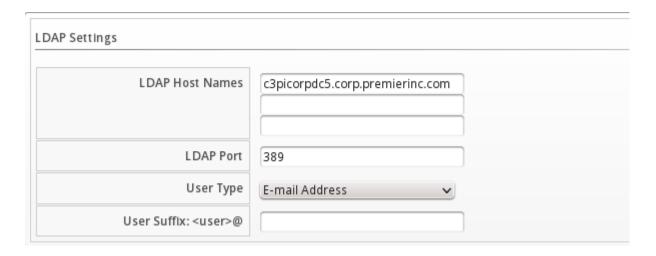
Configure > Settings > Select EVM Server > Select Authentication Tab



3.16.2 Fill out the LDAP Settings

• Set the Session Timeout and Mode

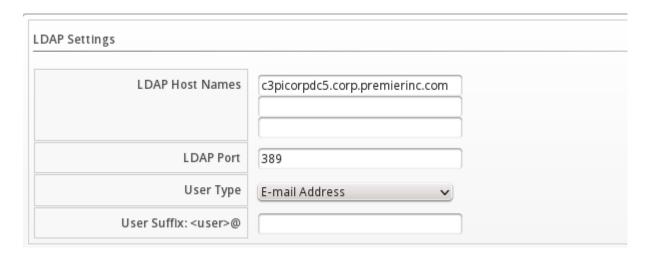
| Session Timeout: | [1]h [0]m |
|------------------|---------------|
| Mode: | LDAPS |



• Set the LDAP Settings

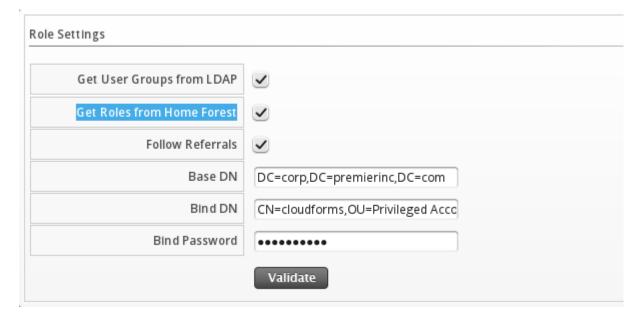
| LDAP Host Names: | 10.1.100.130 10.1.100.131 |
|-----------------------------|---------------------------|
| LDAP Port: | 636 |
| User Type: | User Principle Name |
| User Suffix: <user>@</user> | mcip.usmc.mil |

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• Set the Role Settings

| Get User Groups from | <checked></checked> |
|----------------------------|--|
| LDAP | |
| Get Roles from Home Forest | <checked></checked> |
| Follow Referrals | <checked></checked> |
| Base DN: | DC=mcip,DC=usmc,DC=mil |
| Bind DN: | cf.cloud.svc@mcip.usmc.mil |
| Bind Password: | <see for="" list="" mcicom's="" password="" this="" user=""></see> |



- Click [Validate]
- Click on Save button at the bottom right of the page

3.17 Add Openstack Provider

After initial installation and creation of a CloudForms Management Engine environment, add cloud providers with the following procedure.

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- Navigate to Clouds → Providers.
- Click (Configuration), then click (Add a New Cloud Provider).
- Enter a Name for the provider.
- Select the OpenStack in the Provider field
- Fill out the Credentials by typing in a User ID, Password, and a verification of this password (Verify Password).
 - If editing an OpenStack provider, use the AMQP subtab to provide credentials required for the Advanced Message Queuing Protocol service on your OpenStack Nova component.
- Click Validate to validate the credentials.
- · Click Add.

3.18 Add VMware Provider

After initial installation and creation of a CloudForms Management Engine environment, add providers to the appliance with the following procedure.

- Navigate to Infrastructure → Providers.
- Click (Configuration), then click (Add a New Infrastructure Provider).
- Type in the Name of the provider to add. The Name is how the device is labeled in the console.
- Select the Type of provider: VMware vCenter.
- Type in the Host Name, and IP Address of the provider to add.
- Type in a User ID and Password with administrator privileges to the provider. To refresh a provider, these credentials are required.
- Click Validate to confirm that the user and password connects.
- · Click Save.

3.19 NetApp Rapid Clone

3.19.1 Login Information

| Hostname | IP Address | Username | Password |
|-----------|-------------|----------------|--|
| netapp02a | 10.2.100.19 | vsc.netapp.svc | <see mcicom's="" password<="" td=""></see> |
| | | | List> |
| netapp02b | 10.2.100.20 | vsc.netapp.svc | <see mcicom's="" password<="" td=""></see> |
| | | | List> |
| netapp03a | ????????? | vsc.netapp.svc | <see mcicom's="" password<="" td=""></see> |
| | | | List> |

3.19.2 NetApp Rapid Clone: Dialog_Storage_Controller Workflow

TODO: Will provide workflow when coding is complete

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3.19.3 NetApp Rapid Clone: Dialog VM Sizing Workflow

TODO: Will provide workflow when coding is complete

3.19.4 NetApp Rapid Clone: Dialog_VM_Folder Workflow

TODO: Will provide workflow when coding is complete

3.19.5 NetApp Rapid Clone: Dialog_Clone_Source Workflow

TODO: Will provide workflow when coding is complete

3.19.6 NetApp Rapid Clone: Execute_Rapid_Clone Workflow

TODO: Will provide workflow when coding is complete

3.19.7 Infoblox Automate Overview

/MCICOM

/Integration

/RapidClone

- Instances:
 - Dialog_Storage_Controller
 - Dialog_VM_Sizing_CPU
 - Dialog_VM_Sizing_Memory
 - Execute_Rapid_Clone
 - Rapid_Clone_Email_Complete
 - Retrieve_Clone_Source
 - Retrieve_Clone_Source_Path
 - Retrieve Customization Specification
 - Retrieve_Datastore_List
 - Retrieve_Destination_Folder
 - Retrieve_Destination_Host
 - Retrieve_Storage_Controller
- Class Schema:

| Name | Type | Data | Defaul | t Displa | y Descri | p tSonb | Collect | Messa | geOn | On | On | Collect | Max | Max |
|---------|----------------------|-------------------|--------|----------|----------|----------------|---------|--------|------|------|-----|---------|-------|------|
| | | Type | Value | Name | | | | | En- | Exit | Er- | | Re- | Time |
| | | | | | | | | | try | | ror | | tries | |
| | a rAe tribu | | | mt1.mcis | .usmc.m | il[x] | | create | | | | | | |
| | | teString | 1 4 | ose | | [x] | | create | | | | | | |
| | | tePasswo | | | | [x] | | create | | | | | | |
| | | teString | | 0.19 | | [x] | | create | | | | | | |
| | | t eSte ing | | app.svc | | [x] | | create | | | | | | |
| control | le:A <u>t</u> praiba | tæðad swo | rd | | | [x] | | create | | | | | | |
| action | Attribu | teString | | | | [x] | | create | | | | | | |
| method | 11Method | l String | | | | [x] | | create | | | | | | |
| method | 2Method | l String | | | | [x] | | create | | | | | | |

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3.19.8 Methods:

Dialog_Storage_Controller

```
# EVM Automate Method: Dialog_Storage_Controller
# Notes: Populate Dialog_Storage_Controller
begin
 @method = 'Dialog_Storage_Controller'
 $evm.log("info", "#{@method} - EVM Automate Method Started")
 # Turn of verbose logging
 @debug = true
 {\tt dialog\_hash = \{ "netapp02a" => "10.2.100.19", "netapp02a" => "10.2.100.19", "} \leftarrow
     netapp02b" => "10.2.100.20", "netapp03a" => "10.2.100.21" }
 dialog_field = $evm.object
 dialog_field["sort_by"] = "none"
 dialog_field["data_type"] = "string"
 dialog_field["required"] = "true"
 dialog_field["values"] = dialog_hash
 dialog_field["default_value"] = "netapp02a"
 $evm.log("info", "==== EVM Automate Method: <#{@method}> display drop-down: #{dialog_hash. ←
     inspect } ")
 # Exit method
 $evm.log("info", "#{@method} - EVM Automate Method Ended")
 exit MIO OK
   # Set Ruby rescue behavior
rescue => err
 $evm.log("error", "#{@method} - [#{err}]\n#{err.backtrace.join("\n")}")
 exit MIQ_ABORT
end
```

Dialog_VM_Sizing

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```
# Turn of verbose logging
@debug = true
@action = nil
@action ||= $evm.object['action']
vm = $evm.root['vm']
@vm_memory_cpu = vm.hardware['memory_cpu']
$evm.log("info", "===== EVM Automate Method: <#{@method}> vm_memory_cpu: #{@vm_memory_cpu}")
@vm_numvcpus = vm.hardware['numvcpus']
$evm.log("info", "===== EVM Automate Method: <#{@method}> vm_numvcpus: #{@vm_numvcpus}")
case @action
 when "memory"
   mem_val = 1024
   vm_mem = @vm_memory_cpu.to_i / 1024
   mem_array = []
   default_val = [nil, nil]
   mem_array << default_val</pre>
    for n in 1..16
      $evm.log("info", "===== EVM Automate Method: <#{@method}> mem_val: #{mem_val}, ←
          mem_array: #{mem_array}")
      val = []
      val << "#{n}"</pre>
      val << mem_val.to_i</pre>
     mem_array << val
     mem_val = mem_val.to_i + 1024
    end
    list_values = {
        'sort_by' => :none,
        'data_type' => :string,
        'required' => :true,
        'values' => mem_array
    $evm.log("info", "==== EVM Automate Method: <#{@method}> display drop-down: #{ \leftrightarrow
        list_values}")
    list_values.each {|k,v| $evm.object[k] = v }
  when "cpu"
    cpu_array = []
    default_val = [nil,nil]
    cpu_array << default_val
    for n in 1..12
     val = []
     val << n
     val << n
      cpu_array << val
    end
    list_values = {
        'sort_by' => :none,
        'data_type' => :integer,
        'required' => :true,
        'values' => cpu_array
```

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Execute_Rapid_Clone

```
# EVM Automate Method: Execute_Rapid_Clone
begin
 @method = 'Execute_Rapid_Clone'
 $evm.log("info", "==== EVM Automate Method: <#{@method}> Started")
  ###########################
  # Method: dumpRoot
  # Description: Dump Root information
 #############################
 def dumpRoot
    $evm.log("info", "#{@method} - Root:<$evm.root> Begin Attributes")
    \text{sevm.root.attributes.sort.each } \{ | k, v | \text{sevm.log("info", "#{@method}} - \text{Root:} < \text{sevm.root} > \leftarrow \text{sevm.root} \}
       Attributes - \#\{k\}: \#\{v\}")}
   $evm.log("info", "#{@method} - Root:<$evm.root> End Attributes")
    $evm.log("info", "")
 # dump root object attributes
 dumpRoot
 require 'savon'
 require 'nokogiri'
 require 'httpclient'
 HTTPI.adapter = :httpclient
 @servername = nil
```

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```
@servername ||= $evm.object['servername']
@username = nil
@username ||= $evm.object['username']
@password = nil
@password ||= $evm.object.decrypt('password')
@netapp_url = "https://#{@servername.to_s}:8143/kamino/public/api?wsdl"
vm = $evm.root['vm']
@vm_name = vm.attributes['name']
$evm.log("info", "===== EVM Automate Method: <#{@method}> vm_name: #{@vm_name}")
@vm_location = vm.attributes['location']
$evm.log("info", "===== EVM Automate Method: <#{@method}> vm_location: #{@vm_location}")
@vm_vendor = vm.attributes['vendor']
$evm.log("info", "===== EVM Automate Method: <#{@method}> vm_vendor: #{@vm_vendor}")
@vm_host_id = vm.attributes['host_id']
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_host_id: #{@vm_host_id}")
@vm_ems_ref = vm.attributes['ems_ref']
$evm.log("info", "===== EVM Automate Method: <#{@method}> vm_ems_ref: #{@vm_ems_ref}")
@vm_type = vm.attributes['type']
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_type: #{@vm_type}")
@vm_storage_name = vm.storage['name']
$evm.log("info", "===== EVM Automate Method: <#{@method}> vm_storage_name: #{ ←
       @vm_storage_name}")
@vm_storage_ems_ref = vm.storage['ems_ref']
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_storage_ems_ref: #{ \leftrightarrow
       @vm_storage_ems_ref}")
@vm_v_ems_cluster_name = vm.ems_cluster_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_ems_cluster_name: #{ \leftrightarrow
       @vm_v_ems_cluster_name}")
@vm_v_parent_blue_folder_1_name = vm.parent_blue_folder_1_name
\texttt{$evm.log("info", "====EVM Automate Method: <\#{@method}> vm_v_parent\_blue\_folder_1_name: \#{} \leftarrow \texttt{$evm.log("info", "====EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_1_name: #{} }
       @vm_v_parent_blue_folder_1_name}")
@vm_v_parent_blue_folder_2_name = vm.parent_blue_folder_2_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_2_name: #{ ←
       @vm_v_parent_blue_folder_2_name}")
@vm_v_parent_blue_folder_3_name = vm.parent_blue_folder_3_name
\text{sevm.log("info", "====} EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_3_name: #{} \leftarrow
       @vm_v_parent_blue_folder_3_name}")
@vm\_v\_parent\_blue\_folder\_4\_name = vm.parent\_blue\_folder\_4\_name \\
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_4_name: \#{} \leftrightarrow {\cite{Anne}} = {\cite{Anne}}
       @vm_v_parent_blue_folder_4_name}")
@vm_v_parent_blue_folder_5_name = vm.parent_blue_folder_5_name
```

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```
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_5_name: #{ ←
   @vm_v_parent_blue_folder_5_name}")
@vm_v_parent_blue_folder_6_name = vm.parent_blue_folder_6_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_6_name: #{ ←
   @vm_v_parent_blue_folder_6_name}")
@vm_v_parent_blue_folder_7_name = vm.parent_blue_folder_7_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_7_name: #{ ←
   @vm_v_parent_blue_folder_7_name}")
@vm_v_parent_blue_folder_8_name = vm.parent_blue_folder_8_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_8_name: #{ ←
   @vm_v_parent_blue_folder_8_name}")
@vm_v_owning_datacenter = vm.v_owning_datacenter
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_owning_datacenter: #{ ←
   @vm_v_owning_datacenter}")
@vm_v_parent_blue_folder_9_name = vm.parent_blue_folder_9_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_9_name: #{ ←
   @vm_v_parent_blue_folder_9_name}")
@vm_v_storage_name = vm.storage_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_storage_name: #{ \leftarrow
   @vm_v_storage_name}")
def getObjectRef(netapp_url, servername, username, password, arg_name, arg_type)
  Savon.configure do |config|
     config.log = false
     config.log_level = :info
    config.pretty_print_xml = true
  client = Savon::Client.new do |wsdl, http, wsse|
    wsdl.document = "#{netapp_url}"
    wsdl.endpoint = "#{netapp_url}"
    http.auth.ssl.verify_mode = :none
  response = client.request "ser:getMoref" do
    soap.namespaces.merge!({
                                "xmlns:soapenv" => "http://schemas.xmlsoap.org/soap/envelope/ \leftarrow
                                "xmlns:ser" => "http://server.kamino.netapp.com/"
                            })
    soap.header = {}
    soap.body = { 'arg0' => "#{arg_name}", 'arg1' => "#{arg_type}", 'arg2' => { 'serviceUrl' \leftrightarrow
        => "https://\#{servername.to_s}/sdk", 'vcPassword' => "\#{password.to_s}", 'vcUser' \leftrightarrow
       => "#{username.to_s}" } }
  response_hash = response.to_hash[:get_moref_response]
  ref_obj = "#{response_hash[:return]}"
  return ref_obj
end
@vm_object = getObjectRef(@netapp_url, @servername, @username, @password, "#{@vm_name}", " <math>\leftrightarrow
VirtualMachine")
```

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```
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_object: #{@vm_object.inspect ←
 }")
@vm_object = getObjectRef(@netapp_url, @servername, @username, @password, "#{@vm_name}", " ←
   VirtualMachine")
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_object: #{@vm_object.inspect}")
dialog_clone_destination = getObjectRef(@netapp_url, @servername, @username, @password, "#{ ←
    @vm_v_owning_datacenter}", "Datacenter")
$evm.log("info", "==== EVM Automate Method: <#{@method}> dialog_clone_destination: #{ ←
   dialog_clone_destination \ ")
@dialog_clone_destination = getObjectRef(@netapp_url, @servername, @username, @password,
  "#{@vm_v_ems_cluster_name}", "Cluster")
$evm.log("info", "===== EVM Automate Method: <#{@method}> dialog_clone_destination: #{ ←
 @dialog_clone_destination.inspect}")
controller_ip = nil
controller_ip ||= $evm.object['controller_ip']
controller_username = nil
controller_username ||= $evm.object['controller_username']
controller_password = nil
controller_password ||= $evm.object.decrypt('controller_password')
dialog_clone_name = $evm.root.attributes['dialog_clone_name']
if $evm.root.attributes['dialog_clone_name'] == 1
  dialog_power_on = 'true'
  dialog_power_on = 'false'
end
#dialog_clone_destination = 'Cluster:domain-c121'
dialog_datastore_selection = "Datastore:#{@vm_storage_ems_ref}"
dialog_clone_source_path = $evm.root.attributes['dialog_clone_source_path']
evm.log("info", "===== EVM Automate Method: <#{@method}> dialog_clone_source_path: #{ <math>\leftarrow
    dialog_clone_source_path}")
dialog_clone_source = $evm.root.attributes['dialog_clone_source']
$evm.log("info", "==== EVM Automate Method: <#{@method}> dialog_clone_source: #{ \leftrightarrow
    dialog_clone_source}")
dialog_vm_cpu = $evm.root.attributes['dialog_vm_cpu']
dialog_memory_size = $evm.root.attributes['dialog_memory_size']
namespaces = {
    "xmlns:soapenv" => "http://schemas.xmlsoap.org/soap/envelope/",
    "xmlns:ser" => "http://server.kamino.netapp.com/"
builder = Nokogiri::XML::Builder.new do |xml|
  xml.arg0 {
    xml.cloneSpec {
      xml.clones {
        xml.entry {
          xml.key "#{dialog_clone_name.to_s}"
          xml.value {
            xml.powerOn "#{dialog_power_on.to_s}"
```

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```
xml.containerMoref "#{dialog_clone_destination.to_s}"
        xml.files {
         xml.destDatastoreSpec {
           xml.controller {
              xml.ipAddress "#{controller_ip.to_s}"
             xml.password "#{controller_password.to_s}"
             xml.ssl "false"
              xml.username "#{controller_username.to_s}"
           xml.mor "#{dialog_datastore_selection.to_s}"
            xml.numDatastores "0"
            xml.thinProvision "false"
           xml.volAutoGrow "false"
         xml.sourcePath "#{dialog_clone_source_path.to_s}"
       xml.templateMoref "#{dialog_clone_source.to_s}"
     xml.serviceUrl "https://#{@servername.to_s}/sdk"
     xml.vcPassword "#{@password.to_s}"
     xml.vcUser "#{@username.to_s}"
 end
 puts builder.to_xml
 connectapi = Savon::Client.new do |wsdl, http, wsse|
   wsdl.document = "#{@netapp_url}"
   wsdl.endpoint = "#{@netapp_url}"
   http.auth.ssl.verify_mode = :none
 end
 response = connectapi.request "ser:createClones" do
   soap.namespaces.merge!({
         "xmlns:soapenv" => "http://schemas.xmlsoap.org/soap/envelope/",
         "xmlns:ser" => "http://server.kamino.netapp.com/"
    })
   soap.header = {}
   soap.body = builder.doc.root.to_xml
 response_hash = response.to_hash
 $evm.log("info", "==== EVM Automate Method: <#{@method}> #{response_hash.inspect}")
 # Exit method
 $evm.log("info", "===== EVM Automate Method: <#{@method}> Ended")
 exit MIQ_OK
    # Set Ruby rescue behavior
rescue => err
 $evm.log("error", "<#{@method}>: [#{err}]\n#{err.backtrace.join("\n")}")
```

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```
exit MIQ_STOP end
```

3.20 Import Control Policies, Profiles, Alerts

- Go to Control > Import/Export
- · Click on "Browse" and select the local file to upload
- · Click Upload
- Next page will populate showing you all of the items that will be imported
- · Click on "Commit"

Do the previous steps for each of the files in the next 3 sections.

3.20.1 Policies.yaml

Link: Policies.yaml

Source:

```
- MigPolicy:
   name: 427a4378-6519-11df-b637-005056a435be
   description: ! 'Analysis: Post Provisioning'
   expression:
   towhat: Vm
   guid: 427a4378-6519-11df-b637-005056a435be
   created_by: admin
   updated_by: admin
   notes: This policy triggers a vm analysis of any newly provisioned VM
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
     success_sequence: 1
     MigEvent:
       name: vm_provisioned
       description: VM Provision Complete
       guid: 2a17a20a-3e8e-11df-9fe2-005056a435be
        event_type: Default
       definition:
       default:
        enabled:
     MigAction:
       name: vm_analyze
        description: Initiate SmartState Analysis for VM
       guid: 5cbe1082-ce35-11de-a117-005056b0503e
       action_type: default
       options: {}
   Condition: []
- MiqPolicy:
   name: ! 'Do Not Analyze '
    description: ! 'Analysis: Prevent Analysis of Selected VMs'
    expression:
```

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```
towhat: Vm
    quid: 3a7959c0-2866-11de-af2a-0050568026c2
   created_by:
   updated_by: admin
   notes: ! 'This policies prevents analysis of any vm that is tagged as Do Not Analyze '
   active: true
   mode: control
   MigPolicyContent:
    - qualifier: success
     success_sequence: 1
      failure_synchronous: true
     MigEvent:
       name: request_vm_scan
        description: VM Analysis Request
        quid: e3292c46-1e1e-11de-8918-0050568005db
        event_type: Default
        definition:
       default:
       enabled:
     MigAction:
       name: prevent
       description: Prevent current event from proceeding
       guid: d885a118-519b-11e0-8d82-005056af0000
       action_type: default
       options: {}
    Condition:
    - name: Do Not Analyze
     description: VM classified as DO_NOT_ANALYZE
     modifier: allow
     expression: !ruby/object:MiqExpression
        exp:
          CONTAINS:
           tag: Vm.managed-exclusions
           value: do_not_analyze
        context_type:
      towhat: Vm
      file_mtime:
      guid: 39ff4444-08e2-11de-829f-005056a164b2
      filename:
      applies_to_exp:
     miq_policy_id: 1000000000001
     notes:
- MiqPolicy:
   name: 782068f8-44ee-11e0-99a6-00505688000a
   description: ! 'Analysis: VDI Login'
   expression:
   towhat: Vm
   guid: 782068f8-44ee-11e0-99a6-00505688000a
   created_by: admin
   updated_by: admin
   notes: This policy triggers an analysis of a VDI session when a user logs in to
     that session
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
      success_sequence: 1
     MiqEvent:
        name: vm_vdi_login_session
```

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```
description: VDI Login Session
        guid: 15fc3cce-448a-11e0-9ad1-00505688000a
        event_type: Default
       definition:
       default:
       enabled:
     MigAction:
       name: vm_analyze
       description: Initiate SmartState Analysis for VM
       guid: 5cbe1082-ce35-11de-a117-005056b0503e
        action_type: default
       options: {}
   Condition: []
- MigPolicy:
   name: 467f80ce-4808-11df-badc-005056a7121f
   description: ! 'Analysis: VM Configuration Only Profile'
   expression:
   towhat: Vm
   quid: 467f80ce-4808-11df-badc-005056a7121f
   created_by: admin
   updated_by: admin
   notes: ! 'This policy assigns an analysis profile that only gathers vm configuration
     data. Note: the specified action requires that you create an analysis profile
     that only scans vm configuration data. Once it has been created, associate it
     with the specified action'
   active: true
   mode: control
   MiqPolicyContent:
   - qualifier: success
     success_sequence: 1
     MiqEvent:
       name: vm_scan_start
       description: VM Analysis Start
       guid: 057b9baa-519c-11e0-8d82-005056af0000
       event_type: Default
       definition:
       default:
       enabled:
     MiqAction:
       name: b52a86f0-4807-11df-badc-005056a7121f
       description: ! 'Profile: VM configuration only'
       guid: b52a86f0-4807-11df-badc-005056a7121f
       action_type: assign_scan_profile
        options:
         :scan_item_set_name: vm configuration only
   Condition: []
- MigPolicy:
   name: 2f2a1a1c-4806-11df-badc-005056a7121f
   description: ! 'Analysis: VM Reconfiguration'
   expression:
   towhat: Vm
   guid: 2f2a1a1c-4806-11df-badc-005056a7121f
   created_by: admin
   updated_by: admin
   notes: Performs an analysis on any vm that has been reconfigured
   active: true
   mode: control
   MiqPolicyContent:
   - qualifier: success
```

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```
success_sequence: 1
     MigEvent:
       name: vm_reconfigure
        description: VM Settings Change
        quid: 07367e62-449a-11de-bd4f-005056a83e5d
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: vm_analyze
        description: Initiate SmartState Analysis for VM
        quid: 5cbe1082-ce35-11de-a117-005056b0503e
        action_type: default
        options: {}
   Condition: []
- MiqPolicy:
   name: d658fe5c-de2c-11e1-9088-005056af009e
   description: Collect Logged on User Info
   expression:
   towhat: Vm
   guid: d658fe5c-de2c-11e1-9088-005056af009e
   created_by: admin
   updated_by: admin
   notes:
   active: true
   mode: control
   MiqPolicyContent:
   - qualifier: success
      success_sequence: 1
     MiqEvent:
       name: vm_scan_complete
        description: VM Analysis Complete
        guid: f7b8361e-1139-11e1-9333-005056af009e
        event_type: Default
       definition:
       default:
        enabled:
     MiqAction:
       name: raise_automation_event
        description: Raise Automation Event
        guid: e7da3b7a-1139-11e1-9333-005056af009e
        action_type: default
        options: {}
   Condition:
    - name: ab61c97a-de2e-11e1-9088-005056af009e
     description: Check files starting with nb
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkcount:
              ! '>=':
                value: '1'
                field: <count>
            search:
              INCLUDES:
                value: nb
                field: Vm.filesystems-name
```

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```
context_type:
     towhat: Vm
     file_mtime:
     quid: ab61c97a-de2e-11e1-9088-005056af009e
     filename:
     applies_to_exp:
     miq_policy_id: 5
     notes:
- MigPolicy:
   name: c66e6d58-d2fc-11de-b4f6-0050568a547d
   description: ! 'Configuration: Host - DMZ Fully Collapsed Advanced Settings'
   expression:
   towhat: Host
   quid: c66e6d58-d2fc-11de-b4f6-0050568a547d
   created_by: admin
   updated_by: admin
   notes: This policy verifies designated host advanced settings values to ensure
     that they meet DMZ requirements
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: host_scan_complete
        description: Host Analysis Complete
        guid: ffcfb368-455d-11de-86a0-005056a81f62
        event_type: Default
       definition:
       default:
        enabled:
     MiqAction:
       name: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
       description: Email - DMZ
        guid: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
        action_type: email
        options:
          :variables:
          - :value: ''
            :oid: ''
           :var_type: <None>
          - :value: ''
           :oid: ''
           :var_type: <None>
          - :value: ''
           :oid: ''
           :var_type: <None>
          - :value: ''
           :oid: ''
            :var_type: <None>
          - :value: ''
            :oid: ''
            :var_type: <None>
          - :value: ''
            :oid: ''
           :var_type: <None>
          - :value: ''
           :oid: ''
          :var_type: <None>
```

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```
- :value: ''
            :oid: ''
           :var_type: <None>
          - :value: ''
           :oid: ''
            :var_type: <None>
          - :value: ''
            :oid: ''
            :var_type: <None>
          :to: dmzalert@manageiq.com
   Condition:
    - name: 1ea32d10-d2fd-11de-b4f6-0050568a547d
      description: host - dmz - advanced settings - ssl
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
           checkall:
                value: 'true'
                field: Host.advanced_settings-value
            search:
                value: Config.Defaults.security.host.ruissl
                field: Host.advanced_settings-name
      file_mtime:
      quid: 1ea32d10-d2fd-11de-b4f6-0050568a547d
      filename:
      applies_to_exp:
     miq_policy_id: 1000000000013
     notes:
- MiqPolicy:
   name: 8a8f247a-480a-11df-badc-005056a7121f
   description: ! 'Configuration: VM - CPU Reservation > 500Mhz'
   expression:
   towhat: Vm
    guid: 8a8f247a-480a-11df-badc-005056a7121f
    created_by: admin
   updated_by: admin
   notes: Sends an email if CPU reservation is set to a value greater than 500Mhz
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
     success_sequence: 1
     MiqEvent:
       name: vm_scan_complete
        description: VM Analysis Complete
        guid: f7b8361e-1139-11e1-9333-005056af009e
        event_type: Default
        definition:
        default:
        enabled:
     MigAction:
        name: 5189755e-480a-11df-badc-005056a7121f
        description: Alert - CPU Reservation > 500Mhz
        guid: 5189755e-480a-11df-badc-005056a7121f
        action_type: evaluate_alerts
```

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```
options:
          :alert_guids:
          - ca26a9c6-4802-11df-badc-005056a7121f
   Condition: []
- MigPolicy:
   name: 6adebf82-d2e4-11de-b4f6-0050568a547d
   description: ! 'Configuration: VM - DMZ Fully Collapsed Network'
   expression:
   towhat: Vm
   guid: 6adebf82-d2e4-11de-b4f6-0050568a547d
   created_by: admin
   updated_by: admin
   notes: ! 'created by: Rod Moore
     purpose: validates vm vlan configuration'
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: vm_reconfigure
       description: VM Settings Change
        quid: 07367e62-449a-11de-bd4f-005056a83e5d
        event_type: Default
        definition:
       default:
        enabled:
     MiqAction:
       name: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
       description: Email - DMZ
       guid: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
        action_type: email
        options:
         :variables:
          - :value: ''
            :oid: ''
            :var_type: <None>
          - :value: ''
            :oid: ''
           :var_type: <None>
          - :value: ''
           :oid: ''
           :var_type: <None>
          - :value: ''
           :oid: ''
           :var_type: <None>
          - :value: ''
           :oid: ''
            :var_type: <None>
          - :value: ''
            :oid: ''
            :var_type: <None>
          - :value: ''
            :oid: ''
           :var_type: <None>
          - :value: ''
           :oid: ''
          :var_type: <None>
```

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```
- :value: ''
       :oid: ''
       :var_type: <None>
     - :value: ''
       :oid: ''
       :var_type: <None>
     :to: dmzalert@manageig.com
- qualifier: failure
 failure_sequence: 2
 MiqEvent:
   name: vm_reconfigure
   description: VM Settings Change
   quid: 07367e62-449a-11de-bd4f-005056a83e5d
   event_type: Default
   definition:
   default:
   enabled:
 MigAction:
   name: vm_shutdown_guest
   description: Shutdown Virtual Machine Guest OS
   guid: 26b84380-bbd5-11de-aaab-0050568a2c6a
   action_type: default
   options: {}
- qualifier: failure
  failure_sequence: 1
 MiqEvent:
   name: vm_migrate
   description: VM Live Migration (VMOTION)
   guid: 07500602-449a-11de-bd4f-005056a83e5d
   event_type: Default
   definition:
   default:
   enabled:
 MiqAction:
   name: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
   description: Email - DMZ
   guid: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
   action_type: email
   options:
     :variables:
      - :value: ''
       :oid: ''
       :var_type: <None>
     - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
     - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
     - :value: ''
```

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```
:oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
        :var_type: <None>
      - :value: ''
       :oid: ''
        :var_type: <None>
      :to: dmzalert@manageiq.com
- qualifier: failure
  failure_sequence: 2
 MigEvent:
   name: vm_migrate
   description: VM Live Migration (VMOTION)
   quid: 07500602-449a-11de-bd4f-005056a83e5d
   event_type: Default
   definition:
   default:
   enabled:
 MiqAction:
   name: vm_shutdown_guest
   description: Shutdown Virtual Machine Guest OS
   quid: 26b84380-bbd5-11de-aaab-0050568a2c6a
   action_type: default
   options: {}
- qualifier: failure
 failure_sequence: 1
 MiqEvent:
   name: assigned_company_tag
   description: Tag Complete
   guid: e384ecb6-1e1e-11de-8918-0050568005db
   event_type: Default
   definition:
   default:
   enabled:
 MiqAction:
   name: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
   description: Email - DMZ
   guid: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
   action_type: email
   options:
     :variables:
     - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
     - :value: ''
     :oid: ''
```

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```
:var_type: <None>
          - :value: ''
           :oid: ''
            :var_type: <None>
          - :value: ''
           :oid: ''
           :var_type: <None>
          - :value: ''
           :oid: ''
            :var_type: <None>
          - :value: ''
            :oid: ''
            :var_type: <None>
          - :value: ''
            :oid: ''
           :var_type: <None>
          :to: dmzalert@manageiq.com
    - qualifier: failure
     failure_sequence: 2
     MigEvent:
       name: assigned_company_tag
       description: Tag Complete
       guid: e384ecb6-1e1e-11de-8918-0050568005db
        event_type: Default
       definition:
       default:
        enabled:
     MigAction:
       name: vm_shutdown_guest
        description: Shutdown Virtual Machine Guest OS
        guid: 26b84380-bbd5-11de-aaab-0050568a2c6a
       action_type: default
       options: {}
    Condition:
    - name: 278843f0-d2e6-11de-b4f6-0050568a547d
     description: vm - vlan - webserver
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          and:
          - FIND:
              checkany:
               IS NOT NULL:
                  field: Vm.lans-created_on
              search:
                INCLUDES:
                  value: External
                  field: Vm.lans-name
          - CONTAINS:
              tag: Vm.managed-function
              value: web_server
      towhat: Vm
      file_mtime:
      quid: 278843f0-d2e6-11de-b4f6-0050568a547d
      filename:
      applies_to_exp:
     miq_policy_id: 1000000000015
     notes:
- MiqPolicy:
```

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```
name: 39fbf6bc-d2fa-11de-b4f6-0050568a547d
description: ! 'Configuration: VM - DMZ Fully Collapsed Windows Services'
expression:
towhat: Vm
quid: 39fbf6bc-d2fa-11de-b4f6-0050568a547d
created_by: admin
updated_by: admin
notes: This policies verifies that certain services are disabled on DMZ vms
active: true
mode: control
MiqPolicyContent:
- qualifier: failure
  failure_sequence: 1
 MigEvent:
   name: vm_reconfigure
    description: VM Settings Change
    guid: 07367e62-449a-11de-bd4f-005056a83e5d
    event_type: Default
    definition:
   default:
    enabled:
 MigAction:
   name: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
    description: Email - DMZ
    guid: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
    action_type: email
    options:
      :variables:
      - :value: ''
       :oid: ''
        :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      :to: dmzalert@manageiq.com
```

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```
- qualifier: failure
  failure_sequence: 2
 MiqEvent:
   name: vm_reconfigure
   description: VM Settings Change
   guid: 07367e62-449a-11de-bd4f-005056a83e5d
   event_type: Default
   definition:
   default:
   enabled:
 MigAction:
   name: vm_shutdown_guest
    description: Shutdown Virtual Machine Guest OS
    quid: 26b84380-bbd5-11de-aaab-0050568a2c6a
    action_type: default
   options: {}
- qualifier: failure
 failure_sequence: 1
 MiqEvent:
   name: vm_migrate
    description: VM Live Migration (VMOTION)
    guid: 07500602-449a-11de-bd4f-005056a83e5d
    event_type: Default
    definition:
    default:
    enabled:
 MiqAction:
   name: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
    description: Email - DMZ
    guid: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
    action_type: email
    options:
     :variables:
      - :value: ''
       :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
     :oid: ''
```

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```
:var_type: <None>
      - :value: ''
       :oid: ''
        :var_type: <None>
      :to: dmzalert@manageiq.com
- qualifier: failure
  failure_sequence: 2
 MigEvent:
   name: vm_migrate
    description: VM Live Migration (VMOTION)
    quid: 07500602-449a-11de-bd4f-005056a83e5d
    event_type: Default
    definition:
   default:
   enabled:
 MiqAction:
   name: vm_shutdown_guest
   description: Shutdown Virtual Machine Guest OS
   guid: 26b84380-bbd5-11de-aaab-0050568a2c6a
   action_type: default
   options: {}
- qualifier: failure
 failure_sequence: 1
 MiqEvent:
    name: assigned_company_tag
    description: Tag Complete
    guid: e384ecb6-1e1e-11de-8918-0050568005db
    event_type: Default
   definition:
   default:
    enabled:
 MiqAction:
   name: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
    description: Email - DMZ
    guid: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
    action_type: email
    options:
     :variables:
      - :value: ''
        :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
      :var_type: <None>
```

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```
- :value: ''
        :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
        :var_type: <None>
      :to: dmzalert@manageiq.com
- qualifier: failure
  failure_sequence: 2
 MiqEvent:
   name: assigned_company_tag
    description: Tag Complete
    quid: e384ecb6-1e1e-11de-8918-0050568005db
    event_type: Default
    definition:
    default:
    enabled:
 MiqAction:
   name: vm_shutdown_guest
    description: Shutdown Virtual Machine Guest OS
    quid: 26b84380-bbd5-11de-aaab-0050568a2c6a
    action_type: default
    options: {}
Condition:
- name: ed4daf4e-d2fa-11de-b4f6-0050568a547d
  description: dmz - windows alerter - disabled
 modifier: allow
  expression: !ruby/object:MiqExpression
    exp:
        regkey: HKLM\SYSTEM\CurrentControlSet\Services\Alerter
        requal: Start
        value: 4
  towhat: Vm
  file_mtime:
  guid: ed4daf4e-d2fa-11de-b4f6-0050568a547d
  filename:
 applies_to_exp:
 miq_policy_id: 1000000000016
 notes:
- name: 469a8766-d2fb-11de-b4f6-0050568a547d
 description: dmz - windows messenger - disabled
 modifier: allow
 expression: !ruby/object:MiqExpression
   exp:
       regkey: HKLM\SYSTEM\CurrentControlSet\Services\Messenger
        regval: Start
        value: 4
  towhat: Vm
  file_mtime:
 guid: 469a8766-d2fb-11de-b4f6-0050568a547d
  filename:
 applies_to_exp:
 miq_policy_id: 1000000000016
 notes:
```

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```
- name: 7f648a84-d2fa-11de-b4f6-0050568a547d
      description: dmz - windows automatic update - disabled
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
            regkey: HKLM\SYSTEM\CurrentControlSet\Services\wuauserv
            requal: Start
            value: 4
      towhat: Vm
      file_mtime:
      guid: 7f648a84-d2fa-11de-b4f6-0050568a547d
      filename:
     applies_to_exp:
     miq_policy_id: 1000000000016
     notes:
- MiqPolicy:
   name: de3af0f2-d2f0-11de-b4f6-0050568a547d
   description: ! 'Configuration: VM - Internal Network'
   expression:
   towhat: Vm
   guid: de3af0f2-d2f0-11de-b4f6-0050568a547d
   created_by: admin
   updated_by: admin
    notes: This policy shutdown application or database vms that are incorrectly configured
     to access the dmz network
    active: true
   mode: control
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
       name: vm_reconfigure
       description: VM Settings Change
        guid: 07367e62-449a-11de-bd4f-005056a83e5d
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
        description: Email - DMZ
        guid: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
        action_type: email
        options:
         :variables:
          - :value: ''
           :oid: ''
           :var_type: <None>
          - :value: ''
            :oid: ''
            :var_type: <None>
          - :value: ''
            :oid: ''
            :var_type: <None>
          - :value: ''
            :oid: ''
            :var_type: <None>
          - :value: ''
```

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```
:oid: ''
       :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
       :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      :to: dmzalert@manageiq.com
- qualifier: failure
 failure_sequence: 2
 MiqEvent:
   name: vm_reconfigure
    description: VM Settings Change
    quid: 07367e62-449a-11de-bd4f-005056a83e5d
    event_type: Default
    definition:
   default:
    enabled:
 MiqAction:
   name: vm_shutdown_guest
    description: Shutdown Virtual Machine Guest OS
    quid: 26b84380-bbd5-11de-aaab-0050568a2c6a
   action_type: default
   options: {}
- qualifier: failure
  failure_sequence: 1
 MiqEvent:
   name: vm_migrate
    description: VM Live Migration (VMOTION)
    guid: 07500602-449a-11de-bd4f-005056a83e5d
    event_type: Default
    definition:
   default:
    enabled:
 MiqAction:
   name: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
   description: Email - DMZ
   guid: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
   action_type: email
    options:
      :variables:
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
    :oid: ''
```

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```
:var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
        :var_type: <None>
     - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
     - :value: ''
       :oid: ''
       :var_type: <None>
     :to: dmzalert@manageiq.com
- qualifier: failure
  failure_sequence: 2
 MiqEvent:
   name: vm_migrate
   description: VM Live Migration (VMOTION)
   guid: 07500602-449a-11de-bd4f-005056a83e5d
   event_type: Default
   definition:
   default:
   enabled:
 MigAction:
   name: vm_shutdown_guest
   description: Shutdown Virtual Machine Guest OS
   guid: 26b84380-bbd5-11de-aaab-0050568a2c6a
   action_type: default
   options: {}
- qualifier: failure
 failure_sequence: 1
 MiqEvent:
   name: assigned_company_tag
   description: Tag Complete
   guid: e384ecb6-1e1e-11de-8918-0050568005db
   event_type: Default
   definition:
   default:
   enabled:
 MiqAction:
   name: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
   description: Email - DMZ
   guid: 4ffb6baa-d2e6-11de-b4f6-0050568a547d
   action_type: email
   options:
     :variables:
     - :value: ''
       :oid: ''
     :var_type: <None>
```

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```
- :value: ''
        :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      :to: dmzalert@manageig.com
- qualifier: failure
  failure_sequence: 2
 MiqEvent:
    name: assigned_company_tag
    description: Tag Complete
    guid: e384ecb6-1e1e-11de-8918-0050568005db
    event_type: Default
    definition:
    default:
    enabled:
 MiqAction:
    name: vm_shutdown_guest
    description: Shutdown Virtual Machine Guest OS
    guid: 26b84380-bbd5-11de-aaab-0050568a2c6a
    action_type: default
    options: {}
Condition:
- name: 020dd9c2-d2f1-11de-b4f6-0050568a547d
 description: vm - internal vlan check
 modifier: allow
  expression: !ruby/object:MiqExpression
    exp:
      and:
      - FIND:
          checkany:
            IS NOT NULL:
              field: Vm.lans-created_on
          search:
            INCLUDES:
              value: Internal
              field: Vm.lans-name
```

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```
- or:
            - CONTAINS:
                tag: Vm.managed-function
                value: application_servers
            - CONTAINS:
                tag: Vm.managed-function
                value: database
     towhat: Vm
     file_mtime:
      guid: 020dd9c2-d2f1-11de-b4f6-0050568a547d
      filename:
      applies_to_exp:
     miq_policy_id: 1000000000014
- MigPolicy:
   name: 56c4d50e-3069-11de-971a-005056a12545
   description: DISA ESX Server STIG - ESX1170 requires IAO/SA to remove or disable
     all unused hardware on VM
   expression:
   towhat: Vm
   guid: 56c4d50e-3069-11de-971a-005056a12545
   created_by:
   updated_by:
   notes:
   active: true
   mode: control
   MiqPolicyContent: []
   Condition:
    - name: 627379ac-3067-11de-971a-005056a12545
     description: ! 'ESX1170: CAT II - Guest OS remove all unused hardware'
     modifier: allow
     expression: !ruby/object:MiqExpression
        exp:
          and:
          - FIND:
              checkcount:
                  value: 0
                  field: <count>
              search:
                INCLUDES:
                  value: floppy
                  field: Vm.hardware.disks-device_type
          - FIND:
              checkcount:
                =:
                  value: 0
                 field: <count>
              search:
                INCLUDES:
                  value: cdrom
                  field: Vm.hardware.disks-device_type
      towhat: Vm
      file_mtime:
      quid: 627379ac-3067-11de-971a-005056a12545
      filename:
     applies_to_exp:
     miq_policy_id: 1000000000010
     notes:
```

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```
- MiqPolicy:
    name: 69b1559e-3068-11de-971a-005056a12545
    description: DISA ESX Server STIG requires that the Virtual Machine Administrator
      be responsible for the following
    expression:
    towhat: Vm
    quid: 69b1559e-3068-11de-971a-005056a12545
    created by:
    updated_by:
    notes:
    active: true
    mode: control
    MigPolicyContent: []
    Condition:
    - name: ed826874-3066-11de-971a-005056a12545
     description: ! 'ESX1030: CAT II - Test and Development VMs must be seperated
        from Production VMs'
     modifier: allow
      expression: !ruby/object:MiqExpression
          and:
          - FIND:
              checkcount:
                ! '>=':
                  value: 1
                  field: <count>
              search:
                STARTS WITH:
                  value: '192.168'
                  field: Vm.hardware.networks-ipaddress
          - CONTAINS:
              tag: Vm.managed-environment
              value: prod
      towhat: Vm
      file_mtime:
      guid: ed826874-3066-11de-971a-005056a12545
      filename:
      applies_to_exp:
      miq_policy_id: 1000000000011
    - name: 28e35e32-3067-11de-971a-005056a12545
      description: ! 'ESX0940: CAT II - prevent use of nonpersistent disk mode'
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkcount:
              =:
                value: 0
                field: <count>
            search:
              INCLUDES:
                value: nonpersistent
                field: Vm.hardware.disks-mode
      towhat: Vm
      file_mtime:
      guid: 28e35e32-3067-11de-971a-005056a12545
      filename:
      applies_to_exp:
```

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```
miq_policy_id: 1000000000011
     notes:
- MigPolicy:
   name: de9aa7ec-3069-11de-971a-005056a12545
   description: DISA Information Assurance Vulnerability Alert - MS08-67
   expression:
   towhat: Vm
   guid: de9aa7ec-3069-11de-971a-005056a12545
   created_by:
   updated_by:
   notes:
   active: true
   mode: control
   MigPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: vm_start
        description: VM Power On
        quid: 404b4630-21a8-11e2-b47a-0050568b19a3
        event_type: Default
       definition:
       default:
        enabled:
     MigAction:
       name: vm_stop
        description: Stop Virtual Machine
        guid: 37f2da3e-21a8-11e2-b47a-0050568b19a3
        action_type: default
        options: {}
   Condition:
    - name: 7e492e4c-3067-11de-971a-005056a12545
     description: IAVA - MS08-067 for Windows 2000 Service Pack 4
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          and:
          - FIND:
              checkall:
                STARTS WITH:
                  value: 5.00.2195.7203
                  field: Vm.filesystems-file_version
              search:
                  value: c:/winnt/system32/netapi32.dll
                  field: Vm.filesystems-name
              regkey: HKLM\SOFTWARE\Microsoft\Updates\Windows 2000\SP5\KB958644\Filelist
      towhat: Vm
      file_mtime:
      guid: 7e492e4c-3067-11de-971a-005056a12545
      applies_to_exp: !ruby/object:MiqExpression
        exp:
          and:
          - STARTS WITH:
              value: Microsoft Windows 2000
              field: Vm.operating_system-product_name
          - =:
```

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```
value: Service Pack 4
          field: Vm.operating_system-service_pack
 miq_policy_id: 1000000000012
 notes:
- name: 8b0d83d0-3067-11de-971a-005056a12545
 description: IAVA - MS08-067 for Windows Server 2003 Service Pack 1 & 2
 modifier: allow
 expression: !ruby/object:MiqExpression
   exp:
     or:
      - and:
        - =:
            value: Service Pack 1
            field: Vm.operating_system-service_pack
        - FIND:
            checkall:
              STARTS WITH:
               value: 5.2.3790.3229
                field: Vm.filesystems-file_version
            search:
                value: c:/windows/system32/netapi32.dll
                field: Vm.filesystems-name
      - and:
            value: Service Pack 2
            field: Vm.operating_system-service_pack
        - FIND:
            checkall:
              STARTS WITH:
                value: 5.2.3790.4392
                field: Vm.filesystems-file_version
            search:
                value: c:/windows/system32/netapi32.dll
                field: Vm.filesystems-name
  towhat: Vm
  file_mtime:
  guid: 8b0d83d0-3067-11de-971a-005056a12545
 applies_to_exp: !ruby/object:MiqExpression
   exp:
     and:
      - STARTS WITH:
         value: Microsoft Windows Server 2003
          field: Vm.operating_system-product_name
      - or:
        - =:
            value: Service Pack 1
            field: Vm.operating_system-service_pack
            value: Service Pack 2
            field: Vm.operating_system-service_pack
 miq_policy_id: 1000000000012
 notes:
- name: 9482beb2-3067-11de-971a-005056a12545
 description: IAVA - MS08-067 for Windows XP Service Pack 2 & 3
 modifier: allow
 expression: !ruby/object:MiqExpression
```

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```
exp:
          and:
          - FIND:
              checkall:
                STARTS WITH:
                  value: 5.1.2600.3462
                  field: Vm.filesystems-file_version
              search:
                  value: c:/windows/system32/netapi32.dll
                  field: Vm.filesystems-name
          - KEY EXISTS:
              regkey: HKLM\SOFTWARE\Microsoft\Updates\Windows XP\SP4\KB958644\Filelist
      towhat: Vm
      file_mtime:
     guid: 9482beb2-3067-11de-971a-005056a12545
      filename:
      applies_to_exp: !ruby/object:MiqExpression
        exp:
          and:
          - STARTS WITH:
              value: Microsoft Windows XP
              field: Vm.operating_system-product_name
          - or:
                value: Service Pack 2
                field: Vm.operating_system-service_pack
                value: Service Pack 3
                field: Vm.operating_system-service_pack
     miq_policy_id: 1000000000012
     notes:
- MiqPolicy:
   name: 69fbd202-8ba3-11e0-b8fc-005056a40e59
   description: DMZ - Shutdown VM after Analysis if it has more than 1 NIC
   expression: !ruby/object:MiqExpression
      exp:
          value: 'on'
          field: Vm-power_state
      context_type:
   towhat: Vm
   guid: 69fbd202-8ba3-11e0-b8fc-005056a40e59
   created_by: admin
   updated_by: admin
   notes:
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
      success_sequence: 1
     MiqEvent:
        name: vm_scan_complete
        description: VM Analysis Complete
        guid: f7b8361e-1139-11e1-9333-005056af009e
        event_type: Default
        definition:
        default:
        enabled:
```

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```
MigAction:
        name: vm_shutdown_quest
        description: Shutdown Virtual Machine Guest OS
        guid: 26b84380-bbd5-11de-aaab-0050568a2c6a
        action_type: default
       options: {}
    - qualifier: success
      success_sequence: 2
     MigEvent:
       name: vm_scan_complete
        description: VM Analysis Complete
        quid: f7b8361e-1139-11e1-9333-005056af009e
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: evm_event
       description: Show EVM Event on Timeline
       quid: 16b1810c-44e8-11e0-acda-005056a40e59
        action_type: default
        options: {}
   Condition:
    - name: efcf3702-8b9e-11e0-b8fc-005056a40e59
      description: DMZ - VM has more than 1 NIC
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
         ! '>':
            count: Vm.hardware.nics
            value: '1'
        context_type:
      towhat: Vm
     file_mtime:
     guid: efcf3702-8b9e-11e0-b8fc-005056a40e59
      filename:
      applies_to_exp:
     miq_policy_id: 1000000000077
      notes:
- MiqPolicy:
   name: 0de66508-8b9f-11e0-b8fc-005056a40e59
   description: {\tt DMZ} - {\tt Shutdown} VM after Starting if it has more than 1 NIC
   expression:
   towhat: Vm
   guid: 0de66508-8b9f-11e0-b8fc-005056a40e59
   created_by: admin
   updated_by: admin
   notes:
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
      success_sequence: 1
     MiqEvent:
        name: vm_start
        description: VM Power On
        guid: 404b4630-21a8-11e2-b47a-0050568b19a3
        event_type: Default
        definition:
```

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```
default:
    enabled:
 MiqAction:
    name: vm_stop
    description: Stop Virtual Machine
    quid: 37f2da3e-21a8-11e2-b47a-0050568b19a3
    action_type: default
    options: {}
- qualifier: success
  success_sequence: 2
  MiqEvent:
    name: vm_start
    description: VM Power On
    quid: 404b4630-21a8-11e2-b47a-0050568b19a3
    event_type: Default
    definition:
    default:
    enabled:
 MiqAction:
    name: evm_event
    description: Show EVM Event on Timeline
    guid: 16b1810c-44e8-11e0-acda-005056a40e59
    action_type: default
    options: {}
- qualifier: success
  success_sequence: 3
 MiqEvent:
    name: vm_start
    description: VM Power On
    guid: 404b4630-21a8-11e2-b47a-0050568b19a3
    event_type: Default
    definition:
    default:
    enabled:
 MigAction:
    name: d91bbabc-b0be-11e1-b0dc-005056b057a8
    description: ! 'VM Attribute: Allowed NIC Count Exceeded'
    guid: d91bbabc-b0be-11e1-b0dc-005056b057a8
    action_type: set_custom_attribute
    options:
      :attribute: EVM Policy
      :value: Allowed NIC Limit Exceeded
Condition:
- name: efcf3702-8b9e-11e0-b8fc-005056a40e59
 description: DMZ - VM has more than 1 NIC
 modifier: allow
  expression: !ruby/object:MiqExpression
    exp:
      ! '>':
        count: Vm.hardware.nics
        value: '1'
    context_type:
  towhat: Vm
  file_mtime:
  guid: efcf3702-8b9e-11e0-b8fc-005056a40e59
  filename:
  applies_to_exp:
 miq_policy_id: 1000000000077
 notes:
```

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```
- MigPolicy:
   name: 0f2cc826-fa4b-11de-83ca-005056ba0614
   description: Directory Service Used for Authentication for sudo
   expression:
   towhat: Host
   guid: 0f2cc826-fa4b-11de-83ca-005056ba0614
   created_by: admin
   updated by: admin
   notes: This policy verifies that sudo is configured to use a directory for user
      authentication.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
       description: Host Compliance Check
       guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
       definition:
       default:
       enabled:
     MigAction:
        name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
        options: {}
   Condition:
    - name: 684b2a60-fa4b-11de-83ca-005056ba0614
     description: Directory Service used for sudo authentication
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: ^\s*auth\s+required\s+.*pam_stack\.so\s+service=system-auth
                field: Host.filesystems-contents
            search:
                value: /etc/pam.d/sudo
                field: Host.filesystems-name
      towhat: Host
     file_mtime:
     guid: 684b2a60-fa4b-11de-83ca-005056ba0614
     filename:
     applies_to_exp:
     miq_policy_id: 1000000000053
     notes: ! 'This condition verifies that the line "auth required pam_stack.so
        service=system-auth" exists in /etc/pam.d/sudo. '
- MiqPolicy:
    name: 1c4c7772-a7fb-11e0-abed-005056af0000
   description: Do Not Analyze Active VDI VMs
    expression:
   towhat: Vm
    guid: 1c4c7772-a7fb-11e0-abed-005056af0000
   created_by: admin
```

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```
updated_by: admin
   notes: This policy prevents analysis of a vm that has an active user session
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
     success_sequence: 1
     MigEvent:
       name: vm_scan_start
        description: VM Analysis Start
        quid: 057b9baa-519c-11e0-8d82-005056af0000
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: prevent
       description: Prevent current event from proceeding
       guid: d885a118-519b-11e0-8d82-005056af0000
       action_type: default
       options: {}
   Condition:
    - name: 0a50f750-a7fb-11e0-abed-005056af0000
      description: VM has an active session
     modifier: allow
      expression: !ruby/object:MigExpression
        exp:
            value: 'true'
           field: Vm-has_active_vdi_session
        context_type:
     towhat: Vm
     file_mtime:
     guid: 0a50f750-a7fb-11e0-abed-005056af0000
      filename:
      applies_to_exp:
     miq_policy_id: 1000000000007
     notes:
- MiqPolicy:
    name: af2d74ea-fa39-11de-83ca-005056ba0614
   description: Firewall - Incoming Security Level
   expression:
   towhat: Host
   guid: af2d74ea-fa39-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy verifies that only a defined set of incoming TCP and UDP Ports
     are open.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
        name: host_compliance_check
        description: Host Compliance Check
        guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
```

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```
default:
        enabled:
     MiqAction:
        name: compliance_failed
        description: Mark as Non-Compliant
        quid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
       options: {}
   Condition:
    - name: b4a0843a-fa43-11de-83ca-005056ba0614
      description: Valid Incoming UDP Ports
     modifier: allow
      expression: !ruby/object:MigExpression
        exp:
          LIMITED TO:
           value: '427'
           field: Host-enabled_udp_inbound_ports
      towhat: Host
      file_mtime:
     guid: b4a0843a-fa43-11de-83ca-005056ba0614
     filename:
     applies_to_exp:
     miq_policy_id: 10000000000021
     notes: This condition verifies that the only open incoming UDP port is 427.
    - name: 03529e9e-f961-11de-9e9d-0050568a07c7
      description: Valid Incoming TCP Ports
     modifier: allow
     expression: !ruby/object:MiqExpression
        exp:
          LIMITED TO:
            value: '902,80,443,427,5989,22,5988'
            field: Host-enabled_tcp_inbound_ports
      towhat: Host
      file_mtime:
     guid: 03529e9e-f961-11de-9e9d-0050568a07c7
      filename:
      applies_to_exp:
     miq_policy_id: 10000000000021
      notes: This condition verifies that the only open incoming TCP ports are \ \leftrightarrow
         22,80,427,443,902,5988,and
        5989.
- MiqPolicy:
   name: edaf1082-fa54-11de-83ca-005056ba0614
   description: Firewall - Outgoing NTP Port
   expression:
   towhat: Host
   quid: edaf1082-fa54-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy validates that the Firewall is configured properly for NTP
      support.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
        name: host_compliance_check
        description: Host Compliance Check
```

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```
quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        quid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
   Condition:
    - name: 1cb7f0ba-fa55-11de-83ca-005056ba0614
     description: Valid NTP Outgoing UDP Port
     modifier: allow
     expression: !ruby/object:MiqExpression
       exp:
          INCLUDES ANY:
           value: '123'
            field: Host-enabled_udp_outbound_ports
     towhat: Host
     file_mtime:
     guid: 1cb7f0ba-fa55-11de-83ca-005056ba0614
      filename:
     applies_to_exp:
     miq_policy_id: 1000000000052
      notes: This condition verifies that the outgoing UDP port required by NTP (port
       123) is open.
- MiqPolicy:
   name: 04db603c-fa3a-11de-83ca-005056ba0614
   description: Firewall - Outgoing Security Level
   expression:
   towhat: Host
   guid: 04db603c-fa3a-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy verifies that only a defined set of outgoing TCP and UDP Ports
     are open.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
       description: Host Compliance Check
       guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
       event_type: Default
       definition:
        default:
        enabled:
     MiqAction:
        name: compliance_failed
        description: Mark as Non-Compliant
        quid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
    Condition:
    - name: f0afd7d6-fa3a-11de-83ca-005056ba0614
```

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```
description: Valid Outgoing TCP Ports
     modifier: allow
     expression: !ruby/object:MiqExpression
       exp:
         LIMITED TO:
           value: '902,427,443,27000,27010'
           field: Host-enabled_tcp_outbound_ports
     towhat: Host
     file_mtime:
     guid: f0afd7d6-fa3a-11de-83ca-005056ba0614
     filename:
     applies_to_exp:
     notes: This condition verifies that the only open outgoing TCP ports are \leftrightarrow
         427,443,902,27000,
       and 27010.
   - name: 1778fb28-fa44-11de-83ca-005056ba0614
     description: Valid Outgoing UDP Ports
     modifier: allow
     expression: !ruby/object:MigExpression
       exp:
         LIMITED TO:
           value: '427,123,902'
           field: Host-enabled_udp_outbound_ports
     towhat: Host
     file_mtime:
     guid: 1778fb28-fa44-11de-83ca-005056ba0614
     filename:
     applies_to_exp:
     notes: This condition verifies that the only open outgoing UDP ports are 123,427,
       and 902.
- MiqPolicy:
   name: 2d6bfc2c-fa3b-11de-83ca-005056ba0614
   description: Limit Log Size
   expression:
   towhat: Vm
   guid: 2d6bfc2c-fa3b-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes:
   active: true
   mode: compliance
   MiqPolicyContent:
   - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: vm_compliance_check
       description: VM Compliance Check
       guid: 816a598a-f57d-11de-a41a-005056ba0614
       event_type: Default
       definition:
       default:
       enabled:
     MigAction:
       name: compliance_failed
       description: Mark as Non-Compliant
       guid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
```

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```
options: {}
   Condition:
    - name: 8b9cf076-fa3b-11de-83ca-005056ba0614
      description: Log Size Limit <= 100KB
     modifier: allow
     expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkall:
              <=:
                value: '100000'
                field: Vm.advanced_settings-value
            search:
                value: log.rotateSize
                field: Vm.advanced_settings-name
      towhat: Vm
     file_mtime:
     guid: 8b9cf076-fa3b-11de-83ca-005056ba0614
     filename:
      applies_to_exp:
     miq_policy_id: 1000000000061
     notes:
- MigPolicy:
   name: flaf8b44-fa3b-11de-83ca-005056ba0614
    description: Limit Number of Log Files
   expression:
    towhat: Vm
    guid: flaf8b44-fa3b-11de-83ca-005056ba0614
    created_by: admin
   updated_by: admin
   notes:
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
       name: vm_compliance_check
        description: VM Compliance Check
        guid: 816a598a-f57d-11de-a41a-005056ba0614
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
    Condition:
    - name: f2ad72ac-fa3d-11de-83ca-005056ba0614
      description: Number of Log Files to Keep <= 10
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkall:
```

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```
<=:
                value: '10'
                field: Vm.advanced_settings-value
            search:
                value: log.keepOld
                field: Vm.advanced_settings-name
     towhat: Vm
     file mtime:
      guid: f2ad72ac-fa3d-11de-83ca-005056ba0614
      filename:
      applies_to_exp:
     miq_policy_id: 10000000000000
- MigPolicy:
   name: 2cd1b736-fa52-11de-83ca-005056ba0614
   description: Limit Software and Services Running in Service Console
   expression:
   towhat: Host
   quid: 2cd1b736-fa52-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy validates that only an approved list of services are enabled
      at boot time on an ESX host.
    active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
        description: Host Compliance Check
        guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
       event_type: Default
       definition:
       default:
        enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
   Condition:
    - name: c4c80bfa-fa55-11de-83ca-005056ba0614
     description: Default Services Running in Service Console
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          LIMITED TO:
            value: crond, firewall, gpm, ipmi, irqbalance, mgmt-vmware, microcode_ctl,
              mptctlnode, network, ntpd, pegasus, portmap, random, rawdevices, sshd,
              syslog, vmware, vmware-autostart, vmware-late, vmware-vmkauthd, vmware-vpxa,
              vmware-webAccess, wsman, xinetd
            field: Host-enabled_run_level_3_services
      towhat: Host
      file_mtime:
      guid: c4c80bfa-fa55-11de-83ca-005056ba0614
      filename:
```

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```
applies_to_exp:
     miq_policy_id: 1000000000051
     notes: This conditions validates that a defined list of services are enabled
       with the ESX host is booted with networking support (run level 3). This list
       includes the generic services included in ESX. Additional hardware specific
       services can be added to the expression.
- MigPolicy:
   name: 8cecc84c-fa46-11de-83ca-005056ba0614
   description: Limit su Access to root Account
   expression:
   towhat: Host
   quid: 8cecc84c-fa46-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy validates that only members of the group wheel can access the
     su command.
   active: true
   mode: compliance
   MiqPolicyContent:
   - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
       description: Host Compliance Check
       guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
       event_type: Default
       definition:
       default:
       enabled:
     MiqAction:
       name: compliance_failed
       description: Mark as Non-Compliant
       guid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
       options: {}
   Condition:
    - name: 63b243fc-fa47-11de-83ca-005056ba0614
     description: Only members of wheel group can execute su command
     modifier: allow
      expression: !ruby/object:MiqExpression
       exp:
         FIND:
           checkany:
             REGULAR EXPRESSION MATCHES:
               value: ^\s*auth\s+required\s+.*pam_wheel\.so\s+use_uid
               field: Host.filesystems-contents
           search:
             =:
               value: /etc/pam.d/su
               field: Host.filesystems-name
      towhat: Host
      file_mtime:
      quid: 63b243fc-fa47-11de-83ca-005056ba0614
     filename:
     applies_to_exp:
     notes: This condition validates that the file /etc/pam.d/su contains a variation
       of the string "auth required pam_wheel.so use_uid".
- MiqPolicy:
```

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```
name: c79821fa-fa53-11de-83ca-005056ba0614
   description: Limit vmkernel Size
   expression:
   towhat: Host
   guid: c79821fa-fa53-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy checks the vmkernel log is limited to a specified size.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MigEvent:
       name: host_compliance_check
       description: Host Compliance Check
       guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
       event_type: Default
       definition:
       default:
       enabled:
     MigAction:
       name: compliance_failed
       description: Mark as Non-Compliant
       guid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
       options: {}
   Condition:
    - name: be9722e0-fa53-11de-83ca-005056ba0614
     description: vmkernel Log Size <= 4096KB
     modifier: allow
     expression: !ruby/object:MiqExpression
       exp:
         FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: ^{s+(409[0-6][40[0-8][0-9][123][0-9]{3}[\d{1,3})k}
                field: Host.filesystems-contents
            search:
                value: /etc/logrotate.d/vmkernel
                field: Host.filesystems-name
     towhat: Host
     file_mtime:
     guid: be9722e0-fa53-11de-83ca-005056ba0614
     filename:
     applies_to_exp:
     miq_policy_id: 10000000000049
     notes: This condition verifies that the file /etc/logrotate.d/vmkernel is configured
       to limit the associated log to 4096KB.
- MiqPolicy:
   name: fc63df74-fa52-11de-83ca-005056ba0614
   description: Limit vmksummary Size
   expression:
   towhat: Host
   guid: fc63df74-fa52-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy checks the vmksummary log is limited to a specified size.
```

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```
active: true
   mode: compliance
   MiqPolicyContent:
   - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
       description: Host Compliance Check
       quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
       definition:
       default:
        enabled:
     MigAction:
       name: compliance_failed
       description: Mark as Non-Compliant
       guid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
       options: {}
   Condition:
    - name: def33840-fa52-11de-83ca-005056ba0614
     description: vmksummary Log Size <= 4096KB
     modifier: allow
     expression: !ruby/object:MigExpression
       exp:
         FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: ^{s+(409[0-6][40[0-8][0-9][123][0-9]{3}[\d{1,3})k}
                field: Host.filesystems-contents
            search:
                value: /etc/logrotate.d/vmksummary
                field: Host.filesystems-name
     towhat: Host
     file mtime:
     guid: def33840-fa52-11de-83ca-005056ba0614
      filename:
     applies_to_exp:
     miq_policy_id: 1000000000056
     notes: This condition verifies that the file /etc/logrotate.d/vmksummary is
       configured to limit the associated log to 4096KB.
- MiqPolicy:
   name: 79548666-fa51-11de-83ca-005056ba0614
   description: Limit vmkwarning Size
   expression:
   towhat: Host
   guid: 79548666-fa51-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy checks the vmkwarning log is limited to a specified size.
   active: true
   mode: compliance
   MiqPolicyContent:
   - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
        description: Host Compliance Check
```

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```
quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
       definition:
        default:
       enabled:
     MiqAction:
       name: compliance_failed
       description: Mark as Non-Compliant
       quid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
       options: {}
   Condition:
    - name: 14d35e46-fa52-11de-83ca-005056ba0614
     description: vmkwarning Log Size <= 4096KB
     modifier: allow
     expression: !ruby/object:MiqExpression
       exp:
         FIND:
           checkany:
             REGULAR EXPRESSION MATCHES:
                value: ^{s+(409[0-6]|40[0-8][0-9]|[123][0-9]{3}|\d{1,3}})k
                field: Host.filesystems-contents
           search:
                value: /etc/logrotate.d/vmkwarning
                field: Host.filesystems-name
     towhat: Host
     file_mtime:
     guid: 14d35e46-fa52-11de-83ca-005056ba0614
     filename:
     applies_to_exp:
     miq_policy_id: 1000000000048
     notes: This condition verifies that the file /etc/logrotate.d/vmkwarning is
       configured to limit the associated log to 4096KB.
- MigPolicy:
   name: b218c83c-c01c-11e3-b785-001a4a0f459e
   description: MyNew VM Control Policy
   expression:
   towhat: Vm
   guid: b218c83c-c01c-11e3-b785-001a4a0f459e
   created_by: admin
   updated_by: admin
   notes:
   active: true
   mode: control
   MiqPolicyContent:
   - qualifier: success
     success_sequence: 1
     success_synchronous: true
     MiqEvent:
       name: vm_retired
       description: VM Retired
       guid: e363d8aa-1e1e-11de-8918-0050568005db
       event_type: Default
       definition:
       default:
       enabled:
     MiqAction:
       name: raise_automation_event
```

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```
description: Raise Automation Event
        quid: e7da3b7a-1139-11e1-9333-005056af009e
        action_type: default
        options: {}
    Condition: []
- MigPolicy:
   name: 61b355f2-fee1-11de-83dd-005056ba5e76
   description: Network - Forged Transmits Must Be Disabled
   expression:
   towhat: Host
    quid: 61b355f2-fee1-11de-83dd-005056ba5e76
    created_by: admin
   updated_by: admin
    notes: This policy insures that forged transmits are disabled on both vLans and
     vSwitches.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
        description: Host Compliance Check
        quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        quid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
   Condition:
    - name: f246e3e0-fee1-11de-83dd-005056ba5e76
      description: Forged Transmits Disabled in vLan
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          not:
            CONTAINS:
             value: 'false'
              field: Host.lans-forged_transmits
      towhat: Host
     file_mtime:
     guid: f246e3e0-fee1-11de-83dd-005056ba5e76
     filename:
     applies_to_exp:
     miq_policy_id: 1000000000022
     notes: This condition verifies that forged transmits are disabled on vlans.
    - name: a3ac5774-fee1-11de-83dd-005056ba5e76
      description: Forged Transmits Disabled in vSwitch
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          not:
           CONTAINS:
             value: 'false'
```

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```
field: Host.switches-forged_transmits
     towhat: Host
     file mtime:
     quid: a3ac5774-fee1-11de-83dd-005056ba5e76
     filename:
     applies_to_exp:
     miq_policy_id: 1000000000022
     notes: This condition verifies that forged transmits are disabled on vSwitches.
- MiqPolicy:
   name: de683aa6-fedf-11de-83dd-005056ba5e76
   description: Network - Mac Changes not Allowed
   expression:
   towhat: Host
   quid: de683aa6-fedf-11de-83dd-005056ba5e76
   created_by: admin
   updated_by: admin
   notes: This policy checks that MAC changes are not allowed on vSwitches and vLans.
   active: true
   mode: compliance
   MigPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
       description: Host Compliance Check
       quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
       event_type: Default
       definition:
       default:
       enabled:
     MiqAction:
       name: compliance_failed
       description: Mark as Non-Compliant
       quid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
       options: {}
   Condition:
    - name: 0a6eb332-fee0-11de-83dd-005056ba5e76
     description: Mac Changes Disabled in vSwitches
     modifier: allow
     expression: !ruby/object:MiqExpression
       exp:
         not:
           CONTAINS:
             value: 'false'
             field: Host.switches-mac_changes
     towhat: Host
     file_mtime:
     guid: 0a6eb332-fee0-11de-83dd-005056ba5e76
      filename:
     applies_to_exp:
     miq_policy_id: 1000000000028
     notes: This condition verifies that MAC changes are not allowed on vSwitches.
    - name: 3ed9fb4a-fee0-11de-83dd-005056ba5e76
     description: Mac Changes Disabled in vLans
     modifier: allow
     expression: !ruby/object:MiqExpression
         not:
```

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```
CONTAINS:
              value: 'false'
              field: Host.lans-mac_changes
      towhat: Host
     file_mtime:
     guid: 3ed9fb4a-fee0-11de-83dd-005056ba5e76
     filename:
     applies to exp:
     miq_policy_id: 10000000000028
     notes: This condition verifies that MAC changes are not allowed on vLans.
- MigPolicy:
   name: 7cc14778-fe0f-11de-83dd-005056ba5e76
   description: Network - Promiscuous Mode Setting Not Disabled
   expression:
   towhat: Host
   guid: 7cc14778-fe0f-11de-83dd-005056ba5e76
   created_by: admin
   updated_by: admin
   notes: Check the Host VLan setting for Promiscuous Mode which should be disabled.
   active: true
   mode: compliance
   MiqPolicyContent:
   - qualifier: failure
      failure_sequence: 1
     MigEvent:
       name: host_compliance_check
       description: Host Compliance Check
       quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
       event_type: Default
       definition:
       default:
       enabled:
     MiqAction:
       name: compliance_failed
       description: Mark as Non-Compliant
       guid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
       options: {}
   Condition:
     name: 2045b314-fe58-11de-83dd-005056ba5e76
     description: Check Host vSwitch - Promiscuous Mode Must Not Be Enable
     modifier: allow
     expression: !ruby/object:MiqExpression
       exp:
         not:
           CONTAINS:
             value: 'true'
             field: Host.switches-allow_promiscuous
     towhat: Host
     file_mtime:
     guid: 2045b314-fe58-11de-83dd-005056ba5e76
      filename:
     applies_to_exp:
     miq_policy_id: 10000000000029
     notes: This condition verifies that vSwitches do not allow Promiscuous mode
       via inheritance.
    - name: 80e5ff5e-fe16-11de-83dd-005056ba5e76
     description: Check Host Port - Promiscuous Mode Must Not Be Enabled
     modifier: allow
```

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```
expression: !ruby/object:MigExpression
        exp:
          not:
            CONTAINS:
              value: 'true'
              field: Host.lans-computed_allow_promiscuous
      towhat: Host
      file mtime:
     quid: 80e5ff5e-fe16-11de-83dd-005056ba5e76
      filename:
      applies_to_exp:
     miq_policy_id: 10000000000029
      notes: This condition verifies that vLans do not allow Promiscuous mode via
- MigPolicy:
   name: Configuration Policy Restrict Cloning SQL Server
   description: ! 'Operational: Prevent Cloning of Database VMs'
   expression:
   towhat: Vm
   quid: 39fdeba0-2866-11de-af2a-0050568026c2
   created_by:
   updated_by: admin
   notes: prevents cloning of vms with a workload tag value of database
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
      success_sequence: 1
     MiqEvent:
       name: vm_clone_start
       description: VM Clone Start
       guid: e30f6720-1e1e-11de-8918-0050568005db
        event_type: Default
       definition:
       default:
       enabled:
     MiqAction:
        name: cancel_task
        description: Cancel vCenter Task
        guid: e49bfee6-1e1e-11de-8918-0050568005db
        action_type: default
       options: {}
    - qualifier: success
      success_sequence: 2
     MiqEvent:
       name: vm_clone_start
       description: VM Clone Start
        guid: e30f6720-1e1e-11de-8918-0050568005db
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
        name: SendEmail
        description: SendEmail
        guid: abcf406c-02cd-11de-86d4-005056903dbc
        action_type: email
        options:
        :variables:
```

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```
- :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
        :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      :from: evmadmin@manageiq.com
      :to: evm_demo@manageiq.com
- qualifier: success
 success_sequence: 3
 MiqEvent:
   name: vm_clone_start
    description: VM Clone Start
    guid: e30f6720-1e1e-11de-8918-0050568005db
    event_type: Default
   definition:
   default:
   enabled:
 MiqAction:
   name: 4468f036-0b6d-11df-bd07-005056a7121f
   description: VM Attribute - Prevent Clone of SQL Server
    guid: 4468f036-0b6d-11df-bd07-005056a7121f
   action_type: set_custom_attribute
   options:
     :variables:
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
```

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```
:oid: ''
           :var_type: <None>
          - :value: ''
            :oid: ''
            :var_type: <None>
          - :value: ''
           :oid: ''
            :var_type: <None>
          - :value: ''
            :oid: ''
            :var_type: <None>
          - :value: ''
            :oid: ''
            :var_type: <None>
          - :value: ''
           :oid: ''
           :var_type: <None>
          - :value: ''
           :oid: ''
           :var_type: <None>
          :value: Clone Prevented for SQL Server VM
          :attribute: EVM Policy
   Condition:
    - name: VMs running SQL Server
      description: VMs with Workload - Database
     modifier: allow
     expression: !ruby/object:MiqExpression
        exp:
         CONTAINS:
           tag: Vm.managed-function
           value: database
        context_type:
     towhat: Vm
     file_mtime:
     guid: 121ecf62-01c6-11de-a701-005056903dbc
      filename:
      applies_to_exp:
     miq_policy_id: 1000000000064
      notes:
- MiqPolicy:
   name: Automation Policy - Scope VM Retirement Warning, ResponseExecute Automation
   description: ! 'Operational: Retirement Warning'
   expression:
   towhat: Vm
   guid: 39621392-2866-11de-af2a-0050568026c2
   created_by:
   updated_by: admin
   notes: This policy raises an automation event when a retirement warning event
     is raised
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
     success_sequence: 1
     failure_synchronous: true
     MiqEvent:
       name: vm_retire_warn
        description: VM Retirement Warning
```

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```
quid: 97c85330-fe93-11dd-b5e1-005056903dbc
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: raise_automation_event
        description: Raise Automation Event
        quid: e7da3b7a-1139-11e1-9333-005056af009e
        action_type: default
        options: {}
    Condition: []
- MigPolicy:
    name: Automation Policy - Scope VM Retired Response Execute Automation Model
   description: ! 'Operational: Vm Retired'
   expression:
   towhat: Vm
   quid: 397700ae-2866-11de-af2a-0050568026c2
   created_by:
   updated_by: admin
   notes: This policy raises an automation event when a vm retirement event is raised
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
      success_sequence: 1
      failure_synchronous: true
     MiqEvent:
       name: vm_retired
        description: VM Retired
        guid: e363d8aa-1e1e-11de-8918-0050568005db
        event_type: Default
       definition:
       default:
       enabled:
     MiqAction:
       name: raise_automation_event
        description: Raise Automation Event
        guid: e7da3b7a-1139-11e1-9333-005056af009e
        action_type: default
        options: {}
   Condition: []
- MiqPolicy:
   name: 2f9fad14-fa4e-11de-83ca-005056ba0614
   description: Password Aging - Default Maximum
   expression:
   towhat: Host
   guid: 2f9fad14-fa4e-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy validates the ESX host's maximum password age configuration.
    active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
        name: host_compliance_check
        description: Host Compliance Check
```

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```
quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        quid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
    Condition:
    - name: a4a0e740-fa4e-11de-83ca-005056ba0614
     description: Default Maximum Password Age <= 90days
     modifier: allow
     expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: ^{s*PASS_MAX_DAYS}s+([0-9]|[1-8][0-9]|90)
                field: Host.filesystems-contents
            search:
                value: /etc/login.defs
                field: Host.filesystems-name
      towhat: Host
      file_mtime:
      quid: a4a0e740-fa4e-11de-83ca-005056ba0614
     filename:
     applies_to_exp:
     miq_policy_id: 1000000000047
      notes: This condition checks the file /etc/login.defs and verifies that the
       PASS_MAX_DAYS parameter's value is 90 days or greater.
- MigPolicy:
   name: 32b26f2c-fa4f-11de-83ca-005056ba0614
    description: Password Aging - Default Minimum
    expression:
    towhat: Host
    guid: 32b26f2c-fa4f-11de-83ca-005056ba0614
    created_by: admin
   updated_by: admin
   notes: This policy validates the ESX host's minimum password age configuration.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MiqEvent:
        name: host_compliance_check
        description: Host Compliance Check
        guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
        name: compliance_failed
        description: Mark as Non-Compliant
```

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```
quid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
   Condition:
    - name: 79d39ad4-fa4f-11de-83ca-005056ba0614
     description: Default Minimum Password Age >= 0
     modifier: allow
      expression: !ruby/object:MigExpression
        exp:
          FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: ^\s*PASS_MIN_DAYS\s+\d+
                field: Host.filesystems-contents
            search:
              =:
                value: /etc/login.defs
                field: Host.filesystems-name
     towhat: Host
     file_mtime:
     guid: 79d39ad4-fa4f-11de-83ca-005056ba0614
     filename:
     applies_to_exp:
     miq_policy_id: 1000000000059
     notes: This condition checks the file /etc/login.defs and verifies that the
        PASS_MIN_DAYS parameter's value is greater than or equal to 0 days.
- MiqPolicy:
    name: 305e6832-fa51-11de-83ca-005056ba0614
   description: Password Complexity - Minimum Length
    expression:
   towhat: Host
    guid: 305e6832-fa51-11de-83ca-005056ba0614
    created_by: admin
   updated_by: admin
   notes: This policy verifies the minimum password length.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MigEvent:
       name: host_compliance_check
        description: Host Compliance Check
        guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
       definition:
       default:
        enabled:
     MigAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
        options: {}
   Condition:
    - name: c0ba559e-fa51-11de-83ca-005056ba0614
      description: Minimum Password Length >= 8
     modifier: allow
     expression: !ruby/object:MiqExpression
```

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```
exp:
          FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: ^{s+PASS_MIN_LEN_s+([8-9]|[1-9][0-9]+)}
                field: Host.filesystems-contents
            search:
                value: /etc/login.defs
                field: Host.filesystems-name
      towhat: Host
      file_mtime:
      quid: c0ba559e-fa51-11de-83ca-005056ba0614
      filename:
     applies_to_exp:
     miq_policy_id: 1000000000057
     notes: This condition checks the file /etc/login.defs and verifies that the
       PASS_MIN_LEN parameter's value is 8 or greater.
- MigPolicy:
   name: 40b796dc-fa50-11de-83ca-005056ba0614
   description: Password Expiration Warning Default
   expression:
   towhat: Host
    guid: 40b796dc-fa50-11de-83ca-005056ba0614
    created_by: admin
    updated_by: admin
    notes: This policy verifies the default setting for password expiration warning.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
        description: Host Compliance Check
        guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MigAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
       options: {}
    Condition:
    - name: 0e842bde-fa51-11de-83ca-005056ba0614
     description: Password Expiration Warning Default >= 7days
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: ^\s*PASS_WARN_AGE\s+([7-9]|[1-9][0-9]+)
                field: Host.filesystems-contents
            search:
              =:
```

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```
value: /etc/login.defs
                field: Host.filesystems-name
      towhat: Host
      file_mtime:
     guid: 0e842bde-fa51-11de-83ca-005056ba0614
      filename:
     applies_to_exp:
     miq_policy_id: 1000000000046
     notes: This condition checks the file /etc/login.defs and verifies that PASS_WARN_AGE
        parameter's value is set to 7 or greater.
- MigPolicy:
    name: e6f082ba-fa4c-11de-83ca-005056ba0614
    description: Password checking enabled for sudo
    expression:
    towhat: Host
   guid: e6f082ba-fa4c-11de-83ca-005056ba0614
    created_by: admin
   updated_by: admin
   notes: This policy verifies that password checking is enabled for sudo.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MigEvent:
        name: host_compliance_check
        description: Host Compliance Check
        quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
    Condition:
     name: 3d2074e2-fa4d-11de-83ca-005056ba0614
      description: NOPASSWD does not exist in sudoers file
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
              REGULAR EXPRESSION DOES NOT MATCH:
                value: /^[^#]*NOPASSWD/i
                field: Host.filesystems-contents
            search:
                value: /etc/sudoers
                field: Host.filesystems-name
      towhat: Host
      file_mtime:
      guid: 3d2074e2-fa4d-11de-83ca-005056ba0614
      filename:
      applies_to_exp:
     miq_policy_id: 1000000000058
```

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```
notes: This condition check the file /etc/sudoers and verifies that it does
       not contain the word NOPASSWORD on an uncommented line.
- MiqPolicy:
   name: c5d44cb2-4734-11df-b577-005056a7121f
   description: ! 'Patch: MS10-008 Required'
    expression: !ruby/object:MigExpression
     exp:
        CONTAINS:
          tag: Vm.managed-environment
          value: prod
      context_type:
    towhat: Vm
    guid: c5d44cb2-4734-11df-b577-005056a7121f
    created_by: admin
   updated_by: admin
   notes: Prevents a VM that does not have MS10-008 installed from running in the
     virtual environment. It's scope limits it to vms tagged as production
   active: true
   mode: control
   MigPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: vm_start
        description: VM Power On
        quid: 404b4630-21a8-11e2-b47a-0050568b19a3
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: vm_stop
        description: Stop Virtual Machine
        quid: 37f2da3e-21a8-11e2-b47a-0050568b19a3
        action_type: default
       options: {}
    - qualifier: failure
      failure_sequence: 2
     MiqEvent:
       name: vm_start
       description: VM Power On
        guid: 404b4630-21a8-11e2-b47a-0050568b19a3
        event_type: Default
        definition:
       default:
        enabled:
     MiqAction:
       name: SendEmail
        description: SendEmail
        guid: abcf406c-02cd-11de-86d4-005056903dbc
        action_type: email
        options:
          :variables:
          - :value: ''
            :oid: ''
            :var_type: <None>
          - :value: ''
            :oid: ''
          :var_type: <None>
```

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```
- :value: ''
       :oid: ''
       :var_type: <None>
     - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
     - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
     - :value: ''
       :oid: ''
       :var_type: <None>
     - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      :from: evmadmin@manageiq.com
     :to: evm_demo@manageiq.com
- qualifier: failure
 failure_sequence: 3
 MiqEvent:
   name: vm_start
   description: VM Power On
   guid: 404b4630-21a8-11e2-b47a-0050568b19a3
   event_type: Default
   definition:
   default:
   enabled:
 MiqAction:
   name: 722d25cc-56dc-11df-bb16-005056a7121f
   description: VM Attribute - Fails patch policy
   guid: 722d25cc-56dc-11df-bb16-005056a7121f
   action_type: set_custom_attribute
   options:
     :variables:
     - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
     - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
     - :value: ''
```

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```
:oid: ''
           :var_type: <None>
          - :value: ''
            :oid: ''
            :var_type: <None>
          - :value: ''
           :oid: ''
            :var_type: <None>
          - :value: ''
            :oid: ''
            :var_type: <None>
          - :value: ''
            :oid: ''
            :var_type: <None>
          :value: Failed Windows Required Patch Policy
          :attribute: EVM Policy
   Condition:
    - name: a3089008-4734-11df-b577-005056a7121f
     description: Verify KB978262 is installed
     modifier: allow
     expression: !ruby/object:MiqExpression
       exp:
         CONTAINS:
           value: KB978262
            field: Vm.patches-name
        context_type:
      towhat: Vm
     file_mtime:
     guid: a3089008-4734-11df-b577-005056a7121f
      filename:
     applies_to_exp:
     miq_policy_id: 1000000000071
     notes:
- MigPolicy:
   name: e4c93c82-fa3a-11de-83ca-005056ba0614
   description: Permissions - /etc/grub.conf
   expression:
   towhat: Host
    guid: e4c93c82-fa3a-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy verifies that editing the server's boot process requires root
     level authority.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
        description: Host Compliance Check
        guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
       definition:
       default:
        enabled:
     MiqAction:
        name: compliance_failed
        description: Mark as Non-Compliant
```

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```
quid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
   Condition:
    - name: d2adb400-fa3b-11de-83ca-005056ba0614
     description: Permissions - /etc/grub.conf
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          and:
          - FIND:
              checkany:
                  value: '0600'
                  field: Host.filesystems-permissions
              search:
                  value: /etc/grub.conf
                  field: Host.filesystems-name
          - FIND:
              checkany:
                =:
                  value: root
                  field: Host.filesystems-owner
              search:
                  value: /etc/grub.conf
                  field: Host.filesystems-name
     towhat: Host
      file_mtime:
     guid: d2adb400-fa3b-11de-83ca-005056ba0614
     filename:
     applies_to_exp:
     miq_policy_id: 1000000000027
     notes: This condition verifies that the file /etc/grub.conf's permissions are
       set to 0600 and is owned by root.
- MiqPolicy:
    name: 7ea7db8c-fa46-11de-83ca-005056ba0614
    description: Permissions - /etc/snmp/snmpd.conf
   expression:
   towhat: Host
   guid: 7ea7db8c-fa46-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy ensures that access to SNMP configuration parameters are limited
     to the root user.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
        name: host_compliance_check
        description: Host Compliance Check
        guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
```

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```
MigAction:
        name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
       options: {}
    Condition:
    - name: ebb24a50-fa46-11de-83ca-005056ba0614
     description: Permissions - /etc/snmp/snmpd.conf
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          and:
          - FIND:
              checkany:
                =:
                  value: '0700'
                  field: Host.filesystems-permissions
              search:
                  value: /etc/snmp/snmpd.conf
                  field: Host.filesystems-name
          - FIND:
              checkany:
                =:
                  value: root
                  field: Host.filesystems-owner
              search:
                =:
                  value: /etc/snmp/snmpd.conf
                  field: Host.filesystems-name
      towhat: Host
     file_mtime:
     guid: ebb24a50-fa46-11de-83ca-005056ba0614
     filename:
     applies_to_exp:
     miq_policy_id: 1000000000045
      notes: This condition verifies that the permissions of /etc/snmp/snmpd.conf
        are 0700 and is owned by root.
- MiqPolicy:
   name: 7408efa8-21b3-11e2-a38c-0050568b19a3
   description: Power-Off Virtual Machines
   expression:
   towhat: Vm
   guid: 7408efa8-21b3-11e2-a38c-0050568b19a3
   created_by: admin
   updated_by: admin
   notes:
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
      success_sequence: 1
     MiqEvent:
        name: vm_start
        description: VM Power On
        guid: 404b4630-21a8-11e2-b47a-0050568b19a3
        event_type: Default
        definition:
```

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```
default:
        enabled:
     MiqAction:
       name: vm_stop
        description: Stop Virtual Machine
        quid: 37f2da3e-21a8-11e2-b47a-0050568b19a3
       action_type: default
       options: {}
   Condition:
    - name: d514b2fa-21b3-11e2-a38c-0050568b19a3
      description: VM with Workload Tag Messaging
     modifier: allow
      expression: !ruby/object:MigExpression
        exp:
          !binary "Q090VEFJT1M=":
            !binary "dGFn": Vm.managed-function
            !binary "dmFsdWU=": messaging
        context_type:
     towhat: Vm
     file_mtime:
     quid: d514b2fa-21b3-11e2-a38c-0050568b19a3
     filename:
      applies_to_exp:
     miq_policy_id:
     notes:
- MigPolicy:
    name: f4f0e916-bbd5-11e1-a4a4-005056b25af6
   description: Prevent PowerOn of Quarantined VM
   expression:
   towhat: Vm
   guid: f4f0e916-bbd5-11e1-a4a4-005056b25af6
    created_by: admin
   updated_by: admin
   notes:
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
      success_sequence: 1
     MiqEvent:
       name: request_vm_start
        description: VM Power On Request
        guid: 48b02c4a-ae7c-11e1-a76f-005056b25af6
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: vm_stop
        description: Stop Virtual Machine
        guid: 37f2da3e-21a8-11e2-b47a-0050568b19a3
        action_type: default
        options: {}
    - qualifier: success
      success_sequence: 1
     MiqEvent:
       name: vm_start
        description: VM Power On
        guid: 404b4630-21a8-11e2-b47a-0050568b19a3
```

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```
event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: vm_stop
        description: Stop Virtual Machine
        quid: 37f2da3e-21a8-11e2-b47a-0050568b19a3
        action_type: default
        options: {}
    Condition:
    - name: 1cbc27da-bbd6-11e1-ac0c-005056b25af6
     description: VM Tagged as Do Not PowerOn
     modifier: allow
      expression: !ruby/object:MiqExpression
       exp:
          CONTAINS:
           tag: Vm.managed-exclusions
           value: do_not_power_on
        context_type:
     towhat: Vm
     file_mtime:
     guid: 1cbc27da-bbd6-11e1-ac0c-005056b25af6
      filename:
      applies_to_exp:
     miq_policy_id:
     notes:
- MigPolicy:
   name: eb84f288-fa39-11de-83ca-005056ba0614
   description: Protect Root File System Filling /home
   expression:
   towhat: Host
   guid: eb84f288-fa39-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy verifies that the /home directory is mounted on a different
     partition than the root filesystem.
    active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
       description: Host Compliance Check
       guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
       definition:
       default:
        enabled:
     MiqAction:
        name: compliance_failed
        description: Mark as Non-Compliant
        quid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
        options: {}
   Condition:
    - name: 62447a1a-fa3a-11de-83ca-005056ba0614
      description: Protect Root File System Filling /home
```

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```
modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: ^[^#] * \/home
                field: Host.filesystems-contents
            search:
                value: /etc/fstab
                field: Host.filesystems-name
      towhat: Host
      file_mtime:
     guid: 62447a1a-fa3a-11de-83ca-005056ba0614
      filename:
     applies_to_exp:
     miq_policy_id: 1000000000019
     notes: This condition verifies that the file /etc/fstab has an uncommented line
       that references the directory /home.
- MigPolicy:
   name: a128d356-fa36-11de-83ca-005056ba0614
   description: Protect Root File System Filling /tmp
    expression:
    towhat: Host
    guid: a128d356-fa36-11de-83ca-005056ba0614
    created_by: admin
   updated_by: admin
   notes: This policy verifies that the /tmp directory is mounted on a different
     partition than the root filesystem.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
        description: Host Compliance Check
        guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
       definition:
        default:
        enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
       guid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
        options: {}
   Condition:
    - name: 267dd9de-fa37-11de-83ca-005056ba0614
      description: Protect Root File System Filling /tmp
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: ^[^#]*\/tmp
```

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```
field: Host.filesystems-contents
            search:
              =:
                value: /etc/fstab
                field: Host.filesystems-name
     towhat: Host
     file_mtime:
     guid: 267dd9de-fa37-11de-83ca-005056ba0614
     filename:
      applies_to_exp:
     miq_policy_id: 1000000000044
      notes: This condition verifies that the file /etc/fstab has an uncommented line
        that references the directory /tmp.
- MigPolicy:
   name: 854d45aa-fa3a-11de-83ca-005056ba0614
   description: Protect Root File System Filling /var/log
   expression:
   towhat: Host
    guid: 854d45aa-fa3a-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy verifies that the /var/log directory is mounted on a different
     partition than the root filesystem.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
        name: host_compliance_check
        description: Host Compliance Check
        quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
       default:
       enabled:
     MiqAction:
        name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
   Condition:
    - name: a84173e2-fa3a-11de-83ca-005056ba0614
     description: Protect Root File System Filling /var/log
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: ^[^#]*\/var\/log
                field: Host.filesystems-contents
            search:
                value: /etc/fstab
                field: Host.filesystems-name
      towhat: Host
      file_mtime:
```

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```
quid: a84173e2-fa3a-11de-83ca-005056ba0614
      filename:
     applies_to_exp:
     miq_policy_id: 1000000000055
     notes: This condition verifies that the file /etc/fstab has an uncommented line
       that references the directory /var/log.
- MigPolicy:
   name: 57189108-d1d3-11e1-9ede-005056af009e
   description: Record Last RDP User
    expression:
    towhat: Vm
    quid: 57189108-d1d3-11e1-9ede-005056af009e
    created_by: admin
   updated_by: admin
   notes: ! 'When a user logs on to the VM through an RDP session, the file c:\rdp_login\rdp. \leftarrow
     is automatically created by the logon script.
     A analysis profile should be set to retrieve this file and its content.
     This policy will automatically raise an automate event so the content of the
      file can be parsed and elements set as custom attributes of the VM ^{\prime}
    active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
      success_sequence: 1
     MiqEvent:
       name: vm_scan_complete
        description: VM Analysis Complete
        guid: f7b8361e-1139-11e1-9333-005056af009e
       event_type: Default
       definition:
       default:
        enabled:
     MiqAction:
       name: raise_automation_event
        description: Raise Automation Event
        guid: e7da3b7a-1139-11e1-9333-005056af009e
        action_type: default
        options: {}
   Condition:
    - name: 5a4c3456-de30-11e1-9088-005056af009e
     description: Check for files starting with rep
     modifier: allow
     expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkcount:
              ! '>=':
                field: <count>
                value: '1'
            search:
              INCLUDES:
                field: Vm.filesystems-name
                value: rdp
        context_type:
```

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```
towhat: Vm
      file mtime:
     guid: 5a4c3456-de30-11e1-9088-005056af009e
      filename:
     applies_to_exp:
     miq_policy_id: 4
     notes:
- MigPolicy:
   name: 5ce6be9a-fa4c-11de-83ca-005056ba0614
    description: Require users to enter own password - no ROOTPW entry
    expression:
    towhat: Host
    guid: 5ce6be9a-fa4c-11de-83ca-005056ba0614
    created_by: admin
   updated_by: admin
   notes: This policy verifies that when the sudo command is used, each user is prompted
     for their password and not the root password.
   active: true
   mode: compliance
   MigPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MiqEvent:
        name: host_compliance_check
        description: Host Compliance Check
        quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        quid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
    Condition:
    - name: a791b882-fa4c-11de-83ca-005056ba0614
     description: ROOTPW does not exist in sudoers file
      modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
           checkany:
              REGULAR EXPRESSION DOES NOT MATCH:
                value: /^[^#]*ROOTPW/i
                field: Host.filesystems-contents
            search:
                value: /etc/sudoers
                field: Host.filesystems-name
      towhat: Host
      file mtime:
      quid: a791b882-fa4c-11de-83ca-005056ba0614
      filename:
     applies_to_exp:
     miq_policy_id: 10000000000043
     notes: This condition check the file /etc/sudoers and verifies that it does
       not contain the word ROOTPW on an uncommented line.
```

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```
- MiqPolicy:
    name: a3a56370-c015-11e3-b785-001a4a0f459e
    description: Retirement of VM
    expression: !ruby/object:MiqExpression
      exp:
          field: Vm-retired
          value: 'true'
      context_type:
    towhat: Vm
    quid: a3a56370-c015-11e3-b785-001a4a0f459e
    created_by: admin
    updated_by: admin
    notes:
    active: true
    mode: control
    MiqPolicyContent:
    - qualifier: success
     success_sequence: 1
     success_synchronous: true
     MiqEvent:
       name: vm_retired
        description: VM Retired
        quid: e363d8aa-1e1e-11de-8918-0050568005db
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
        name: vm_retire
        description: Retire Virtual Machine
        quid: 047c677e-431c-11e3-91d5-001a4a0f459e
        action_type: default
        options: {}
    Condition: []
- MiqPolicy:
    name: eb0151ea-fa47-11de-83ca-005056ba0614
    description: Root Login on console should be Disabled
    expression:
    towhat: Host
    guid: eb0151ea-fa47-11de-83ca-005056ba0614
    created_by: admin
    updated_by: admin
    notes: This policy verifies that the root account cannot directly login via the
     console.
    active: true
    mode: compliance
    MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
        name: host_compliance_check
        description: Host Compliance Check
        quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
```

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```
name: compliance_failed
        description: Mark as Non-Compliant
        quid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
    Condition:
    - name: 571e6e76-fa48-11de-83ca-005056ba0614
     description: File /etc/securetty should be empty
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkall:
                value: '0'
                field: Host.filesystems-size
            search:
                value: /etc/securetty
                field: Host.filesystems-name
     towhat: Host
     file mtime:
     guid: 571e6e76-fa48-11de-83ca-005056ba0614
      filename:
     applies_to_exp:
     miq_policy_id: 10000000000026
      notes: This condition checks the file /etc/securetty and verifies that it's
        empty by checking for a OKB file size.
- MigPolicy:
   name: c63b0560-fa45-11de-83ca-005056ba0614
   description: Root Login via SSH should be Disabled
   expression:
   towhat: Host
   guid: c63b0560-fa45-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy verifies that the root account cannot login to the host via
     SSH.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
        description: Host Compliance Check
        quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
       definition:
        default:
        enabled:
     MiqAction:
        name: compliance_failed
        description: Mark as Non-Compliant
        quid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
    Condition:
    - name: 4435b6d6-fa46-11de-83ca-005056ba0614
```

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```
description: PermitRootLogin = no in sshd_config file
      modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: ^\s*PermitRootLogin\s+no
                field: Host.filesystems-contents
            search:
                value: /etc/ssh/sshd_config
                field: Host.filesystems-name
      towhat: Host
      file_mtime:
     guid: 4435b6d6-fa46-11de-83ca-005056ba0614
      filename:
     applies_to_exp:
     miq_policy_id: 1000000000042
     notes: This condition checks the file /etc/ssh/sshd config and verifies that
       the PermitRootLogin parameter's value is set to no.
- MigPolicy:
   name: 24b92088-399c-11de-ae27-005056a11a54
    description: Service Level Gold - RAM must be 1GB and 1 vCPU - off
    expression: !ruby/object:MiqExpression
        and:
        - CONTAINS:
            tag: Vm.managed-service_level
           value: gold
        - =:
           value: 'off'
            field: Vm-power_state
      context_type:
    towhat: Vm
   guid: 24b92088-399c-11de-ae27-005056a11a54
    created_by:
    updated_by: admin
    notes: This policy verifies that a vm that has a service level tag of gold has
     1vCPU and 1GB of memory. If not it changes the vm to these values. This policy
     is used on a powered off vm.
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
     success_sequence: 1
     MiqEvent:
       name: assigned_company_tag
        description: Tag Complete
        guid: e384ecb6-1e1e-11de-8918-0050568005db
        event_type: Default
        definition:
       default:
        enabled:
     MigAction:
       name: VM_RAM_1GB
        description: Set VM RAM to 1GB
        guid: 2d8445f2-9aec-11dd-8e55-005056ac7d2c
        action_type: reconfigure_memory
```

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```
options:
          :value: 1024
    - qualifier: success
      success_sequence: 2
     MiqEvent:
       name: assigned_company_tag
        description: Tag Complete
        quid: e384ecb6-1e1e-11de-8918-0050568005db
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: VM_CPU_1
       description: Set VM CPU to 1
        guid: d97dafba-9af1-11dd-8e55-005056ac7d2c
        action_type: reconfigure_cpus
       options:
          :value: '1'
    Condition:
    - name: 1c6ec35e-3908-11de-b6d5-005056a11a54
     description: Service Level Gold - VM RAM and CPU check
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          - ! '!=':
              value: 1024
              field: Vm.hardware-memory_cpu
          - ! '!=':
              value: 1
              field: Vm.hardware-numvcpus
      towhat: Vm
     file_mtime:
     guid: 1c6ec35e-3908-11de-b6d5-005056a11a54
      filename:
      applies_to_exp:
     miq_policy_id: 10000000000069
- MiqPolicy:
   name: 7a91f3ac-3908-11de-b6d5-005056a11a54
   description: Service Level Gold - RAM must be 1GB and 1 vCPU - on
    expression: !ruby/object:MiqExpression
     exp:
       and:
        - CONTAINS:
           tag: Vm.managed-service_level
           value: gold
            value: 'on'
            field: Vm-power_state
      context_type:
    towhat: Vm
    quid: 7a91f3ac-3908-11de-b6d5-005056a11a54
   created_by:
   updated_by: admin
   notes: This policy verifies that a vm that has a service level tag of gold has
     1vCPU and 1GB of memory. If not it changes the vm to these values. This policy
     is used on a powered on vm.
```

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```
active: true
mode: control
MiqPolicyContent:
- qualifier: success
  success_sequence: 1
 MiqEvent:
    name: assigned_company_tag
    description: Tag Complete
    quid: e384ecb6-1e1e-11de-8918-0050568005db
    event_type: Default
    definition:
    default:
    enabled:
 MigAction:
    name: vm_stop
    description: Stop Virtual Machine
    guid: 37f2da3e-21a8-11e2-b47a-0050568b19a3
    action_type: default
   options: {}
- qualifier: success
  success_sequence: 2
 MiqEvent:
    name: assigned_company_tag
    description: Tag Complete
    guid: e384ecb6-1e1e-11de-8918-0050568005db
    event_type: Default
    definition:
    default:
    enabled:
 MiqAction:
    name: VM_RAM_1GB
    description: Set VM RAM to 1GB
    guid: 2d8445f2-9aec-11dd-8e55-005056ac7d2c
    action_type: reconfigure_memory
    options:
     :value: 1024
- qualifier: success
  success_sequence: 3
  MiqEvent:
    name: assigned_company_tag
    description: Tag Complete
    guid: e384ecb6-1e1e-11de-8918-0050568005db
    event_type: Default
    definition:
    default:
    enabled:
 MiqAction:
   name: VM_CPU_1
    description: Set VM CPU to 1
    guid: d97dafba-9af1-11dd-8e55-005056ac7d2c
    action_type: reconfigure_cpus
    options:
      :value: '1'
- qualifier: success
  success_sequence: 4
 MiqEvent:
    name: assigned_company_tag
    description: Tag Complete
    guid: e384ecb6-1e1e-11de-8918-0050568005db
```

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```
event_type: Default
        definition:
        default:
        enabled:
     MigAction:
       name: vm_start
        description: Start Virtual Machine
        quid: 55b5a422-3348-11de-bde2-005056a170fa
        action_type: default
        options: {}
    Condition:
    - name: 1c6ec35e-3908-11de-b6d5-005056a11a54
     description: Service Level Gold - VM RAM and CPU check
      modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          or:
          - ! '!=':
             value: 1024
              field: Vm.hardware-memory_cpu
          - ! '!=':
              value: 1
              field: Vm.hardware-numvcpus
      towhat: Vm
      file_mtime:
      guid: 1c6ec35e-3908-11de-b6d5-005056a11a54
      filename:
      applies_to_exp:
     miq_policy_id: 10000000000069
     notes:
- MiqPolicy:
   name: b265c970-3908-11de-b6d5-005056a11a54
    description: Service Level Platinum - RAM must be 2GB and 2 vCPUs - off
    expression: !ruby/object:MiqExpression
     exp:
        and:
        - CONTAINS:
            tag: Vm.managed-service_level
            value: platinum
            value: 'off'
           field: Vm-power_state
      context_type:
    towhat: Vm
   guid: b265c970-3908-11de-b6d5-005056a11a54
   created_by:
   updated_by: admin
   notes: This policy verifies that a vm that has a service level tag of platinum
     has 2 vCPUs and 2GB of memory. If not it changes the vm to these values. This
     policy is used on a powered off vm.
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
      success_sequence: 1
     MiqEvent:
       name: assigned_company_tag
        description: Tag Complete
        guid: e384ecb6-1e1e-11de-8918-0050568005db
```

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```
event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: VM_RAM_2GB
        description: Set VM RAM to 2GB
        quid: cf1570b2-9af1-11dd-8e55-005056ac7d2c
        action_type: reconfigure_memory
        options:
          :value: 2048

    qualifier: success

      success_sequence: 2
     MigEvent:
       name: assigned_company_tag
        description: Tag Complete
        guid: e384ecb6-1e1e-11de-8918-0050568005db
        event_type: Default
       definition:
       default:
        enabled:
     MigAction:
       name: VM_CPU_2
       description: Set VM CPU to 2
        guid: e2c3d64e-9af1-11dd-8e55-005056ac7d2c
        action_type: reconfigure_cpus
        options:
          :value: '2'
   Condition:
    - name: 34218558-3909-11de-b6d5-005056a11a54
     description: Service Level Platinum - VM RAM and CPU check
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          or:
          - ! '!=':
              value: 2048
              field: Vm.hardware-memory_cpu
          - ! '!=':
              value: 2
              field: Vm.hardware-numvcpus
     towhat: Vm
      file_mtime:
     guid: 34218558-3909-11de-b6d5-005056a11a54
      filename:
     applies_to_exp:
     miq_policy_id: 10000000000070
     notes:
- MigPolicy:
   name: 4cb4d05c-3909-11de-b6d5-005056a11a54
    description: Service Level Platinum - RAM must be 2GB and 2 vCPUs - on
    expression: !ruby/object:MiqExpression
      exp:
        and:
        - CONTAINS:
            tag: Vm.managed-service_level
            value: platinum
        - =:
           value: 'on'
```

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```
field: Vm-power_state
  context_type:
towhat: Vm
quid: 4cb4d05c-3909-11de-b6d5-005056a11a54
created_by:
updated_by: admin
notes: This policy verifies that a vm that has a service level tag of platinum
 has 2 vCPUs and 2GB of memory. If not it changes the vm to these values. This
 policy is used on a powered on vm.
active: true
mode: control
MigPolicyContent:
- qualifier: success
  success_sequence: 1
 MigEvent:
    name: assigned_company_tag
    description: Tag Complete
    quid: e384ecb6-1e1e-11de-8918-0050568005db
    event_type: Default
    definition:
    default:
    enabled:
 MiqAction:
    name: vm_stop
    description: Stop Virtual Machine
    quid: 37f2da3e-21a8-11e2-b47a-0050568b19a3
    action_type: default
    options: {}
- qualifier: success
  success_sequence: 2
 MiqEvent:
    name: assigned_company_tag
    description: Tag Complete
    quid: e384ecb6-1e1e-11de-8918-0050568005db
    event_type: Default
    definition:
    default:
    enabled:
 MiqAction:
    name: VM_RAM_2GB
    description: Set VM RAM to 2GB
    guid: cf1570b2-9af1-11dd-8e55-005056ac7d2c
    action_type: reconfigure_memory
    options:
      :value: 2048
- qualifier: success
  success_sequence: 3
 MiqEvent:
    name: assigned_company_tag
    description: Tag Complete
    guid: e384ecb6-1e1e-11de-8918-0050568005db
    event_type: Default
    definition:
    default:
    enabled:
 MiqAction:
    name: VM_CPU_2
    description: Set VM CPU to 2
    guid: e2c3d64e-9af1-11dd-8e55-005056ac7d2c
```

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```
action_type: reconfigure_cpus
        options:
          :value: '2'
    - qualifier: success
      success_sequence: 4
     MiqEvent:
       name: assigned_company_tag
        description: Tag Complete
        quid: e384ecb6-1e1e-11de-8918-0050568005db
        event_type: Default
        definition:
        default:
        enabled:
     MigAction:
       name: vm_start
       description: Start Virtual Machine
        guid: 55b5a422-3348-11de-bde2-005056a170fa
       action_type: default
       options: {}
    Condition:
    - name: 34218558-3909-11de-b6d5-005056a11a54
     description: Service Level Platinum - VM RAM and CPU check
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          - ! '!=':
              value: 2048
              field: Vm.hardware-memory_cpu
          - ! '!=':
              value: 2
              field: Vm.hardware-numvcpus
      towhat: Vm
      file_mtime:
     guid: 34218558-3909-11de-b6d5-005056a11a54
      filename:
      applies_to_exp:
     miq_policy_id: 10000000000070
      notes:
- MiqPolicy:
   name: Service Level Policy Verify Virtual Hardware - Silver Level
   description: Service Level Silver - RAM must be 512MB and 1 vCPU - off
    expression: !ruby/object:MiqExpression
     exp:
       and:
        - CONTAINS:
           tag: Vm.managed-service_level
           value: silver
           value: 'off'
            field: Vm-power_state
      context_type:
    towhat: Vm
    guid: 3659b8bc-2866-11de-af2a-0050568026c2
   created_by:
   updated_by: admin
   notes: This policy verifies that a vm that has a service level tag of silver has
     1 vCPU and 512MB of memory. If not it changes the vm to these values. This policy
     is used on a powered off vm.
```

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```
active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
     success_sequence: 1
     MiqEvent:
       name: assigned_company_tag
        description: Tag Complete
        quid: e384ecb6-1e1e-11de-8918-0050568005db
        event_type: Default
        definition:
        default:
        enabled:
     MigAction:
       name: VM_CPU_1
       description: Set VM CPU to 1
        guid: d97dafba-9af1-11dd-8e55-005056ac7d2c
        action_type: reconfigure_cpus
        options:
          :value: '1'
    - qualifier: success
     success_sequence: 2
     MiqEvent:
       name: assigned_company_tag
        description: Tag Complete
        quid: e384ecb6-1e1e-11de-8918-0050568005db
        event_type: Default
        definition:
        default:
        enabled:
     MigAction:
       name: VM_RAM_512MB
        description: Set VM RAM to 512MB
        quid: bab04cb4-9af1-11dd-8e55-005056ac7d2c
        action_type: reconfigure_memory
        options:
          :value: 512
    Condition:
    - name: Service Level Validation Silver - Powered Off
     description: Service Level Silver - VM RAM and CPU check
     modifier: allow
     expression: !ruby/object:MiqExpression
        exp:
          or:
          - ! '!=':
             value: 512
             field: Vm.hardware-memory_cpu
          - ! '!=':
              value: 1
              field: Vm.hardware-numvcpus
      towhat: Vm
      file_mtime:
      guid: 531575ae-9b1c-11dd-bbd7-005056ac7d2c
      filename:
      applies_to_exp:
     miq_policy_id: 10000000000088
     notes:
- MiqPolicy:
   name: d16643b6-3905-11de-b6d5-005056a11a54
```

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```
description: Service Level Silver - RAM must be 512MB and 1 vCPU - on
expression: !ruby/object:MiqExpression
  exp:
    and:
    - CONTAINS:
        tag: Vm.managed-service_level
        value: silver
        value: 'on'
        field: Vm-power_state
  context_type:
towhat: Vm
guid: d16643b6-3905-11de-b6d5-005056a11a54
created_by:
updated_by: admin
notes: This policy verifies that a vm that has a service level tag of silver has
 1 vCPU and 512MB of memory. If not it changes the vm to these values. This policy
 is used on a powered on vm.
active: true
mode: control
MiqPolicyContent:
- qualifier: success
 success_sequence: 1
 MiqEvent:
    name: assigned_company_tag
    description: Tag Complete
    guid: e384ecb6-1e1e-11de-8918-0050568005db
    event_type: Default
    definition:
    default:
    enabled:
 MiqAction:
    name: vm_stop
    description: Stop Virtual Machine
    guid: 37f2da3e-21a8-11e2-b47a-0050568b19a3
    action_type: default
    options: {}
- qualifier: success
  success_sequence: 2
 MiqEvent:
    name: assigned_company_tag
    description: Tag Complete
    guid: e384ecb6-1e1e-11de-8918-0050568005db
    event_type: Default
    definition:
    default:
    enabled:
 MiqAction:
    name: VM_RAM_512MB
    description: Set VM RAM to 512MB
    guid: bab04cb4-9af1-11dd-8e55-005056ac7d2c
    action_type: reconfigure_memory
    options:
      :value: 512
- qualifier: success
  success_sequence: 3
 MiqEvent:
    name: assigned_company_tag
    description: Tag Complete
```

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```
quid: e384ecb6-1e1e-11de-8918-0050568005db
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: VM_CPU_1
        description: Set VM CPU to 1
        quid: d97dafba-9af1-11dd-8e55-005056ac7d2c
        action_type: reconfigure_cpus
        options:
          :value: '1'
    - qualifier: success
      success_sequence: 4
     MigEvent:
       name: assigned_company_tag
        description: Tag Complete
        quid: e384ecb6-1e1e-11de-8918-0050568005db
        event_type: Default
       definition:
       default:
        enabled:
     MiqAction:
       name: vm_start
        description: Start Virtual Machine
        quid: 55b5a422-3348-11de-bde2-005056a170fa
        action_type: default
        options: {}
   Condition:
    - name: Service Level Validation Silver - Powered Off
     description: Service Level Silver - VM RAM and CPU check
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          or:
          - ! '!=':
              value: 512
              field: Vm.hardware-memory_cpu
          - ! '!=':
              value: 1
              field: Vm.hardware-numvcpus
     towhat: Vm
      file_mtime:
     guid: 531575ae-9b1c-11dd-bbd7-005056ac7d2c
     filename:
     applies_to_exp:
     miq_policy_id: 1000000000068
     notes:
- MigPolicy:
   name: 498f5330-fa4b-11de-83ca-005056ba0614
    description: Settings - Remote syslog Logging
    expression:
    towhat: Host
    guid: 498f5330-fa4b-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy verifies that syslog is configured to utilize a remote server.
   active: true
   mode: compliance
```

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```
MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MigEvent:
        name: host_compliance_check
        description: Host Compliance Check
        quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MigAction:
        name: compliance_failed
        description: Mark as Non-Compliant
        quid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
   Condition:
    - name: ee09af6e-fa4b-11de-83ca-005056ba0614
     description: Verify syslog Utilizes a Remote Host
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: /^[^#*]\s*.*@/
                field: Host.filesystems-contents
            search:
                value: /etc/syslog.conf
                field: Host.filesystems-name
      towhat: Host
      file_mtime:
     guid: ee09af6e-fa4b-11de-83ca-005056ba0614
      filename:
      applies_to_exp:
     miq_policy_id: 10000000000025
      notes: This condition checks the file /etc/syslog.conf and verifies the existence
        of the @ parameter, which is used to specify the use of a remote server.
- MiqPolicy:
   name: c340f524-fa3e-11de-83ca-005056ba0614
   description: Settings - /etc/grub.conf
    expression:
   towhat: Host
    guid: c340f524-fa3e-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy verifies that a password is required in order to edit the server's
     boot process.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
        name: host_compliance_check
        description: Host Compliance Check
        guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
```

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```
event_type: Default
        definition:
        default:
        enabled:
     MigAction:
        name: compliance_failed
        description: Mark as Non-Compliant
        quid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
    Condition:
    - name: 1f18225a-fa3f-11de-83ca-005056ba0614
     description: Verify /etc/grub.conf Settings
      modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: ^\s*password\s\-\-md5
                field: Host.filesystems-contents
            search:
                value: /etc/grub.conf
                field: Host.filesystems-name
      towhat: Host
      file_mtime:
      quid: 1f18225a-fa3f-11de-83ca-005056ba0614
      filename:
     applies_to_exp:
     miq_policy_id: 10000000000041
     notes: This condition check the file /etc/grub.conf and verifies that the parameter
        "password --md5" exists.
- MigPolicy:
   name: e3f6428c-a85a-11e3-9c44-001a4a0f459e
   description: Settings - /etc/resolv.conf
    expression: !ruby/object:MiqExpression
      exp:
       FIND:
          search:
              field: Vm.filesystems-name
              value: resolv.conf
          checkall:
              field: Vm.filesystems-contents_available
              value: 'true'
     context_type:
    towhat: Vm
    guid: e3f6428c-a85a-11e3-9c44-001a4a0f459e
   created_by: admin
   updated_by: admin
    notes:
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: success
     success_sequence: 1
     success_synchronous: true
```

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```
MiqEvent:
        name: vm_compliance_check
        description: VM Compliance Check
        guid: 816a598a-f57d-11de-a41a-005056ba0614
        event_type: Default
        definition:
        default:
        enabled:
     MigAction:
       name: log
        description: Generate log message
        quid: 04771f80-431c-11e3-91d5-001a4a0f459e
        action_type: default
        options: {}
    - qualifier: success
      success_sequence: 2
      success_synchronous: true
     MiqEvent:
       name: vm_compliance_check
       description: VM Compliance Check
        quid: 816a598a-f57d-11de-a41a-005056ba0614
        event_type: Default
       definition:
        default:
        enabled:
     MigAction:
        name: c26b7988-a860-11e3-9c44-001a4a0f459e
        description: resolv.conf
        guid: c26b7988-a860-11e3-9c44-001a4a0f459e
        action_type: custom_automation
        options:
          :ae_request: resolvsend
          :ae_message: create
    - qualifier: failure
      failure_sequence: 1
      failure_synchronous: true
     MiqEvent:
        name: vm_compliance_check
        description: VM Compliance Check
        guid: 816a598a-f57d-11de-a41a-005056ba0614
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: log
        description: Generate log message
        guid: 04771f80-431c-11e3-91d5-001a4a0f459e
       action_type: default
        options: {}
    Condition: []
- MiqPolicy:
   name: 6576a074-fa48-11de-83ca-005056ba0614
   description: Settings - /etc/sudoers
   expression:
   towhat: Host
   guid: 6576a074-fa48-11de-83ca-005056ba0614
    created_by: admin
   updated_by: admin
```

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```
notes: This policy verifies that sudo is configured to use syslog for logging.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MigEvent:
       name: host_compliance_check
        description: Host Compliance Check
        guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MigAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        quid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
        options: {}
    Condition:
    - name: ade186c6-fa48-11de-83ca-005056ba0614
      description: Verify sudo is Logging via syslog
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkanv:
              REGULAR EXPRESSION MATCHES:
                value: ^\s*Defaults\s+syslog\=
                field: Host.filesystems-contents
            search:
                value: /etc/sudoers
                field: Host.filesystems-name
      towhat: Host
      file_mtime:
      guid: ade186c6-fa48-11de-83ca-005056ba0614
      filename:
     applies_to_exp:
     miq_policy_id: 10000000000040
      notes: This condition check the file /etc/sudoers and verifies that the parameter
        "Defaults syslog=" exists.
- MiqPolicy:
   name: ab373d88-fa4a-11de-83ca-005056ba0614
   description: Settings - Display Logs on Different Terminals
    expression:
   towhat: Host
   guid: ab373d88-fa4a-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
    notes: This policy verifies that critical, error, and warning level log messages
      are directed to distinct terminals.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
```

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```
name: host_compliance_check
        description: Host Compliance Check
        quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MigAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        quid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
   Condition:
    - name: f383ec6c-fa4a-11de-83ca-005056ba0614
     description: Verify Different Logs Displayed on Different Terminals
     modifier: allow
      expression: !ruby/object:MigExpression
        exp:
          and:
          - FIND:
              checkanv:
                REGULAR EXPRESSION MATCHES:
                  value: ^\s*\*\.crit\s+\/dev\/tty
                  field: Host.filesystems-contents
              search:
                  value: /etc/syslog.conf
                  field: Host.filesystems-name
          - FIND:
              checkany:
                REGULAR EXPRESSION MATCHES:
                  value: ^\s*\\star\.err\s+\/dev\/tty
                  field: Host.filesystems-contents
              search:
                  value: /etc/syslog.conf
                  field: Host.filesystems-name
          - FIND:
              checkany:
                REGULAR EXPRESSION MATCHES:
                  value: ^\s*\*\.warning\s+\/dev\/tty
                  field: Host.filesystems-contents
              search:
                  value: /etc/syslog.conf
                  field: Host.filesystems-name
     towhat: Host
     file mt.ime:
      guid: f383ec6c-fa4a-11de-83ca-005056ba0614
      filename:
     applies_to_exp:
     miq_policy_id: 1000000000024
      notes: This condition checks the file /etc/syslog.conf has three seperate parameters
        defined for critical, error, and warning level log messages. These parameters
        specify the tty will display the specified log messages.
- MiqPolicy:
    name: 4b188948-fa45-11de-83ca-005056ba0614
    description: Settings - SNMP Read Only Access
```

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```
expression:
    towhat: Host
   guid: 4b188948-fa45-11de-83ca-005056ba0614
    created_by: admin
   updated_by: admin
   notes: This policy verifies that SNMP is configured to only allow read-only access.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MigEvent:
        name: host_compliance_check
        description: Host Compliance Check
        quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MigAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        quid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
    Condition:
    - name: e328c720-fa45-11de-83ca-005056ba0614
      description: SNMP Configured for Read-only Access
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          and:
          - FIND:
              checkany:
                REGULAR EXPRESSION MATCHES:
                  value: ^\s*rocommunity
                  field: Host.filesystems-contents
              search:
                  value: /etc/snmp/snmpd.conf
                  field: Host.filesystems-name
          - FIND:
              checkany:
                REGULAR EXPRESSION DOES NOT MATCH:
                  value: ^\s*rwcommunity
                  field: Host.filesystems-contents
              search:
                  value: /etc/snmp/snmpd.conf
                  field: Host.filesystems-name
      towhat: Host
      file_mtime:
      guid: e328c720-fa45-11de-83ca-005056ba0614
      filename:
     applies_to_exp:
     miq_policy_id: 1000000000054
     notes: This condition checks the file /etc/snmp/snmpd.conf and verfies that
        the rocommunity parameter is defined and the rwcommunity parameter is not.
- MiqPolicy:
```

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```
name: 0864fae6-fa54-11de-83ca-005056ba0614
   description: Settings - vmkernel Compress Option
   expression:
   towhat: Host
   guid: 0864fae6-fa54-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy verifies that the vmkernel log is compressed by default.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MigEvent:
       name: host_compliance_check
       description: Host Compliance Check
       guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
       event_type: Default
       definition:
       default:
       enabled:
     MigAction:
       name: compliance_failed
       description: Mark as Non-Compliant
       quid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
       options: {}
   Condition:
    - name: fe7378be-fa53-11de-83ca-005056ba0614
     description: Verify Compression Enabled in vmkernel
     modifier: allow
     expression: !ruby/object:MigExpression
       exp:
         FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: \s+compress
                field: Host.filesystems-contents
            search:
                value: /etc/logrotate.d/vmkernel
                field: Host.filesystems-name
     towhat: Host
     file mtime:
     guid: fe7378be-fa53-11de-83ca-005056ba0614
     filename:
     applies_to_exp:
     miq_policy_id: 1000000000039
     notes: This condition checks the file /etc/logrotate.d/vmkernel and verifies
       that the option compress is enabled.
- MiqPolicy:
   name: 6353b57e-fa53-11de-83ca-005056ba0614
   description: Settings - vmksummary Compress Option
   expression:
   towhat: Host
   guid: 6353b57e-fa53-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy verifies that the vmksummary log is compressed by default.
```

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```
active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
        description: Host Compliance Check
        quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MigAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
       options: {}
    Condition:
    - name: 510f7286-fa53-11de-83ca-005056ba0614
     description: Verify Compression Enabled in vmksummary
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: \s+compress
                field: Host.filesystems-contents
            search:
                value: /etc/logrotate.d/vmksummary
                field: Host.filesystems-name
     towhat: Host
      file mtime:
      guid: 510f7286-fa53-11de-83ca-005056ba0614
      filename:
      applies_to_exp:
     miq_policy_id: 1000000000038
     notes: This condition checks the file /etc/logrotate.d/vmksummary and verifies
       that the option compress is enabled.
- MiqPolicy:
   name: 4614d62e-fa52-11de-83ca-005056ba0614
   description: Settings - vmkwarning Compress Option
   expression:
   towhat: Host
   quid: 4614d62e-fa52-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy verifies that the vmkwarning log is compressed by default.
    active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
        name: host_compliance_check
        description: Host Compliance Check
```

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```
quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        quid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
   Condition:
    - name: a51cbaba-fa52-11de-83ca-005056ba0614
     description: Verify Compression Enabled in vmkwarning
     modifier: allow
     expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: \s+compress
                field: Host.filesystems-contents
            search:
                value: /etc/logrotate.d/vmkwarning
                field: Host.filesystems-name
      towhat: Host
      file_mtime:
     guid: a51cbaba-fa52-11de-83ca-005056ba0614
     filename:
     applies_to_exp:
     miq_policy_id: 1000000000037
      notes: This condition checks the file /etc/logrotate.d/vmkwarning and verifies
       that the option compress is enabled.
- MigPolicy:
   name: 994efe7e-18e6-11e0-88b4-005056a7184a
    description: ! 'Snapshots: Delete based on Count'
    expression:
    towhat: Vm
    guid: 994efe7e-18e6-11e0-88b4-005056a7184a
    created_by: admin
   updated_by: admin
   notes: This policy deletes the most recent snapshot when more that 2 snapshots
     exists
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
     success_sequence: 1
     MiqEvent:
        name: vm_snapshot_complete
        description: VM Snapshot Create Complete
        guid: 7eb82802-135e-11e0-8706-005056a7184a
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
        name: delete_most_recent_snapshot
```

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```
description: Delete Most Recent Snapshot
        quid: 7f6e2f8a-135e-11e0-8706-005056a7184a
       action_type: default
       options: {}
   Condition:
   - name: 992035fc-18e7-11e0-88b4-005056a7184a
     description: Check for more than 2 snapshots
     modifier: allow
     expression: !ruby/object:MiqExpression
       exp:
         ! '>':
           value: '2'
            field: Vm-v_total_snapshots
        context_type:
     towhat: Vm
     file_mtime:
     quid: 992035fc-18e7-11e0-88b4-005056a7184a
     filename:
     applies_to_exp:
     miq_policy_id: 1000000000075
     notes: Checks to see if more than 2 snapshots exist
- MigPolicy:
   name: cf87e7fc-99d8-11e1-a4bf-005056b057a8
   description: ! 'Snapshots: limit to max of 2'
   expression:
   towhat: Vm
   guid: cf87e7fc-99d8-11e1-a4bf-005056b057a8
   created_by: admin
   updated_by: admin
   notes: This policy prevents a vm from starting if there are more than 2 snapshots.
     If this number is exceeded, the vm is not allowed to start and the vm annotations
     are updated in the VC
   active: true
   mode: control
   MiqPolicyContent:
   - qualifier: success
     success_sequence: 1
     MiqEvent:
       name: vm_start
       description: VM Power On
       guid: 404b4630-21a8-11e2-b47a-0050568b19a3
       event_type: Default
       definition:
       default:
       enabled:
     MiqAction:
       name: vm_stop
       description: Stop Virtual Machine
       guid: 37f2da3e-21a8-11e2-b47a-0050568b19a3
       action_type: default
       options: {}
    - qualifier: success
     success_sequence: 2
     MiqEvent:
       name: vm_start
       description: VM Power On
       guid: 404b4630-21a8-11e2-b47a-0050568b19a3
        event_type: Default
       definition:
```

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```
default:
        enabled:
     MigAction:
        name: 8d6ebd90-99d9-11e1-a4bf-005056b057a8
        description: ! 'VM Attribute: Max Snapshots'
        quid: 8d6ebd90-99d9-11e1-a4bf-005056b057a8
       action_type: set_custom_attribute
       options:
          :value: Snapshot Limit Exceeded
          :attribute: EVM Policy
    Condition:
    - name: 9db4783a-99d8-11e1-a4bf-005056b057a8
     description: Snapshot Count >=3
     modifier: allow
     expression: !ruby/object:MiqExpression
       exp:
         ! '>=':
           count: Vm.snapshots
           value: '3'
        context_type:
     towhat: Vm
     file_mtime:
     guid: 9db4783a-99d8-11e1-a4bf-005056b057a8
      filename:
      applies_to_exp:
     miq_policy_id: 1000000000079
     notes: This condition checks to see if 3 or more snapshots exist
- MiqPolicy:
   name: 98557866-d2ee-11de-b4f6-0050568a547d
   description: ! 'Tag: Host Workload - DMZ'
   expression:
   towhat: Host
   guid: 98557866-d2ee-11de-b4f6-0050568a547d
   created_by: admin
   updated_by: admin
   notes: This policy will automatically apply a DMZ tag to a host if it has access
     to the external vlan
    active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
     success_sequence: 1
     MiqEvent:
       name: host_scan_complete
       description: Host Analysis Complete
       guid: ffcfb368-455d-11de-86a0-005056a81f62
       event_type: Default
       definition:
       default:
        enabled:
     MiqAction:
        name: 330828a4-d2ef-11de-b4f6-0050568a547d
        description: Tag as DMZ
        quid: 330828a4-d2ef-11de-b4f6-0050568a547d
       action_type: tag
        options:
          - /managed/network_location/dmz
    Condition:
```

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```
- name: ed3edf84-d2ee-11de-b4f6-0050568a547d
      description: Host - DMZ vlan check
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
              IS NOT NULL:
                field: Host.lans-created_on
            search:
              INCLUDES:
                value: External
                field: Host.lans-name
      towhat: Host
      file mtime:
     guid: ed3edf84-d2ee-11de-b4f6-0050568a547d
      filename:
     applies_to_exp:
     miq_policy_id: 1000000000017
- MigPolicy:
   name: 0c2517d8-1ea2-11e0-8e71-005056910000
   description: ! 'Tag: VM Inherit Cluster Location Tag'
   expression:
   towhat: Vm
    guid: 0c2517d8-1ea2-11e0-8e71-005056910000
    created_by: admin
   updated_by: admin
   notes: This policy allows a vm to inherit the location tag of it's parent cluster
     on creation or completion of analysis
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
     success_sequence: 1
     MiqEvent:
       name: vm_create
        description: VM Create Complete
        guid: 4c0b4f12-37c0-11df-b567-005056a40709
        event_type: Default
       definition:
        default:
        enabled:
     MiqAction:
       name: 60e5d690-1ea2-11e0-8e71-005056910000
        description: ! 'Tag: Inherit Cluster Location Tag'
        quid: 60e5d690-1ea2-11e0-8e71-005056910000
       action_type: inherit_parent_tags
        options:
          :parent_type: ems_cluster
          :cats:
          - location
    - qualifier: success
      success_sequence: 1
     MiqEvent:
       name: vm_scan_complete
        description: VM Analysis Complete
        guid: f7b8361e-1139-11e1-9333-005056af009e
        event_type: Default
```

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```
definition:
        default:
        enabled:
     MiqAction:
        name: 60e5d690-1ea2-11e0-8e71-005056910000
        description: ! 'Tag: Inherit Cluster Location Tag'
        quid: 60e5d690-1ea2-11e0-8e71-005056910000
        action_type: inherit_parent_tags
        options:
          :parent_type: ems_cluster
          :cats:
          - location
    Condition: []
- MigPolicy:
   name: 66fbec86-d2ef-11de-b4f6-0050568a547d
   description: ! 'Tag: VM Workload - DMZ'
   expression:
   towhat: Vm
   quid: 66fbec86-d2ef-11de-b4f6-0050568a547d
   created_by: admin
   updated_by: admin
   notes: This policy will automatically apply a DMZ tag to a vm if it has access
     to the external vlan
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
      success_sequence: 1
     MiqEvent:
       name: vm_scan_complete
       description: VM Analysis Complete
       guid: f7b8361e-1139-11e1-9333-005056af009e
        event_type: Default
       definition:
       default:
       enabled:
     MiqAction:
        name: 330828a4-d2ef-11de-b4f6-0050568a547d
        description: Tag as DMZ
        guid: 330828a4-d2ef-11de-b4f6-0050568a547d
        action_type: tag
        options:
          :tags:
          - /managed/network_location/dmz
   Condition:
    - name: 8a975658-d2ef-11de-b4f6-0050568a547d
     description: VM - DMZ check
     modifier: allow
     expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
              IS NOT NULL:
                field: Vm.lans-created_on
            search:
              INCLUDES:
                value: External
                field: Vm.lans-name
      towhat: Vm
```

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```
file mtime:
     quid: 8a975658-d2ef-11de-b4f6-0050568a547d
      filename:
     applies_to_exp:
     miq_policy_id: 1000000000018
     notes:
- MigPolicy:
   name: 07cea762-3d1b-11df-a7e9-005056a40709
   description: ! 'Tag: VM if Analysis not successful'
   expression:
   towhat: Vm
    guid: 07cea762-3d1b-11df-a7e9-005056a40709
   created_by: admin
   updated_by: admin
   notes:
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
     success_sequence: 1
     MiqEvent:
       name: vm_scan_abort
       description: VM Analysis Failure
        quid: 4c48a6fa-37c0-11df-b567-005056a40709
        event_type: Default
       definition:
       default:
        enabled:
     MiqAction:
       name: fc7f2dde-3d22-11df-a7e9-005056a40709
       description: Tag VM that Fails Analysis
       guid: fc7f2dde-3d22-11df-a7e9-005056a40709
       action_type: tag
        options:
         :variables:
          - :value: ''
           :oid: ''
            :var_type: <None>
          - :value: ''
            :oid: ''
           :var_type: <None>
          - :value: ''
           :oid: ''
           :var_type: <None>
          - :value: ''
           :oid: ''
           :var_type: <None>
          - :value: ''
           :oid: ''
            :var_type: <None>
          - :value: ''
            :oid: ''
            :var_type: <None>
          - :value: ''
            :oid: ''
           :var_type: <None>
          - :value: ''
           :oid: ''
          :var_type: <None>
```

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```
- :value: ''
            :oid: ''
           :var_type: <None>
          - :value: ''
           :oid: ''
            :var_type: <None>
          :tags:
          /managed/operations/analysis_failed
   Condition: []
- MiqPolicy:
   name: 0ce6cf38-3d2d-11df-a7e9-005056a40709
    description: ! 'Tag: VM on Successful Analysis'
   expression:
   towhat: Vm
   guid: 0ce6cf38-3d2d-11df-a7e9-005056a40709
   created_by: admin
   updated_by: admin
   notes:
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
     success_sequence: 1
     MiqEvent:
       name: vm_scan_complete
        description: VM Analysis Complete
        guid: f7b8361e-1139-11e1-9333-005056af009e
        event_type: Default
       definition:
       default:
        enabled:
     MiqAction:
       name: cd2f3222-3d2c-11df-a7e9-005056a40709
       description: Tag VM after Successful Analysis
       guid: cd2f3222-3d2c-11df-a7e9-005056a40709
       action_type: tag
        options:
          :tags:
          - /managed/operations/analysis_success
    Condition: []
- MigPolicy:
   name: b968f0a0-3d2e-11df-a7e9-005056a40709
   description: ! 'Tag: VM that Requires Analysis'
   expression:
   towhat: Vm
   guid: b968f0a0-3d2e-11df-a7e9-005056a40709
   created_by: admin
   updated_by: admin
   notes:
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
      success_sequence: 1
     MiqEvent:
       name: vm_start
        description: VM Power On
        guid: 404b4630-21a8-11e2-b47a-0050568b19a3
        event_type: Default
```

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```
definition:
        default:
        enabled:
     MiqAction:
        name: a4ccd026-3d2e-11df-a7e9-005056a40709
        description: Tag VM that Requires Analysis
        quid: a4ccd026-3d2e-11df-a7e9-005056a40709
        action_type: tag
        options:
          :tags:

    /managed/operations/analysis_required

    qualifier: success

      success_sequence: 1
     MigEvent:
       name: vm_create
        description: VM Create Complete
        guid: 4c0b4f12-37c0-11df-b567-005056a40709
        event_type: Default
        definition:
       default:
        enabled:
     MigAction:
       name: a4ccd026-3d2e-11df-a7e9-005056a40709
        description: Tag VM that Requires Analysis
        guid: a4ccd026-3d2e-11df-a7e9-005056a40709
        action_type: tag
       options:
          :tags:
          - /managed/operations/analysis_required
    - qualifier: success
      success_sequence: 1
     MiqEvent:
       name: vm_reset
        description: VM Reset
        guid: 4c1b8a3a-37c0-11df-b567-005056a40709
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: a4ccd026-3d2e-11df-a7e9-005056a40709
        description: Tag VM that Requires Analysis
        guid: a4ccd026-3d2e-11df-a7e9-005056a40709
       action_type: tag
        options:
          - /managed/operations/analysis_required
   Condition: []
- MigPolicy:
   name: ccadf9fa-fa56-11de-83ca-005056ba0614
    description: Time Keeping - NTP Configured to Use Loopback Adapter
    expression:
    towhat: Host
    quid: ccadf9fa-fa56-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy verifies that NTP performs all name resolutions via a loopback
     network.
   active: true
```

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```
mode: compliance
   MigPolicyContent:
   - qualifier: failure
      failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
       description: Host Compliance Check
       quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
       event_type: Default
       definition:
       default:
        enabled:
     MiqAction:
       name: compliance_failed
       description: Mark as Non-Compliant
       quid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
       options: {}
   Condition:
    - name: 2b9bb8b2-fa57-11de-83ca-005056ba0614
     description: NTP Configured to Use Loopback Adapter
     modifier: allow
     expression: !ruby/object:MiqExpression
       exp:
         FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: ^\s*restrict\s+127\.0\.1
                field: Host.filesystems-contents
            search:
              =:
                value: /etc/ntp.conf
                field: Host.filesystems-name
     towhat: Host
     file_mtime:
     guid: 2b9bb8b2-fa57-11de-83ca-005056ba0614
     filename:
     applies_to_exp:
     miq_policy_id: 1000000000036
      notes: This condition checks the file /etc/ntp.conf and verifies that the restrict
       parameter's value is set to 127.0.0.1.
- MigPolicy:
   name: ebc02cea-fa57-11de-83ca-005056ba0614
   description: Time Keeping - Restrict Access for Machines without Loopback
   expression:
   towhat: Host
   guid: ebc02cea-fa57-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy verifies that only non-loopback machines can access the NTP
     service.
   active: true
   mode: compliance
   MiqPolicyContent:
   - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
        description: Host Compliance Check
```

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```
quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        quid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
    Condition:
    - name: ddc26260-fa58-11de-83ca-005056ba0614
     description: Access Restricted for Machines without Loopback
     modifier: allow
     expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: ^\s*restrict\s+default\s+kod\s+nomodify\s+notrap
                field: Host.filesystems-contents
            search:
                value: /etc/ntp.conf
                field: Host.filesystems-name
      towhat: Host
      file_mtime:
     guid: ddc26260-fa58-11de-83ca-005056ba0614
     filename:
     applies_to_exp:
     miq_policy_id: 1000000000035
      notes: This condition checks the file /etc/ntp.conf and verifies that the line
        "restrict default kod nomodify notrap" exists.
- MigPolicy:
   name: 3819638c-fa57-11de-83ca-005056ba0614
    description: Timekeeping - Drift Enabled
    expression:
    towhat: Host
    guid: 3819638c-fa57-11de-83ca-005056ba0614
    created_by: admin
   updated_by: admin
   notes: This policy verifies that NTP's driftfile support is enabled.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MiqEvent:
        name: host_compliance_check
        description: Host Compliance Check
        guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
        name: compliance_failed
        description: Mark as Non-Compliant
```

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```
quid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
       options: {}
   Condition:
   - name: 71fae5da-fa57-11de-83ca-005056ba0614
     description: Verify NTP Uses a Driftfile
     modifier: allow
     expression: !ruby/object:MigExpression
       exp:
         FIND:
            checkany:
             REGULAR EXPRESSION MATCHES:
                value: ^\s*driftfile\s+\/var\/lib\/ntp\/drift
                field: Host.filesystems-contents
           search:
              =:
                value: /etc/ntp.conf
                field: Host.filesystems-name
     towhat: Host
     file_mtime:
     guid: 71fae5da-fa57-11de-83ca-005056ba0614
     filename:
     applies_to_exp:
     miq_policy_id: 1000000000034
     notes: This condition checks the file /etc/ntp.conf and verifies that the driftfile
       parameter exists.
- MiqPolicy:
   name: c4396f3a-fa55-11de-83ca-005056ba0614
   description: Timekeeping - Minimum of 3 NTP Servers Defined in hosts
   expression:
   towhat: Host
   quid: c4396f3a-fa55-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy verifies that a minimum of 3 NTP servers are defined in the
     local hosts file.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
       description: Host Compliance Check
       guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
       event_type: Default
       definition:
       default:
       enabled:
     MiqAction:
       name: compliance_failed
       description: Mark as Non-Compliant
       guid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
       options: {}
   Condition:
   - name: 2698c39c-fa56-11de-83ca-005056ba0614
     description: Verify 3 NTP Servers Defined in hosts File
     modifier: allow
```

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```
expression: !ruby/object:MigExpression
        exp:
         FIND:
            checkany:
             RUBY:
                value: ! "count = 0\ncontext.each_line { |line|
                  Break up the input by lines\n count += 1 if line =~ /^{\pi} NTP/i
                  \ # Increment Count if line matches our regular expression\n}\nreturn
                  true if count >= 3\nreturn false\n"
                field: Host.filesystems-contents
            search:
                value: /etc/hosts
                field: Host.filesystems-name
      towhat: Host
     file mtime:
     guid: 2698c39c-fa56-11de-83ca-005056ba0614
     filename:
     applies_to_exp:
     miq_policy_id: 1000000000033
     notes: ! 'This conditions checks the file /etc/hosts and veries that there are
       at least 3 uncommented lines that reference ntp servers. The included expression
       can be modified to match the appropriate values for the ntp servers for your
       environment.
- MiqPolicy:
   name: a6c2a51e-fa57-11de-83ca-005056ba0614
   description: Timekeeping - Minimum of 3 NTP Servers Defined in ntp.conf
   expression:
   towhat: Host
   guid: a6c2a51e-fa57-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy verifies that a minimum of 3 servers are defined in the NTP
     configuration.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
       description: Host Compliance Check
       guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
       event_type: Default
       definition:
       default:
       enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
       options: {}
   Condition:
   - name: 03c821bc-fa58-11de-83ca-005056ba0614
     description: Verify 3 NTP Servers Defined in ntp.conf
     modifier: allow
```

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```
expression: !ruby/object:MigExpression
        exp:
          FIND:
            checkany:
              RUBY:
                value: ! "count = 0\ncontext.each_line { |line|
                  Break up the input by lines\n count += 1 if line =~ /^[^*]*server\\s+[0-9A- \leftrightarrow
                      Za-z]+/
                  \ # Increment Count if line matches our regular expression\n}\nreturn
                  true if count >= 3\nreturn false"
                field: Host.filesystems-contents
            search:
                value: /etc/ntp.conf
                field: Host.filesystems-name
      towhat: Host
      file_mtime:
     guid: 03c821bc-fa58-11de-83ca-005056ba0614
     filename:
     applies_to_exp:
     miq_policy_id: 1000000000032
     notes: This condition checks the file /etc/ntp.conf and verifies that a minimum
        of three ntp servers are defined.
- MigPolicy:
    name: 8d4a7bee-fa56-11de-83ca-005056ba0614
    description: Timekeeping - Minimum of 3 NTP Servers defined in step-tickers
    expression:
    towhat: Host
    guid: 8d4a7bee-fa56-11de-83ca-005056ba0614
    created_by: admin
   updated_by: admin
   notes: This policy verifies that a minimum of 3 servers are defined in the NTP
      step-tickers configuration.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
        name: host_compliance_check
        description: Host Compliance Check
        guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
       default:
        enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
    Condition:
    - name: 0806448a-fa57-11de-83ca-005056ba0614
      description: Verify 3 NTP Servers Defined in step-tickers File
     modifier: allow
      expression: !ruby/object:MiqExpression
          FIND:
```

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```
checkany:
              RUBY:
                value: ! "count = 0\ncontext.each_line { |line|
                  Break up the input by lines\n count += 1 if line =~ /^[^{\#}]*server\s+[0-9A- \leftrightarrow ]
                      Za-z]+/
                    # Increment Count if line matches our regular expression\n}\nreturn
                  true if count >= 3\nreturn false\n"
                field: Host.filesystems-contents
            search:
                value: /etc/ntp/step-tickers
                field: Host.filesystems-name
      towhat: Host
      file_mtime:
     guid: 0806448a-fa57-11de-83ca-005056ba0614
      filename:
     applies_to_exp:
     miq_policy_id: 10000000000023
     notes: This condition checks the file /etc/ntp/step-tickers and verifies that
        a minimum of three ntp servers are defined.
- MigPolicy:
   name: 4ed279b2-fa55-11de-83ca-005056ba0614
   description: Timekeeping - NTP Service Running
    expression:
    towhat: Host
    guid: 4ed279b2-fa55-11de-83ca-005056ba0614
    created_by: admin
   updated_by: admin
   notes: This policy verifies that the NTP servers is configured to automatically
      start.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
        description: Host Compliance Check
        guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        quid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
   Condition:
    - name: 9a08d21e-fa55-11de-83ca-005056ba0614
      description: Verify NTP is Running
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
              INCLUDES:
                value: '3'
```

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```
field: Host.host services-enable run levels
            search:
              =:
                value: ntpd
                field: Host.host_services-name
     towhat: Host
     file_mtime:
     guid: 9a08d21e-fa55-11de-83ca-005056ba0614
     filename:
      applies_to_exp:
     miq_policy_id: 1000000000031
      notes: This condition verifies that the run level of the service ntpd is set
- MigPolicy:
   name: a8e0ef7c-fa48-11de-83ca-005056ba0614
   description: Use sudo aliases
   expression:
   towhat: Host
    guid: a8e0ef7c-fa48-11de-83ca-005056ba0614
   created_by: admin
   updated_by: admin
   notes: This policy verifies that user aliases are enabled in the configuration
     of the sudo command.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
        description: Host Compliance Check
        quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
       default:
       enabled:
     MiqAction:
        name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
   Condition:
    - name: 99496ebc-fa49-11de-83ca-005056ba0614
     description: Aliases are being used for sudo authorization
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: ^\s*User_Alias
                field: Host.filesystems-contents
            search:
                value: /etc/sudoers
                field: Host.filesystems-name
      towhat: Host
      file_mtime:
```

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```
quid: 99496ebc-fa49-11de-83ca-005056ba0614
     filename:
     applies_to_exp:
     notes: This condition checks the file /etc/sudoers and verifies that the parameter
       "User_Alias" is defined.
- MigPolicy:
   name: 2cd19756-c1ec-11e1-ae68-000c29cc1a4c
   description: VMWare SHG v4.x & v5.x - VMX01 - Prevent virtual disk shrinking.
   expression: !ruby/object:MiqExpression
     exp:
         value: VMware
         field: Vm-vendor
     context_type:
   towhat: Vm
   quid: 2cd19756-c1ec-11e1-ae68-000c29cc1a4c
   created_by: admin
   updated_by: admin
   notes: VMWare SHG v4.x & v5.x - VMX01 - Prevent virtual disk shrinking. R1
   active: true
   mode: compliance
   MiqPolicyContent:
   - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: vm_compliance_check
       description: VM Compliance Check
       quid: 816a598a-f57d-11de-a41a-005056ba0614
       event_type: Default
       definition:
       default:
       enabled:
     MiqAction:
       name: compliance_failed
       description: Mark as Non-Compliant
       guid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
       options: {}
   Condition:
    - name: 11564bce-cled-11e1-ae68-000c29cc1a4c
     description: VMWare SHG v4.x - VMX01 - Prevent virtual disk shrinking
     modifier: allow
     expression: !ruby/object:MiqExpression
       exp:
         and:
          - FIND:
             checkany:
                 field: Vm.advanced_settings-value
                 value: 'true'
             search:
                  field: Vm.advanced_settings-name
                 value: isolation.tools.diskShrink.disable
          - FIND:
             checkany:
                  field: Vm.advanced_settings-value
```

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```
value: 'true'
              search:
                  field: Vm.advanced_settings-name
                  value: isolation.tools.diskWiper.disable
        context_type:
      towhat: Vm
      file mtime:
     quid: 11564bce-cled-11e1-ae68-000c29cc1a4c
      applies_to_exp: !ruby/object:MiqExpression
        exp:
          STARTS WITH:
           value: '4'
            field: Vm.host-vmm_version
        context_type:
     miq_policy_id: 13
     notes: VMWare SHG v4.x - VMX01 - Prevent virtual disk shrinking R1
    - name: d4bd19f4-d7d6-11e1-b3e5-000c2999f7f1
     description: VMWare SHG v5.x - VMX01 - Prevent virtual disk shrinking
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
                field: Vm.advanced_settings-value
                value: 'true'
            search:
                field: Vm.advanced_settings-name
                value: isolation.tools.diskWiper.disable
        context_type:
     towhat: Vm
      file_mtime:
     guid: d4bd19f4-d7d6-11e1-b3e5-000c2999f7f1
      filename:
      applies_to_exp: !ruby/object:MiqExpression
        exp:
          STARTS WITH:
           field: Vm.host-vmm_version
           value: '5'
        context_type:
     miq_policy_id: 13
     notes: VMWare SHG v5.x - VMX01 - Prevent virtual disk shrinking R1
- MiqPolicy:
   name: 774404fc-c1c1-11e1-ae68-000c29cc1a4c
   description: VMWare SHG v4.x & v5.x - VMX22 - Avoid using independent nonpersistent
   expression: !ruby/object:MiqExpression
      exp:
          value: VMware
          field: Vm-vendor
      context_type:
    towhat: Vm
    guid: 774404fc-c1c1-11e1-ae68-000c29cc1a4c
    created_by: admin
   updated_by: admin
```

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```
notes: VMWare SHG v4.x & v5.x - VMX22 - Avoid using independent nonpersistent
     disks.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MigEvent:
       name: vm_compliance_check
        description: VM Compliance Check
        quid: 816a598a-f57d-11de-a41a-005056ba0614
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: compliance_failed
       description: Mark as Non-Compliant
       guid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
       options: {}
   Condition:
    - name: b6c3548e-c1c1-11e1-ae68-000c29cc1a4c
      description: VMWare SHG v4.x & v5.x - VMX22 - Avoid using independent nonpersistent
        disks.
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkcount:
              =:
                value: '0'
                field: <count>
            search:
              INCLUDES:
                value: independent_nonpersistent
                field: Vm.hardware.disks-mode
        context_type:
      towhat: Vm
      file_mtime:
     guid: b6c3548e-c1c1-11e1-ae68-000c29cc1a4c
      filename:
     applies_to_exp:
     miq_policy_id: 3
     notes: VMWare SHG v4.x & v5.x - VMX22 - Avoid using independent nonpersistent
       disks. R1
- MigPolicy:
   name: 5e3a568e-cfe3-11e1-986c-000c29cc1a4c
   description: VMWare SHG v4.x & v5.x - VSH05 - Install VMware vCenter Server using
      a service account
    expression: !ruby/object:MiqExpression
          field: Vm.win32_services-name
          value: vpxd
      context_type:
    towhat: Vm
    guid: 5e3a568e-cfe3-11e1-986c-000c29cc1a4c
   created_by: admin
```

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```
updated_by: admin
   notes: VMWare SHG v4.x & v5.x - VSH05 - Install VMware vCenter Server using a
     service account R1
    active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MigEvent:
       name: vm_compliance_check
        description: VM Compliance Check
        quid: 816a598a-f57d-11de-a41a-005056ba0614
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
       guid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
        options: {}
    Condition:
    - name: 9e841928-cfe8-11e1-986c-000c29cc1a4c
      description: VMWare SHG v4.x & v5.x - VSH05 - Install VMware vCenter Server
        using a service account
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
              REGULAR EXPRESSION DOES NOT MATCH:
                field: Vm.win32_services-object_name
                value: \bLocalSystem
            search:
                field: Vm.win32_services-name
                value: vpxd
        context_type:
      towhat: Vm
      file_mtime:
     guid: 9e841928-cfe8-11e1-986c-000c29cc1a4c
      filename:
     applies_to_exp:
     miq_policy_id: 4
     notes: VMWare SHG v4.x & v5.x - VSH05 - Install VMware vCenter Server using
        a service account R1
- MiqPolicy:
   name: 17fce8ee-c39f-11e1-aed6-000c29cc1a4c
    description: VMware SHG - VMX24 - Disable certain unexposed features.
    expression:
    towhat: Vm
    guid: 17fce8ee-c39f-11e1-aed6-000c29cc1a4c
    created_by: admin
   updated_by: admin
   notes: VMware SHG - VMX24 - Disable certain unexposed features.
   active: true
   mode: compliance
   MiqPolicyContent:
```

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```
- qualifier: failure
  failure_sequence: 1
 MiqEvent:
    name: vm_compliance_check
    description: VM Compliance Check
    quid: 816a598a-f57d-11de-a41a-005056ba0614
    event_type: Default
    definition:
    default:
    enabled:
 MiqAction:
    name: compliance_failed
    description: Mark as Non-Compliant
    quid: ba452d94-f586-11de-8ebc-0050568a07c7
    action_type: default
    options: {}
Condition:
- name: 98427d34-c39f-11e1-aed6-000c29cc1a4c
  description: Disable certain unexposed features
  modifier: allow
  expression: !ruby/object:MigExpression
    exp:
      and:
      - FIND:
          checkany:
              field: Vm.advanced_settings-value
              value: 'true'
          search:
              field: Vm.advanced_settings-name
              value: isolation.tools.unity.push.update.disable
      - FIND:
          checkany:
            =:
              field: Vm.advanced_settings-value
              value: 'true'
          search:
              field: Vm.advanced_settings-name
              value: isolation.tools.ghi.launchmenu.change
      - FIND:
          checkany:
              field: Vm.advanced_settings-value
              value: 'true'
          search:
            =:
              field: Vm.advanced_settings-name
              value: isolation.tools.memSchedFakeSampleStats.disable
      - FIND:
          checkany:
              field: Vm.advanced_settings-value
              value: 'true'
          search:
              field: Vm.advanced_settings-name
              value: isolation.tools.getCreds.disable
```

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```
context_type:
      towhat: Vm
     file_mtime:
     quid: 98427d34-c39f-11e1-aed6-000c29cc1a4c
      filename:
     applies_to_exp:
     miq_policy_id: 1
     notes:
- MigPolicy:
    name: e5871bee-d435-11e1-9935-000c2999f7f1
    description: VMware SHG v4.x & v5.x - HCN05 - Disable DCUI to prevent all local
      administrative control
   expression: !ruby/object:MiqExpression
     exp:
          value: ESXi
          field: Host-vmm_product
      context_type:
    towhat: Host
   quid: e5871bee-d435-11e1-9935-000c2999f7f1
   created_by: admin
   updated_by: admin
   notes: VMware SHG v4.x & v5.x - HCN05 - Disable DCUI to prevent all local administrative
      control R1
    active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
        description: Host Compliance Check
        guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
       event_type: Default
       definition:
       default:
        enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
   Condition:
    - name: 0f6761b2-d436-11e1-9935-000c2999f7f1
     description: VMware SHG v4.x & v5.x - HCN05 - Disable DCUI to prevent all local
        administrative control
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkall:
                value: 'false'
                field: Host.host_services-running
            search:
                value: DCUI
                field: Host.host_services-name
```

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```
context_type:
      towhat: Host
     file_mtime:
     quid: 0f6761b2-d436-11e1-9935-000c2999f7f1
     filename:
     applies_to_exp:
     miq_policy_id: 14
      notes: VMware SHG v4.x & v5.x - HCN05 - Disable DCUI to prevent all local administrative
        control R1
- MiqPolicy:
    name: 3a2acbde-d434-11e1-9935-000c2999f7f1
    description: VMware SHG v4.x & v5.x - HCN06 - Disable Tech Support Mode unless
      needed for diagnostics and break-fix
   expression: !ruby/object:MiqExpression
     exp:
        =:
         field: Host-vmm_product
         value: ESXi
     context_type:
    towhat: Host
    guid: 3a2acbde-d434-11e1-9935-000c2999f7f1
   created_by: admin
   updated_by: admin
   notes: VMware SHG v4.x & v5.x - HCN06 - Disable Tech Support Mode unless needed
      for diagnostics and break-fix R1
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
        name: host_compliance_check
        description: Host Compliance Check
        quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
   Condition:
    - name: e35c1be0-d434-11e1-9935-000c2999f7f1
     description: VMware SHG v4.x & v5.x - HCN06 - Disable Tech Support Mode unless
       needed for diagnostics and break-fix
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkall:
                field: Host.host_services-running
                value: 'false'
            search:
                field: Host.host_services-name
```

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```
value: TSM
        context_type:
      towhat: Host
      file_mtime:
     guid: e35c1be0-d434-11e1-9935-000c2999f7f1
     filename:
     applies_to_exp:
     miq_policy_id: 15
     notes: VMware SHG v4.x & v5.x - HCN06 - Disable Tech Support Mode unless needed
        for diagnostics and break-fix R1
- MiqPolicy:
    name: 36021318-d435-11e1-9935-000c2999f7f1
    description: VMware SHG v4.x & v5.x - HCN07 - Set a timeout for Tech Support Mode.
    expression: !ruby/object:MiqExpression
     exp:
        =:
         field: Host-vmm_product
         value: ESXi
     context_type:
    towhat: Host
    quid: 36021318-d435-11e1-9935-000c2999f7f1
   created_by: admin
   updated_by: admin
   notes: VMware SHG v4.x & v5.x - HCN07 - Set a timeout for Tech Support Mode. R1
    active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
        description: Host Compliance Check
        guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
       event_type: Default
       definition:
       default:
        enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
   Condition:
    - name: 9f3b5376-d435-11e1-9935-000c2999f7f1
     description: VMware SHG v4.x - HCN07 - Set a timeout for Tech Support Mode.
     modifier: allow
     expression: !ruby/object:MiqExpression
        exp:
          not:
            FIND:
              checkall:
                  field: Host.advanced_settings-value
                  value: '0'
              search:
                  field: Host.advanced_settings-name
                  value: UserVars.TSMTimeOut
```

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```
context_type:
      towhat: Host
      file_mtime:
      quid: 9f3b5376-d435-11e1-9935-000c2999f7f1
      filename:
      applies_to_exp: !ruby/object:MiqExpression
        exp:
          STARTS WITH:
           field: Host-vmm_version
            value: '4'
        context_type:
     miq_policy_id: 5
      notes: VMware SHG v4.x - HCN07 - Set a timeout for Tech Support Mode. R1
    - name: fc017d86-d7cf-11e1-b3e5-000c2999f7f1
     description: VMware SHG v5.x - HCN07 - Set a timeout for Tech Support Mode.
     modifier: allow
     expression: !ruby/object:MiqExpression
        exp:
          not:
            FIND:
              checkall:
                  value: '0'
                  field: Host.advanced_settings-value
              search:
                  value: UserVars.ESXiShellTimeOut
                  field: Host.advanced_settings-name
        context_type:
      towhat: Host
      file_mtime:
     guid: fc017d86-d7cf-11e1-b3e5-000c2999f7f1
      applies_to_exp: !ruby/object:MiqExpression
        exp:
          STARTS WITH:
           value: '5'
            field: Host-vmm_version
        context_type:
      miq_policy_id: 5
      notes: VMware SHG v5.x - HCN07 - Set a timeout for Tech Support Mode. R1
- MigPolicy:
   name: 4dadd9bc-d443-11e1-9935-000c2999f7f1
   description: VMware SHG v4.x & v5.x - HLG01 - Remote syslog should be configured
   expression: !ruby/object:MiqExpression
     exp:
          value: ESXi
          field: Host-vmm_product
      context_type:
    towhat: Host
    guid: 4dadd9bc-d443-11e1-9935-000c2999f7f1
    created_by: admin
   updated_by: admin
   notes: VMware SHG v4.x & v5.x - HLG01 - Remote syslog should be configured
   active: true
   mode: compliance
   MiqPolicyContent:
   - qualifier: failure
```

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```
failure_sequence: 1
 MigEvent:
    name: host_compliance_check
    description: Host Compliance Check
    quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
    event_type: Default
    definition:
    default:
    enabled:
 MigAction:
    name: compliance_failed
    description: Mark as Non-Compliant
    quid: ba452d94-f586-11de-8ebc-0050568a07c7
    action_type: default
    options: {}
Condition:
- name: b60247d2-d443-11e1-9935-000c2999f7f1
  description: VMware SHG v5.x - HLG01 - Remote syslog should be configured
  modifier: allow
  expression: !ruby/object:MigExpression
    exp:
      FIND:
        checkall:
          IS NOT EMPTY:
            value: ''
            field: Host.advanced_settings-value
        search:
            value: Syslog.global.logHost
            field: Host.advanced_settings-name
    context_type:
  towhat: Host
  file_mtime:
  guid: b60247d2-d443-11e1-9935-000c2999f7f1
  filename:
  applies_to_exp: !ruby/object:MiqExpression
    exp:
      STARTS WITH:
        field: Host-vmm_version
        value: '5'
    context_type:
 miq_policy_id: 6
  notes: VMware SHG - HLG01 - Remote syslog should be configured VERSION 5.x ONLY
- name: 456a882a-d7ce-11e1-b3e5-000c2999f7f1
  description: VMware SHG v4.x - HLG01 - Remote syslog should be configured
 modifier: allow
  expression: !ruby/object:MiqExpression
    exp:
      FIND:
        checkall:
          IS NOT EMPTY:
            field: Host.advanced_settings-value
        search:
          =:
            field: Host.advanced_settings-name
            value: Syslog.Remote.Hostname
    context_type:
```

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```
towhat: Host
      file_mtime:
     guid: 456a882a-d7ce-11e1-b3e5-000c2999f7f1
      filename:
      applies_to_exp: !ruby/object:MiqExpression
        exp:
          STARTS WITH:
            field: Host-vmm version
            value: '4'
        context_type:
     miq_policy_id: 6
      notes: VMware SHG - HLG01 - Remote syslog should be configured VERSION 4.x ONLY
- MigPolicy:
   name: 197d032e-d016-11e1-986c-000c29cc1a4c
   description: ! "VMware SHG v4.x & v5.x - NCN03 - Ensure that the a\x80\x9CMAC
     Address Changeâ\x80\x9D policy is set to â\x80\x9Creject.â\x80\x9D"
    expression: !ruby/object:MiqExpression
     exp:
          value: ESXi
          field: Host-vmm_product
      context_type:
    towhat: Host
    guid: 197d032e-d016-11e1-986c-000c29cc1a4c
    created_by: admin
   updated_by: admin
   notes: ! "VMware SHG v4.x & v5.x - NCN03 - Ensure that the \hat{a}\x0\x0CMAC Address
     Changeâ\x80\x9D policy is set to â\x80\x9Creject.â\x80\x9D R1"
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
        description: Host Compliance Check
        guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
       options: {}
   Condition:
    - name: 3531486e-d016-11e1-986c-000c29cc1a4c
      description: ! "VMware SHG v4.x & v5.x - NCN03 - Ensure that the â\x80\x9CMAC
        Address Changeâ\x80\x9D policy is set to â\x80\x9Creject.â\x80\x9D"
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkall:
                value: 'false'
```

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```
field: Host.lans-mac_changes
                                 search:
                                      IS NOT NULL:
                                           value: ''
                                           field: Host.lans-name
                     context_type:
                towhat: Host
                file mtime:
               quid: 3531486e-d016-11e1-986c-000c29cc1a4c
                filename:
                applies_to_exp:
               miq_policy_id: 7
                notes: ! "VMware SHG v4.x & v5.x - NCN03 - Ensure that the a\x80\x9CMAC Address
                     Changeâ\x80\x9D policy is set to â\x80\x9Creject.â\x80\x9D R1"
- MigPolicy:
          name: e4d7e0e6-d00e-11e1-986c-000c29cc1a4c
          description: ! "VMware SHG v4.x & v5.x - NCN04 - Ensure that the â\x80\x9CForged
               Transmitsâ\x80\x9D policy is set to â\x80\x9Creject.â\x80\x9D"
          expression: !ruby/object:MiqExpression
               exp:
                           field: Host-vmm_product
                           value: ESXi
                context_type:
          towhat: Host
          guid: e4d7e0e6-d00e-11e1-986c-000c29cc1a4c
          created_by: admin
          updated_by: admin
          notes: ! "VMware SHG v4.x & v5.x - NCN04 - Ensure that the \hat{a} \times 80 \times 9CF or Transmits \hat{a} \times 9CF or Transmits \hat{a} \times 9CF or \hat{a}
                    x9D
               policy is set to a\x80\x9Creject.a\x80\x9D R1"
          active: true
          mode: compliance
          MiqPolicyContent:
           - qualifier: failure
               failure_sequence: 1
               MiqEvent:
                     name: host_compliance_check
                      description: Host Compliance Check
                      guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
                     event_type: Default
                     definition:
                     default:
                     enabled:
               MiqAction:
                     name: compliance_failed
                     description: Mark as Non-Compliant
                     guid: ba452d94-f586-11de-8ebc-0050568a07c7
                     action_type: default
                     options: {}
          Condition:
           - name: ed54d6d8-d00f-11e1-986c-000c29cc1a4c
                description: ! "VMware SHG v4.x & v5.x - NCN04 - Ensure that the alx80\x9CForged
                     Transmitsâ\x80\x9D policy is set to â\x80\x9Creject.â\x80\x9D"
               modifier: allow
                expression: !ruby/object:MiqExpression
                     exp:
                           FIND:
                                checkall:
```

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```
=:
                value: 'false'
                field: Host.lans-forged_transmits
            search:
              IS NOT NULL:
                value: ''
                field: Host.lans-name
        context type:
     towhat: Host
      file_mtime:
      quid: ed54d6d8-d00f-11e1-986c-000c29cc1a4c
      filename:
     applies_to_exp:
     miq_policy_id: 8
     notes: ! "VMware SHG v4.x & v5.x - NCN04 - Ensure that the a\times80\x9CF orged Transmits\leftrightarrow
         x80\x9D
        policy is set to a\x80\x9Creject.a\x80\x9D R1"
- MigPolicy:
    name: d7ed01f4-d00e-11e1-986c-000c29cc1a4c
    description: ! "VMware SHG v4.x & v5.x - NCN05 -Ensure that the â\x80\x9CPromiscuous
     Modeâ\x80\x9D policy is set to â\x80\x9Creject.â\x80\x9D"
   expression: !ruby/object:MiqExpression
     exp:
          field: Host-vmm_product
          value: ESXi
      context_type:
    towhat: Host
    guid: d7ed01f4-d00e-11e1-986c-000c29cc1a4c
    created_by: admin
   updated_by: admin
   notes: ! "VMware SHG v4.x & v5.x - NCN05 -Ensure that the â\x80\x9CPromiscuous
     Modeâ\x80\x9D policy is set to â\x80\x9Creject.â\x80\x9D R1"
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
        name: host_compliance_check
        description: Host Compliance Check
        guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
       default:
        enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
        options: {}
    Condition:
    - name: abb1772c-d00f-11e1-986c-000c29cc1a4c
     description: ! "VMware SHG v4.x & v5.x - NCN05 -Ensure that the a\x80\x9CPromiscuous
       Modeâ\x80\x9D policy is set to â\x80\x9Creject.â\x80\x9D"
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
```

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```
FIND:
            checkall:
                field: Host.lans-allow_promiscuous
                value: 'false'
            search:
              IS NOT NULL:
                field: Host.lans-name
                value: ''
        context_type:
      towhat: Host
      file_mtime:
      quid: abb1772c-d00f-11e1-986c-000c29cc1a4c
      filename:
     applies_to_exp:
     miq_policy_id: 9
     notes: ! "VMware SHG v4.x & v5.x - NCN05 -Ensure that the a\times0x9CPromiscuous
       Modeâ\x80\x9D policy is set to â\x80\x9Creject.â\x80\x9D R1"
- MigPolicy:
   name: 86c84f3a-d005-11e1-986c-000c29cc1a4c
   description: VMware SHG v4.x & v5.x - NCN10 - Ensure that port groups are configured
     with a clear network label
   expression: !ruby/object:MiqExpression
      exp:
          field: Host-vmm_product
          value: ESXi
      context_type:
   towhat: Host
    guid: 86c84f3a-d005-11e1-986c-000c29cc1a4c
   created_by: admin
   updated_by: admin
    notes: VMware SHG v4.x & v5.x - NCN10 - Ensure that port groups are configured
     with a clear network label R1
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
        description: Host Compliance Check
        guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
        default:
        enabled:
     MiqAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
   Condition:
    - name: e1c666a0-d006-11e1-986c-000c29cc1a4c
      description: VMware SHG v4.x & v5.x - NCN10 - Ensure that port groups are configured
        with a clear network label
     modifier: allow
     expression: !ruby/object:MiqExpression
```

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```
exp:
          or:
          - FIND:
              checkcount:
                  field: <count>
                  value: '0'
              search:
                IS NULL:
                  field: Host.lans-name
                  value: ''
          - FIND:
              checkcount:
                  value: '0'
                  field: <count>
              search:
                IS EMPTY:
                  value: ''
                  field: Host.lans-name
       context_type:
     towhat: Host
     file_mtime:
      quid: e1c666a0-d006-11e1-986c-000c29cc1a4c
      filename:
     applies_to_exp:
     miq_policy_id: 11
     notes: VMware SHG v4.x & v5.x - NCN10 - Ensure that port groups are configured
       with a clear network label R1
- MiqPolicy:
   name: cee396f8-c1f0-11e1-ae68-000c29cc1a4c
    description: VMware SHG v4.x & v5.x - VMX02 - Prevent other users from spying
     on administrator remote consoles.
   expression: !ruby/object:MiqExpression
     exp:
          value: VMware
          field: Vm-vendor
      context_type:
   towhat: Vm
   quid: cee396f8-c1f0-11e1-ae68-000c29cc1a4c
   created_by: admin
   updated_by: admin
   notes: VMware SHG v4.x & v5.x - VMX02 - Prevent other users from spying on administrator
     remote consoles.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
        name: vm_compliance_check
        description: VM Compliance Check
        quid: 816a598a-f57d-11de-a41a-005056ba0614
        event_type: Default
       definition:
       default:
        enabled:
     MiqAction:
```

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```
name: compliance_failed
        description: Mark as Non-Compliant
        quid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
        options: {}
    Condition:
    - name: 71089c6c-c1f1-11e1-ae68-000c29cc1a4c
      description: VMware SHG v4.x & v5.x - VMX02 - Prevent other users from spying
        on administrator remote consoles.
     modifier: allow
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
            checkany:
              =:
                value: '1'
                field: Vm.advanced_settings-value
            search:
                value: RemoteDisplay.maxConnections
                field: Vm.advanced_settings-name
        context_type:
     towhat: Vm
      file_mtime:
      guid: 71089c6c-c1f1-11e1-ae68-000c29cc1a4c
      filename:
     applies_to_exp:
     miq_policy_id: 2
     notes: VMware SHG v4.x & v5.x - VMX02 - Prevent other users from spying on administrator
       remote consoles. R1
- MigPolicy:
   name: 1d60a788-c1f3-11e1-ae68-000c29cc1a4c
    description: VMware SHG v4.x & v5.x - VMX11 Prevent unauthorized removal, connection
      and modification of devices
    expression: !ruby/object:MiqExpression
     exp:
       and:
        - =:
            field: Vm-vendor
           value: VMware
        - STARTS WITH:
            value: '5'
            field: Vm.host-vmm_version
      context_type:
    towhat: Vm
    guid: 1d60a788-c1f3-11e1-ae68-000c29cc1a4c
   created_by: admin
   updated_by: admin
   notes: VMware SHG v4.x & v5.x - VMX11 Prevent unauthorized removal, connection
      and modification of devices
    active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
       name: vm_compliance_check
        description: VM Compliance Check
        guid: 816a598a-f57d-11de-a41a-005056ba0614
```

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```
event_type: Default
    definition:
    default:
    enabled:
 MiqAction:
    name: compliance_failed
    description: Mark as Non-Compliant
    quid: ba452d94-f586-11de-8ebc-0050568a07c7
    action_type: default
    options: {}
Condition:
- name: 728e7050-c1f3-11e1-ae68-000c29cc1a4c
  description: VMware SHG v5.x - VMX11 Prevent unauthorized removal, connection
    and modification of devices
  modifier: allow
  expression: !ruby/object:MiqExpression
    exp:
      FIND:
        checkany:
            value: 'true'
            field: Vm.advanced_settings-value
        search:
            value: isolation.device.connectable.disable
            field: Vm.advanced_settings-name
    context_type:
  towhat: Vm
  file_mtime:
  guid: 728e7050-c1f3-11e1-ae68-000c29cc1a4c
  applies_to_exp: !ruby/object:MiqExpression
    exp:
      STARTS WITH:
        field: Vm.host-vmm_version
        value: '5'
    context_type:
  miq_policy_id: 12
  notes: VMware SHG v5.x - VMX11 Prevent unauthorized removal, connection and
    modification of devices R1
- name: aaa64a08-d7d8-11e1-b3e5-000c2999f7f1
  description: VMware SHG v4.x - VMX11 Prevent unauthorized removal, connection
    and modification of devices
  modifier: allow
  expression: !ruby/object:MiqExpression
    exp:
      and:
      - FIND:
          checkany:
            =:
              value: 'true'
              field: Vm.advanced_settings-value
          search:
              value: isolation.device.connectable.disable
              field: Vm.advanced_settings-name
      - FIND:
          checkany:
            =:
```

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```
field: Vm.advanced_settings-value
                  value: 'true'
              search:
                =:
                  field: Vm.advanced_settings-name
                  value: isolation.device.edit.disable
        context_type:
     towhat: Vm
     file_mtime:
      guid: aaa64a08-d7d8-11e1-b3e5-000c2999f7f1
      filename:
      applies_to_exp: !ruby/object:MiqExpression
        exp:
          STARTS WITH:
           value: '4'
            field: Vm.host-vmm_version
        context_type:
     miq_policy_id: 12
      notes: VMware SHG v4.x - VMX11 Prevent unauthorized removal, connection and
       modification of devices R1
- MigPolicy:
   name: 769b4b1e-c1f8-11e1-ae68-000c29cc1a4c
   description: VMware SHG v4.x & v5.x - VMX30 - Disable remote operations within
      the guest.
    expression: !ruby/object:MiqExpression
      exp:
          value: VMware
          field: Vm-vendor
      context_type:
    towhat: Vm
    guid: 769b4b1e-c1f8-11e1-ae68-000c29cc1a4c
    created_by: admin
   updated_by: admin
   notes: VMware SHG v4.x & v5.x - VMX30 - Disable remote operations within the guest.
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
      failure_sequence: 1
     MiqEvent:
       name: vm_compliance_check
        description: VM Compliance Check
       guid: 816a598a-f57d-11de-a41a-005056ba0614
        event_type: Default
       definition:
       default:
       enabled:
     MigAction:
       name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
       action_type: default
        options: {}
   Condition:
    - name: 8b7f39d2-c1f8-11e1-ae68-000c29cc1a4c
     description: VMware SHG v4.x - VMX30 - Disable remote operations within the
       guest.
     modifier: allow
```

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```
expression: !ruby/object:MigExpression
        exp:
          FIND:
            checkany:
                field: Vm.advanced_settings-value
                value: 'false'
            search:
                field: Vm.advanced_settings-name
                value: guest.commands.enabled
        context_type:
      towhat: Vm
      file_mtime:
     quid: 8b7f39d2-c1f8-11e1-ae68-000c29cc1a4c
      filename:
      applies_to_exp: !ruby/object:MiqExpression
       exp:
         STARTS WITH:
           value: '4'
           field: Vm.host-vmm_version
        context_type:
     miq_policy_id: 16
      notes: VMware SHG v4.x - VMX30 - Disable remote operations within the quest.
       R1
- MiqPolicy:
    name: e99a4c3e-d00b-11e1-986c-000c29cc1a4c
   description: VMware SHG v4x. & v5.x - NCN11 - Ensure that all vSwitches have a
      clear network label.
    expression: !ruby/object:MiqExpression
     exp:
          value: ESXi
          field: Host-vmm_product
      context_type:
    towhat: Host
    guid: e99a4c3e-d00b-11e1-986c-000c29cc1a4c
    created_by: admin
   updated_by: admin
   notes: VMware SHG v4x. & v5.x - NCN11 - Ensure that all vSwitches have a clear
     network label. R1
   active: true
   mode: compliance
   MiqPolicyContent:
    - qualifier: failure
     failure_sequence: 1
     MiqEvent:
       name: host_compliance_check
        description: Host Compliance Check
        guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
        event_type: Default
        definition:
       default:
        enabled:
     MigAction:
        name: compliance_failed
        description: Mark as Non-Compliant
        guid: ba452d94-f586-11de-8ebc-0050568a07c7
        action_type: default
```

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```
options: {}
   Condition:
    - name: 5ca4abca-d00c-11e1-986c-000c29cc1a4c
     description: VMware SHG v4x. & v5.x - NCN11 - Ensure that all vSwitches have
        a clear network label.
     modifier: allow
      expression: !ruby/object:MigExpression
        exp:
          or:
          - FIND:
              checkall:
               IS NOT NULL:
                  value: ''
                  field: Host.hardware.ports-device_name
              search:
                =:
                  value: ethernet
                  field: Host.hardware.ports-device_type
          - FIND:
              checkall:
                IS NOT EMPTY:
                  field: Host.hardware.ports-device_name
                  value: ''
              search:
                =:
                  field: Host.hardware.ports-device_type
                  value: ethernet
        context_type:
      towhat: Host
      file_mtime:
     guid: 5ca4abca-d00c-11e1-986c-000c29cc1a4c
     filename:
     applies_to_exp:
     miq_policy_id: 10
     notes: VMware SHG v4x. & v5.x - NCN11 - Ensure that all vSwitches have a clear
       network label. R1
- MigPolicy:
    name: d4640a18-e15d-11e1-acfa-005056b25af6
    description: powervm
   expression:
   towhat: Vm
   quid: d4640a18-e15d-11e1-acfa-005056b25af6
   created_by: admin
   updated_by: admin
   notes:
   active: true
   mode: control
   MiqPolicyContent:
    - qualifier: success
     success_sequence: 1
     MiqEvent:
        name: vm_start
        description: VM Power On
        guid: 404b4630-21a8-11e2-b47a-0050568b19a3
        event_type: Default
       definition:
        default:
        enabled:
     MiqAction:
```

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```
name: b0138b70-e15d-11e1-8744-005056b25af6
    description: powerVM
   guid: b0138b70-e15d-11e1-8744-005056b25af6
    action_type: custom_automation
   options:
     :ae_message: create
     :ae_request: powerVM
- qualifier: success
 success_sequence: 1
 MiqEvent:
   name: vm_poweroff
   description: VM Power Off
   quid: 48beeadc-ae7c-11e1-a76f-005056b25af6
   event_type: Default
   definition:
   default:
   enabled:
 MiqAction:
   name: b0138b70-e15d-11e1-8744-005056b25af6
   description: powerVM
   guid: b0138b70-e15d-11e1-8744-005056b25af6
   action_type: custom_automation
   options:
     :ae_message: create
      :ae_request: powerVM
Condition: []
```

3.20.2 Profiles.yaml

Link: Profiles.yaml

Source:

```
- MigPolicySet:
   name: 612b936c-3d2d-11df-a7e9-005056a40709
   description: ! 'ACTIVE - Analysis: Manage VMs'
   set_type: MiqPolicySet
   quid: 612b936c-3d2d-11df-a7e9-005056a40709
   read_only:
   set data:
     :notes: ! '1) Create a new Tag Category called Operations (Show in EVM Console
       and Single Value)
        2) Create the following Tags under this new Operations Category (analysis_failed,
        analysis_required, analysis_success)
        3) Create Global Filters for VMs for Analysis Failed and Analysis Required
       to easily find tagged VMs.
        4) Set up a Schedule to run as desired that will process the VMs that currently
       match the Global Filter. Ex: Analyze all VMs that are tagged with "Analysis
       Required".
   mode: control
   owner_type:
```

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```
owner_id:
MiqPolicy:
- name: 07cea762-3d1b-11df-a7e9-005056a40709
 description: ! 'Tag: VM if Analysis not successful'
 expression:
 towhat: Vm
 quid: 07cea762-3d1b-11df-a7e9-005056a40709
 created_by: admin
 updated_by: admin
 notes:
  active: true
 mode: control
 MiqPolicyContent:
  - qualifier: success
   success_sequence: 1
   MiqEvent:
     name: vm_scan_abort
      description: VM Analysis Failure
      guid: 4c48a6fa-37c0-11df-b567-005056a40709
      event_type: Default
      definition:
     default:
      enabled:
    MigAction:
      name: fc7f2dde-3d22-11df-a7e9-005056a40709
      description: Tag VM that Fails Analysis
      guid: fc7f2dde-3d22-11df-a7e9-005056a40709
      action_type: tag
      options:
       :variables:
        - :value: ''
         :oid: ''
         :var_type: <None>
        - :value: ''
          :oid: ''
          :var_type: <None>
        - :value: ''
          :oid: ''
          :var_type: <None>
        - :value: ''
          :oid: ''
          :var_type: <None>
        - :value: ''
          :oid: ''
          :var_type: <None>
        - :value: ''
          :oid: ''
         :var_type: <None>
        - :value: ''
          :oid: ''
          :var_type: <None>
        - :value: ''
          :oid: ''
          :var_type: <None>
        - :value: ''
          :oid: ''
          :var_type: <None>
        - :value: ''
        :oid: ''
```

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```
:var_type: <None>
        :tags:
        - /managed/operations/analysis_failed
 Condition: []
- name: 0ce6cf38-3d2d-11df-a7e9-005056a40709
 description: ! 'Tag: VM on Successful Analysis'
 expression:
 towhat: Vm
 quid: 0ce6cf38-3d2d-11df-a7e9-005056a40709
 created_by: admin
 updated_by: admin
 notes:
 active: true
 mode: control
 MigPolicyContent:
 - qualifier: success
   success_sequence: 1
   MiqEvent:
     name: vm_scan_complete
     description: VM Analysis Complete
     quid: f7b8361e-1139-11e1-9333-005056af009e
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: cd2f3222-3d2c-11df-a7e9-005056a40709
     description: Tag VM after Successful Analysis
     quid: cd2f3222-3d2c-11df-a7e9-005056a40709
     action_type: tag
     options:
        - /managed/operations/analysis_success
 Condition: []
- name: b968f0a0-3d2e-11df-a7e9-005056a40709
 description: ! 'Tag: VM that Requires Analysis'
 expression:
  towhat: Vm
  guid: b968f0a0-3d2e-11df-a7e9-005056a40709
 created_by: admin
 updated_by: admin
 notes:
 active: true
 mode: control
 MiqPolicyContent:
  - qualifier: success
   success_sequence: 1
   MiqEvent:
     name: vm_start
     description: VM Power On
     guid: 404b4630-21a8-11e2-b47a-0050568b19a3
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: a4ccd026-3d2e-11df-a7e9-005056a40709
     description: Tag VM that Requires Analysis
     guid: a4ccd026-3d2e-11df-a7e9-005056a40709
```

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```
action_type: tag
     options:
        :tags:
        - /managed/operations/analysis_required
  - qualifier: success
    success_sequence: 1
   MigEvent:
     name: vm_create
     description: VM Create Complete
     guid: 4c0b4f12-37c0-11df-b567-005056a40709
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: a4ccd026-3d2e-11df-a7e9-005056a40709
     description: Tag VM that Requires Analysis
     guid: a4ccd026-3d2e-11df-a7e9-005056a40709
     action_type: tag
     options:
        :tags:
        - /managed/operations/analysis_required
  - qualifier: success
    success_sequence: 1
   MiqEvent:
     name: vm_reset
     description: VM Reset
     guid: 4c1b8a3a-37c0-11df-b567-005056a40709
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: a4ccd026-3d2e-11df-a7e9-005056a40709
     description: Tag VM that Requires Analysis
     guid: a4ccd026-3d2e-11df-a7e9-005056a40709
     action_type: tag
     options:
        :tags:
        /managed/operations/analysis_required
 Condition: []
- name: ! 'Do Not Analyze '
 description: ! 'Analysis: Prevent Analysis of Selected VMs'
 expression:
 towhat: Vm
 guid: 3a7959c0-2866-11de-af2a-0050568026c2
 created_by:
 updated_by: admin
 notes: ! 'This policies prevents analysis of any vm that is tagged as Do Not
   Analyze '
 active: true
 mode: control
 MiqPolicyContent:
  - qualifier: success
   success_sequence: 1
   failure_synchronous: true
   MiqEvent:
     name: request_vm_scan
     description: VM Analysis Request
```

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```
quid: e3292c46-1e1e-11de-8918-0050568005db
          event_type: Default
          definition:
          default:
          enabled:
       MigAction:
          name: prevent
          description: Prevent current event from proceeding
          quid: d885a118-519b-11e0-8d82-005056af0000
          action_type: default
          options: {}
     Condition:
      - name: Do Not Analyze
        description: VM classified as DO_NOT_ANALYZE
       modifier: allow
        expression: !ruby/object:MiqExpression
          exp:
           CONTAINS:
             tag: Vm.managed-exclusions
             value: do_not_analyze
          context_type:
        towhat: Vm
        file mtime:
        quid: 39ff4444-08e2-11de-829f-005056a164b2
       filename:
       applies_to_exp:
       miq_policy_id: 1000000000001
       notes:
- MiqPolicySet:
   name: 74de8372-bbd6-11e1-a4a4-005056b25af6
   description: ACTIVE - Prevent PowerOn of Quarantined VMs
    set_type: MiqPolicySet
   guid: 74de8372-bbd6-11e1-a4a4-005056b25af6
   read_only:
   set_data:
   mode: control
   owner_type:
    owner_id:
   MiqPolicy:
    - name: f4f0e916-bbd5-11e1-a4a4-005056b25af6
     description: Prevent PowerOn of Quarantined VM
     expression:
     towhat: Vm
     guid: f4f0e916-bbd5-11e1-a4a4-005056b25af6
     created_by: admin
     updated_by: admin
     notes:
     active: true
     mode: control
     MiqPolicyContent:
      - qualifier: success
        success_sequence: 1
       MiqEvent:
          name: request_vm_start
          description: VM Power On Request
          guid: 48b02c4a-ae7c-11e1-a76f-005056b25af6
          event_type: Default
          definition:
          default:
```

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```
enabled:
       MigAction:
          name: vm_stop
          description: Stop Virtual Machine
          guid: 37f2da3e-21a8-11e2-b47a-0050568b19a3
          action_type: default
          options: {}
      - qualifier: success
        success_sequence: 1
       MiqEvent:
          name: vm_start
          description: VM Power On
          quid: 404b4630-21a8-11e2-b47a-0050568b19a3
          event_type: Default
          definition:
          default:
          enabled:
       MigAction:
          name: vm_stop
          description: Stop Virtual Machine
          guid: 37f2da3e-21a8-11e2-b47a-0050568b19a3
          action_type: default
          options: {}
      Condition:
      - name: 1cbc27da-bbd6-11e1-ac0c-005056b25af6
        description: VM Tagged as Do Not PowerOn
        modifier: allow
        expression: !ruby/object:MiqExpression
          exp:
           CONTAINS:
             tag: Vm.managed-exclusions
             value: do_not_power_on
          context_type:
        towhat: Vm
        file_mtime:
        guid: 1cbc27da-bbd6-11e1-ac0c-005056b25af6
        filename:
        applies_to_exp:
       miq_policy_id:
       notes:
- MigPolicySet:
   name: 3a78daca-99da-11e1-a4bf-005056b057a8
   description: ! 'ACTIVE - Snapshot Management: Max of 2'
    set_type: MiqPolicySet
   guid: 3a78daca-99da-11e1-a4bf-005056b057a8
   read_only:
   set_data:
   mode: control
   owner_type:
   owner_id:
   MiqPolicy:
    - name: cf87e7fc-99d8-11e1-a4bf-005056b057a8
     description: ! 'Snapshots: limit to max of 2'
     expression:
     towhat: Vm
     guid: cf87e7fc-99d8-11e1-a4bf-005056b057a8
     created_by: admin
     updated_by: admin
     notes: This policy prevents a vm from starting if there are more than 2 snapshots.
```

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```
If this number is exceeded, the vm is not allowed to start and the vm annotations
        are updated in the VC
      active: true
     mode: control
     MiqPolicyContent:
      - qualifier: success
       success_sequence: 1
       MiqEvent:
          name: vm_start
          description: VM Power On
          guid: 404b4630-21a8-11e2-b47a-0050568b19a3
          event_type: Default
          definition:
          default:
          enabled:
       MigAction:
          name: vm_stop
          description: Stop Virtual Machine
          guid: 37f2da3e-21a8-11e2-b47a-0050568b19a3
          action_type: default
         options: {}
      - qualifier: success
        success_sequence: 2
        MiqEvent:
          name: vm_start
          description: VM Power On
          guid: 404b4630-21a8-11e2-b47a-0050568b19a3
          event_type: Default
          definition:
          default:
          enabled:
       MigAction:
          name: 8d6ebd90-99d9-11e1-a4bf-005056b057a8
          description: ! 'VM Attribute: Max Snapshots'
          guid: 8d6ebd90-99d9-11e1-a4bf-005056b057a8
          action_type: set_custom_attribute
          options:
            :value: Snapshot Limit Exceeded
            :attribute: EVM Policy
      Condition:
      - name: 9db4783a-99d8-11e1-a4bf-005056b057a8
        description: Snapshot Count >=3
        modifier: allow
        expression: !ruby/object:MiqExpression
          exp:
            ! '>=':
             count: Vm.snapshots
              value: '3'
          context_type:
        towhat: Vm
        file_mtime:
        guid: 9db4783a-99d8-11e1-a4bf-005056b057a8
        filename:
        applies_to_exp:
       miq_policy_id: 10000000000079
       notes: This condition checks to see if 3 or more snapshots exist
- MiqPolicySet:
   name: 98eea278-8b9f-11e0-b8fc-005056a40e59
    description: ACTIVE - VMs in DMZ NIC Check
```

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```
set_type: MiqPolicySet
quid: 98eea278-8b9f-11e0-b8fc-005056a40e59
read_only:
set_data:
  :notes: This Policy Profile will check VM Network Adapter count and if > 1 will
    Stop the VM. This will happen after VM Analysis is Complete or when the VM
mode: control
owner_type:
owner_id:
MiqPolicy:
- name: 69fbd202-8ba3-11e0-b8fc-005056a40e59
  description: DMZ - Shutdown VM after Analysis if it has more than 1 NIC
  expression: !ruby/object:MiqExpression
    exp:
        value: 'on'
        field: Vm-power_state
    context_type:
  towhat: Vm
  quid: 69fbd202-8ba3-11e0-b8fc-005056a40e59
  created_by: admin
 updated_by: admin
  notes:
  active: true
  mode: control
 MiqPolicyContent:
  - qualifier: success
    success_sequence: 1
    MiqEvent:
      name: vm_scan_complete
      description: VM Analysis Complete
      guid: f7b8361e-1139-11e1-9333-005056af009e
      event_type: Default
      definition:
      default:
      enabled:
    MiqAction:
      name: vm_shutdown_guest
      description: Shutdown Virtual Machine Guest OS
      quid: 26b84380-bbd5-11de-aaab-0050568a2c6a
      action_type: default
      options: {}
  - qualifier: success
    success_sequence: 2
    MiqEvent:
      name: vm_scan_complete
      description: VM Analysis Complete
      guid: f7b8361e-1139-11e1-9333-005056af009e
      event_type: Default
      definition:
      default:
      enabled:
    MigAction:
      name: evm_event
      description: Show EVM Event on Timeline
      guid: 16b1810c-44e8-11e0-acda-005056a40e59
      action_type: default
      options: {}
```

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```
Condition:
  - name: efcf3702-8b9e-11e0-b8fc-005056a40e59
   description: DMZ - VM has more than 1 NIC
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
        ! '>':
         count: Vm.hardware.nics
         value: '1'
     context_type:
   towhat: Vm
   file_mtime:
    quid: efcf3702-8b9e-11e0-b8fc-005056a40e59
   filename:
   applies_to_exp:
   miq_policy_id: 10000000000077
   notes:
- name: 0de66508-8b9f-11e0-b8fc-005056a40e59
 description: DMZ - Shutdown VM after Starting if it has more than 1 NIC
 expression:
 towhat: Vm
 guid: 0de66508-8b9f-11e0-b8fc-005056a40e59
 created_by: admin
 updated_by: admin
 notes:
 active: true
 mode: control
 MiqPolicyContent:
  - qualifier: success
   success_sequence: 1
   MiqEvent:
     name: vm_start
     description: VM Power On
     quid: 404b4630-21a8-11e2-b47a-0050568b19a3
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: vm_stop
     description: Stop Virtual Machine
     guid: 37f2da3e-21a8-11e2-b47a-0050568b19a3
     action_type: default
     options: {}
  - qualifier: success
   success_sequence: 2
   MiqEvent:
     name: vm_start
     description: VM Power On
     guid: 404b4630-21a8-11e2-b47a-0050568b19a3
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: evm_event
     description: Show EVM Event on Timeline
     guid: 16b1810c-44e8-11e0-acda-005056a40e59
     action_type: default
```

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```
options: {}
      - qualifier: success
       success_sequence: 3
       MiqEvent:
         name: vm_start
         description: VM Power On
         quid: 404b4630-21a8-11e2-b47a-0050568b19a3
         event type: Default
         definition:
         default:
         enabled:
       MigAction:
         name: d91bbabc-b0be-11e1-b0dc-005056b057a8
         description: ! 'VM Attribute: Allowed NIC Count Exceeded'
         quid: d91bbabc-b0be-11e1-b0dc-005056b057a8
         action_type: set_custom_attribute
         options:
           :attribute: EVM Policy
            :value: Allowed NIC Limit Exceeded
     Condition:
      - name: efcf3702-8b9e-11e0-b8fc-005056a40e59
       description: DMZ - VM has more than 1 NIC
       modifier: allow
       expression: !ruby/object:MiqExpression
         exp:
            ! '>':
              count: Vm.hardware.nics
             value: '1'
         context_type:
        towhat: Vm
       file_mtime:
       quid: efcf3702-8b9e-11e0-b8fc-005056a40e59
       filename:
       applies_to_exp:
       miq_policy_id: 1000000000077
       notes:
- MiqPolicySet:
   name: 820849ce-a7fb-11e0-abed-005056af0000
   description: ! 'Analysis: Do Not Analyze Active VDI VMs'
   set_type: MiqPolicySet
   quid: 820849ce-a7fb-11e0-abed-005056af0000
   read_only:
   set_data:
      :notes: This policy profile checks to see if a VDI vm is being actively used
       by a user. If a user is currently connected to the session, it will prevent
       the vm from being analyzed
   mode: control
   owner_type:
   owner_id:
   MiqPolicy:
   - name: 1c4c7772-a7fb-11e0-abed-005056af0000
     description: Do Not Analyze Active VDI VMs
     expression:
     towhat: Vm
     guid: 1c4c7772-a7fb-11e0-abed-005056af0000
     created_by: admin
     updated_by: admin
     notes: This policy prevents analysis of a vm that has an active user session
     active: true
```

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```
mode: control
     MiqPolicyContent:
      - qualifier: success
        success_sequence: 1
       MiqEvent:
         name: vm_scan_start
          description: VM Analysis Start
          quid: 057b9baa-519c-11e0-8d82-005056af0000
          event_type: Default
          definition:
          default:
          enabled:
       MigAction:
          name: prevent
          description: Prevent current event from proceeding
          guid: d885a118-519b-11e0-8d82-005056af0000
          action_type: default
          options: {}
     Condition:
      - name: 0a50f750-a7fb-11e0-abed-005056af0000
        description: VM has an active session
       modifier: allow
        expression: !ruby/object:MiqExpression
          exp:
              value: 'true'
              field: Vm-has_active_vdi_session
          context_type:
        towhat: Vm
        file_mtime:
        quid: 0a50f750-a7fb-11e0-abed-005056af0000
        filename:
        applies_to_exp:
       miq_policy_id: 1000000000007
       notes:
- MiqPolicySet:
   name: 43e76af6-3f8e-11e0-aaa0-00505688000a
    description: ! 'Analysis: Exclude Specially Tagged VMs'
    set_type: MiqPolicySet
    guid: 43e76af6-3f8e-11e0-aaa0-00505688000a
   read_only:
    set_data:
     :notes: Prevents the analysis of vms tagged as do not analyze
   mode: control
   owner_type:
   owner_id:
   MiqPolicy:
    - name: ! 'Do Not Analyze '
     description: ! 'Analysis: Prevent Analysis of Selected VMs'
     expression:
      towhat: Vm
      guid: 3a7959c0-2866-11de-af2a-0050568026c2
      created_by:
     updated_by: admin
     notes: ! 'This policies prevents analysis of any vm that is tagged as Do Not
       Analyze '
      active: true
     mode: control
     MiqPolicyContent:
```

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```
- qualifier: success
        success_sequence: 1
       failure_synchronous: true
       MiqEvent:
         name: request_vm_scan
          description: VM Analysis Request
          quid: e3292c46-1e1e-11de-8918-0050568005db
          event type: Default
          definition:
          default:
          enabled:
       MigAction:
          name: prevent
          description: Prevent current event from proceeding
          quid: d885a118-519b-11e0-8d82-005056af0000
          action_type: default
          options: {}
     Condition:
      - name: Do Not Analyze
        description: VM classified as DO_NOT_ANALYZE
       modifier: allow
        expression: !ruby/object:MiqExpression
          exp:
           CONTAINS:
             tag: Vm.managed-exclusions
              value: do_not_analyze
          context_type:
        towhat: Vm
        file_mtime:
        guid: 39ff4444-08e2-11de-829f-005056a164b2
       filename:
       applies_to_exp:
       miq_policy_id: 1000000000001
       notes:
- MiqPolicySet:
   name: 3872a0e8-50bc-11e0-880e-00505688000a
    description: ! 'Analysis: On VM Reconfiguration'
    set_type: MiqPolicySet
    guid: 3872a0e8-50bc-11e0-880e-00505688000a
   read_only:
   set_data:
     :notes: Triggers a VM analysis when a VM is reconfigured
   mode: control
   owner_type:
   owner_id:
   MiqPolicy:
    - name: 2f2a1a1c-4806-11df-badc-005056a7121f
     description: ! 'Analysis: VM Reconfiguration'
     expression:
     towhat: Vm
      guid: 2f2a1a1c-4806-11df-badc-005056a7121f
      created_by: admin
     updated_by: admin
     notes: Performs an analysis on any vm that has been reconfigured
     active: true
     mode: control
     MiqPolicyContent:
      - qualifier: success
       success_sequence: 1
```

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```
MiqEvent:
          name: vm_reconfigure
          description: VM Settings Change
          guid: 07367e62-449a-11de-bd4f-005056a83e5d
          event_type: Default
          definition:
          default:
          enabled:
       MigAction:
          name: vm_analyze
          description: Initiate SmartState Analysis for VM
          guid: 5cbe1082-ce35-11de-a117-005056b0503e
          action_type: default
          options: {}
     Condition: []
- MiqPolicySet:
   name: 079d2408-44ef-11e0-99a6-00505688000a
   description: ! 'Analysis: VDI Login'
    set_type: MiqPolicySet
   quid: 079d2408-44ef-11e0-99a6-00505688000a
   read_only:
   set_data:
      :notes: This policy profile automatically analyzes a VDI session when a user
       logs in to it.
   mode: control
   owner_type:
   owner_id:
   MiqPolicy:
    - name: 782068f8-44ee-11e0-99a6-00505688000a
     description: ! 'Analysis: VDI Login'
     expression:
     towhat: Vm
     guid: 782068f8-44ee-11e0-99a6-00505688000a
     created_by: admin
     updated_by: admin
     notes: This policy triggers an analysis of a VDI session when a user logs in
        to that session
      active: true
      mode: control
     MiqPolicyContent:
      - qualifier: success
        success_sequence: 1
       MiqEvent:
         name: vm_vdi_login_session
          description: VDI Login Session
          guid: 15fc3cce-448a-11e0-9ad1-00505688000a
          event_type: Default
          definition:
          default:
          enabled:
       MiqAction:
          name: vm_analyze
          description: Initiate SmartState Analysis for VM
          guid: 5cbe1082-ce35-11de-a117-005056b0503e
          action_type: default
          options: {}
      Condition: []
- MiqPolicySet:
   name: aa699b96-de34-11e1-9088-005056af009e
```

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```
description: Collect VDI User Information
set_type: MiqPolicySet
quid: aa699b96-de34-11e1-9088-005056af009e
read_only:
set_data:
mode: control
owner_type:
owner id:
MigPolicy:
- name: 57189108-d1d3-11e1-9ede-005056af009e
  description: Record Last RDP User
  expression:
  towhat: Vm
  quid: 57189108-d1d3-11e1-9ede-005056af009e
  created_by: admin
  updated_by: admin
  notes: ! 'When a user logs on to the VM through an RDP session, the file c:\rdp_login\ \leftrightarrow
     rdp.log
    is automatically created by the logon script.
    A analysis profile should be set to retrieve this file and its content.
    This policy will automatically raise an automate event so the content of the
    file can be parsed and elements set as custom attributes of the VM ^{\prime}
  active: true
  mode: control
 MiqPolicyContent:
  - qualifier: success
    success_sequence: 1
    MiqEvent:
      name: vm_scan_complete
      description: VM Analysis Complete
      guid: f7b8361e-1139-11e1-9333-005056af009e
      event_type: Default
      definition:
      default:
      enabled:
    MiqAction:
      name: raise_automation_event
      description: Raise Automation Event
      guid: e7da3b7a-1139-11e1-9333-005056af009e
      action_type: default
      options: {}
  Condition:
  - name: 5a4c3456-de30-11e1-9088-005056af009e
    description: Check for files starting with rep
    modifier: allow
    expression: !ruby/object:MiqExpression
      exp:
        FIND:
          checkcount:
            ! '>=':
              field: <count>
              value: '1'
          search:
            INCLUDES:
              field: Vm.filesystems-name
```

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```
value: rdp
     context_type:
   towhat: Vm
   file_mtime:
   quid: 5a4c3456-de30-11e1-9088-005056af009e
   applies_to_exp:
   miq_policy_id: 4
   notes:
- name: d658fe5c-de2c-11e1-9088-005056af009e
 description: Collect Logged on User Info
 expression:
  towhat: Vm
 quid: d658fe5c-de2c-11e1-9088-005056af009e
 created_by: admin
 updated_by: admin
 notes:
 active: true
 mode: control
 MigPolicyContent:
 - qualifier: success
   success_sequence: 1
   MiqEvent:
     name: vm_scan_complete
     description: VM Analysis Complete
     quid: f7b8361e-1139-11e1-9333-005056af009e
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: raise_automation_event
     description: Raise Automation Event
     guid: e7da3b7a-1139-11e1-9333-005056af009e
     action_type: default
     options: {}
 Condition:
  - name: ab61c97a-de2e-11e1-9088-005056af009e
    description: Check files starting with nb
    modifier: allow
    expression: !ruby/object:MiqExpression
     exp:
       FIND:
         checkcount:
           ! '>=':
              value: '1'
              field: <count>
          search:
            INCLUDES:
              value: nb
              field: Vm.filesystems-name
     context_type:
    towhat: Vm
    file_mtime:
   quid: ab61c97a-de2e-11e1-9088-005056af009e
   filename:
   applies_to_exp:
   miq_policy_id: 5
   notes:
```

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```
- MiqPolicySet:
    name: e4bcd3de-2480-11e2-b7d5-005056b25af6
    description: ! 'Compliance Hosts: November 2012'
    set_type: MiqPolicySet
    quid: e4bcd3de-2480-11e2-b7d5-005056b25af6
    read_only:
    set_data:
    mode: control
    owner_type:
    owner_id:
    MiqPolicy:
    - name: de683aa6-fedf-11de-83dd-005056ba5e76
      description: Network - Mac Changes not Allowed
      expression:
      towhat: Host
      guid: de683aa6-fedf-11de-83dd-005056ba5e76
      created_by: admin
     updated_by: admin
     notes: This policy checks that MAC changes are not allowed on vSwitches and
      active: true
     mode: compliance
     MiqPolicyContent:
      - qualifier: failure
        failure_sequence: 1
        MiqEvent:
          name: host_compliance_check
          description: Host Compliance Check
          quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
          event_type: Default
          definition:
          default:
          enabled:
        MigAction:
          name: compliance_failed
          description: Mark as Non-Compliant
          guid: ba452d94-f586-11de-8ebc-0050568a07c7
          action_type: default
          options: {}
      Condition:
      - name: 0a6eb332-fee0-11de-83dd-005056ba5e76
        description: Mac Changes Disabled in vSwitches
        modifier: allow
        expression: !ruby/object:MiqExpression
          exp:
            not:
              CONTAINS:
                value: 'false'
                field: Host.switches-mac_changes
        towhat: Host
        file_mtime:
        guid: 0a6eb332-fee0-11de-83dd-005056ba5e76
        filename:
        applies_to_exp:
        miq_policy_id: 10000000000028
        notes: This condition verifies that MAC changes are not allowed on vSwitches.
      - name: 3ed9fb4a-fee0-11de-83dd-005056ba5e76
        description: Mac Changes Disabled in vLans
        modifier: allow
```

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```
expression: !ruby/object:MiqExpression
     exp:
       not:
         CONTAINS:
           value: 'false'
           field: Host.lans-mac_changes
   towhat: Host
   file mtime:
   quid: 3ed9fb4a-fee0-11de-83dd-005056ba5e76
   filename:
   applies_to_exp:
   miq_policy_id: 10000000000028
   notes: This condition verifies that MAC changes are not allowed on vLans.
- name: 61b355f2-fee1-11de-83dd-005056ba5e76
 description: Network - Forged Transmits Must Be Disabled
 expression:
 towhat: Host
 guid: 61b355f2-fee1-11de-83dd-005056ba5e76
 created_by: admin
 updated_by: admin
 notes: This policy insures that forged transmits are disabled on both vLans
   and vSwitches.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MigEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: f246e3e0-fee1-11de-83dd-005056ba5e76
   description: Forged Transmits Disabled in vLan
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       not:
          CONTAINS:
           value: 'false'
            field: Host.lans-forged_transmits
   towhat: Host
   file_mtime:
   quid: f246e3e0-fee1-11de-83dd-005056ba5e76
   filename:
   applies_to_exp:
   miq_policy_id: 10000000000022
   notes: This condition verifies that forged transmits are disabled on vlans.
 - name: a3ac5774-fee1-11de-83dd-005056ba5e76
```

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```
description: Forged Transmits Disabled in vSwitch
        modifier: allow
        expression: !ruby/object:MiqExpression
          exp:
            not:
              CONTAINS:
                value: 'false'
                field: Host.switches-forged_transmits
        towhat: Host
        file_mtime:
        quid: a3ac5774-fee1-11de-83dd-005056ba5e76
        filename:
        applies_to_exp:
        mig_policy_id: 1000000000022
       notes: This condition verifies that forged transmits are disabled on vSwitches.
- MigPolicySet:
   name: 587352f0-fb88-11de-a067-005056ba0614
   description: ! 'Compliance: Hosts'
    set_type: MiqPolicySet
   quid: 587352f0-fb88-11de-a067-005056ba0614
   read_only:
   set_data:
      :notes: This policy profile validates that an ESX host meets the standard defined
        in VMWare's security hardening documentation
   mode: pr
   owner_type:
   owner_id:
   MiqPolicy:
    - name: eb84f288-fa39-11de-83ca-005056ba0614
     description: Protect Root File System Filling /home
     expression:
     towhat: Host
     guid: eb84f288-fa39-11de-83ca-005056ba0614
     created_by: admin
     updated_by: admin
     notes: This policy verifies that the /home directory is mounted on a different
        partition than the root filesystem.
      active: true
      mode: compliance
     MiqPolicyContent:
      - qualifier: failure
        failure_sequence: 1
       MiqEvent:
          name: host_compliance_check
          description: Host Compliance Check
          guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
          event_type: Default
          definition:
          default:
          enabled:
       MiqAction:
          name: compliance_failed
          description: Mark as Non-Compliant
          quid: ba452d94-f586-11de-8ebc-0050568a07c7
          action_type: default
          options: {}
      Condition:
      - name: 62447a1a-fa3a-11de-83ca-005056ba0614
        description: Protect Root File System Filling /home
```

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```
modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
          checkany:
           REGULAR EXPRESSION MATCHES:
              value: ^[^#]*\/home
              field: Host.filesystems-contents
          search:
            =:
              value: /etc/fstab
              field: Host.filesystems-name
   towhat: Host
   file_mtime:
   quid: 62447a1a-fa3a-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000019
   notes: This condition verifies that the file /etc/fstab has an uncommented
     line that references the directory /home.
- name: 04db603c-fa3a-11de-83ca-005056ba0614
 description: Firewall - Outgoing Security Level
 expression:
 towhat: Host
 quid: 04db603c-fa3a-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that only a defined set of outgoing TCP and UDP
   Ports are open.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: f0afd7d6-fa3a-11de-83ca-005056ba0614
   description: Valid Outgoing TCP Ports
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       LIMITED TO:
         value: '902,427,443,27000,27010'
          field: Host-enabled_tcp_outbound_ports
   towhat: Host
   file_mtime:
```

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```
quid: f0afd7d6-fa3a-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   notes: This condition verifies that the only open outgoing TCP ports are \leftrightarrow
       427, 443, 902, 27000,
     and 27010.
 - name: 1778fb28-fa44-11de-83ca-005056ba0614
   description: Valid Outgoing UDP Ports
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       LIMITED TO:
         value: '427,123,902'
         field: Host-enabled_udp_outbound_ports
   towhat: Host
   file_mtime:
   quid: 1778fb28-fa44-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   notes: This condition verifies that the only open outgoing UDP ports are 123,427,
     and 902.
- name: af2d74ea-fa39-11de-83ca-005056ba0614
 description: Firewall - Incoming Security Level
 expression:
 towhat: Host
 guid: af2d74ea-fa39-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that only a defined set of incoming TCP and UDP
   Ports are open.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: b4a0843a-fa43-11de-83ca-005056ba0614
   description: Valid Incoming UDP Ports
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       LIMITED TO:
         value: '427'
```

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```
field: Host-enabled_udp_inbound_ports
   towhat: Host
   file_mtime:
   quid: b4a0843a-fa43-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   mig_policy_id: 10000000000021
   notes: This condition verifies that the only open incoming UDP port is 427.
  - name: 03529e9e-f961-11de-9e9d-0050568a07c7
   description: Valid Incoming TCP Ports
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       LIMITED TO:
         value: '902,80,443,427,5989,22,5988'
         field: Host-enabled_tcp_inbound_ports
   towhat: Host
   file_mtime:
   quid: 03529e9e-f961-11de-9e9d-0050568a07c7
   filename:
   applies_to_exp:
   miq_policy_id: 10000000000021
   notes: This condition verifies that the only open incoming TCP ports are \ \ \hookleftarrow
       22,80,427,443,902,5988,and
     5989.
- name: 61b355f2-fee1-11de-83dd-005056ba5e76
 description: Network - Forged Transmits Must Be Disabled
 expression:
 towhat: Host
 guid: 61b355f2-fee1-11de-83dd-005056ba5e76
 created_by: admin
 updated_by: admin
 notes: This policy insures that forged transmits are disabled on both vLans
   and vSwitches.
 active: true
 mode: compliance
 MiqPolicyContent:
  - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: f246e3e0-fee1-11de-83dd-005056ba5e76
   description: Forged Transmits Disabled in vLan
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
```

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```
not:
         CONTAINS:
           value: 'false'
           field: Host.lans-forged_transmits
   towhat: Host
   file mtime:
   quid: f246e3e0-fee1-11de-83dd-005056ba5e76
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000022
   notes: This condition verifies that forged transmits are disabled on vlans.
 - name: a3ac5774-fee1-11de-83dd-005056ba5e76
   description: Forged Transmits Disabled in vSwitch
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       not:
         CONTAINS:
           value: 'false'
           field: Host.switches-forged_transmits
   towhat: Host
   file_mtime:
   quid: a3ac5774-fee1-11de-83dd-005056ba5e76
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000022
   notes: This condition verifies that forged transmits are disabled on vSwitches.
- name: 8d4a7bee-fa56-11de-83ca-005056ba0614
 description: Timekeeping - Minimum of 3 NTP Servers defined in step-tickers
 expression:
 towhat: Host
 guid: 8d4a7bee-fa56-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that a minimum of 3 servers are defined in the NTP
   step-tickers configuration.
 active: true
 mode: compliance
 MiqPolicyContent:
  - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: 0806448a-fa57-11de-83ca-005056ba0614
   description: Verify 3 NTP Servers Defined in step-tickers File
   modifier: allow
```

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```
expression: !ruby/object:MiqExpression
     exp:
       FIND:
         checkany:
           RUBY:
             value: ! "count = 0\ncontext.each_line { |line| ←
               Break up the input by lines\n count += 1 if line =~ /^[^*]*server\space^0
                   A-Za-z1+/
                  # Increment Count if line matches our regular expression\n}\nreturn
               true if count >= 3\nreturn false\n"
             field: Host.filesystems-contents
         search:
             value: /etc/ntp/step-tickers
             field: Host.filesystems-name
   towhat: Host
   file_mtime:
   quid: 0806448a-fa57-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 10000000000023
   notes: This condition checks the file /etc/ntp/step-tickers and verifies that
     a minimum of three ntp servers are defined.
- name: ab373d88-fa4a-11de-83ca-005056ba0614
 description: Settings - Display Logs on Different Terminals
 expression:
 towhat: Host
 quid: ab373d88-fa4a-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that critical, error, and warning level log messages
   are directed to distinct terminals.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: f383ec6c-fa4a-11de-83ca-005056ba0614
   description: Verify Different Logs Displayed on Different Terminals
   modifier: allow
   expression: !ruby/object:MiqExpression
       and:
```

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```
- FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: ^\s*\*\.crit\s+\/dev\/tty
                field: Host.filesystems-contents
            search:
                value: /etc/syslog.conf
                field: Host.filesystems-name
        - FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: ^\s*\\star\.err\s+\/dev\/tty
                field: Host.filesystems-contents
            search:
                value: /etc/syslog.conf
                field: Host.filesystems-name
        - FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: ^\s*\*\.warning\s+\/dev\/tty
                field: Host.filesystems-contents
            search:
              =:
                value: /etc/syslog.conf
                field: Host.filesystems-name
    towhat: Host
    file_mtime:
    guid: f383ec6c-fa4a-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000024
   notes: This condition checks the file /etc/syslog.conf has three seperate
     parameters defined for critical, error, and warning level log messages.
     These parameters specify the tty will display the specified log messages.
- name: 498f5330-fa4b-11de-83ca-005056ba0614
  description: Settings - Remote syslog Logging
  expression:
  towhat: Host
 guid: 498f5330-fa4b-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that syslog is configured to utilize a remote server.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
```

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```
description: Mark as Non-Compliant
     quid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: ee09af6e-fa4b-11de-83ca-005056ba0614
   description: Verify syslog Utilizes a Remote Host
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
         checkany:
           REGULAR EXPRESSION MATCHES:
              value: /^[^#*]\s*.*@/
             field: Host.filesystems-contents
         search:
             value: /etc/syslog.conf
             field: Host.filesystems-name
   towhat: Host
   file_mtime:
   quid: ee09af6e-fa4b-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 10000000000025
   notes: This condition checks the file /etc/syslog.conf and verifies the existence
     of the @ parameter, which is used to specify the use of a remote server.
- name: eb0151ea-fa47-11de-83ca-005056ba0614
 description: Root Login on console should be Disabled
 expression:
 towhat: Host
 guid: eb0151ea-fa47-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that the root account cannot directly login via
   the console.
 active: true
 mode: compliance
 MiqPolicyContent:
  - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: 571e6e76-fa48-11de-83ca-005056ba0614
   description: File /etc/securetty should be empty
   modifier: allow
```

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```
expression: !ruby/object:MiqExpression
     exp:
       FIND:
          checkall:
            =:
              value: '0'
              field: Host.filesystems-size
          search:
              value: /etc/securetty
              field: Host.filesystems-name
    towhat: Host
    quid: 571e6e76-fa48-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 10000000000026
   notes: This condition checks the file /etc/securetty and verifies that it's
     empty by checking for a OKB file size.
- name: e4c93c82-fa3a-11de-83ca-005056ba0614
 description: Permissions - /etc/grub.conf
 expression:
 towhat: Host
  guid: e4c93c82-fa3a-11de-83ca-005056ba0614
  created_by: admin
 updated_by: admin
 notes: This policy verifies that editing the server's boot process requires
   root level authority.
  active: true
 mode: compliance
 MiqPolicyContent:
  - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
  - name: d2adb400-fa3b-11de-83ca-005056ba0614
    description: Permissions - /etc/grub.conf
   modifier: allow
    expression: !ruby/object:MiqExpression
     exp:
        and:
        - FIND:
            checkany:
                value: '0600'
                field: Host.filesystems-permissions
```

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```
search:
             =:
               value: /etc/grub.conf
                field: Host.filesystems-name
        - FIND:
           checkany:
                value: root
               field: Host.filesystems-owner
            search:
               value: /etc/grub.conf
                field: Host.filesystems-name
   towhat: Host
   file_mtime:
   guid: d2adb400-fa3b-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000027
   notes: This condition verifies that the file /etc/grub.conf's permissions
     are set to 0600 and is owned by root.
- name: de683aa6-fedf-11de-83dd-005056ba5e76
 description: Network - Mac Changes not Allowed
 expression:
 towhat: Host
 guid: de683aa6-fedf-11de-83dd-005056ba5e76
 created_by: admin
 updated_by: admin
 notes: This policy checks that MAC changes are not allowed on vSwitches and
   vLans.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     quid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: 0a6eb332-fee0-11de-83dd-005056ba5e76
   description: Mac Changes Disabled in vSwitches
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       not:
         CONTAINS:
           value: 'false'
            field: Host.switches-mac_changes
```

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```
towhat: Host
   file_mtime:
   guid: 0a6eb332-fee0-11de-83dd-005056ba5e76
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000028
   notes: This condition verifies that MAC changes are not allowed on vSwitches.
 - name: 3ed9fb4a-fee0-11de-83dd-005056ba5e76
   description: Mac Changes Disabled in vLans
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       not:
         CONTAINS:
           value: 'false'
           field: Host.lans-mac_changes
   towhat: Host
   file_mtime:
   quid: 3ed9fb4a-fee0-11de-83dd-005056ba5e76
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000028
   notes: This condition verifies that MAC changes are not allowed on vLans.
- name: 7cc14778-fe0f-11de-83dd-005056ba5e76
 description: Network - Promiscuous Mode Setting Not Disabled
 expression:
 towhat: Host
 guid: 7cc14778-fe0f-11de-83dd-005056ba5e76
 created_by: admin
 updated_by: admin
 notes: Check the Host VLan setting for Promiscuous Mode which should be disabled.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: 2045b314-fe58-11de-83dd-005056ba5e76
   description: Check Host vSwitch - Promiscuous Mode Must Not Be Enable
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       not:
         CONTAINS:
           value: 'true'
```

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```
field: Host.switches-allow_promiscuous
   towhat: Host
   file_mtime:
   quid: 2045b314-fe58-11de-83dd-005056ba5e76
   filename:
   applies_to_exp:
   mig_policy_id: 10000000000029
   notes: This condition verifies that vSwitches do not allow Promiscuous mode
     via inheritance.
 - name: 80e5ff5e-fe16-11de-83dd-005056ba5e76
   description: Check Host Port - Promiscuous Mode Must Not Be Enabled
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       not:
         CONTAINS:
           value: 'true'
           field: Host.lans-computed_allow_promiscuous
   towhat: Host
   file_mtime:
   quid: 80e5ff5e-fe16-11de-83dd-005056ba5e76
   filename:
   applies_to_exp:
   miq_policy_id: 10000000000029
   notes: This condition verifies that vLans do not allow Promiscuous mode via
     inheritance.
- name: a8e0ef7c-fa48-11de-83ca-005056ba0614
 description: Use sudo aliases
 expression:
 towhat: Host
 guid: a8e0ef7c-fa48-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that user aliases are enabled in the configuration
   of the sudo command.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: 99496ebc-fa49-11de-83ca-005056ba0614
   description: Aliases are being used for sudo authorization
   modifier: allow
   expression: !ruby/object:MiqExpression
```

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```
exp:
       FIND:
         checkany:
           REGULAR EXPRESSION MATCHES:
             value: ^\s*User_Alias
             field: Host.filesystems-contents
         search:
             value: /etc/sudoers
             field: Host.filesystems-name
   towhat: Host
   file_mtime:
   guid: 99496ebc-fa49-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   notes: This condition checks the file /etc/sudoers and verifies that the parameter
     "User_Alias" is defined.
- name: 4ed279b2-fa55-11de-83ca-005056ba0614
 description: Timekeeping - NTP Service Running
 expression:
 towhat: Host
 guid: 4ed279b2-fa55-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that the NTP servers is configured to automatically
   start.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: 9a08d21e-fa55-11de-83ca-005056ba0614
   description: Verify NTP is Running
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
         checkany:
           INCLUDES:
             value: '3'
             field: Host.host_services-enable_run_levels
         search:
```

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```
value: ntpd
              field: Host.host_services-name
   towhat: Host
   file_mtime:
   quid: 9a08d21e-fa55-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000031
   notes: This condition verifies that the run level of the service ntpd is set
     to three.
- name: a6c2a51e-fa57-11de-83ca-005056ba0614
 description: Timekeeping - Minimum of 3 NTP Servers Defined in ntp.conf
 expression:
 towhat: Host
 guid: a6c2a51e-fa57-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that a minimum of 3 servers are defined in the NTP
   configuration.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
   name: 03c821bc-fa58-11de-83ca-005056ba0614
   description: Verify 3 NTP Servers Defined in ntp.conf
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
          checkany:
              value: ! "count = 0\ncontext.each_line { |line| ←
                Break up the input by lines\n count += 1 if line =~ /^[^*]*server\s+[0-9 \leftrightarrow]
                   A-Za-z]+/
                  # Increment Count if line matches our regular expression\n}\nreturn
                true if count >= 3\nreturn false"
              field: Host.filesystems-contents
          search:
            =:
              value: /etc/ntp.conf
              field: Host.filesystems-name
   towhat: Host
```

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```
file mtime:
   quid: 03c821bc-fa58-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000032
   notes: This condition checks the file /etc/ntp.conf and verifies that a minimum
     of three ntp servers are defined.
- name: c4396f3a-fa55-11de-83ca-005056ba0614
 description: Timekeeping - Minimum of 3 NTP Servers Defined in hosts
 expression:
 towhat: Host
 quid: c4396f3a-fa55-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that a minimum of 3 NTP servers are defined in the
   local hosts file.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
  - name: 2698c39c-fa56-11de-83ca-005056ba0614
   description: Verify 3 NTP Servers Defined in hosts File
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
         checkany:
           RUBY:
              value: ! "count = 0 \cdot \text{context.each\_line} \{ | \text{line} | \leftarrow \}
                                                #
                Break up the input by lines\n count += 1 if line =~ /^[^*]*NTP/i
                \ # Increment Count if line matches our regular expression\n}\nreturn
                true if count >= 3\nreturn false\n"
              field: Host.filesystems-contents
          search:
              value: /etc/hosts
              field: Host.filesystems-name
   towhat: Host
   file_mtime:
   guid: 2698c39c-fa56-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
```

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```
mig policy id: 1000000000033
   notes: ! 'This conditions checks the file /etc/hosts and veries that there
     are at least 3 uncommented lines that reference ntp servers. The included
     expression can be modified to match the appropriate values for the ntp servers
     for your environment.
- name: 3819638c-fa57-11de-83ca-005056ba0614
 description: Timekeeping - Drift Enabled
 expression:
  towhat: Host
 quid: 3819638c-fa57-11de-83ca-005056ba0614
  created_by: admin
 updated_by: admin
 notes: This policy verifies that NTP's driftfile support is enabled.
 active: true
 mode: compliance
 MiqPolicyContent:
  - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     quid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
  - name: 71fae5da-fa57-11de-83ca-005056ba0614
    description: Verify NTP Uses a Driftfile
   modifier: allow
    expression: !ruby/object:MiqExpression
     exp:
       FIND:
         checkany:
            REGULAR EXPRESSION MATCHES:
              value: ^\s*driftfile\s+\/var\/lib\/ntp\/drift
              field: Host.filesystems-contents
          search:
              value: /etc/ntp.conf
              field: Host.filesystems-name
    towhat: Host
   file_mtime:
    guid: 71fae5da-fa57-11de-83ca-005056ba0614
    filename:
   applies_to_exp:
   miq_policy_id: 1000000000034
   notes: This condition checks the file /\mathrm{etc/ntp.conf} and verifies that the
     driftfile parameter exists.
- name: ebc02cea-fa57-11de-83ca-005056ba0614
  description: Time Keeping - Restrict Access for Machines without Loopback
```

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```
expression:
 towhat: Host
 guid: ebc02cea-fa57-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that only non-loopback machines can access the NTP
   service.
 active: true
 mode: compliance
 MiqPolicyContent:
  - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     quid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
  - name: ddc26260-fa58-11de-83ca-005056ba0614
   description: Access Restricted for Machines without Loopback
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
         checkany:
           REGULAR EXPRESSION MATCHES:
             value: ^\s*restrict\s+default\s+kod\s+nomodify\s+notrap
              field: Host.filesystems-contents
          search:
              value: /etc/ntp.conf
              field: Host.filesystems-name
   towhat: Host
   file_mtime:
   guid: ddc26260-fa58-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000035
   notes: This condition checks the file /etc/ntp.conf and verifies that the
     line "restrict default kod nomodify notrap" exists.
- name: ccadf9fa-fa56-11de-83ca-005056ba0614
 description: Time Keeping - NTP Configured to Use Loopback Adapter
 expression:
 towhat: Host
 guid: ccadf9fa-fa56-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that NTP performs all name resolutions via a loopback
   network.
 active: true
```

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```
mode: compliance
 MigPolicyContent:
  - qualifier: failure
    failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     quid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
  - name: 2b9bb8b2-fa57-11de-83ca-005056ba0614
   description: NTP Configured to Use Loopback Adapter
   modifier: allow
    expression: !ruby/object:MiqExpression
     exp:
       FIND:
          checkany:
            REGULAR EXPRESSION MATCHES:
              value: ^\s*restrict\s+127\.0\.1
              field: Host.filesystems-contents
          search:
            =:
              value: /etc/ntp.conf
              field: Host.filesystems-name
    towhat: Host
   file_mtime:
   guid: 2b9bb8b2-fa57-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000036
   notes: This condition checks the file /etc/ntp.conf and verifies that the
     restrict parameter's value is set to 127.0.0.1.
- name: 4614d62e-fa52-11de-83ca-005056ba0614
 description: Settings - vmkwarning Compress Option
 expression:
 towhat: Host
 guid: 4614d62e-fa52-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that the vmkwarning log is compressed by default.
 active: true
 mode: compliance
 MiqPolicyContent:
  - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
```

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```
definition:
      default:
      enabled:
   MigAction:
      name: compliance_failed
      description: Mark as Non-Compliant
      quid: ba452d94-f586-11de-8ebc-0050568a07c7
      action_type: default
      options: {}
  Condition:
  - name: a51cbaba-fa52-11de-83ca-005056ba0614
    description: Verify Compression Enabled in vmkwarning
    modifier: allow
    expression: !ruby/object:MigExpression
      exp:
        FIND:
          checkany:
           REGULAR EXPRESSION MATCHES:
              value: \s+compress
              field: Host.filesystems-contents
          search:
              value: /etc/logrotate.d/vmkwarning
              field: Host.filesystems-name
    towhat: Host
    file_mtime:
    guid: a51cbaba-fa52-11de-83ca-005056ba0614
    filename:
   applies_to_exp:
   miq_policy_id: 1000000000037
   notes: This condition checks the file /etc/logrotate.d/vmkwarning and verifies
      that the option compress is enabled.
- name: 6353b57e-fa53-11de-83ca-005056ba0614
 description: Settings - vmksummary Compress Option
  expression:
 towhat: Host
  guid: 6353b57e-fa53-11de-83ca-005056ba0614
  created_by: admin
  updated_by: admin
  notes: This policy verifies that the vmksummary log is compressed by default.
  active: true
 mode: compliance
 MiqPolicyContent:
  - qualifier: failure
   failure_sequence: 1
   MiqEvent:
      name: host_compliance_check
      description: Host Compliance Check
      guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
      event_type: Default
      definition:
      default:
      enabled:
    MigAction:
      name: compliance_failed
      description: Mark as Non-Compliant
      guid: ba452d94-f586-11de-8ebc-0050568a07c7
      action_type: default
      options: {}
```

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```
Condition:
 - name: 510f7286-fa53-11de-83ca-005056ba0614
   description: Verify Compression Enabled in vmksummary
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
         checkanv:
           REGULAR EXPRESSION MATCHES:
             value: \s+compress
              field: Host.filesystems-contents
          search:
             value: /etc/logrotate.d/vmksummary
             field: Host.filesystems-name
   towhat: Host
   file_mtime:
   quid: 510f7286-fa53-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000038
   notes: This condition checks the file /etc/logrotate.d/vmksummary and verifies
     that the option compress is enabled.
- name: 0864fae6-fa54-11de-83ca-005056ba0614
 description: Settings - vmkernel Compress Option
 expression:
 towhat: Host
 quid: 0864fae6-fa54-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that the vmkernel log is compressed by default.
 active: true
 mode: compliance
 MiqPolicyContent:
  - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: fe7378be-fa53-11de-83ca-005056ba0614
   description: Verify Compression Enabled in vmkernel
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
         checkany:
           REGULAR EXPRESSION MATCHES:
```

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```
value: \s+compress
             field: Host.filesystems-contents
          search:
            =:
              value: /etc/logrotate.d/vmkernel
              field: Host.filesystems-name
   towhat: Host
   file mtime:
   quid: fe7378be-fa53-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000039
   notes: This condition checks the file /etc/logrotate.d/vmkernel and verifies
     that the option compress is enabled.
- name: 6576a074-fa48-11de-83ca-005056ba0614
 description: Settings - /etc/sudoers
 expression:
 towhat: Host
 guid: 6576a074-fa48-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that sudo is configured to use syslog for logging.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: ade186c6-fa48-11de-83ca-005056ba0614
   description: Verify sudo is Logging via syslog
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
          checkany:
           REGULAR EXPRESSION MATCHES:
             value: ^\s*Defaults\s+syslog\=
              field: Host.filesystems-contents
          search:
             value: /etc/sudoers
              field: Host.filesystems-name
   towhat: Host
   file_mtime:
   guid: ade186c6-fa48-11de-83ca-005056ba0614
```

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```
filename:
   applies_to_exp:
   miq_policy_id: 10000000000040
   notes: This condition check the file /etc/sudoers and verifies that the parameter
     "Defaults syslog=" exists.
- name: c340f524-fa3e-11de-83ca-005056ba0614
 description: Settings - /etc/grub.conf
 expression:
 towhat: Host
 guid: c340f524-fa3e-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that a password is required in order to edit the
   server's boot process.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MigEvent:
     name: host_compliance_check
     description: Host Compliance Check
     quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     quid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
  - name: 1f18225a-fa3f-11de-83ca-005056ba0614
   description: Verify /etc/grub.conf Settings
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
         checkany:
           REGULAR EXPRESSION MATCHES:
             value: ^\star
              field: Host.filesystems-contents
          search:
            =:
             value: /etc/grub.conf
              field: Host.filesystems-name
   towhat: Host
   file mtime:
   guid: 1f18225a-fa3f-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 10000000000041
   notes: This condition check the file /etc/grub.conf and verifies that the
     parameter "password --md5" exists.
- name: c63b0560-fa45-11de-83ca-005056ba0614
 description: Root Login via SSH should be Disabled
 expression:
```

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```
towhat: Host
 guid: c63b0560-fa45-11de-83ca-005056ba0614
  created_by: admin
 updated_by: admin
 notes: This policy verifies that the root account cannot login to the host via
    SSH.
 active: true
 mode: compliance
 MiqPolicyContent:
  - qualifier: failure
    failure_sequence: 1
   MigEvent:
     name: host_compliance_check
     description: Host Compliance Check
     quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     quid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
  - name: 4435b6d6-fa46-11de-83ca-005056ba0614
    description: PermitRootLogin = no in sshd_config file
   modifier: allow
    expression: !ruby/object:MiqExpression
     exp:
       FIND:
          checkany:
            REGULAR EXPRESSION MATCHES:
              value: ^\s*PermitRootLogin\s+no
              field: Host.filesystems-contents
          search:
              value: /etc/ssh/sshd_config
              field: Host.filesystems-name
    towhat: Host
    file_mtime:
   guid: 4435b6d6-fa46-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 10000000000042
   notes: This condition checks the file /etc/ssh/sshd_config and verifies that
     the PermitRootLogin parameter's value is set to no.
- name: 5ce6be9a-fa4c-11de-83ca-005056ba0614
  description: Require users to enter own password - no ROOTPW entry
  expression:
  towhat: Host
 guid: 5ce6be9a-fa4c-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that when the sudo command is used, each user is
   prompted for their password and not the root password.
 active: true
 mode: compliance
```

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```
MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MigEvent:
     name: host_compliance_check
     description: Host Compliance Check
     quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     quid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: a791b882-fa4c-11de-83ca-005056ba0614
   description: ROOTPW does not exist in sudoers file
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
         checkany:
            REGULAR EXPRESSION DOES NOT MATCH:
              value: /^[^#]*ROOTPW/i
              field: Host.filesystems-contents
          search:
              value: /etc/sudoers
              field: Host.filesystems-name
   towhat: Host
   file_mtime:
   quid: a791b882-fa4c-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 10000000000043
   notes: This condition check the file /etc/sudoers and verifies that it does
     not contain the word ROOTPW on an uncommented line.
- name: a128d356-fa36-11de-83ca-005056ba0614
 description: Protect Root File System Filling /tmp
 expression:
 towhat: Host
 guid: a128d356-fa36-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that the /tmp directory is mounted on a different
   partition than the root filesystem.
 active: true
 mode: compliance
 MiqPolicyContent:
  - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
```

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```
definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     quid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
  - name: 267dd9de-fa37-11de-83ca-005056ba0614
   description: Protect Root File System Filling /tmp
   modifier: allow
   expression: !ruby/object:MigExpression
     exp:
       FIND:
         checkany:
           REGULAR EXPRESSION MATCHES:
             value: ^[^#]*\/tmp
              field: Host.filesystems-contents
          search:
              value: /etc/fstab
              field: Host.filesystems-name
   towhat: Host
   file_mtime:
   guid: 267dd9de-fa37-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000044
   notes: This condition verifies that the file /etc/fstab has an uncommented
     line that references the directory /tmp.
- name: 7ea7db8c-fa46-11de-83ca-005056ba0614
 description: Permissions - /etc/snmp/snmpd.conf
 expression:
 towhat: Host
 guid: 7ea7db8c-fa46-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy ensures that access to SNMP configuration parameters are
   limited to the root user.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
```

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```
options: {}
 Condition:
 - name: ebb24a50-fa46-11de-83ca-005056ba0614
   description: Permissions - /etc/snmp/snmpd.conf
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       and:
        - FIND:
           checkany:
                value: '0700'
                field: Host.filesystems-permissions
            search:
               value: /etc/snmp/snmpd.conf
               field: Host.filesystems-name
        - FIND:
           checkany:
                value: root
                field: Host.filesystems-owner
            search:
                value: /etc/snmp/snmpd.conf
                field: Host.filesystems-name
   towhat: Host
   file_mtime:
   quid: ebb24a50-fa46-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000045
   notes: This condition verifies that the permissions of /etc/snmp/snmpd.conf
     are 0700 and is owned by root.
- name: 40b796dc-fa50-11de-83ca-005056ba0614
 description: Password Expiration Warning Default
 expression:
 towhat: Host
 guid: 40b796dc-fa50-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies the default setting for password expiration warning.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
```

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```
action_type: default
     options: {}
 Condition:
 - name: 0e842bde-fa51-11de-83ca-005056ba0614
   description: Password Expiration Warning Default >= 7days
   modifier: allow
   expression: !ruby/object:MigExpression
     exp:
       FIND:
         checkany:
           REGULAR EXPRESSION MATCHES:
             value: ^{s*PASS_WARN_AGE_s+([7-9]|[1-9][0-9]+)}
              field: Host.filesystems-contents
          search:
             value: /etc/login.defs
             field: Host.filesystems-name
   towhat: Host
   file mtime:
   quid: 0e842bde-fa51-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000046
   notes: This condition checks the file /etc/login.defs and verifies that PASS_WARN_AGE
     parameter's value is set to 7 or greater.
- name: 2f9fad14-fa4e-11de-83ca-005056ba0614
 description: Password Aging - Default Maximum
 expression:
 towhat: Host
 guid: 2f9fad14-fa4e-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy validates the ESX host's maximum password age configuration.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: a4a0e740-fa4e-11de-83ca-005056ba0614
   description: Default Maximum Password Age <= 90days
   modifier: allow
   expression: !ruby/object:MiqExpression
       FIND:
```

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```
checkany:
           REGULAR EXPRESSION MATCHES:
              value: ^{s*PASS_MAX_DAYS}s+([0-9]|[1-8][0-9]|90)
              field: Host.filesystems-contents
          search:
            =:
              value: /etc/login.defs
              field: Host.filesystems-name
   towhat: Host
   file_mtime:
   guid: a4a0e740-fa4e-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   mig_policy_id: 10000000000047
   notes: This condition checks the file /etc/login.defs and verifies that the
     PASS_MAX_DAYS parameter's value is 90 days or greater.
- name: 79548666-fa51-11de-83ca-005056ba0614
 description: Limit vmkwarning Size
 expression:
 towhat: Host
 quid: 79548666-fa51-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy checks the vmkwarning log is limited to a specified size.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     quid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: 14d35e46-fa52-11de-83ca-005056ba0614
   description: vmkwarning Log Size <= 4096KB
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
          checkany:
            REGULAR EXPRESSION MATCHES:
              value: ^{s+(409[0-6]|40[0-8][0-9]|[123][0-9]{3}|\d{1,3})k}
              field: Host.filesystems-contents
          search:
            =:
              value: /etc/logrotate.d/vmkwarning
              field: Host.filesystems-name
   towhat: Host
```

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```
file mtime:
   quid: 14d35e46-fa52-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000048
   notes: This condition verifies that the file /etc/logrotate.d/vmkwarning is
     configured to limit the associated log to 4096KB.
- name: c79821fa-fa53-11de-83ca-005056ba0614
 description: Limit vmkernel Size
 expression:
 towhat: Host
 quid: c79821fa-fa53-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy checks the vmkernel log is limited to a specified size.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     quid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
  - name: be9722e0-fa53-11de-83ca-005056ba0614
   description: vmkernel Log Size <= 4096KB
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
         checkany:
           REGULAR EXPRESSION MATCHES:
             value: ^{s+(409[0-6]|40[0-8][0-9]|[123][0-9]{3}|\d{1,3})k}
              field: Host.filesystems-contents
         search:
              value: /etc/logrotate.d/vmkernel
             field: Host.filesystems-name
   towhat: Host
   file_mtime:
   guid: be9722e0-fa53-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 10000000000049
   notes: This condition verifies that the file /etc/logrotate.d/vmkernel is
     configured to limit the associated log to 4096KB.
- name: 8cecc84c-fa46-11de-83ca-005056ba0614
 description: Limit su Access to root Account
```

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```
expression:
 towhat: Host
 guid: 8cecc84c-fa46-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy validates that only members of the group wheel can access
   the su command.
 active: true
 mode: compliance
 MiqPolicyContent:
  - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     quid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
  - name: 63b243fc-fa47-11de-83ca-005056ba0614
   description: Only members of wheel group can execute su command
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
         checkany:
           REGULAR EXPRESSION MATCHES:
             value: ^\s*auth\s+required\s+.*pam_wheel\.so\s+use_uid
              field: Host.filesystems-contents
          search:
              value: /etc/pam.d/su
              field: Host.filesystems-name
   towhat: Host
   file_mtime:
   guid: 63b243fc-fa47-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000050
   notes: This condition validates that the file /etc/pam.d/su contains a variation
     of the string "auth required pam_wheel.so use_uid".
- name: 2cd1b736-fa52-11de-83ca-005056ba0614
 description: Limit Software and Services Running in Service Console
 expression:
 towhat: Host
 quid: 2cd1b736-fa52-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy validates that only an approved list of services are enabled
   at boot time on an ESX host.
 active: true
```

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```
mode: compliance
 MigPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     quid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: c4c80bfa-fa55-11de-83ca-005056ba0614
   description: Default Services Running in Service Console
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       LIMITED TO:
         value: crond, firewall, gpm, ipmi, irqbalance, mgmt-vmware, microcode_ctl,
           mptctlnode, network, ntpd, pegasus, portmap, random, rawdevices, sshd,
           syslog, vmware, vmware-autostart, vmware-late, vmware-vmkauthd, vmware-vpxa,
           vmware-webAccess, wsman, xinetd
         field: Host-enabled_run_level_3_services
   towhat: Host
   file_mtime:
   guid: c4c80bfa-fa55-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000051
   notes: This conditions validates that a defined list of services are enabled
     with the ESX host is booted with networking support (run level 3). This
     list includes the generic services included in ESX. Additional hardware
     specific services can be added to the expression.
- name: edaf1082-fa54-11de-83ca-005056ba0614
 description: Firewall - Outgoing NTP Port
 expression:
 towhat: Host
 guid: edaf1082-fa54-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy validates that the Firewall is configured properly for NTP
   support.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
```

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```
definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     quid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
  - name: 1cb7f0ba-fa55-11de-83ca-005056ba0614
   description: Valid NTP Outgoing UDP Port
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       INCLUDES ANY:
         value: '123'
         field: Host-enabled_udp_outbound_ports
   towhat: Host
   file_mtime:
   quid: 1cb7f0ba-fa55-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000052
   notes: This condition verifies that the outgoing UDP port required by NTP
      (port 123) is open.
- name: 0f2cc826-fa4b-11de-83ca-005056ba0614
 description: Directory Service Used for Authentication for sudo
 expression:
 towhat: Host
 guid: 0f2cc826-fa4b-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that sudo is configured to use a directory for user
   authentication.
 active: true
 mode: compliance
 MiqPolicyContent:
  - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: 684b2a60-fa4b-11de-83ca-005056ba0614
   description: Directory Service used for sudo authentication
   modifier: allow
   expression: !ruby/object:MiqExpression
```

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```
exp:
        FIND:
          checkany:
            REGULAR EXPRESSION MATCHES:
              value: ^\s*auth\s+required\s+.*pam_stack\.so\s+service=system-auth
              field: Host.filesystems-contents
          search:
              value: /etc/pam.d/sudo
              field: Host.filesystems-name
    towhat: Host
    file_mtime:
    guid: 684b2a60-fa4b-11de-83ca-005056ba0614
    filename:
   applies_to_exp:
   miq_policy_id: 10000000000053
   notes: ! 'This condition verifies that the line "auth required pam_stack.so
     service=system-auth" exists in /etc/pam.d/sudo. '
- name: 4b188948-fa45-11de-83ca-005056ba0614
 description: Settings - SNMP Read Only Access
 expression:
 towhat: Host
 guid: 4b188948-fa45-11de-83ca-005056ba0614
  created_by: admin
 updated_by: admin
 notes: This policy verifies that SNMP is configured to only allow read-only
   access.
  active: true
 mode: compliance
 MiqPolicyContent:
  - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
  - name: e328c720-fa45-11de-83ca-005056ba0614
   description: SNMP Configured for Read-only Access
   modifier: allow
    expression: !ruby/object:MiqExpression
     exp:
        and:
        - FIND:
            checkany:
              REGULAR EXPRESSION MATCHES:
                value: ^\s*rocommunity
                field: Host.filesystems-contents
```

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```
value: /etc/snmp/snmpd.conf
                field: Host.filesystems-name
        - FIND:
            checkany:
              REGULAR EXPRESSION DOES NOT MATCH:
                value: ^\s*rwcommunity
                field: Host.filesystems-contents
            search:
                value: /etc/snmp/snmpd.conf
                field: Host.filesystems-name
   towhat: Host
   file_mtime:
   quid: e328c720-fa45-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000054
   notes: This condition checks the file /etc/snmp/snmpd.conf and verfies that
     the rocommunity parameter is defined and the rwcommunity parameter is not.
- name: 854d45aa-fa3a-11de-83ca-005056ba0614
 description: Protect Root File System Filling /var/log
 expression:
 towhat: Host
 guid: 854d45aa-fa3a-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that the /var/log directory is mounted on a different
   partition than the root filesystem.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: a84173e2-fa3a-11de-83ca-005056ba0614
   description: Protect Root File System Filling /var/log
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
          checkany:
           REGULAR EXPRESSION MATCHES:
              value: ^[^#]*\/var\/log
              field: Host.filesystems-contents
```

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```
search:
             value: /etc/fstab
              field: Host.filesystems-name
   towhat: Host
   file mtime:
   quid: a84173e2-fa3a-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000055
   notes: This condition verifies that the file /etc/fstab has an uncommented
     line that references the directory /var/log.
- name: fc63df74-fa52-11de-83ca-005056ba0614
 description: Limit vmksummary Size
 expression:
 towhat: Host
 guid: fc63df74-fa52-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy checks the vmksummary log is limited to a specified size.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
  - name: def33840-fa52-11de-83ca-005056ba0614
   description: vmksummary Log Size <= 4096KB
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
          checkany:
           REGULAR EXPRESSION MATCHES:
             value: ^\star s = (409[0-6]|40[0-8][0-9]|[123][0-9]{3}|\d{1,3})k
             field: Host.filesystems-contents
          search:
              value: /etc/logrotate.d/vmksummary
              field: Host.filesystems-name
   towhat: Host
   file_mtime:
   guid: def33840-fa52-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
```

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```
miq_policy_id: 1000000000056
   notes: This condition verifies that the file /etc/logrotate.d/vmksummary is
     configured to limit the associated log to 4096KB.
- name: 305e6832-fa51-11de-83ca-005056ba0614
 description: Password Complexity - Minimum Length
 expression:
 towhat: Host
 guid: 305e6832-fa51-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies the minimum password length.
 active: true
 mode: compliance
 MigPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: c0ba559e-fa51-11de-83ca-005056ba0614
   description: Minimum Password Length >= 8
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
         checkany:
           REGULAR EXPRESSION MATCHES:
             value: ^{s+PASS_MIN_LEN_s+([8-9]|[1-9][0-9]+)}
              field: Host.filesystems-contents
         search:
              value: /etc/login.defs
              field: Host.filesystems-name
   towhat: Host
   file_mtime:
   quid: c0ba559e-fa51-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000057
   notes: This condition checks the file /etc/login.defs and verifies that the
     PASS_MIN_LEN parameter's value is 8 or greater.
- name: e6f082ba-fa4c-11de-83ca-005056ba0614
 description: Password checking enabled for sudo
 expression:
 towhat: Host
 guid: e6f082ba-fa4c-11de-83ca-005056ba0614
 created_by: admin
```

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```
updated_by: admin
 notes: This policy verifies that password checking is enabled for sudo.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MigEvent:
     name: host_compliance_check
     description: Host Compliance Check
     quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     quid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: 3d2074e2-fa4d-11de-83ca-005056ba0614
   description: NOPASSWD does not exist in sudoers file
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
         checkany:
           REGULAR EXPRESSION DOES NOT MATCH:
              value: /^[^#]*NOPASSWD/i
              field: Host.filesystems-contents
          search:
              value: /etc/sudoers
             field: Host.filesystems-name
   towhat: Host
   file_mtime:
   guid: 3d2074e2-fa4d-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000058
   notes: This condition check the file /etc/sudoers and verifies that it does
     not contain the word NOPASSWORD on an uncommented line.
- name: 32b26f2c-fa4f-11de-83ca-005056ba0614
 description: Password Aging - Default Minimum
 expression:
 towhat: Host
 guid: 32b26f2c-fa4f-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy validates the ESX host's minimum password age configuration.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
```

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```
description: Host Compliance Check
         quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
         event_type: Default
         definition:
         default:
         enabled:
       MiqAction:
         name: compliance_failed
         description: Mark as Non-Compliant
         guid: ba452d94-f586-11de-8ebc-0050568a07c7
         action_type: default
         options: {}
      Condition:
       name: 79d39ad4-fa4f-11de-83ca-005056ba0614
        description: Default Minimum Password Age >= 0
       modifier: allow
        expression: !ruby/object:MiqExpression
         exp:
           FIND:
              checkany:
                REGULAR EXPRESSION MATCHES:
                  value: ^\s*PASS_MIN_DAYS\s+\d+
                 field: Host.filesystems-contents
              search:
                  value: /etc/login.defs
                  field: Host.filesystems-name
        towhat: Host
        file_mtime:
        guid: 79d39ad4-fa4f-11de-83ca-005056ba0614
       filename:
       applies_to_exp:
       miq_policy_id: 1000000000059
       notes: This condition checks the file /etc/login.defs and verifies that the
         PASS_MIN_DAYS parameter's value is greater than or equal to 0 days.
- MiqPolicySet:
   name: 97c27462-1592-11df-b613-0050568a1ed6
   description: ! 'Compliance: VM'
   set_type: MiqPolicySet
   guid: 97c27462-1592-11df-b613-0050568a1ed6
   read_only:
   set_data:
      :notes: This policy profile validates that a vm meets the standard defined in
       VMWare's security hardening documentation
   mode: control
   owner_type:
   owner_id:
   MiqPolicy:
   - name: 2d6bfc2c-fa3b-11de-83ca-005056ba0614
     description: Limit Log Size
     expression:
     towhat: Vm
     guid: 2d6bfc2c-fa3b-11de-83ca-005056ba0614
     created_by: admin
     updated_by: admin
     notes:
     active: true
     mode: compliance
     MiqPolicyContent:
```

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```
- qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: vm_compliance_check
     description: VM Compliance Check
     guid: 816a598a-f57d-11de-a41a-005056ba0614
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     quid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
 - name: 8b9cf076-fa3b-11de-83ca-005056ba0614
   description: Log Size Limit <= 100KB
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
          checkall:
           <=:
             value: '100000'
              field: Vm.advanced_settings-value
          search:
           =:
             value: log.rotateSize
              field: Vm.advanced_settings-name
   towhat: Vm
   file_mtime:
   quid: 8b9cf076-fa3b-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000061
- name: flaf8b44-fa3b-11de-83ca-005056ba0614
 description: Limit Number of Log Files
 expression:
 towhat: Vm
 guid: f1af8b44-fa3b-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes:
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: vm_compliance_check
     description: VM Compliance Check
     guid: 816a598a-f57d-11de-a41a-005056ba0614
     event_type: Default
     definition:
     default:
     enabled:
```

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```
MigAction:
          name: compliance_failed
          description: Mark as Non-Compliant
          guid: ba452d94-f586-11de-8ebc-0050568a07c7
          action_type: default
          options: {}
      Condition:
      - name: f2ad72ac-fa3d-11de-83ca-005056ba0614
        description: Number of Log Files to Keep <= 10
        modifier: allow
        expression: !ruby/object:MiqExpression
          exp:
            FIND:
              checkall:
                  value: '10'
                  field: Vm.advanced_settings-value
              search:
                  value: log.keepOld
                  field: Vm.advanced_settings-name
        towhat: Vm
        file mtime:
        guid: f2ad72ac-fa3d-11de-83ca-005056ba0614
        filename:
       applies_to_exp:
       miq_policy_id: 10000000000000
       notes:
- MiqPolicySet:
   name: 17fa069a-480b-11df-badc-005056a7121f
   description: ! 'Demo: CPU Reservation'
    set_type: MiqPolicySet
   guid: 17fa069a-480b-11df-badc-005056a7121f
   read_only:
    set_data:
      :notes: This policy profile analyzes a vm's configuration data when it's reconfigured
        an sends an email if the cpu reservation is set to a value greater than 500.
   mode: control
   owner_type:
   owner_id:
   MiqPolicy:
    - name: 2f2a1a1c-4806-11df-badc-005056a7121f
     description: ! 'Analysis: VM Reconfiguration'
     expression:
     towhat: Vm
     guid: 2f2a1a1c-4806-11df-badc-005056a7121f
     created_by: admin
     updated_by: admin
     notes: Performs an analysis on any vm that has been reconfigured
     active: true
     mode: control
     MiqPolicyContent:
      - qualifier: success
        success_sequence: 1
       MiqEvent:
          name: vm_reconfigure
          description: VM Settings Change
          guid: 07367e62-449a-11de-bd4f-005056a83e5d
          event_type: Default
```

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```
definition:
     default:
     enabled:
   MigAction:
     name: vm_analyze
     description: Initiate SmartState Analysis for VM
     quid: 5cbe1082-ce35-11de-a117-005056b0503e
     action_type: default
     options: {}
 Condition: []
- name: 8a8f247a-480a-11df-badc-005056a7121f
 description: ! 'Configuration: VM - CPU Reservation > 500Mhz'
 expression:
 towhat: Vm
 guid: 8a8f247a-480a-11df-badc-005056a7121f
 created_by: admin
 updated_by: admin
 notes: Sends an email if CPU reservation is set to a value greater than 500Mhz
 active: true
 mode: control
 MiqPolicyContent:
 - qualifier: success
   success_sequence: 1
   MiqEvent:
     name: vm_scan_complete
     description: VM Analysis Complete
     guid: f7b8361e-1139-11e1-9333-005056af009e
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: 5189755e-480a-11df-badc-005056a7121f
     description: Alert - CPU Reservation > 500Mhz
     guid: 5189755e-480a-11df-badc-005056a7121f
     action_type: evaluate_alerts
     options:
        :alert_guids:
        - ca26a9c6-4802-11df-badc-005056a7121f
 Condition: []
- name: 467f80ce-4808-11df-badc-005056a7121f
 description: ! 'Analysis: VM Configuration Only Profile'
 expression:
 towhat: Vm
 guid: 467f80ce-4808-11df-badc-005056a7121f
 created_by: admin
 updated_by: admin
 notes: ! 'This policy assigns an analysis profile that only gathers vm configuration
   data. Note: the specified action requires that you create an analysis profile
   that only scans vm configuration data. Once it has been created, associate
   it with the specified action'
 active: true
 mode: control
 MiqPolicyContent:
 - qualifier: success
   success_sequence: 1
   MiqEvent:
     name: vm_scan_start
     description: VM Analysis Start
```

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```
guid: 057b9baa-519c-11e0-8d82-005056af0000
          event_type: Default
          definition:
          default:
          enabled:
       MiqAction:
          name: b52a86f0-4807-11df-badc-005056a7121f
          description: ! 'Profile: VM configuration only'
          quid: b52a86f0-4807-11df-badc-005056a7121f
          action_type: assign_scan_profile
          options:
            :scan_item_set_name: vm configuration only
     Condition: []
- MigPolicySet:
   name: 6fb380a4-3b86-11e0-9dc0-005056910001
   description: ! 'Demo: Prevent Cloning of Database VMs '
    set_type: MiqPolicySet
   quid: 6fb380a4-3b86-11e0-9dc0-005056910001
   read_only:
    set_data:
      :notes: This policy prevents any vm with a workload tag of database from being
       cloned
   mode: control
   owner_type:
   owner_id:
   MiqPolicy:
    - name: Configuration Policy Restrict Cloning SQL Server
     description: ! 'Operational: Prevent Cloning of Database VMs'
     expression:
     towhat: Vm
     guid: 39fdeba0-2866-11de-af2a-0050568026c2
     created_by:
     updated_by: admin
     notes: prevents cloning of vms with a workload tag value of database
     active: true
     mode: control
     MiqPolicyContent:
      - qualifier: success
        success_sequence: 1
       MiqEvent:
          name: vm_clone_start
          description: VM Clone Start
          guid: e30f6720-1e1e-11de-8918-0050568005db
          event_type: Default
          definition:
          default:
          enabled:
       MiqAction:
          name: cancel_task
          description: Cancel vCenter Task
          guid: e49bfee6-1e1e-11de-8918-0050568005db
          action_type: default
          options: {}
      - qualifier: success
        success_sequence: 2
       MiqEvent:
          name: vm_clone_start
          description: VM Clone Start
          guid: e30f6720-1e1e-11de-8918-0050568005db
```

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```
event_type: Default
    definition:
    default:
    enabled:
 MigAction:
   name: SendEmail
    description: SendEmail
    quid: abcf406c-02cd-11de-86d4-005056903dbc
    action_type: email
    options:
      :variables:
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
        :oid: ''
       :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      :from: evmadmin@manageiq.com
      :to: evm_demo@manageiq.com
- qualifier: success
  success_sequence: 3
 MiqEvent:
    name: vm_clone_start
    description: VM Clone Start
    guid: e30f6720-1e1e-11de-8918-0050568005db
    event_type: Default
    definition:
    default:
    enabled:
 MigAction:
    name: 4468f036-0b6d-11df-bd07-005056a7121f
    description: VM Attribute - Prevent Clone of SQL Server
    guid: 4468f036-0b6d-11df-bd07-005056a7121f
    action_type: set_custom_attribute
    options:
```

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```
:variables:
            - :value: ''
              :oid: ''
              :var_type: <None>
            - :value: ''
              :oid: ''
             :var_type: <None>
            - :value: ''
              :oid: ''
              :var_type: <None>
            - :value: ''
              :oid: ''
              :var_type: <None>
            - :value: ''
              :oid: ''
              :var_type: <None>
            - :value: ''
              :oid: ''
             :var_type: <None>
            - :value: ''
              :oid: ''
             :var_type: <None>
            - :value: ''
              :oid: ''
              :var_type: <None>
            - :value: ''
              :oid: ''
              :var_type: <None>
            - :value: ''
              :oid: ''
              :var_type: <None>
            :value: Clone Prevented for SQL Server VM
            :attribute: EVM Policy
     Condition:
      - name: VMs running SQL Server
        description: VMs with Workload - Database
        modifier: allow
        expression: !ruby/object:MiqExpression
          exp:
           CONTAINS:
             tag: Vm.managed-function
             value: database
          context_type:
        towhat: Vm
        file_mtime:
        guid: 121ecf62-01c6-11de-a701-005056903dbc
       filename:
       applies_to_exp:
       miq_policy_id: 1000000000064
       notes:
- MiqPolicySet:
   name: 3b818590-2866-11de-af2a-0050568026c2
    description: ! 'Demo: Service Level Resource Allocation'
   set_type: MiqPolicySet
   quid: 3b818590-2866-11de-af2a-0050568026c2
   read_only:
   set_data:
     :notes: This policy demonstrates EVM's ability to check and , if necessary,
        reconfigure a VM's vCPU and Memory configuration based on designated service
```

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```
level
mode: control
owner_type:
owner_id:
MiqPolicy:
- name: d16643b6-3905-11de-b6d5-005056a11a54
  description: Service Level Silver - RAM must be 512MB and 1 vCPU - on
  expression: !ruby/object:MiqExpression
    exp:
      and:
      - CONTAINS:
          tag: Vm.managed-service_level
          value: silver
      - =:
          value: 'on'
          field: Vm-power_state
    context_type:
  towhat: Vm
  guid: d16643b6-3905-11de-b6d5-005056a11a54
  created_by:
 updated_by: admin
  notes: This policy verifies that a vm that has a service level tag of silver
    has 1 vCPU and 512MB of memory. If not it changes the vm to these values.
    This policy is used on a powered on vm.
  active: true
  mode: control
 MiqPolicyContent:
  - qualifier: success
    success_sequence: 1
    MiqEvent:
      name: assigned_company_tag
      description: Tag Complete
      guid: e384ecb6-1e1e-11de-8918-0050568005db
      event_type: Default
      definition:
      default:
      enabled:
    MiqAction:
      name: vm_stop
      description: Stop Virtual Machine
      guid: 37f2da3e-21a8-11e2-b47a-0050568b19a3
      action_type: default
      options: {}
  - qualifier: success
    success_sequence: 2
    MiqEvent:
      name: assigned_company_tag
      description: Tag Complete
      guid: e384ecb6-1e1e-11de-8918-0050568005db
      event_type: Default
      definition:
      default:
      enabled:
    MigAction:
      name: VM_RAM_512MB
      description: Set VM RAM to 512MB
      guid: bab04cb4-9af1-11dd-8e55-005056ac7d2c
      action_type: reconfigure_memory
      options:
```

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```
:value: 512
  - qualifier: success
   success_sequence: 3
   MiqEvent:
     name: assigned_company_tag
     description: Tag Complete
     quid: e384ecb6-1e1e-11de-8918-0050568005db
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: VM_CPU_1
     description: Set VM CPU to 1
     quid: d97dafba-9af1-11dd-8e55-005056ac7d2c
     action_type: reconfigure_cpus
     options:
       :value: '1'
  - qualifier: success
   success_sequence: 4
   MiqEvent:
     name: assigned_company_tag
     description: Tag Complete
     quid: e384ecb6-1e1e-11de-8918-0050568005db
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: vm_start
     description: Start Virtual Machine
     guid: 55b5a422-3348-11de-bde2-005056a170fa
     action_type: default
     options: {}
 Condition:
  - name: Service Level Validation Silver - Powered Off
   description: Service Level Silver - VM RAM and CPU check
   modifier: allow
    expression: !ruby/object:MiqExpression
     exp:
       or:
        - ! '!=':
           value: 512
            field: Vm.hardware-memory_cpu
        - ! '!=':
            value: 1
            field: Vm.hardware-numvcpus
   towhat: Vm
   file_mtime:
   guid: 531575ae-9b1c-11dd-bbd7-005056ac7d2c
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000068
   notes:
- name: 4cb4d05c-3909-11de-b6d5-005056a11a54
  description: Service Level Platinum - RAM must be 2GB and 2 vCPUs - on
 expression: !ruby/object:MiqExpression
   exp:
     and:
```

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```
- CONTAINS:
        tag: Vm.managed-service_level
        value: platinum
    - =:
        value: 'on'
        field: Vm-power_state
  context_type:
towhat: Vm
quid: 4cb4d05c-3909-11de-b6d5-005056a11a54
created_by:
updated_by: admin
notes: This policy verifies that a vm that has a service level tag of platinum
  has 2 vCPUs and 2GB of memory. If not it changes the vm to these values. This
  policy is used on a powered on vm.
active: true
mode: control
MiqPolicyContent:
- qualifier: success
  success_sequence: 1
  MigEvent:
    name: assigned_company_tag
    description: Tag Complete
    guid: e384ecb6-1e1e-11de-8918-0050568005db
    event_type: Default
    definition:
    default:
    enabled:
  MigAction:
    name: vm_stop
    description: Stop Virtual Machine
    guid: 37f2da3e-21a8-11e2-b47a-0050568b19a3
    action_type: default
    options: {}
- qualifier: success
  success_sequence: 2
  MiqEvent:
    name: assigned_company_tag
    description: Tag Complete
    guid: e384ecb6-1e1e-11de-8918-0050568005db
    event_type: Default
    definition:
    default:
    enabled:
  MiqAction:
    name: VM_RAM_2GB
    description: Set VM RAM to 2GB
    quid: cf1570b2-9af1-11dd-8e55-005056ac7d2c
    action_type: reconfigure_memory
    options:
      :value: 2048
- qualifier: success
  success_sequence: 3
  MiqEvent:
    name: assigned_company_tag
    description: Tag Complete
    guid: e384ecb6-1e1e-11de-8918-0050568005db
    event_type: Default
    definition:
    default:
```

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```
enabled:
   MigAction:
     name: VM_CPU_2
     description: Set VM CPU to 2
     guid: e2c3d64e-9af1-11dd-8e55-005056ac7d2c
     action_type: reconfigure_cpus
     options:
       :value: '2'
 - qualifier: success
   success_sequence: 4
   MiqEvent:
     name: assigned_company_tag
     description: Tag Complete
     quid: e384ecb6-1e1e-11de-8918-0050568005db
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: vm_start
     description: Start Virtual Machine
     guid: 55b5a422-3348-11de-bde2-005056a170fa
     action_type: default
     options: {}
 Condition:
 - name: 34218558-3909-11de-b6d5-005056a11a54
   description: Service Level Platinum - VM RAM and CPU check
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       or:
       - ! '!=':
           value: 2048
           field: Vm.hardware-memory_cpu
       - ! '!=':
           value: 2
           field: Vm.hardware-numvcpus
   towhat: Vm
   file_mtime:
   guid: 34218558-3909-11de-b6d5-005056a11a54
   filename:
   applies_to_exp:
   notes:
- name: 7a91f3ac-3908-11de-b6d5-005056a11a54
 description: Service Level Gold - RAM must be 1GB and 1 vCPU - on
 expression: !ruby/object:MiqExpression
   exp:
     and:
     - CONTAINS:
         tag: Vm.managed-service_level
         value: gold
         value: 'on'
         field: Vm-power_state
   context_type:
 towhat: Vm
 guid: 7a91f3ac-3908-11de-b6d5-005056a11a54
 created_by:
```

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```
updated_by: admin
notes: This policy verifies that a vm that has a service level tag of gold has
  1vCPU and 1GB of memory. If not it changes the vm to these values. This policy
  is used on a powered on vm.
active: true
mode: control
MigPolicyContent:
- qualifier: success
  success_sequence: 1
  MiqEvent:
    name: assigned_company_tag
    description: Tag Complete
    quid: e384ecb6-1e1e-11de-8918-0050568005db
    event_type: Default
    definition:
    default:
    enabled:
  MigAction:
    name: vm_stop
    description: Stop Virtual Machine
    guid: 37f2da3e-21a8-11e2-b47a-0050568b19a3
    action_type: default
    options: {}
- qualifier: success
  success_sequence: 2
  MiqEvent:
    name: assigned_company_tag
    description: Tag Complete
    quid: e384ecb6-1e1e-11de-8918-0050568005db
    event_type: Default
    definition:
    default:
    enabled:
  MigAction:
    name: VM_RAM_1GB
    description: Set VM RAM to 1GB
    guid: 2d8445f2-9aec-11dd-8e55-005056ac7d2c
    action_type: reconfigure_memory
    options:
      :value: 1024
- qualifier: success
  success_sequence: 3
  MiqEvent:
    name: assigned_company_tag
    description: Tag Complete
    guid: e384ecb6-1e1e-11de-8918-0050568005db
    event_type: Default
    definition:
    default:
    enabled:
  MiqAction:
    name: VM_CPU_1
    description: Set VM CPU to 1
    quid: d97dafba-9af1-11dd-8e55-005056ac7d2c
    action_type: reconfigure_cpus
    options:
      :value: '1'
- qualifier: success
  success_sequence: 4
```

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```
MiqEvent:
     name: assigned_company_tag
     description: Tag Complete
     guid: e384ecb6-1e1e-11de-8918-0050568005db
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: vm_start
     description: Start Virtual Machine
     quid: 55b5a422-3348-11de-bde2-005056a170fa
     action_type: default
     options: {}
 Condition:
 - name: 1c6ec35e-3908-11de-b6d5-005056a11a54
   description: Service Level Gold - VM RAM and CPU check
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       or:
        - ! '!=':
           value: 1024
            field: Vm.hardware-memory_cpu
        - ! '!=':
            value: 1
            field: Vm.hardware-numvcpus
   towhat: Vm
   file_mtime:
   guid: 1c6ec35e-3908-11de-b6d5-005056a11a54
   filename:
   applies_to_exp:
   miq_policy_id: 10000000000069
- name: Service Level Policy Verify Virtual Hardware - Silver Level
 description: Service Level Silver - RAM must be 512MB and 1 vCPU - off
 expression: !ruby/object:MiqExpression
   exp:
     and:
      - CONTAINS:
         tag: Vm.managed-service_level
         value: silver
         value: 'off'
         field: Vm-power_state
   context_type:
 towhat: Vm
 quid: 3659b8bc-2866-11de-af2a-0050568026c2
 created_by:
 updated_by: admin
 notes: This policy verifies that a vm that has a service level tag of silver
   has 1 vCPU and 512MB of memory. If not it changes the vm to these values.
   This policy is used on a powered off vm.
 active: true
 mode: control
 MiqPolicyContent:
 - qualifier: success
   success_sequence: 1
   MiqEvent:
```

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```
name: assigned_company_tag
     description: Tag Complete
     guid: e384ecb6-1e1e-11de-8918-0050568005db
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: VM_CPU_1
     description: Set VM CPU to 1
     guid: d97dafba-9af1-11dd-8e55-005056ac7d2c
     action_type: reconfigure_cpus
     options:
       :value: '1'
  - qualifier: success
   success_sequence: 2
   MigEvent:
     name: assigned_company_tag
     description: Tag Complete
     quid: e384ecb6-1e1e-11de-8918-0050568005db
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: VM_RAM_512MB
     description: Set VM RAM to 512MB
     guid: bab04cb4-9af1-11dd-8e55-005056ac7d2c
     action_type: reconfigure_memory
     options:
       :value: 512
  Condition:
  - name: Service Level Validation Silver - Powered Off
   description: Service Level Silver - VM RAM and CPU check
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
        or:
        - ! '!=':
            value: 512
            field: Vm.hardware-memory_cpu
        - ! '!=':
           value: 1
            field: Vm.hardware-numvcpus
    towhat: Vm
   file_mtime:
   quid: 531575ae-9b1c-11dd-bbd7-005056ac7d2c
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000068
- name: 24b92088-399c-11de-ae27-005056a11a54
  description: Service Level Gold - RAM must be 1GB and 1 vCPU - off
  expression: !ruby/object:MiqExpression
    exp:
     and:
     - CONTAINS:
          tag: Vm.managed-service_level
          value: gold
```

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```
value: 'off'
        field: Vm-power_state
  context_type:
towhat: Vm
quid: 24b92088-399c-11de-ae27-005056a11a54
created_by:
updated_by: admin
notes: This policy verifies that a vm that has a service level tag of gold has
  1vCPU and 1GB of memory. If not it changes the vm to these values. This policy
  is used on a powered off vm.
active: true
mode: control
MigPolicyContent:
- qualifier: success
  success_sequence: 1
  MiqEvent:
    name: assigned_company_tag
    description: Tag Complete
    quid: e384ecb6-1e1e-11de-8918-0050568005db
    event_type: Default
    definition:
    default:
    enabled:
  MigAction:
    name: VM_RAM_1GB
    description: Set VM RAM to 1GB
    guid: 2d8445f2-9aec-11dd-8e55-005056ac7d2c
    action_type: reconfigure_memory
    options:
      :value: 1024
- qualifier: success
  success_sequence: 2
  MiqEvent:
    name: assigned_company_tag
    description: Tag Complete
    guid: e384ecb6-1e1e-11de-8918-0050568005db
    event_type: Default
    definition:
    default:
    enabled:
  MiqAction:
    name: VM_CPU_1
    description: Set VM CPU to 1
    guid: d97dafba-9af1-11dd-8e55-005056ac7d2c
    action_type: reconfigure_cpus
    options:
      :value: '1'
Condition:
- name: 1c6ec35e-3908-11de-b6d5-005056a11a54
  description: Service Level Gold - VM RAM and CPU check
  modifier: allow
  expression: !ruby/object:MiqExpression
    exp:
      or:
      - ! '!=':
          value: 1024
          field: Vm.hardware-memory_cpu
      - ! '!=':
```

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```
value: 1
            field: Vm.hardware-numvcpus
   towhat: Vm
    file_mtime:
   quid: 1c6ec35e-3908-11de-b6d5-005056a11a54
   filename:
   applies_to_exp:
   miq_policy_id: 10000000000069
   notes:
- name: b265c970-3908-11de-b6d5-005056a11a54
  description: Service Level Platinum - RAM must be 2GB and 2 vCPUs - off
 expression: !ruby/object:MiqExpression
   exp:
     and:
      - CONTAINS:
         tag: Vm.managed-service_level
         value: platinum
     - =:
         value: 'off'
         field: Vm-power_state
   context_type:
 towhat: Vm
 guid: b265c970-3908-11de-b6d5-005056a11a54
  created_by:
 updated_by: admin
 notes: This policy verifies that a vm that has a service level tag of platinum
   has 2 vCPUs and 2GB of memory. If not it changes the vm to these values. This
   policy is used on a powered off vm.
 active: true
 mode: control
 MiqPolicyContent:
  - qualifier: success
   success_sequence: 1
   MiqEvent:
     name: assigned_company_tag
     description: Tag Complete
     guid: e384ecb6-1e1e-11de-8918-0050568005db
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: VM_RAM_2GB
     description: Set VM RAM to 2GB
     guid: cf1570b2-9af1-11dd-8e55-005056ac7d2c
     action_type: reconfigure_memory
     options:
       :value: 2048
  - qualifier: success
    success_sequence: 2
   MiqEvent:
     name: assigned_company_tag
     description: Tag Complete
     guid: e384ecb6-1e1e-11de-8918-0050568005db
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
```

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```
name: VM CPU 2
          description: Set VM CPU to 2
          guid: e2c3d64e-9af1-11dd-8e55-005056ac7d2c
          action_type: reconfigure_cpus
          options:
           :value: '2'
      Condition:
      - name: 34218558-3909-11de-b6d5-005056a11a54
        description: Service Level Platinum - VM RAM and CPU check
        modifier: allow
        expression: !ruby/object:MiqExpression
          exp:
            or:
            - ! '!=':
                value: 2048
                field: Vm.hardware-memory_cpu
            - ! '!=':
                value: 2
                field: Vm.hardware-numvcpus
        towhat: Vm
        file_mtime:
        quid: 34218558-3909-11de-b6d5-005056a11a54
        filename:
        applies_to_exp:
       miq_policy_id: 10000000000070
- MiqPolicySet:
   name: fc164798-3b81-11e0-9dc0-005056910001
   description: ! 'Demo: Windows Mandatory Patch'
    set_type: MiqPolicySet
   guid: fc164798-3b81-11e0-9dc0-005056910001
   read_only:
   set_data:
   mode: control
   owner_type:
   owner_id:
   MiqPolicy:
    - name: c5d44cb2-4734-11df-b577-005056a7121f
      description: ! 'Patch: MS10-008 Required'
      expression: !ruby/object:MiqExpression
        exp:
          CONTAINS:
           tag: Vm.managed-environment
           value: prod
        context_type:
     towhat: Vm
     guid: c5d44cb2-4734-11df-b577-005056a7121f
     created_by: admin
     updated_by: admin
     notes: Prevents a VM that does not have MS10-008 installed from running in the
        virtual environment. It's scope limits it to vms tagged as production
      active: true
     mode: control
     MiqPolicyContent:
      - qualifier: failure
        failure_sequence: 1
       MiqEvent:
          name: vm_start
          description: VM Power On
```

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```
quid: 404b4630-21a8-11e2-b47a-0050568b19a3
   event_type: Default
   definition:
   default:
   enabled:
 MigAction:
   name: vm_stop
   description: Stop Virtual Machine
   quid: 37f2da3e-21a8-11e2-b47a-0050568b19a3
   action_type: default
   options: {}
- qualifier: failure
 failure_sequence: 2
 MigEvent:
   name: vm_start
   description: VM Power On
   guid: 404b4630-21a8-11e2-b47a-0050568b19a3
   event_type: Default
   definition:
   default:
   enabled:
 MigAction:
   name: SendEmail
   description: SendEmail
   guid: abcf406c-02cd-11de-86d4-005056903dbc
   action_type: email
   options:
     :variables:
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
       :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      :from: evmadmin@manageiq.com
```

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```
:to: evm_demo@manageiq.com
- qualifier: failure
  failure_sequence: 3
  MiqEvent:
   name: vm_start
    description: VM Power On
    quid: 404b4630-21a8-11e2-b47a-0050568b19a3
    event_type: Default
    definition:
    default:
    enabled:
  MigAction:
    name: 722d25cc-56dc-11df-bb16-005056a7121f
    description: VM Attribute - Fails patch policy
    quid: 722d25cc-56dc-11df-bb16-005056a7121f
    action_type: set_custom_attribute
    options:
      :variables:
      - :value: ''
       :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      :value: Failed Windows Required Patch Policy
      :attribute: EVM Policy
Condition:
- name: a3089008-4734-11df-b577-005056a7121f
  description: Verify KB978262 is installed
  modifier: allow
  expression: !ruby/object:MiqExpression
    exp:
      CONTAINS:
        value: KB978262
        field: Vm.patches-name
```

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```
context_type:
       towhat: Vm
       file mtime:
        quid: a3089008-4734-11df-b577-005056a7121f
       filename:
       applies_to_exp:
       mig_policy_id: 10000000000071
       notes:
- MigPolicySet:
   name: 3be240d8-2866-11de-af2a-0050568026c2
   description: ! 'Mandatory: Provisioning and Retirement'
   set_type: MigPolicySet
   quid: 3be240d8-2866-11de-af2a-0050568026c2
   read_only:
   set_data:
     :notes: ! 'This policy profile is REQUIRED if EVM is being used to Provision
       or Retire vms. It must be entitled to the desired management systems. Note:
       this policy profile will potentially result in the removal of a vm from the
       management system upon retirement if the associated VM Retirement statemachine
       [/Factory/StateMachine/VMRetirement] in the the Automate model is configured
       to delete vms. It is not configured for vm deletion out-of-the-box.'
   mode: control
   owner_type:
   owner_id:
   MiqPolicy:
   - name: Automation Policy - Scope VM Retired Response Execute Automation Model
     description: ! 'Operational: Vm Retired'
     expression:
     towhat: Vm
     guid: 397700ae-2866-11de-af2a-0050568026c2
     created_by:
     updated by: admin
     notes: This policy raises an automation event when a vm retirement event is
       raised
     active: true
     mode: control
     MiqPolicyContent:
      - qualifier: success
       success_sequence: 1
       failure_synchronous: true
       MigEvent:
         name: vm_retired
         description: VM Retired
         guid: e363d8aa-1e1e-11de-8918-0050568005db
         event_type: Default
         definition:
         default:
         enabled:
       MiqAction:
         name: raise_automation_event
         description: Raise Automation Event
         guid: e7da3b7a-1139-11e1-9333-005056af009e
         action_type: default
         options: {}
     Condition: []
    - name: Automation Policy - Scope VM Retirement Warning, ResponseExecute Automation
      description: ! 'Operational: Retirement Warning'
     expression:
```

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```
towhat: Vm
      quid: 39621392-2866-11de-af2a-0050568026c2
      created_by:
      updated_by: admin
     notes: This policy raises an automation event when a retirement warning event
      active: true
     mode: control
     MigPolicyContent:
      - qualifier: success
        success_sequence: 1
        failure_synchronous: true
       MiqEvent:
          name: vm_retire_warn
          description: VM Retirement Warning
          quid: 97c85330-fe93-11dd-b5e1-005056903dbc
          event_type: Default
          definition:
          default:
          enabled:
       MigAction:
          name: raise_automation_event
          description: Raise Automation Event
          quid: e7da3b7a-1139-11e1-9333-005056af009e
          action_type: default
          options: {}
      Condition: []
    - name: 427a4378-6519-11df-b637-005056a435be
      description: ! 'Analysis: Post Provisioning'
      expression:
     towhat: Vm
     guid: 427a4378-6519-11df-b637-005056a435be
     created_by: admin
     updated_by: admin
     notes: This policy triggers a vm analysis of any newly provisioned VM
     active: true
     mode: control
     MiqPolicyContent:
      - qualifier: success
        success_sequence: 1
       MiqEvent:
         name: vm_provisioned
          description: VM Provision Complete
          guid: 2a17a20a-3e8e-11df-9fe2-005056a435be
          event_type: Default
          definition:
          default:
          enabled:
       MiqAction:
          name: vm_analyze
          description: Initiate SmartState Analysis for VM
          guid: 5cbe1082-ce35-11de-a117-005056b0503e
          action_type: default
          options: {}
      Condition: []
- MiqPolicySet:
   name: 63aaa3aa-53fa-11e0-babf-00505688000a
    description: ! 'Operational: Prevent Cloning of Database VMs'
    set_type: MiqPolicySet
```

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```
quid: 63aaa3aa-53fa-11e0-babf-00505688000a
read_only:
set_data:
  :notes: This policy profile prevents database vms from being cloned. Database
    vms are defined as those that have a workload tag value of database
mode: control
owner_type:
owner id:
MigPolicy:
- name: Configuration Policy Restrict Cloning SQL Server
  description: ! 'Operational: Prevent Cloning of Database VMs'
  expression:
  towhat: Vm
  quid: 39fdeba0-2866-11de-af2a-0050568026c2
  created_by:
 updated_by: admin
 notes: prevents cloning of vms with a workload tag value of database
 active: true
 mode: control
 MigPolicyContent:
  - qualifier: success
    success_sequence: 1
    MiqEvent:
      name: vm_clone_start
      description: VM Clone Start
      quid: e30f6720-1e1e-11de-8918-0050568005db
      event_type: Default
      definition:
      default:
      enabled:
    MiqAction:
      name: cancel_task
      description: Cancel vCenter Task
      quid: e49bfee6-1e1e-11de-8918-0050568005db
      action_type: default
      options: {}
  - qualifier: success
    success_sequence: 2
    MiqEvent:
      name: vm_clone_start
      description: VM Clone Start
      guid: e30f6720-1e1e-11de-8918-0050568005db
      event_type: Default
      definition:
      default:
      enabled:
    MigAction:
      name: SendEmail
      description: SendEmail
      guid: abcf406c-02cd-11de-86d4-005056903dbc
      action_type: email
      options:
        :variables:
        - :value: ''
          :oid: ''
          :var_type: <None>
        - :value: ''
          :oid: ''
          :var_type: <None>
```

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```
- :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      :from: evmadmin@manageiq.com
      :to: evm_demo@manageiq.com
- qualifier: success
 success_sequence: 3
 MiqEvent:
   name: vm_clone_start
   description: VM Clone Start
   guid: e30f6720-1e1e-11de-8918-0050568005db
   event_type: Default
   definition:
   default:
   enabled:
 MiqAction:
   name: 4468f036-0b6d-11df-bd07-005056a7121f
   description: VM Attribute - Prevent Clone of SQL Server
   guid: 4468f036-0b6d-11df-bd07-005056a7121f
   action_type: set_custom_attribute
   options:
     :variables:
     - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
```

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```
:oid: ''
              :var_type: <None>
            - :value: ''
              :oid: ''
              :var_type: <None>
            :value: Clone Prevented for SQL Server VM
            :attribute: EVM Policy
     Condition:
      - name: VMs running SQL Server
        description: VMs with Workload - Database
       modifier: allow
        expression: !ruby/object:MiqExpression
          exp:
           CONTAINS:
             tag: Vm.managed-function
              value: database
          context_type:
        towhat: Vm
        file_mtime:
        guid: 121ecf62-01c6-11de-a701-005056903dbc
        filename:
       applies_to_exp:
       miq_policy_id: 1000000000064
       notes:
- MiqPolicySet:
   name: 97fe0866-b8e5-11e2-87c6-001a4a034c7a
   description: RHEL + KVM
    set_type: MiqPolicySet
    guid: 97fe0866-b8e5-11e2-87c6-001a4a034c7a
    read_only:
   set_data:
   mode: control
   owner_type:
   owner_id:
   MiqPolicy:
    - name: c63b0560-fa45-11de-83ca-005056ba0614
     description: Root Login via SSH should be Disabled
     expression:
     towhat: Host
     guid: c63b0560-fa45-11de-83ca-005056ba0614
     created_by: admin
     updated_by: admin
     notes: This policy verifies that the root account cannot login to the host via
      active: true
     mode: compliance
     MiqPolicyContent:
      - qualifier: failure
        failure_sequence: 1
       MiqEvent:
```

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```
name: host_compliance_check
     description: Host Compliance Check
     quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     quid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
  - name: 4435b6d6-fa46-11de-83ca-005056ba0614
   description: PermitRootLogin = no in sshd_config file
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       FIND:
         checkany:
           REGULAR EXPRESSION MATCHES:
              value: ^\s*PermitRootLogin\s+no
             field: Host.filesystems-contents
          search:
              value: /etc/ssh/sshd_config
              field: Host.filesystems-name
   towhat: Host
   file_mtime:
   guid: 4435b6d6-fa46-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 10000000000042
   notes: This condition checks the file /etc/ssh/sshd_config and verifies that
     the PermitRootLogin parameter's value is set to no.
- name: af2d74ea-fa39-11de-83ca-005056ba0614
 description: Firewall - Incoming Security Level
 expression:
 towhat: Host
 guid: af2d74ea-fa39-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that only a defined set of incoming TCP and UDP
   Ports are open.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     quid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
```

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```
name: compliance_failed
     description: Mark as Non-Compliant
     quid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
  - name: b4a0843a-fa43-11de-83ca-005056ba0614
   description: Valid Incoming UDP Ports
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       LIMITED TO:
          value: '427'
          field: Host-enabled_udp_inbound_ports
   towhat: Host
   file mtime:
   quid: b4a0843a-fa43-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   mig_policy_id: 10000000000021
   notes: This condition verifies that the only open incoming UDP port is 427.
  - name: 03529e9e-f961-11de-9e9d-0050568a07c7
   description: Valid Incoming TCP Ports
   modifier: allow
   expression: !ruby/object:MiqExpression
       LIMITED TO:
         value: '902,80,443,427,5989,22,5988'
          field: Host-enabled_tcp_inbound_ports
   towhat: Host
   file_mtime:
   quid: 03529e9e-f961-11de-9e9d-0050568a07c7
   filename:
   applies_to_exp:
   miq_policy_id: 10000000000021
   notes: This condition verifies that the only open incoming TCP ports are \ensuremath{\,\leftarrow\,}
       22,80,427,443,902,5988,and
     5989.
- name: 04db603c-fa3a-11de-83ca-005056ba0614
 description: Firewall - Outgoing Security Level
 expression:
 towhat: Host
 guid: 04db603c-fa3a-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that only a defined set of outgoing TCP and UDP
   Ports are open.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
```

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```
enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
  - name: f0afd7d6-fa3a-11de-83ca-005056ba0614
   description: Valid Outgoing TCP Ports
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       LIMITED TO:
         value: '902,427,443,27000,27010'
         field: Host-enabled_tcp_outbound_ports
   towhat: Host
   file_mtime:
   quid: f0afd7d6-fa3a-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   notes: This condition verifies that the only open outgoing TCP ports are \ensuremath{\leftarrow}
       427, 443, 902, 27000,
     and 27010.
 - name: 1778fb28-fa44-11de-83ca-005056ba0614
   description: Valid Outgoing UDP Ports
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       LIMITED TO:
         value: '427,123,902'
         field: Host-enabled_udp_outbound_ports
   towhat: Host
   file_mtime:
   guid: 1778fb28-fa44-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   notes: This condition verifies that the only open outgoing UDP ports are 123,427,
     and 902.
- name: 8cecc84c-fa46-11de-83ca-005056ba0614
 description: Limit su Access to root Account
 expression:
 towhat: Host
 guid: 8cecc84c-fa46-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy validates that only members of the group wheel can access
   the su command.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
```

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```
event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     quid: ba452d94-f586-11de-8ebc-0050568a07c7
     action_type: default
     options: {}
 Condition:
  - name: 63b243fc-fa47-11de-83ca-005056ba0614
   description: Only members of wheel group can execute su command
   modifier: allow
   expression: !ruby/object:MigExpression
     exp:
       FIND:
         checkany:
           REGULAR EXPRESSION MATCHES:
             value: ^\s*auth\s+required\s+.*pam_wheel\.so\s+use_uid
             field: Host.filesystems-contents
          search:
            =:
             value: /etc/pam.d/su
              field: Host.filesystems-name
   towhat: Host
   file_mtime:
   guid: 63b243fc-fa47-11de-83ca-005056ba0614
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000050
   notes: This condition validates that the file /etc/pam.d/su contains a variation
     of the string "auth required pam_wheel.so use_uid".
- name: 4ed279b2-fa55-11de-83ca-005056ba0614
 description: Timekeeping - NTP Service Running
 expression:
 towhat: Host
 guid: 4ed279b2-fa55-11de-83ca-005056ba0614
 created_by: admin
 updated_by: admin
 notes: This policy verifies that the NTP servers is configured to automatically
   start.
 active: true
 mode: compliance
 MiqPolicyContent:
 - qualifier: failure
   failure_sequence: 1
   MiqEvent:
     name: host_compliance_check
     description: Host Compliance Check
     guid: b9abe0a8-f586-11de-8ebc-0050568a07c7
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: compliance_failed
     description: Mark as Non-Compliant
     guid: ba452d94-f586-11de-8ebc-0050568a07c7
```

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```
action_type: default
          options: {}
      Condition:
      - name: 9a08d21e-fa55-11de-83ca-005056ba0614
        description: Verify NTP is Running
        modifier: allow
        expression: !ruby/object:MigExpression
          exp:
            FIND:
              checkany:
                INCLUDES:
                  value: '3'
                  field: Host.host_services-enable_run_levels
              search:
                  value: ntpd
                  field: Host.host_services-name
        towhat: Host
        file_mtime:
        quid: 9a08d21e-fa55-11de-83ca-005056ba0614
       filename:
        applies_to_exp:
       miq_policy_id: 1000000000031
       notes: This condition verifies that the run level of the service ntpd is set
          to three.
- MiqPolicySet:
    name: 51149d78-cb15-11e3-b1c5-001a4a0f459e
   description: Resolv.conf
    set_type: MiqPolicySet
   guid: 51149d78-cb15-11e3-b1c5-001a4a0f459e
   read_only:
    set_data:
   mode: control
   owner_type:
   owner id:
   MiqPolicy:
    - name: e3f6428c-a85a-11e3-9c44-001a4a0f459e
     description: Settings - /etc/resolv.conf
      expression: !ruby/object:MiqExpression
        exp:
          FIND:
           search:
                field: Vm.filesystems-name
                value: resolv.conf
            checkall:
                field: Vm.filesystems-contents_available
                value: 'true'
        context_type:
      towhat: Vm
      guid: e3f6428c-a85a-11e3-9c44-001a4a0f459e
      created_by: admin
     updated_by: admin
     notes:
     active: true
     mode: compliance
     MiqPolicyContent:
     - qualifier: success
```

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```
success_sequence: 1
        success_synchronous: true
       MiqEvent:
          name: vm_compliance_check
          description: VM Compliance Check
          guid: 816a598a-f57d-11de-a41a-005056ba0614
          event_type: Default
          definition:
          default:
          enabled:
        MiqAction:
          name: log
          description: Generate log message
          quid: 04771f80-431c-11e3-91d5-001a4a0f459e
          action_type: default
         options: {}
      - qualifier: success
       success_sequence: 2
        success_synchronous: true
       MigEvent:
          name: vm_compliance_check
          description: VM Compliance Check
          quid: 816a598a-f57d-11de-a41a-005056ba0614
          event_type: Default
          definition:
          default:
          enabled:
       MigAction:
          name: c26b7988-a860-11e3-9c44-001a4a0f459e
          description: resolv.conf
          quid: c26b7988-a860-11e3-9c44-001a4a0f459e
          action_type: custom_automation
          options:
            :ae_request: resolvsend
            :ae_message: create
      - qualifier: failure
        failure_sequence: 1
        failure_synchronous: true
        MiqEvent:
          name: vm_compliance_check
          description: VM Compliance Check
          guid: 816a598a-f57d-11de-a41a-005056ba0614
          event_type: Default
          definition:
          default:
          enabled:
        MigAction:
          name: log
          description: Generate log message
          guid: 04771f80-431c-11e3-91d5-001a4a0f459e
          action_type: default
          options: {}
      Condition: []
- MiqPolicySet:
   name: 5a7d53b4-53f9-11e0-babf-00505688000a
   description: ! 'Snapshot Management: Delete Based On Count'
    set_type: MiqPolicySet
    guid: 5a7d53b4-53f9-11e0-babf-00505688000a
    read_only:
```

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```
set data:
      :notes: This policy profile deletes the most recent snapshot when more that
        2 snapshots exists
   mode: control
   owner_type:
   owner_id:
   MigPolicy:
    - name: 994efe7e-18e6-11e0-88b4-005056a7184a
     description: ! 'Snapshots: Delete based on Count'
     expression:
      towhat: Vm
      quid: 994efe7e-18e6-11e0-88b4-005056a7184a
      created_by: admin
     updated_by: admin
     notes: This policy deletes the most recent snapshot when more that 2 snapshots
       exists
     active: true
     mode: control
     MiqPolicyContent:
      - qualifier: success
       success_sequence: 1
       MiqEvent:
          name: vm_snapshot_complete
          description: VM Snapshot Create Complete
          guid: 7eb82802-135e-11e0-8706-005056a7184a
          event_type: Default
          definition:
          default:
          enabled:
       MiqAction:
          name: delete_most_recent_snapshot
          description: Delete Most Recent Snapshot
          guid: 7f6e2f8a-135e-11e0-8706-005056a7184a
         action_type: default
          options: {}
      Condition:
      - name: 992035fc-18e7-11e0-88b4-005056a7184a
        description: Check for more than 2 snapshots
        modifier: allow
        expression: !ruby/object:MiqExpression
          exp:
            ! '>':
             value: '2'
              field: Vm-v_total_snapshots
          context_type:
        towhat: Vm
        file_mtime:
        quid: 992035fc-18e7-11e0-88b4-005056a7184a
        filename:
        applies_to_exp:
       miq_policy_id: 10000000000075
        notes: Checks to see if more than 2 snapshots exist
- MiqPolicySet:
   name: 05b51354-53fd-11e0-babf-00505688000a
   description: Standards
    set_type: MiqPolicySet
   guid: 05b51354-53fd-11e0-babf-00505688000a
   read_only:
   set_data:
```

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```
:notes: This policy profile is an example of creation of a single profile that
    contains all policies that should be enforced on all objects in the environment.
mode: control
owner_type:
owner_id:
MiqPolicy:
- name: Configuration Policy Restrict Cloning SQL Server
 description: ! 'Operational: Prevent Cloning of Database VMs'
 expression:
  towhat: Vm
  quid: 39fdeba0-2866-11de-af2a-0050568026c2
  created_by:
  updated_by: admin
  notes: prevents cloning of vms with a workload tag value of database
  active: true
 mode: control
 MiqPolicyContent:
  - qualifier: success
    success_sequence: 1
    MigEvent:
      name: vm_clone_start
      description: VM Clone Start
      guid: e30f6720-1e1e-11de-8918-0050568005db
      event_type: Default
      definition:
      default:
      enabled:
    MigAction:
      name: cancel_task
      description: Cancel vCenter Task
      guid: e49bfee6-1e1e-11de-8918-0050568005db
      action_type: default
      options: {}
  - qualifier: success
    success_sequence: 2
    MiqEvent:
      name: vm_clone_start
      description: VM Clone Start
      guid: e30f6720-1e1e-11de-8918-0050568005db
      event_type: Default
      definition:
      default:
      enabled:
    MiqAction:
      name: SendEmail
      description: SendEmail
      quid: abcf406c-02cd-11de-86d4-005056903dbc
      action_type: email
      options:
        :variables:
        - :value: ''
          :oid: ''
          :var_type: <None>
        - :value: ''
          :oid: ''
          :var_type: <None>
        - :value: ''
          :oid: ''
          :var_type: <None>
```

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```
- :value: ''
        :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
       :oid: ''
        :var_type: <None>
      - :value: ''
       :oid: ''
        :var_type: <None>
      :from: evmadmin@manageiq.com
      :to: evm_demo@manageiq.com
- qualifier: success
  success_sequence: 3
 MiqEvent:
    name: vm_clone_start
    description: VM Clone Start
    quid: e30f6720-1e1e-11de-8918-0050568005db
    event_type: Default
   definition:
   default:
    enabled:
 MigAction:
    name: 4468f036-0b6d-11df-bd07-005056a7121f
    description: VM Attribute - Prevent Clone of SQL Server
    quid: 4468f036-0b6d-11df-bd07-005056a7121f
    action_type: set_custom_attribute
    options:
     :variables:
      - :value: ''
        :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
       :oid: ''
       :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
        :oid: ''
        :var_type: <None>
      - :value: ''
```

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```
:oid: ''
         :var_type: <None>
        - :value: ''
          :oid: ''
          :var_type: <None>
        - :value: ''
         :oid: ''
          :var_type: <None>
        - :value: ''
          :oid: ''
          :var_type: <None>
        :value: Clone Prevented for SQL Server VM
        :attribute: EVM Policy
 Condition:
  - name: VMs running SQL Server
   description: VMs with Workload - Database
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       CONTAINS:
         tag: Vm.managed-function
         value: database
     context_type:
    towhat: Vm
   file_mtime:
    quid: 121ecf62-01c6-11de-a701-005056903dbc
    filename:
   applies_to_exp:
   miq_policy_id: 1000000000064
   notes:
- name: 994efe7e-18e6-11e0-88b4-005056a7184a
 description: ! 'Snapshots: Delete based on Count'
 expression:
 towhat: Vm
 guid: 994efe7e-18e6-11e0-88b4-005056a7184a
 created_by: admin
 updated_by: admin
 notes: This policy deletes the most recent snapshot when more that 2 snapshots
   exists
 active: true
 mode: control
 MiqPolicyContent:
 - qualifier: success
   success_sequence: 1
   MiqEvent:
     name: vm_snapshot_complete
     description: VM Snapshot Create Complete
     guid: 7eb82802-135e-11e0-8706-005056a7184a
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: delete_most_recent_snapshot
     description: Delete Most Recent Snapshot
     guid: 7f6e2f8a-135e-11e0-8706-005056a7184a
     action_type: default
     options: {}
 Condition:
```

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```
- name: 992035fc-18e7-11e0-88b4-005056a7184a
   description: Check for more than 2 snapshots
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       ! '>':
         value: '2'
          field: Vm-v_total_snapshots
     context_type:
   towhat: Vm
   file_mtime:
   quid: 992035fc-18e7-11e0-88b4-005056a7184a
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000075
   notes: Checks to see if more than 2 snapshots exist
- name: Automation Policy - Scope VM Retirement Warning, ResponseExecute Automation
   Model
 description: ! 'Operational: Retirement Warning'
 expression:
 towhat: Vm
 guid: 39621392-2866-11de-af2a-0050568026c2
 created_by:
 updated_by: admin
 notes: This policy raises an automation event when a retirement warning event
 active: true
 mode: control
 MiqPolicyContent:
 - qualifier: success
   success_sequence: 1
   failure_synchronous: true
   MiqEvent:
     name: vm_retire_warn
     description: VM Retirement Warning
     guid: 97c85330-fe93-11dd-b5e1-005056903dbc
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: raise_automation_event
     description: Raise Automation Event
     guid: e7da3b7a-1139-11e1-9333-005056af009e
     action_type: default
     options: {}
 Condition: []
- name: Automation Policy - Scope VM Retired Response Execute Automation Model
 description: ! 'Operational: Vm Retired'
 expression:
 towhat: Vm
 guid: 397700ae-2866-11de-af2a-0050568026c2
 created_by:
 updated_by: admin
 notes: This policy raises an automation event when a vm retirement event is
   raised
 active: true
 mode: control
 MiqPolicyContent:
```

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```
- qualifier: success
    success_sequence: 1
   failure_synchronous: true
   MiqEvent:
     name: vm_retired
     description: VM Retired
     quid: e363d8aa-1e1e-11de-8918-0050568005db
     event type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: raise_automation_event
     description: Raise Automation Event
     quid: e7da3b7a-1139-11e1-9333-005056af009e
     action_type: default
     options: {}
 Condition: []
- name: 427a4378-6519-11df-b637-005056a435be
 description: ! 'Analysis: Post Provisioning'
 expression:
 towhat: Vm
 guid: 427a4378-6519-11df-b637-005056a435be
 created_by: admin
 updated_by: admin
 notes: This policy triggers a vm analysis of any newly provisioned VM
 active: true
 mode: control
 MiqPolicyContent:
  - qualifier: success
   success_sequence: 1
   MiqEvent:
     name: vm_provisioned
     description: VM Provision Complete
     guid: 2a17a20a-3e8e-11df-9fe2-005056a435be
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: vm_analyze
     description: Initiate SmartState Analysis for VM
     guid: 5cbe1082-ce35-11de-a117-005056b0503e
     action_type: default
     options: {}
 Condition: []
- name: 0c2517d8-1ea2-11e0-8e71-005056910000
 description: ! 'Tag: VM Inherit Cluster Location Tag'
 expression:
 towhat: Vm
  guid: 0c2517d8-1ea2-11e0-8e71-005056910000
  created_by: admin
 updated_by: admin
 notes: This policy allows a vm to inherit the location tag of it's parent cluster
   on creation or completion of analysis
 active: true
 mode: control
 MiqPolicyContent:
 - qualifier: success
```

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```
success_sequence: 1
   MigEvent:
     name: vm_create
     description: VM Create Complete
     guid: 4c0b4f12-37c0-11df-b567-005056a40709
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: 60e5d690-1ea2-11e0-8e71-005056910000
     description: ! 'Tag: Inherit Cluster Location Tag'
     quid: 60e5d690-1ea2-11e0-8e71-005056910000
     action_type: inherit_parent_tags
     options:
       :parent_type: ems_cluster
       :cats:
       - location
 - qualifier: success
   success_sequence: 1
   MiqEvent:
     name: vm_scan_complete
     description: VM Analysis Complete
     quid: f7b8361e-1139-11e1-9333-005056af009e
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: 60e5d690-1ea2-11e0-8e71-005056910000
     description: ! 'Tag: Inherit Cluster Location Tag'
     quid: 60e5d690-1ea2-11e0-8e71-005056910000
     action_type: inherit_parent_tags
     options:
       :parent_type: ems_cluster
       :cats:
        - location
 Condition: []
- name: ! 'Do Not Analyze '
 description: ! 'Analysis: Prevent Analysis of Selected VMs'
 expression:
 towhat: Vm
 guid: 3a7959c0-2866-11de-af2a-0050568026c2
 created_by:
 updated_by: admin
 notes: ! 'This policies prevents analysis of any vm that is tagged as Do Not
   Analyze '
 active: true
 mode: control
 MiqPolicyContent:
 - qualifier: success
   success_sequence: 1
   failure_synchronous: true
   MiqEvent:
     name: request_vm_scan
     description: VM Analysis Request
     guid: e3292c46-1e1e-11de-8918-0050568005db
     event_type: Default
     definition:
```

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```
default:
     enabled:
   MigAction:
     name: prevent
     description: Prevent current event from proceeding
     quid: d885a118-519b-11e0-8d82-005056af0000
     action_type: default
     options: {}
 Condition:
 - name: Do Not Analyze
   description: VM classified as DO_NOT_ANALYZE
   modifier: allow
   expression: !ruby/object:MiqExpression
     exp:
       CONTAINS:
         tag: Vm.managed-exclusions
         value: do_not_analyze
     context_type:
   towhat: Vm
   file_mtime:
   quid: 39ff4444-08e2-11de-829f-005056a164b2
   filename:
   applies_to_exp:
   miq_policy_id: 1000000000001
   notes:
- name: b968f0a0-3d2e-11df-a7e9-005056a40709
 description: ! 'Tag: VM that Requires Analysis'
 expression:
 towhat: Vm
 guid: b968f0a0-3d2e-11df-a7e9-005056a40709
 created_by: admin
 updated_by: admin
 notes:
 active: true
 mode: control
 MiqPolicyContent:
 - qualifier: success
   success_sequence: 1
   MiqEvent:
     name: vm_start
     description: VM Power On
     guid: 404b4630-21a8-11e2-b47a-0050568b19a3
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: a4ccd026-3d2e-11df-a7e9-005056a40709
     description: Tag VM that Requires Analysis
     guid: a4ccd026-3d2e-11df-a7e9-005056a40709
     action_type: tag
     options:
       :tags:
        - /managed/operations/analysis_required
 - qualifier: success
   success_sequence: 1
   MiqEvent:
     name: vm_create
     description: VM Create Complete
```

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```
guid: 4c0b4f12-37c0-11df-b567-005056a40709
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: a4ccd026-3d2e-11df-a7e9-005056a40709
     description: Tag VM that Requires Analysis
     quid: a4ccd026-3d2e-11df-a7e9-005056a40709
     action_type: tag
     options:
        :tags:

    /managed/operations/analysis_required

  - qualifier: success
   success_sequence: 1
   MiqEvent:
     name: vm_reset
     description: VM Reset
     quid: 4c1b8a3a-37c0-11df-b567-005056a40709
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: a4ccd026-3d2e-11df-a7e9-005056a40709
     description: Tag VM that Requires Analysis
     guid: a4ccd026-3d2e-11df-a7e9-005056a40709
     action_type: tag
     options:
        :tags:
        - /managed/operations/analysis_required
- name: 2f2a1a1c-4806-11df-badc-005056a7121f
 description: ! 'Analysis: VM Reconfiguration'
 expression:
 towhat: Vm
 guid: 2f2a1a1c-4806-11df-badc-005056a7121f
 created_by: admin
 updated_by: admin
 notes: Performs an analysis on any vm that has been reconfigured
 active: true
 mode: control
 MiqPolicyContent:
 - qualifier: success
   success_sequence: 1
   MiqEvent:
     name: vm_reconfigure
     description: VM Settings Change
     guid: 07367e62-449a-11de-bd4f-005056a83e5d
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: vm_analyze
     description: Initiate SmartState Analysis for VM
     guid: 5cbe1082-ce35-11de-a117-005056b0503e
     action_type: default
     options: {}
```

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```
Condition: []
- name: 0ce6cf38-3d2d-11df-a7e9-005056a40709
 description: ! 'Tag: VM on Successful Analysis'
 expression:
 towhat: Vm
 guid: 0ce6cf38-3d2d-11df-a7e9-005056a40709
 created_by: admin
 updated_by: admin
 notes:
 active: true
 mode: control
 MiqPolicyContent:
  - qualifier: success
   success_sequence: 1
   MigEvent:
     name: vm_scan_complete
     description: VM Analysis Complete
     quid: f7b8361e-1139-11e1-9333-005056af009e
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: cd2f3222-3d2c-11df-a7e9-005056a40709
     description: Tag VM after Successful Analysis
     quid: cd2f3222-3d2c-11df-a7e9-005056a40709
     action_type: tag
     options:
        :tags:
        - /managed/operations/analysis_success
 Condition: []
- name: 07cea762-3d1b-11df-a7e9-005056a40709
 description: ! 'Tag: VM if Analysis not successful'
 expression:
 towhat: Vm
 guid: 07cea762-3d1b-11df-a7e9-005056a40709
  created_by: admin
 updated_by: admin
 notes:
  active: true
 mode: control
 MiqPolicyContent:
 - qualifier: success
   success_sequence: 1
   MiqEvent:
     name: vm_scan_abort
     description: VM Analysis Failure
     guid: 4c48a6fa-37c0-11df-b567-005056a40709
     event_type: Default
     definition:
     default:
     enabled:
   MigAction:
     name: fc7f2dde-3d22-11df-a7e9-005056a40709
     description: Tag VM that Fails Analysis
     guid: fc7f2dde-3d22-11df-a7e9-005056a40709
     action_type: tag
     options:
       :variables:
```

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```
- :value: ''
         :oid: ''
         :var_type: <None>
        - :value: ''
         :oid: ''
         :var_type: <None>
        - :value: ''
         :oid: ''
         :var_type: <None>
        - :value: ''
         :oid: ''
          :var_type: <None>
        - :value: ''
          :oid: ''
         :var_type: <None>
       - :value: ''
         :oid: ''
         :var_type: <None>
       - :value: ''
         :oid: ''
         :var_type: <None>
        - :value: ''
         :oid: ''
         :var_type: <None>
       - :value: ''
         :oid: ''
         :var_type: <None>
        - :value: ''
         :oid: ''
         :var_type: <None>
       - /managed/operations/analysis_failed
 Condition: []
- name: 782068f8-44ee-11e0-99a6-00505688000a
 description: ! 'Analysis: VDI Login'
 expression:
 towhat: Vm
 guid: 782068f8-44ee-11e0-99a6-00505688000a
 created_by: admin
 updated_by: admin
 notes: This policy triggers an analysis of a VDI session when a user logs in
   to that session
 active: true
 mode: control
 MiqPolicyContent:
 - qualifier: success
   success_sequence: 1
   MiqEvent:
     name: vm_vdi_login_session
     description: VDI Login Session
     guid: 15fc3cce-448a-11e0-9ad1-00505688000a
     event_type: Default
     definition:
     default:
     enabled:
   MiqAction:
     name: vm_analyze
     description: Initiate SmartState Analysis for VM
     guid: 5cbe1082-ce35-11de-a117-005056b0503e
```

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```
action_type: default
          options: {}
      Condition: []
- MiqPolicySet:
   name: fbc1c9bc-53f9-11e0-babf-00505688000a
   description: ! 'Tag Management: Inheritance Policy'
    set_type: MigPolicySet
   quid: fbc1c9bc-53f9-11e0-babf-00505688000a
   read_only:
    set_data:
      :notes: This policy profile contains policies that enforce Host and VM inheritence
       of parent cluster tags.
   mode: control
   owner_type:
   owner_id:
   MiqPolicy:
    - name: 0c2517d8-lea2-lle0-8e71-005056910000
     description: ! 'Tag: VM Inherit Cluster Location Tag'
     expression:
     towhat: Vm
     guid: 0c2517d8-1ea2-11e0-8e71-005056910000
     created_by: admin
     updated_by: admin
     notes: This policy allows a vm to inherit the location tag of it's parent cluster
        on creation or completion of analysis
      active: true
     mode: control
     MigPolicyContent:
      - qualifier: success
       success_sequence: 1
       MiqEvent:
         name: vm_create
          description: VM Create Complete
          guid: 4c0b4f12-37c0-11df-b567-005056a40709
          event_type: Default
          definition:
          default:
          enabled:
        MigAction:
          name: 60e5d690-1ea2-11e0-8e71-005056910000
          description: ! 'Tag: Inherit Cluster Location Tag'
          guid: 60e5d690-1ea2-11e0-8e71-005056910000
          action_type: inherit_parent_tags
          options:
            :parent_type: ems_cluster
            :cats:
            - location
      - qualifier: success
        success_sequence: 1
        MiqEvent:
          name: vm_scan_complete
          description: VM Analysis Complete
          guid: f7b8361e-1139-11e1-9333-005056af009e
          event_type: Default
          definition:
          default:
          enabled:
        MiqAction:
          name: 60e5d690-1ea2-11e0-8e71-005056910000
```

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```
description: ! 'Tag: Inherit Cluster Location Tag'
          quid: 60e5d690-1ea2-11e0-8e71-005056910000
          action_type: inherit_parent_tags
          options:
            :parent_type: ems_cluster
            :cats:
            - location
     Condition: []
- MigPolicySet:
   name: bc33dd42-c01d-11e3-b785-001a4a0f459e
   description: VM retirement test
    set_type: MiqPolicySet
    quid: bc33dd42-c01d-11e3-b785-001a4a0f459e
    read_only:
   set_data:
   mode: control
   owner_type:
   owner_id:
   MiqPolicy:
    - name: b218c83c-c01c-11e3-b785-001a4a0f459e
     description: MyNew VM Control Policy
     expression:
     towhat: Vm
      quid: b218c83c-c01c-11e3-b785-001a4a0f459e
      created_by: admin
     updated_by: admin
     notes:
     active: true
     mode: control
     MiqPolicyContent:
      - qualifier: success
       success_sequence: 1
        success_synchronous: true
       MiqEvent:
         name: vm_retired
          description: VM Retired
          guid: e363d8aa-1e1e-11de-8918-0050568005db
          event_type: Default
          definition:
          default:
          enabled:
       MiqAction:
         name: raise_automation_event
          description: Raise Automation Event
          guid: e7da3b7a-1139-11e1-9333-005056af009e
          action_type: default
          options: {}
     Condition: []
- MiqPolicySet:
   name: 4a554d7c-21b4-11e2-a38c-0050568b19a3
    description: VM-Operation Policies
    set_type: MiqPolicySet
   guid: 4a554d7c-21b4-11e2-a38c-0050568b19a3
   read_only:
    set data:
   mode: control
   owner_type:
   owner_id:
   MiqPolicy:
```

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```
- name: 7408efa8-21b3-11e2-a38c-0050568b19a3
      description: Power-Off Virtual Machines
      expression:
     towhat: Vm
     guid: 7408efa8-21b3-11e2-a38c-0050568b19a3
     created_by: admin
     updated_by: admin
     notes:
     active: true
     mode: control
     MiqPolicyContent:
      - qualifier: success
        success_sequence: 1
       MigEvent:
         name: vm_start
          description: VM Power On
          guid: 404b4630-21a8-11e2-b47a-0050568b19a3
          event_type: Default
          definition:
         default:
          enabled:
       MiqAction:
          name: vm_stop
          description: Stop Virtual Machine
          quid: 37f2da3e-21a8-11e2-b47a-0050568b19a3
          action_type: default
          options: {}
      Condition:
      - name: d514b2fa-21b3-11e2-a38c-0050568b19a3
        description: VM with Workload Tag Messaging
        modifier: allow
        expression: !ruby/object:MiqExpression
          exp:
            !binary "Q090VEFJT1M=":
              !binary "dGFn": Vm.managed-function
              !binary "dmFsdWU=": messaging
          context_type:
        towhat: Vm
        file_mtime:
        guid: d514b2fa-21b3-11e2-a38c-0050568b19a3
        filename:
       applies_to_exp:
       miq_policy_id:
       notes:
- MiqPolicySet:
   name: 99a57bb8-e15e-11e1-acfa-005056b25af6
   description: poweron
   set_type: MiqPolicySet
   guid: 99a57bb8-e15e-11e1-acfa-005056b25af6
   read_only:
    set_data:
   mode: control
   owner_type:
   owner_id:
   MiqPolicy:
   - name: d4640a18-e15d-11e1-acfa-005056b25af6
     description: powervm
     expression:
    towhat: Vm
```

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```
quid: d4640a18-e15d-11e1-acfa-005056b25af6
created_by: admin
updated_by: admin
notes:
active: true
mode: control
MigPolicyContent:
- qualifier: success
  success_sequence: 1
  MiqEvent:
    name: vm_start
    description: VM Power On
    quid: 404b4630-21a8-11e2-b47a-0050568b19a3
    event_type: Default
    definition:
    default:
    enabled:
  MigAction:
    name: b0138b70-e15d-11e1-8744-005056b25af6
    description: powerVM
    quid: b0138b70-e15d-11e1-8744-005056b25af6
    action_type: custom_automation
    options:
      :ae_message: create
      :ae_request: powerVM
- qualifier: success
  success_sequence: 1
  MiqEvent:
    name: vm_poweroff
    description: VM Power Off
    guid: 48beeadc-ae7c-11e1-a76f-005056b25af6
    event_type: Default
    definition:
    default:
    enabled:
  MigAction:
    name: b0138b70-e15d-11e1-8744-005056b25af6
    description: powerVM
    guid: b0138b70-e15d-11e1-8744-005056b25af6
    action_type: custom_automation
    options:
      :ae_message: create
      :ae_request: powerVM
Condition: []
```

3.20.3 Alerts.yaml

Link: Alerts.yaml

Source:

```
---
- MiqAlert:
    guid: d59185a4-40bc-11de-bd12-005056a170fa
    description: CPU Ready > 4000 ms for more than 10 min
    options:
    :notifications:
    :email:
```

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```
:from: ''
          :to:
          - alert@manageiq.com
   db: Vm
    expression:
     :mode: internal
      :eval_method: realtime_performance
      :options:
        :operator: ! '>'
        :perf_column: cpu_ready_delta_summation
        :value_threshold: '4000'
        :rt_time_threshold: 600
    responds_to_events: vm_perf_complete
    enabled:
- MigAlert:
   guid: 20d93374-fde1-11e1-a360-005056b25af6
   description: CPU Usage > 50
   options:
      :notifications:
        :delay_next_evaluation: 600
       :evm_event: {}
       :automate:
         :event_name: alert_cpu
    db: Vm
    expression:
      :eval_method: realtime_performance
      :mode: internal
      :options:
        :perf_column: cpu_usage_rate_average
        :operator: ! '>'
       :value_threshold: '50'
       :trend_direction: none
       :trend_steepness:
        :debug_trace: 'false'
        :rt_time_threshold: 60
    responds_to_events: vm_perf_complete
    enabled: true
- MiqAlert:
    guid: 5bfdef56-13d2-11e2-a735-005056b057a8
    description: CPU Usage Exceeds 90% For More Than 1 Min
   options:
      :notifications:
        :delay_next_evaluation: 600
        :snmp:
         :host:
          - 192.168.255.26
          :trap_id: 1.3.6.1.4.1.33482.3
          :snmp_version: v2
          :variables:
          - :oid: description
            :var_type: OctetString
            :value: Virtual Machine
          - :oid: category
            :var_type: OctetString
            :value: Perfomance
          - :oid: Message
            :var_type: OctetString
            :value: ${cause.description}
          - :oid: object
```

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```
:var_type: OctetString
            :value: Name: $ {object.name}
          - :oid: location
            :var_type: OctetString
            :value: Datastore:${object.path}
          - :oid: platform
           :var_type: OctetString
            :value: OS:${object.platform}
          - :oid: url
            :var_type: OctetString
            :value: http://10.10.1.200/VM/${object.id}
          - :oid: source
            :var_type: OctetString
            :value: EVM: $ { object.ems }
          - :oid: custom1
           :var_type: OctetString
            :value: Created:${object.created_on} Retires:${retires_on}
          - :oid: custom2
            :var_type: OctetString
            :value: ! 'Cluster:${object.ems_cluster_name} Host: ${object.host_name}'
   db: Vm
   expression:
      :eval_method: realtime_performance
      :mode: internal
      :options:
        :value_threshold: '90'
        :perf_column: v_pct_cpu_used_delta_summation
        :trend_steepness:
        :rt_time_threshold: 60
        :trend_direction: none
        :operator: ! '>'
        :debug_trace: 'false'
    responds_to_events: vm_perf_complete
   enabled: true
- MigAlert:
   guid: 59174666-cfed-11e2-a54c-000c2980bea6
   description: CloudFLEX
   options:
      :notifications:
        :delay_next_evaluation: 120
        :evm_event: {}
        :automate:
          :event_name: CloudFLEX_EVENT
   db: Vm
    expression:
      :eval_method: realtime_performance
      :mode: !binary |-
       aW50ZXJuYWw=
      :options:
        :perf_column: v_pct_cpu_used_delta_summation
        :operator: !binary |-
         Pg==
        :value_threshold: '50'
        :trend_direction: !binary |-
         bm9uZQ==
        :trend_steepness:
        :debug_trace: !binary |-
          ZmFsc2U=
        :rt_time_threshold: 120
```

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```
responds_to_events: vm_perf_complete
   enabled: true
- MigAlert:
   guid: eb88f942-c23e-11de-a3be-000c290de4f9
   description: Cluster DRS not enabled
   options:
      :notifications:
        :email:
          :from: ''
          :to:
          - alert@manageiq.com
   db: EmsCluster
   expression: !ruby/object:MiqExpression
     exp:
          value: 'false'
          field: EmsCluster-drs_enabled
    responds_to_events:
   enabled:
- MigAlert:
   guid: 196868de-c23f-11de-a3be-000c290de4f9
   description: Cluster HA not enabled
   options:
      :notifications:
        :email:
          :from: ''
          :to:
          - alert@manageiq.com
   db: EmsCluster
   expression: !ruby/object:MiqExpression
     exp:
          value: 'false'
          field: EmsCluster-ha_enabled
   responds_to_events:
   enabled:
- MiqAlert:
    guid: 82f853b0-bf36-11de-b3b4-000c290de4f9
   description: Datacenter VMs > 10
   options:
     :notifications:
        :email:
          :from: ''
          :to:
          - alert@manageiq.com
   db: Storage
   expression: !ruby/object:MiqExpression
     exp:
        ! '>':
          value: 10
          field: Storage-v_total_vms
    responds_to_events:
    enabled:
- MigAlert:
   guid: 655cccda-6ae5-11e0-bdef-005056a461b8
   description: Datastore Free Space <= 10%
   options:
     :notifications:
        :snmp:
```

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```
:variables:
          - :value: ! 'MIQ Datatstore Alert: DEMO'
            :oid: category
            :var_type: OctetString
          - :value: Datastore Free Space <= 10%
           :oid: message
           :var_type: OctetString
          :host:
          - 204.130.60.75
          :trap_id: critical
          :snmp_version: v2
        :delay_next_evaluation: 86400
        :email:
          :from: ''
         :to:
          - cloud_ops@miq.net
        :evm_event: {}
   db: Storage
   expression: !ruby/object:MiqExpression
     exp:
        <=:
          value: '10'
          field: Storage-v_free_space_percent_of_total
      context_type:
    responds_to_events: _hourly_timer_
    enabled: true
- MiqAlert:
   guid: f0782622-fa6c-11e0-98ad-005056be005b
   description: EVM Server High App Disk Usage
   options:
     :notifications:
        :delay_next_evaluation: 14400
        :evm_event: {}
   db: MigServer
   expression:
     :mode: internal
      :eval_method: nothing
      :options: {}
   responds_to_events: evm_server_app_disk_high_usage
    enabled: true
- MigAlert:
   guid: 50b6ae6e-fa6d-11e0-a117-005056be005b
   description: EVM Server High DB Disk Usage
   options:
      :notifications:
        :delay_next_evaluation: 14400
        :evm_event: {}
   db: MiqServer
   expression:
      :mode: internal
      :eval_method: nothing
      :options: {}
    responds_to_events: evm_server_db_disk_high_usage
   enabled: true
- MigAlert:
   guid: 6f0f695a-fa6d-11e0-a117-005056be005b
   description: EVM Server High Log Disk Usage
   options:
     :notifications:
```

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```
:delay_next_evaluation: 14400
        :evm_event: {}
   db: MigServer
   expression:
     :mode: internal
      :eval_method: nothing
      :options: {}
    responds_to_events: evm_server_log_disk_high_usage
   enabled: true
- MiqAlert:
   quid: 8ef83828-fa6d-11e0-98ad-005056be005b
   description: EVM Server High System Disk Usage
   options:
      :notifications:
        :delay_next_evaluation: 14400
        :evm_event: {}
   db: MiqServer
   expression:
     :mode: internal
      :eval_method: nothing
      :options: {}
   responds_to_events: evm_server_system_disk_high_usage
   enabled: true
- MigAlert:
    guid: 3bfdde58-fa6c-11e0-a117-005056be005b
   description: EVM Server Not Responding
   options:
      :notifications:
        :delay_next_evaluation: 14400
        :evm_event: {}
   db: MiqServer
   expression:
     :mode: internal
      :eval_method: nothing
      :options: {}
   responds_to_events: evm_server_not_responding
    enabled: true
- MiqAlert:
   guid: cdf91470-fa6d-11e0-a117-005056be005b
   description: EVM Server Started
   options:
      :notifications:
        :delay_next_evaluation: 14400
        :evm_event: {}
   db: MiqServer
   expression:
     :mode: internal
      :eval_method: nothing
      :options: {}
   responds_to_events: evm_server_start
   enabled: true
- MigAlert:
    guid: fc2ae066-44b8-11de-900a-005056a170fa
   description: Host Event Log Error - Failed to validate VM IP address
   options:
      :notifications:
        :email:
          :from: ''
          :to:
```

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```
- alert@manageiq.com
   db: Host
   expression:
      :mode: internal
      :eval_method: hostd_log_threshold
        :event_log_message_filter_type: INCLUDES
        :event log source: VmMisc
        :freq_threshold: '2'
        :event_log_message_filter_value: Failed to validate VM IP address
        :time_threshold: 86400
    responds_to_events: host_scan_complete
    enabled:
- MigAlert:
   quid: 0bd6ac74-fa70-11e0-a117-005056be005b
   description: Host Credentials Authentication Error
   options:
     :notifications:
        :delay_next_evaluation: 14400
        :evm_event: {}
   db: Host
   expression:
     :mode: internal
      :eval_method: nothing
      :options: {}
    responds_to_events: host_auth_error
    enabled: true
- MigAlert:
   guid: 3599fa6e-f9d7-11e0-a117-005056be005b
   description: Host Credentials are Invalid
   options:
      :notifications:
        :delay_next_evaluation: 14400
        :evm_event: {}
   db: Host
   expression:
      :mode: internal
      :eval_method: nothing
      :options: {}
    responds_to_events: host_auth_invalid
    enabled: true
- MigAlert:
   guid: 9bc0d572-40bd-11de-bd12-005056a170fa
   description: Host Datastore < 5% of Free Space
   options:
      :notifications:
        :email:
          :from: ''
          :t.o:
          - alert@manageiq.com
   db: Host
   expression: !ruby/object:MiqExpression
      exp:
       FIND:
          checkany:
            ! '>':
              field: Host.storages-v_used_space_percent_of_total
```

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```
IS NOT NULL:
              field: Host.storages-name
   responds_to_events:
   enabled:
- MigAlert:
   quid: 8a6d32a8-44b8-11de-900a-005056a170fa
   description: ! 'Host Event Log Error - Memory Exceed Soft Limit '
   options:
      :notifications:
        :email:
          :from: ''
         :to:
          - alert@manageiq.com
   db: Host
   expression:
     :mode: internal
     :eval_method: hostd_log_threshold
      :options:
       :event_log_message_filter_type: INCLUDES
        :event_log_source: Memory checker
        :freq_threshold: '2'
        :event_log_message_filter_value: exceeds soft limit
        :event_log_level: warn
        :time_threshold: 86400
    responds_to_events: host_scan_complete
    enabled:
- MiqAlert:
   guid: 561d023c-bf36-11de-b3b4-000c290de4f9
   description: Host VMs >10
   options:
     :notifications:
        :email:
          :from: ''
          :to:
          - alert@manageiq.com
   db: Host
   expression: !ruby/object:MiqExpression
     exp:
        ! '>':
          value: 10
          field: Host-v_total_vms
   responds_to_events:
   enabled:
- MigAlert:
   guid: a6c34cee-94f3-11df-92e9-0050569a006f
   description: Max - Allocated RAM per VM
      :notifications:
        :delay_next_evaluation: 3600
        :evm_event: {}
   expression: !ruby/object:MiqExpression
     exp:
       ! '>':
          value: '255'
          field: Vm-mem_cpu
      context_type:
    responds_to_events: vm_discover
    enabled: true
```

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```
- MigAlert:
    quid: ddfd7df4-950e-11df-b1e3-0050568a6293
    description: Max - Hosts per Cluster
    options:
      :notifications:
        :delay_next_evaluation: 3600
        :evm_event: {}
    db: EmsCluster
    expression: !ruby/object:MiqExpression
      exp:
        ! '>':
          count: EmsCluster.hosts
          value: '32'
      context_type:
    responds_to_events: host_connect
    enabled: true
- MigAlert:
    guid: 7129b8d8-978d-11df-8cd7-0050569a4433
    description: Max - vCPU per Core >20
      :notifications:
        :delay_next_evaluation: 3600
        :evm_event: {}
    db: Host
    expression: !ruby/object:MiqExpression
        ! '>':
          value: '20'
          field: Host.ems_cluster-v_cpu_vr_ratio
      context_type:
    responds_to_events: host_connect
    enabled: true
- MiqAlert:
    quid: 2f4e5e06-94f3-11df-92e9-0050569a006f
    description: Max - vCpus per VM
    options:
      :notifications:
        :delay_next_evaluation: 3600
        :evm_event: {}
    expression: !ruby/object:MiqExpression
      exp:
        ! '>':
          value: '8'
          field: Vm.hardware-numvcpus
      context_type:
    responds_to_events: vm_discover
    enabled: true
- MiqAlert:
    guid: dab5b816-f789-l1e1-9144-005056b25af6
    description: Test - VM Analysis Complete
    options:
      :notifications:
        :delay_next_evaluation: 300
        :email:
          :to:
          - scottfisher1@gmail.com
        :evm_event: {}
    db: Vm
```

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```
expression:
     :eval_method: nothing
      :mode: internal
      :options: {}
    responds_to_events: vm_scan_complete
    enabled: true
- MigAlert:
   guid: 391d87fc-fa70-11e0-98ad-005056be005b
   description: VC Authentication Error
   options:
      :notifications:
        :delay_next_evaluation: 14400
        :evm_event: {}
   db: ExtManagementSystem
   expression:
     :mode: internal
     :eval_method: nothing
      :options: {}
   responds_to_events: ems_auth_error
   enabled: true
- MiqAlert:
   guid: 576aabca-f9d7-11e0-a117-005056be005b
   description: VC Credentials are Invalid
   options:
      :notifications:
        :delay_next_evaluation: 14400
        :evm_event: {}
   db: ExtManagementSystem
   expression:
      :mode: internal
      :eval_method: nothing
      :options: {}
   responds_to_events: ems_auth_invalid
   enabled: true
- MigAlert:
   guid: 58e8a372-bff9-11de-b3b4-000c290de4f9
   description: VM CD Drive or Floppy Connected
   options:
      :notifications:
        :email:
          :from: ''
          :to:
          - alert@manageiq.com
   db: Vm
    expression: !ruby/object:MiqExpression
     exp:
       or:
        - FIND:
            checkall:
              STARTS WITH:
                value: 'true'
                field: Vm.hardware.disks-start_connected
            search:
              INCLUDES:
                value: cdrom
                field: Vm.hardware.disks-device_type
        - FIND:
            checkall:
              INCLUDES:
```

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```
value: 'true'
                field: Vm.hardware.disks-start_connected
            search:
              INCLUDES:
                value: floppy
                field: Vm.hardware.disks-device_type
    responds_to_events:
   enabled:
- MigAlert:
   quid: ce2f8846-44a5-11de-b543-005056a170fa
   description: VM CPU count was decreased
   options:
      :notifications:
        :email:
          :from: ''
         :to:
          - alert@manageiq.com
   db: Vm
   expression:
     :mode: internal
      :eval_method: reconfigured_hardware_value
      :options:
        :operator: Decreased
        :hdw_attr: :numvcpus
    responds_to_events: vm_reconfigure
    enabled:
- MiqAlert:
   guid: c2fc477a-44a5-11de-b543-005056a170fa
   description: VM CPU count was increased
   options:
      :notifications:
        :email:
          :from: ''
          :to:
          - alert@manageiq.com
   db: Vm
   expression:
      :mode: internal
      :eval_method: reconfigured_hardware_value
      :options:
        :operator: Increased
        :hdw_attr: :numvcpus
    responds_to_events: vm_reconfigure
   enabled:
- MiqAlert:
    guid: 4077943a-c240-11de-a3be-000c290de4f9
   description: VM Environment Tag <> Datastore Environment Tag
   options:
      :notifications:
        :email:
          :from: ''
          - alert@manageiq.com
    db: Vm
    expression: !ruby/object:MiqExpression
     exp:
       and:
        - CONTAINS:
           tag: Vm.managed-environment
```

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```
value: prod
        - not:
            CONTAINS:
              tag: Vm.storage.managed-environment
              value: prod
    responds_to_events:
   enabled:
- MigAlert:
   quid: 89db0be8-c240-11de-a3be-000c290de4f9
   description: VM Environment Tag <> Host Environment Tag
   options:
      :notifications:
        :email:
          :from: ''
         :to:
          - alert@manageiq.com
   db: Vm
   expression: !ruby/object:MiqExpression
     exp:
       and:
        - CONTAINS:
           tag: Vm.managed-environment
           value: prod
        - not:
           CONTAINS:
              tag: Vm.host.managed-environment
              value: prod
   responds_to_events:
   enabled:
- MiqAlert:
   guid: 731da3b2-40bc-11de-bd12-005056a170fa
   description: ! 'VM Guest C: Drive < 10% Free'
   options:
      :notifications:
        :email:
          :from: ''
          :to:
          - alert@manageiq.com
    db: Vm
   expression: !ruby/object:MiqExpression
     exp:
       and:
        - =:
           value: windows
           field: Vm-platform
        - FIND:
            checkall:
              <:
                value: 10
                field: Vm.hardware.volumes-free_space_percent
            search:
                value: ! 'C:'
                field: Vm.hardware.volumes-name
   responds_to_events:
   enabled:
- MiqAlert:
   guid: 1bb81254-44a6-11de-b543-005056a170fa
    description: VM Guest Windows Event Log Error - NtpClient
```

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```
options:
      :notifications:
        :email:
         :from: ''
          :to:
          - alert@manageiq.com
   db: Vm
   expression:
     :mode: internal
      :eval_method: event_log_threshold
      :options:
        :event_log_message_filter_type: INCLUDES
        :freq_threshold: '1'
        :event_log_message_filter_value: NtpClient
        :event_log_level: error
        :time_threshold: 86400
    responds_to_events: vm_scan_complete
   enabled:
- MigAlert:
   quid: f8b870d0-c23d-11de-a3be-000c290de4f9
   description: VM Memory Balloon > 250 in last 10 min
     :notifications:
        :email:
         :from: ''
          - alert@manageiq.com
   db: Vm
   expression:
      :mode: internal
      :eval_method: realtime_performance
      :options:
       :operator: ! '>'
        :perf_column: mem_vmmemctl_absolute_average
        :value_threshold: '250'
       :rt_time_threshold: 600
    responds_to_events: vm_perf_complete
    enabled:
- MigAlert:
    guid: fbe4b5ee-447e-11de-aaba-005056a170fa
   description: VM Memory was decreased
   options:
     :notifications:
        :email:
          :from: ''
          - alert@manageiq.com
   db: Vm
   expression:
      :mode: internal
      :eval_method: reconfigured_hardware_value
      :options:
        :operator: Decreased
        :hdw_attr: memory_cpu
   responds_to_events: vm_reconfigure
   enabled:
- MiqAlert:
   guid: e750cdcc-447c-11de-aaba-005056a170fa
    description: VM Memory was increased
```

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```
options:
      :notifications:
        :email:
         :from: ''
         :to:
          - alert@manageiq.com
   db: Vm
   expression:
     :mode: internal
      :eval_method: reconfigured_hardware_value
      :options:
        :operator: Increased
        :hdw_attr: memory_cpu
    responds_to_events: vm_reconfigure
    enabled:
- MigAlert:
   quid: 3cfbb5ce-40be-11de-bd12-005056a170fa
   description: VM Migration > 1 in last 30 min
      :notifications:
        :email:
          :from: ''
          :to:
          - alert@manageiq.com
   db: Vm
   expression:
      :mode: internal
      :eval_method: event_threshold
      :options:
        :event_types:
        - RelocateVM_Task_Complete
       :freq_threshold: '2'
        :time_threshold: 1800
   responds_to_events: ! '["RelocateVM_Task_Complete"]'
   enabled:
- MigAlert:
   guid: fb73af80-40bd-11de-bd12-005056a170fa
   description: VM Power On > 2 in last 15 min
   options:
      :notifications:
        :email:
         :from: ''
         :to:
          - alert@manageiq.com
   db: Vm
   expression:
     :mode: internal
      :eval_method: event_threshold
      :options:
        :event_types:
        - PowerOnVM_Task_Complete
        :freq_threshold: '2'
        :time_threshold: 900
   responds_to_events: ! '["PowerOnVM_Task_Complete"]'
   enabled:
- MiqAlert:
   guid: fdee2784-bf2c-11de-b3b4-000c290de4f9
   description: VM Silver and CPU > 1
   options:
```

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```
:notifications:
        :email:
          :from: ''
          :to:
          - alert@manageiq.com
    db: Vm
    expression: !ruby/object:MiqExpression
     exp:
        and:
        - CONTAINS:
            tag: Vm.managed-service_level
            value: silver
        - ! '>':
            value: 1
            field: Vm.hardware-numvcpus
    responds_to_events:
    enabled:
- MigAlert:
    quid: 9b61fd9e-bf35-11de-b3b4-000c290de4f9
    description: VM Silver and RAM > 2 GB
    options:
      :notifications:
        :email:
          :from: ''
          :to:
          - alert@manageiq.com
    expression: !ruby/object:MiqExpression
     exp:
        and:
        - CONTAINS:
            tag: Vm.managed-service_level
            value: silver
        - ! '>':
            value: 2048
            field: Vm.hardware-memory_cpu
    responds_to_events:
    enabled:
- MigAlert:
    guid: 5cd2b880-be53-11de-8d65-000c290de4f9
    description: VM Unregistered
    options:
      :notifications:
        :email:
          :from: ''
          - alert@manageiq.com
    db: Vm
    expression: !ruby/object:MiqExpression
      exp:
        and:
        - IS EMPTY:
            value: ''
            field: Vm.host-name
        - IS NOT EMPTY:
            field: Vm.storage-name
    responds_to_events:
    enabled:
- MiqAlert:
```

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```
quid: a9532172-44a5-11de-b543-005056a170fa
   description: VM VMotion > 1 in last 30 min
   options:
      :notifications:
        :email:
          :from: ''
          :to:
          - alert@manageiq.com
   db: Vm
   expression:
      :mode: internal
      :eval_method: event_threshold
      :options:
       :event_types:
        - MigrateVM_Task
       :freq_threshold: '1'
        :time_threshold: 1800
    responds_to_events: ! '["MigrateVM_Task"]'
   enabled:
- MigAlert:
   guid: 5709f346-05a5-11e1-9288-005056880000
   description: VM with CPU Ready > 2% for 2mins
   options:
      :notifications:
        :delay_next_evaluation: 600
        :automate:
          :event_name: VM_Alert_CPU_Ready
        :evm_event: {}
   db: Vm
    expression:
      :mode: internal
      :eval_method: realtime_performance
      :options:
       :trend_direction: none
        :operator: ! '>'
        :value_threshold: '2'
        :perf_column: v_pct_cpu_ready_delta_summation
        :debug_trace: 'false'
        :trend_steepness:
        :rt_time_threshold: 120
   responds_to_events: vm_perf_complete
   enabled: true
- MiqAlert:
   guid: 8261bf0a-be54-11de-8d65-000c290de4f9
   description: VMs on local storage
   options:
      :notifications:
        :email:
          :from: ''
          :to:
          - alert@manageiq.com
   expression: !ruby/object:MiqExpression
      exp:
        ! '!=':
          value: 1
          field: Storage-v_total_hosts
    responds_to_events:
```

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enabled:

3.21 Database Backup Procedure

There are two way to perform backups.

1) RECOMMENDED: This method is done through the Web UI and allows you to set up schedules and to have the backups be on an NFS or Samba share.

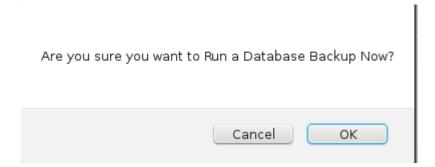
2) Manually through the DB Appliance SSH session

3.21.1 Web UI: Single Run Database Backup

- Go to Configure > Configuration > Diagnostics (Left hand navigation menu) > Select Region (i.e. Region 10) > Click on Database Tab
- in the Database Backup Settings enter the following:

| Type: | Network File System |
|-------------|------------------------------|
| URI: nfs:// | c3pudrnas1:/drnas/cloudforms |

- · Click on Submit
- Click OK in the pop-up "Are you sure you want to Run a Database Backup Now?"



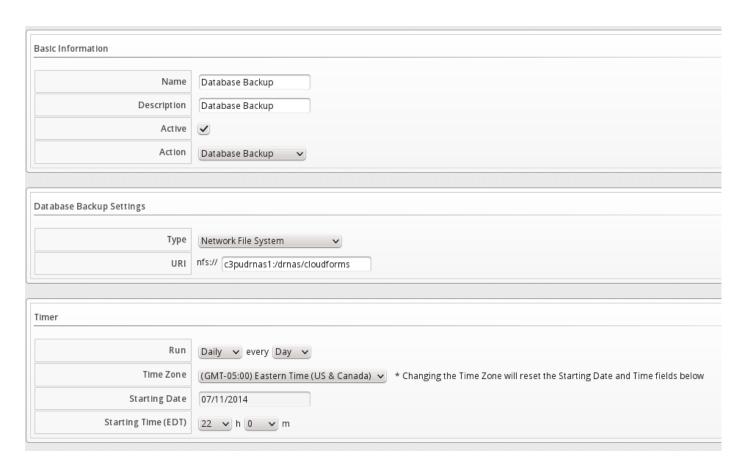
3.21.2 Web UI: Scheduled Database Backup

• Go to Configure > Configuration > Settings > Select Schedules within the Left Hand Menu

../cloudforms/database/menu.png

• Fill out the settings as show in the image

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· Click Add

3.21.3 SSH: Manual Database Backup

- SSH into the appliance
- switch to postgres user

su - postgres

• Run backup command

pg_dump vmdb_production | gzip > /tmp/postgres_db_backup.gz

• To restore

cat /tmp/postgres_db_backup.gz | gunzip | psql vmdb_production

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3.22 Member Groups

3.22.1 Creating/Importing Group from LDAP/Active Directory

- Go to Configure > Configuration > Access Control > Click on Groups
- Click on the Configuration Button > Select Add New Group
- In the Group Information enter the following:

| Description: | <name group="" ldap="" of=""></name> |
|--------------|--|
| Role: | <select appropriate="" created="" role="" that="" was=""></select> |

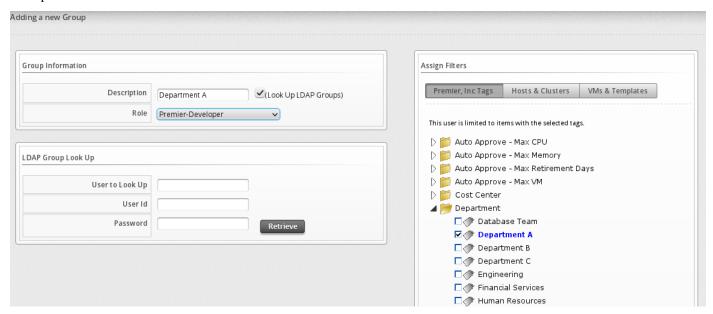
- Select Filters for this group on the right.
- · Click on Save



Important

The filters selected is what will determine what objects the user in this group will be able to see. Example: If the user is part of Department A, and you select "Department > Department A" this user will only EVER see any objects that are tagged with the "Department A" tag.

Example:



Note

You may also leave the Description Blank and then check the "(Look Up LDAP Groups)" check-box and in the "LDAP Group Look Up" section enter a User to Look up and use your LDAP user / password to retrieve all of the groups this member is a part of. Then select from the Drop Down in "Group Information" with the according LDAP/AD Group that you want to create. Once the group is select it will automatically replace the contents of the "Description" Field. After this is done, select the according Filters on the right side.

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3.22.2 Adding Smart Management Tag to Group

- Select the Group that was previously created
- · Click on Policy
- Click on "Edit Premier, Inc's Tags for this Group"
- in the "Select a customer tag to assign" select Department, then select the appropriate Department
- in the "Select a customer tag to assign" select Cost Center, then select the appropriate Cost Center

Example:

| | Select a customer tag to assign: Cost Center * ✓ <select a="" assign="" to="" value=""> ✓</select> |
|---------------|--|
| Category | Assigned Value |
| Cost Center * | Unix Team |
| Department | Unix Team |

· Click Save

3.22.3 Groups created during Engagement

| Group Name | Role | Tag: Cost Center | Tag: Department | Filters | Notes |
|-----------------|---------------|------------------|-----------------|--------------|---------------------|
| Unix Admins | Premier-Admin | Unix Team | Unix Team | None | No Tags or Filters |
| | | | | | are created in |
| | | | | | order to assure the |
| | | | | | admins can see |
| | | | | | ALL resources |
| ITS Unix Admins | Premier-Admin | Unix Team | Unix Team | None | No Tags or Filters |
| | | | | | are created in |
| | | | | | order to assure the |
| | | | | | admins can see |
| | | | | | ALL resources |
| ITS Server Team | Premier- | Department A | Department A | Department A | This will only |
| | Developer | | | | allow this group |
| | | | | | to view only |
| | | | | | objects/resources |
| | | | | | tagged with |
| | | | | | Department A |

• NOTE: The Smart Management Tags added to groups will make it so that when these users in these groups provision any Instances/VM's it will automatically tag the Instances/VM's with the provided tags

3.23 Tag Taxonomy

3.23.1 Environment

| Name | Display |
|------|-------------|
| dev | Development |

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| Name | Display |
|---------|------------|
| preprod | PreProd |
| prod | Production |
| qa | QA |
| test | Test |

3.23.2 Locations

| Name | Display |
|-------------|-------------|
| kansas_city | Kansas City |

3.23.3 Owners

| Name | Display |
|-------------|--------------|
| developers | Developers |
| engineer | Engineer |
| unixteam | Unix Team |
| windowsteam | Windows Team |

3.23.4 Provisioning Scope

| Name | Display |
|------|---------|
| all | All |

Note

Additional Provisioning Scopes to be added at a later time

3.23.5 Storage Types

| Name | Display |
|-------|---------|
| tier1 | Tier 1 |
| tier2 | Tier 2 |
| tier3 | Tier 3 |

3.23.6 Cost Center

| Name | Display |
|----------------|--------------------|
| database_team | Database Team |
| department_a | Department A |
| department_b | Department B |
| department_c | Department C |
| engineering | Engineering |
| finance | Financial Services |
| hr | Human Resources |
| infrastructure | Infrastructure |

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| Name | Display |
|--------------|--------------|
| marketing | Marketing |
| network_team | Network Team |
| unix_team | Unix Team |
| windows_team | Windows Team |

Note

Additional Cost Center to be added at a later time

3.23.7 Department

| Name | Display |
|----------------|--------------------|
| database_team | Database Team |
| department_a | Department A |
| department_b | Department B |
| department_c | Department C |
| engineering | Engineering |
| finance | Financial Services |
| hr | Human Resources |
| infrastructure | Infrastructure |
| marketing | Marketing |
| network_team | Network Team |
| unix_team | Unix Team |
| windows_team | Windows Team |

Note

Additional Departments to be added at a later time

3.23.8 Workload

| Display |
|------------------------|
| Active Directory |
| Server |
| Application Servers |
| Cognos |
| Database |
| IBM DB2 |
| Desktop |
| DHCP Server |
| EVM Appliance |
| Hadoop |
| Virtual Infrastructure |
| Management |
| JBOSS Server |
| Messaging |
| Oracle Database |
| Proxy Server |
| Security |
| |

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| Name | Display |
|------------------|------------|
| web_server | Web Server |
| websphere_server | Websphere |

Note

Additional Cost Center to be added at a later time

3.23.9 Service Level

| Name | Display |
|----------|----------|
| gold | Gold |
| platinum | Platinum |
| silver | Silver |

3.23.10 Auto Approve - Max CPU

| Name | Display |
|------|---------|
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |

3.23.11 Auto Approve - Max Memory

| Name | Display |
|------|---------|
| 1024 | 1GB |
| 2048 | 2GB |
| 4096 | 4GB |
| 8192 | 8GB |

3.23.12 Auto Approve - Retirement Days

| Name | Display |
|------|---------|
| 30 | 30 |
| 60 | 60 |
| 90 | 90 |
| 180 | 180 |

3.23.13 Auto Approve - Max VM

| Name | Display |
|------|---------|
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |

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| Name | Display |
|------|---------|
| 5 | 5 |

3.23.14 Quota - Max Memory

| Name | Display |
|-------|---------|
| 1024 | 1GB |
| 2048 | 2GB |
| 4096 | 4GB |
| 8192 | 8GB |
| 10240 | 10GB |
| 16384 | 16GB |

3.23.15 Quota - Max Storage

| Name | Display |
|------|---------|
| 10 | 10GB |
| 20 | 20GB |
| 40 | 40GB |
| 80 | 80GB |
| 100 | 100GB |
| 200 | 200GB |
| 400 | 400GB |
| 1000 | 1TB |

3.23.16 Quota - Max CPU

| Name | Display |
|------|---------|
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |
| 10 | 10 |
| 20 | 20 |
| 30 | 30 |

3.24 Service Catalog

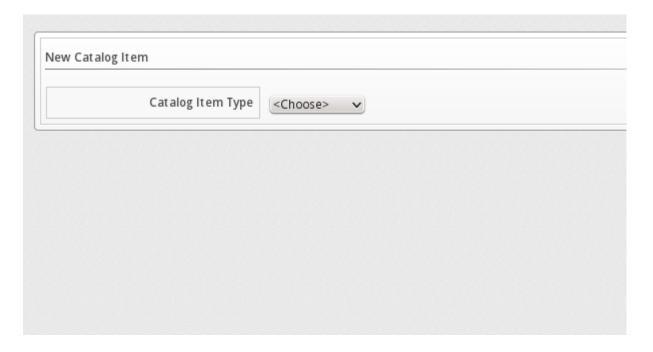
3.24.1 Create new Catalogs

- Go to Services > Catalog > Click on "Catalogs" menu on the left hand side
- Click the "Configuration" Button
- Select "Add a New Catalog"
- Enter the Name of the Catalog
- Enter the Description of the Catalog

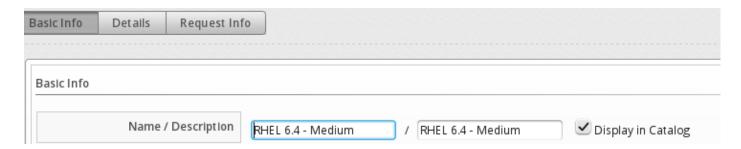
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3.24.2 Create New Catalog Item

- Go to Services > Catalog > Click on "Catalog Items" menu on the left hand side
- · Select the Catalog that was previously created
- Click the "Configuration" Button
- Select "Add a New Catalog Item"
- · Should bring you to the "Basic Info" Tab
 - Choose the Catalog Item Type, i.e. Openstack

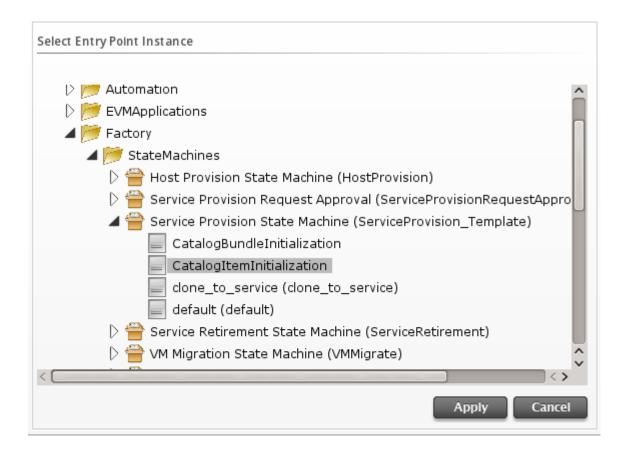


• Enter the Name and Description and Check the "Display in Catalog"



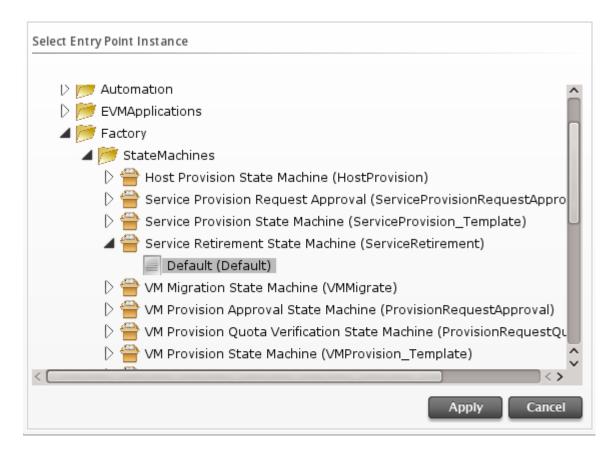
- Once the rest of the view is expanded Select the Catalog. i.e. 001-Dev
- Select the Dialog i.e. Basic VM
- Provisioning Entry Point (NS/Cls/Inst): /Factory/StateMachines/ServiceProvision_Template/CatalogItemInitialization

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- · Click Apply
- Retirement Entry Point (NS/Cls/Inst): /Factory/StateMachines/ServiceRetirement/Default

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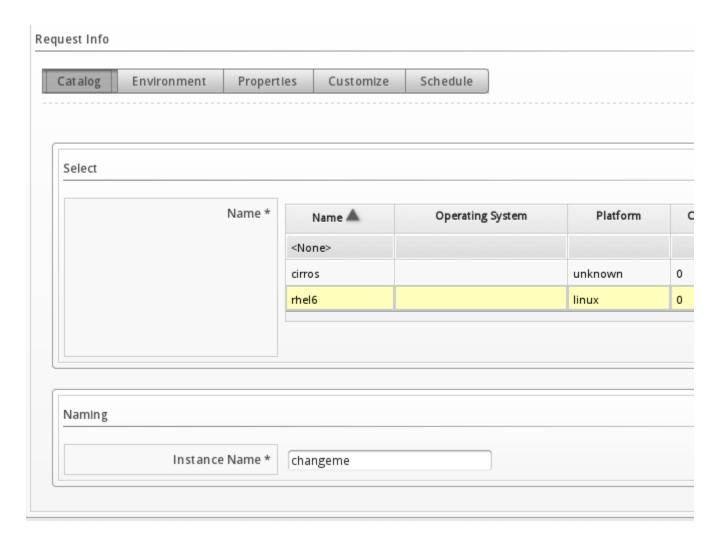


- Click Apply
 - Click on the "Request Info" Tab



- Request Info: Catalog
 - Select Name of the Template (i.e. rhel6)
 - Enter Instance Name "changeme" (note: this will be changed later using the Service Dialog, just leave it as changeme

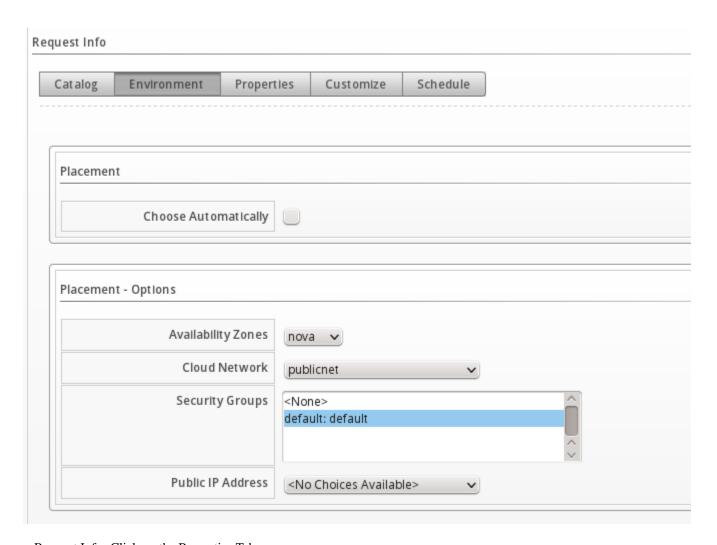
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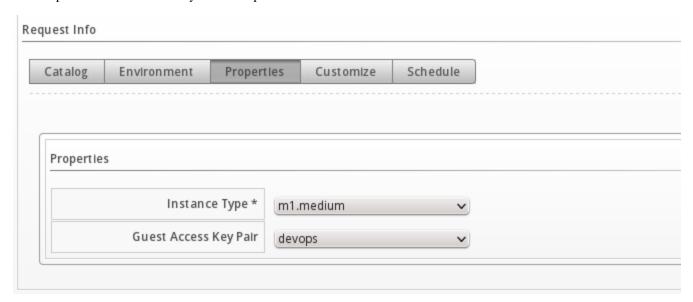
• Request Info: Click on the Environment Tab

Placement Options: Availability Zones: novaPlacement Options: Cloud Network: publicnet

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- Request Info: Click on the Properties Tab
 - Properties: Instance Type: i.e. m1.medium
 - Properties: Guest Access Key Pair: devops



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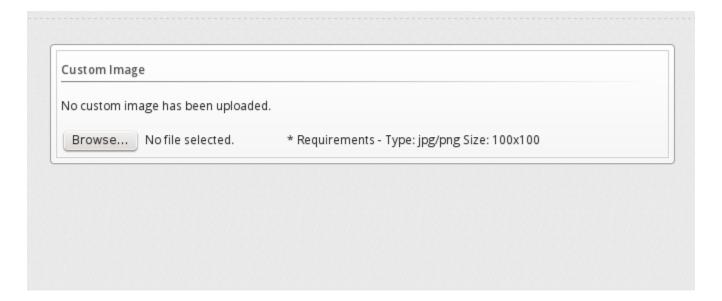
- Request Info: Click on the Schedule Tab
 - Schedule: Time until Retirement: i.e. Indefinite



· Click Add

3.24.3 Change the Catalog Item Custom Image

- Select the Catalog Item to upload a custom image to
- Click on Browse and select Image to use



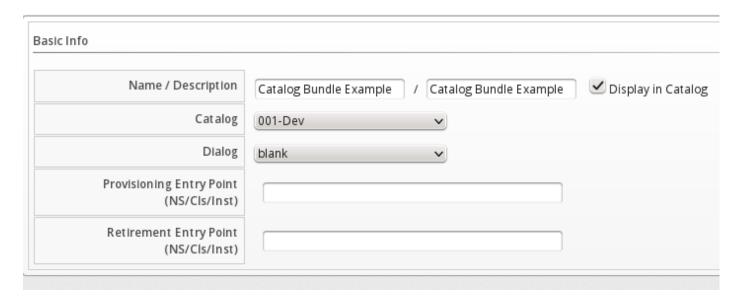
• Now you will see the custom image for the Catalog Item be updated

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3.24.4 Create New Catalog Bundle

- Go to Services > Catalog > Click on "Catalog Items" menu on the left hand side
- · Select the Catalog that was previously created
- Click the "Configuration" Button
- Select "Add a New Catalog Bundle"
- · Should bring you to the "Basic Info" Tab
 - Enter the Name and Description and Check the "Display in Catalog"



- Once the rest of the view is expanded Select the Catalog. i.e. 001-Dev
- Select the Dialog <Blank>

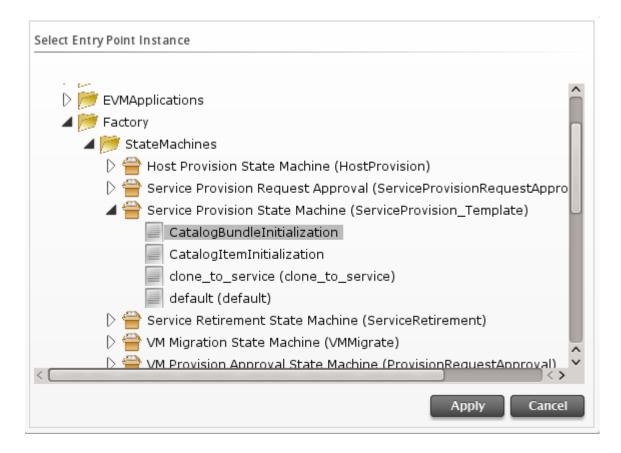
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Important

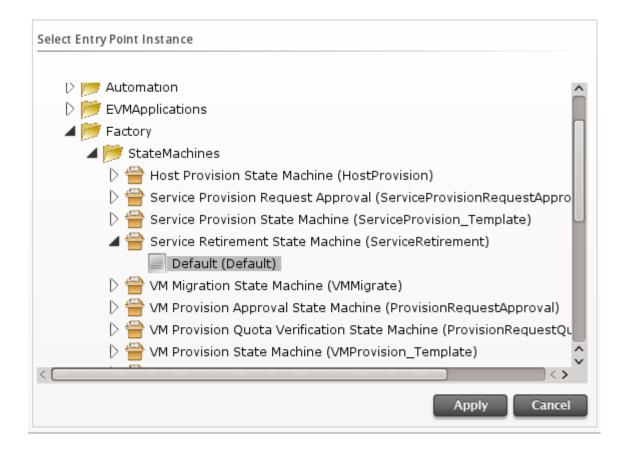
You can select another Dialog, but you have to make sure it is for a Bundle and not a single Item)

Provisioning Entry Point (NS/Cls/Inst): /Factory/StateMachines/ServiceProvision_Template/CatalogBundleInitialization

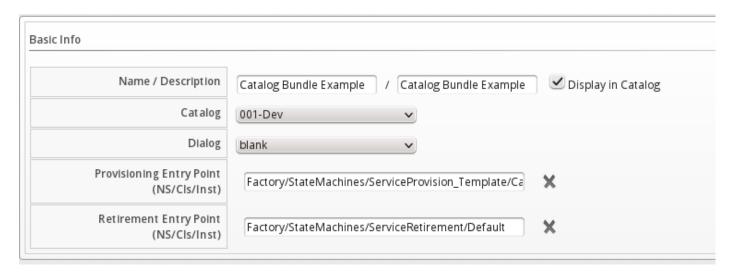


- · Click Apply
- Retirement Entry Point (NS/Cls/Inst): /Factory/StateMachines/ServiceRetirement/Default

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· Click Apply



• Click on the "Resources" Tab

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- Select an existing Catalog Item Resource (i.e. RHEL 6.4 Small)
- Select an additional Catalog Item Resource (i.e. RHEL 6.4 Medium)
- Repeat the previous 2 steps as many times as needed for all of the resources required for this bundle
- If needed, modify the Action Order or Provision Order:

Note

Provision Order will only worry about in which order it will actually provision the instance/vm. The Action Order is done once the provisioning is completed it will then perform the action specified in that order. Example: You can have the same Provision Order, but only care about the order that things are powered on.



- In the above screenshot, "RHEL 6.4 Small" will power on before "RHEL 6.4 Medium"
 - Click Add

3.25 Cloudforms: Appendix

3.25.1 Datastore Import File: namespace_MCICOM.xml

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```
<MiqAeMethod name="Dialog_Storage_Controller" language="ruby" scope="instance" location=" ↔
                    EVM Automate Method: Dialog_Storage_Controller
# Notes: Populate Dialog_Storage_Controller
begin
     @method = 'Dialog_Storage_Controller'
     $evm.log("info", "#{@method} - EVM Automate Method Started")
     # Turn of verbose logging
     @debug = true
     dialog_hash = { "netapp02a (Default)" => "10.2.100.19", "netapp02a" => "10.2.100.19", " \leftrightarrow
              netapp02b" => "10.2.100.20", "netapp03a" => "10.2.100.21" }
     dialog_field = $evm.object
     dialog_field["sort_by"] = "none"
     dialog_field["data_type"] = "string"
     dialog_field["required"] = "true"
     dialog_field["values"] = dialog_hash
     dialog_field["default_value"] = "netapp02a"
     \texttt{\$evm.log("info", "====} \ EVM \ Automate \ Method: <\#\{\texttt{@method}\}\ \ display \ drop-down: \ \#\{\texttt{dialog\_hash.} \ \hookleftarrow \texttt{Method}\}\ \ drop-down: \ \#\{\texttt{Method}\}\ \ 
               inspect \ ")
     #
     # Exit method
     $evm.log("info", "#{@method} - EVM Automate Method Ended")
     exit MIQ_OK
          # Set Ruby rescue behavior
rescue => err
     \text{sevm.log}(\text{"error"}, \text{"} \{\text{@method}\} - [\#\{\text{err}\}] \land \#\{\text{err.backtrace.join}(\text{"} \land \text{"})\}")
     exit MIQ_ABORT
end]]>
                   </MiqAeMethod>
          <MiqAeMethod name="Dialog_VM_Sizing" language="ruby" scope="instance" location="inline"><! ←</pre>
                    # EVM Automate Method: Dialog_VM_Sizing
   Notes: Populate Dialog_VM_Sizing CPU and Memory
begin
     @method = 'Dialog_VM_Sizing'
     $evm.log("info", "#{@method} - EVM Automate Method Started")
     # Turn of verbose logging
     @debug = true
     @action = nil
     @action ||= $evm.object['action']
    vm = $evm.root['vm']
```

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```
@vm_memory_cpu = vm.hardware['memory_cpu']
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_memory_cpu: #{@vm_memory_cpu}")
@vm_numvcpus = vm.hardware['numvcpus']
$evm.log("info", "===== EVM Automate Method: <#{@method}> vm_numvcpus: #{@vm_numvcpus}")
case @action
      when "memory"
            mem_val = 1024
            vm_mem = @vm_memory_cpu.to_i / 1024
            mem_array = []
            default_val = [nil, nil]
            mem_array << default_val</pre>
            for n in 1..16
                   \label{eq:continuous} $\operatorname{sevm.log}("info", "==== EVM Automate Method: < $$\{\emptyset$method}> mem_val: $$\{mem_val\}, $\longleftrightarrow $$\operatorname{sevm.log}("info", "==== EVM Automate Method: < $$\{\emptyset$method}> mem_val: $$\{mem_val\}, $\longleftrightarrow $$\{\emptyset$method}> mem_val: $$\{
                             mem_array: #{mem_array}")
                   val = []
                   val << "#{n}"</pre>
                   val << mem_val.to_i</pre>
                  mem_array << val
                  mem_val = mem_val.to_i + 1024
             end
             list_values = {
                          'sort_by' => :none,
                          'data_type' => :string,
                          'required' => :true,
                          'values' => mem_array
             }
             $evm.log("info", "===== EVM Automate Method: <#{@method}> display drop-down: #{ \leftrightarrow
                         list_values}")
             list_values.each {|k,v| $evm.object[k] = v }
      when "cpu"
             cpu_array = []
            default_val = [nil, nil]
             cpu_array << default_val
             for n in 1..12
                  val = []
                  val << n
                  val << n
                   cpu_array << val
             end
             list_values = {
                          'sort_by' => :none,
                          'data_type' => :integer,
                          'required' => :true,
                          'values' => cpu_array
             $evm.log("info", "==== EVM Automate Method: <#{@method}> display drop-down: #{ \leftrightarrow
                         list_values}")
             list_values.each {|k,v| $evm.object[k] = v }
end
```

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```
# Exit method
 #
 $evm.log("info", "#{@method} - EVM Automate Method Ended")
 exit MIQ_OK
   #
   # Set Ruby rescue behavior
rescue => err
 sevm.log("error", "#{@method} - [#{err}] \n#{err.backtrace.join("\n")}")
 exit MIQ_ABORT
end]]> </MigAeMethod>
   <MiqAeMethod name="Execute_Rapid_Clone" language="ruby" scope="instance" location="inline" ←
      #
 EVM Automate Method: Execute_Rapid_Clone
begin
 @method = 'Execute_Rapid_Clone'
 $evm.log("info", "==== EVM Automate Method: <#{@method}> Started")
 ###########################
 # Method: dumpRoot
 # Description: Dump Root information
 #############################
 def dumpRoot
   $evm.log("info", "#{@method} - Root:<$evm.root> Begin Attributes")
   Attributes - \#\{k\}: \#\{v\}")}
   $evm.log("info", "#{@method} - Root:<$evm.root> End Attributes")
   $evm.log("info", "")
 end
 # dump root object attributes
 dumpRoot
 require 'savon'
 require 'nokogiri'
 require 'httpclient'
 HTTPI.adapter = :httpclient
 @servername = nil
 @servername ||= $evm.object['servername']
 @username = nil
 @username ||= $evm.object['username']
 @password = nil
 @password ||= $evm.object.decrypt('password')
 @netapp_url = "https://#{@servername.to_s}:8143/kamino/public/api?wsdl"
 vm = $evm.root['vm']
```

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```
@vm name = vm.attributes['name']
$evm.log("info", "===== EVM Automate Method: <#{@method}> vm_name: #{@vm_name}")
@vm_location = vm.attributes['location']
$evm.log("info", "===== EVM Automate Method: <#{@method}> vm_location: #{@vm_location}")
@vm_vendor = vm.attributes['vendor']
$evm.log("info", "===== EVM Automate Method: <#{@method}> vm_vendor: #{@vm_vendor}")
@vm_host_id = vm.attributes['host_id']
$evm.log("info", "===== EVM Automate Method: <#{@method}> vm_host_id: #{@vm_host_id}")
@vm_ems_ref = vm.attributes['ems_ref']
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_ems_ref: #{@vm_ems_ref}")
@vm_type = vm.attributes['type']
$evm.log("info", "===== EVM Automate Method: <#{@method}> vm_type: #{@vm_type}")
@vm_storage_name = vm.storage['name']
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_storage_name: #{ ←
      @vm_storage_name}")
@vm_storage_ems_ref = vm.storage['ems_ref']
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_storage_ems_ref: #{ ←
      @vm_storage_ems_ref}")
@vm_v_ems_cluster_name = vm.ems_cluster_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_ems_cluster_name: #{ \leftrightarrow
      @vm_v_ems_cluster_name}")
@vm_v_parent_blue_folder_1_name = vm.parent_blue_folder_1_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_1_name: #{ ←
      @vm_v_parent_blue_folder_1_name}")
@vm_v_parent_blue_folder_2_name = vm.parent_blue_folder_2_name
@vm_v_parent_blue_folder_2_name}")
@vm_v_parent_blue_folder_3_name = vm.parent_blue_folder_3_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_3_name: #{ ←
      @vm_v_parent_blue_folder_3_name}")
@vm_v_parent_blue_folder_4_name = vm.parent_blue_folder_4_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_4_name: #{ ←
      @vm_v_parent_blue_folder_4_name}")
@vm_v_parent_blue_folder_5_name = vm.parent_blue_folder_5_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_5_name: #{ ←
      @vm_v_parent_blue_folder_5_name}")
@vm_v_parent_blue_folder_6_name = vm.parent_blue_folder_6_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_6_name: #{ ←
      @vm_v_parent_blue_folder_6_name}")
@vm_v_parent_blue_folder_7_name = vm.parent_blue_folder_7_name
$evm.log("info", "==== EVM Automate Method: < $$\{@method}> vm_v_parent_blue_folder_7_name: $$\{ \leftrightarrow align{center} and align{center} and align{center} align{c
      @vm_v_parent_blue_folder_7_name}")
```

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```
@vm_v_parent_blue_folder_8_name = vm.parent_blue_folder_8_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_8_name: #{ ←
    @vm_v_parent_blue_folder_8_name}")
@vm_v_parent_blue_folder_9_name = vm.parent_blue_folder_9_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_9_name: #{ ←
    @vm_v_parent_blue_folder_9_name}")
@vm_v_storage_name = vm.storage_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_storage_name: #{ \leftarrow
    @vm_v_storage_name}")
def getObjectRef(netapp_url, servername, username, password, arg_name, arg_type)
  Savon.configure do |config|
    config.log = false
    config.log_level = :info
    config.pretty_print_xml = true
  client = Savon::Client.new do |wsdl, http, wsse|
    wsdl.document = "#{netapp_url}"
    wsdl.endpoint = "#{netapp_url}"
   http.auth.ssl.verify_mode = :none
  response = client.request "ser:getMoref" do
    soap.namespaces.merge!({
                                "xmlns:soapenv" => "http://schemas.xmlsoap.org/soap/envelope ↔
                                "xmlns:ser" => "http://server.kamino.netapp.com/"
                            })
    soap.header = {}
    soap.body = { 'arg0' => "#{arg_name}", 'arg1' => "#{arg_type}", 'arg2' => { 'serviceUrl' \leftrightarrow
         => "https://#{servername.to_s}/sdk", 'vcPassword' => "#{password.to_s}", 'vcUser' ←
        => "#{username.to_s}" } }
  end
  response_hash = response.to_hash[:get_moref_response]
  ref_obj = "#{response_hash[:return]}"
  return ref_obj
@vm_object = getObjectRef(@netapp_url, @servername, @username, @password, "#{@vm_name}", " ←
 VirtualMachine")
$evm.log("info", "===== EVM Automate Method: <#{@method}> vm_object: #{@vm_object.inspect ←
 } ")
@dialog_datastore_selection = getObjectRef(@netapp_url, @servername, @username, @password, <math>\leftrightarrow
    "#{@vm_storage_name}", "Datastore")
$evm.log("info", "==== EVM Automate Method: <#{@method}> dialog_datastore_selection: #{ ←
    @dialog_datastore_selection}")
<code>@dialog_clone_destination = getObjectRef(@netapp_url, @servername, @username, @password, \leftrightarrow</code>
  "#{@vm_v_ems_cluster_name}", "Cluster")
$evm.log("info", "===== EVM Automate Method: <#{@method}> dialog_clone_destination: #{ ←
  @dialog_clone_destination.inspect}")
vm_location = $evm.root
controller_ip = nil
\verb|controller_ip|| = \$evm.root.attributes['dialog_controller_ip'] || \$evm.object['controller_ip \leftrightarrow left]|
    ']
```

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```
controller username = nil
controller_username ||= $evm.object['controller_username']
controller_password = nil
controller_password ||= $evm.object.decrypt('controller_password')
dialog_clone_name = $evm.root.attributes['dialog_clone_name']
if $evm.root.attributes['dialog_clone_name'] == 1
  dialog_power_on = 'true'
else
 dialog_power_on = 'false'
end
dialog_clone_destination = 'Cluster:domain-c121'
dialog_datastore_selection = "Datastore:#{@vm_storage_ems_ref}"
dialog_clone_source_path = $evm.root.attributes['dialog_clone_source_path']
$evm.log("info", "==== EVM Automate Method: <#{@method}> dialog_clone_source_path: #{ ←
   dialog_clone_source_path}")
dialog_clone_source = $evm.root.attributes['dialog_clone_source']
$evm.log("info", "==== EVM Automate Method: <#{@method}> dialog_clone_source: #{ \leftrightarrow
   dialog_clone_source } ")
dialog_vm_cpu = $evm.root.attributes['dialog_vm_cpu']
dialog_memory_size = $evm.root.attributes['dialog_memory_size']
namespaces = {
    "xmlns:soapenv" => "http://schemas.xmlsoap.org/soap/envelope/",
    "xmlns:ser" => "http://server.kamino.netapp.com/"
builder = Nokogiri::XML::Builder.new do |xml|
  xml.arg0 {
    xml.cloneSpec {
      xml.clones {
        xml.entry {
          xml.key "#{dialog_clone_name.to_s}"
          xml.value {
            xml.powerOn "#{dialog_power_on.to_s}"
        }
      xml.containerMoref "#{dialog_clone_destination.to_s}"
      xml.files {
        xml.destDatastoreSpec {
          xml.controller {
            xml.ipAddress "#{controller_ip.to_s}"
            xml.password "#{controller_password.to_s}"
            xml.ssl "false"
            xml.username "#{controller_username.to_s}"
          xml.mor "#{dialog_datastore_selection.to_s}"
          xml.numDatastores "0"
          xml.thinProvision "false"
          xml.volAutoGrow "false"
        xml.sourcePath "#{dialog_clone_source_path.to_s}"
      xml.memMB "#{dialog_memory_size}"
```

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```
xml.numberCPU "#{dialog_vm_cpu.to_i}"
       xml.templateMoref "#{dialog_clone_source.to_s}"
     }
     xml.serviceUrl "https://#{@servername.to_s}/sdk"
     xml.vcPassword "#{@password.to_s}"
     xml.vcUser "#{@username.to_s}"
 end
 puts builder.to_xml
 connectapi = Savon::Client.new do |wsdl, http, wsse|
   wsdl.document = "#{@netapp_url}"
   wsdl.endpoint = "#{@netapp_url}"
   http.auth.ssl.verify_mode = :none
 end
 response = connectapi.request "ser:createClones" do
   soap.namespaces.merge!({
        "xmlns:soapenv" => "http://schemas.xmlsoap.org/soap/envelope/",
        "xmlns:ser" => "http://server.kamino.netapp.com/"
    })
   soap.header = {}
   soap.body = builder.doc.root.to_xml
 end
 response_hash = response.to_hash
 $evm.log("info", "==== EVM Automate Method: <#{@method}> #{response_hash.inspect}")
  #
  # Exit method
 $evm.log("info", "==== EVM Automate Method: <#{@method}> Ended")
 exit MIQ_OK
   #
   # Set Ruby rescue behavior
 $evm.log("error", "<#{@method}>: [#{err}]\n#{err.backtrace.join("\n")}")
 exit MIQ_STOP
end]]> </MiqAeMethod>
   <MiqAeMethod name="GetVMinfo" language="ruby" scope="instance" location="inline"><![CDATA ←</pre>
       EVM Automate Method: GetVMinfo
 Notes: Dump the objects in storage to the automation.log
begin
 @method = 'GetVMinfo'
 $evm.log("info", "#{@method} - EVM Automate Method Started")
 # Turn of verbose logging
 @debug = true
 vm = $evm.root['vm']
```

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```
@vm_name = vm.attributes['name']
$evm.log("info", "===== EVM Automate Method: <#{@method}> vm_name: #{@vm_name}")
@vm_location = vm.attributes['location']
$evm.log("info", "===== EVM Automate Method: <#{@method}> vm_location: #{@vm_location}")
@vm_vendor = vm.attributes['vendor']
$evm.log("info", "===== EVM Automate Method: <#{@method}> vm_vendor: #{@vm_vendor}")
@vm_host_id = vm.attributes['host_id']
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_host_id: #{@vm_host_id}")
@vm_ems_ref = vm.attributes['ems_ref']
$evm.log("info", "===== EVM Automate Method: <#{@method}> vm_ems_ref: #{@vm_ems_ref}")
@vm_type = vm.attributes['type']
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_type: #{@vm_type}")
@vm_memory_cpu = vm.hardware['memory_cpu']
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_memory_cpu: #{@vm_memory_cpu}")
@vm_numvcpus = vm.hardware['numvcpus']
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_numvcpus: #{@vm_numvcpus}")
@vm_storage_name = vm.storage['name']
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_storage_name: #{ \leftarrow
   @vm_storage_name}")
@vm_storage_ems_ref = vm.storage['ems_ref']
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_storage_ems_ref: \#{ \leftrightarrow
   @vm_storage_ems_ref}")
@vm_v_ems_cluster_name = vm.ems_cluster_name
$evm.log("info", "===== EVM Automate Method: <#{@method}> vm_v_ems_cluster_name: #{ ←
   @vm_v_ems_cluster_name}")
@vm\_v\_parent\_blue\_folder\_1\_name = vm.parent\_blue\_folder\_1\_name \\
@vm_v_parent_blue_folder_1_name}")
@vm_v_parent_blue_folder_2_name = vm.parent_blue_folder_2_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_2_name: #{ ←
   @vm_v_parent_blue_folder_2_name}")
@vm_v_parent_blue_folder_3_name = vm.parent_blue_folder_3_name
```

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```
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_3_name: #{ ←
   @vm_v_parent_blue_folder_3_name}")
@vm_v_parent_blue_folder_4_name = vm.parent_blue_folder_4_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_4_name: #{ ←
   @vm_v_parent_blue_folder_4_name}")
@vm_v_parent_blue_folder_5_name = vm.parent_blue_folder_5_name
@vm_v_parent_blue_folder_5_name}")
@vm_v_parent_blue_folder_6_name = vm.parent_blue_folder_6_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_6_name: #{ ←
   @vm_v_parent_blue_folder_6_name}")
@vm_v_parent_blue_folder_7_name = vm.parent_blue_folder_7_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_7_name: #{ \leftrightarrow
   @vm_v_parent_blue_folder_7_name}")
@vm_v_parent_blue_folder_8_name = vm.parent_blue_folder_8_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_8_name: #{ ←
   @vm_v_parent_blue_folder_8_name}")
@vm_v_parent_blue_folder_9_name = vm.parent_blue_folder_9_name
$evm.log("info", "==== EVM Automate Method: <#{@method}> vm_v_parent_blue_folder_9_name: #{ ←
   @vm_v_parent_blue_folder_9_name}")
@vm_v_storage_name = vm.storage_name
@vm_v_storage_name}")
storages = storages.find_all do |s|
 storage_id = s.attributes['id'].to_i
 $evm.log("info", "Storage ID: #{s.id}")
end
dialog_vm_snapshots = {}
if vm.v_total_snapshots > 0
 vm.snapshots.each do |ss|
   dialog_vm_snapshots[ss.ems_ref] = "#{ss.name}"
 $evm.log("info","======= VM Snapshot Name: #{dialog_vm_snapshots.inspect}")
end
# Exit method
$evm.log("info", "#{@method} - EVM Automate Method Ended")
exit MIQ_OK
```

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```
# Set Ruby rescue behavior
   #
rescue => err
 sevm.log("error", "#{@method} - [#{err}] \n#{err.backtrace.join("\n")}")
 exit MIQ_ABORT
        </MiqAeMethod>
end]]>
   <miqAeMethod name="Retrieve_Clone_Source" language="ruby" scope="instance" location=" ←
       # EVM Automate Method: Retrieve_Clone_Source
# Notes: Populate Clone Source
begin
 @method = 'Retrieve_Clone_Source'
 $evm.log("info", "#{@method} - EVM Automate Method Started")
 # Turn of verbose logging
 @debug = true
 @action = nil
 @action ||= $evm.object['action']
 vm = $evm.root['vm']
 @vm_name = vm.attributes['name']
 $evm.log("info", "===== EVM Automate Method: <#{@method}> vm_name: #{@vm_name}")
 @vm_ems_ref = vm.attributes['ems_ref']
 $evm.log("info", "==== EVM Automate Method: <#{@method}> vm_ems_ref: #{@vm_ems_ref}")
 @vm_location = vm.attributes['location']
 $evm.log("info", "==== EVM Automate Method: <#{@method}> vm_location: #{@vm_location}")
 @vm_v_storage_name = vm.storage_name
 @vm_v_storage_name}")
 dialog_clone_source = "VirtualMachine:#{@vm_ems_ref}"
 $evm.log("info", "==== EVM Automate Method: <#{@method}> dialog_clone_source: #{ \leftrightarrow
     dialog_clone_source}")
 dialog_clone_source_path = "[#{@vm_v_storage_name}]#{@vm_location}"
 $evm.log("info", "==== EVM Automate Method: <#{@method}> dialog_clone_source_path: #{ ←
     dialog_clone_source_path}")
 case @action
   when "clone_source"
     list_values = {
         'sort_by' => :none,
         'data_type' => :string,
         'required' => :true,
         'values' => [[nil,nil],["#{@vm_name}", "#{dialog_clone_source}"]],
     }
     $evm.log("info", "==== EVM Automate Method: <#{@method}> display drop-down: #{ \leftrightarrow
        list_values}")
     list_values.each {|k,v| $evm.object[k] = v }
```

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```
when "clone_source_path"
      list_values = {
          'sort_by' => :none,
          'data_type' => :string,
          'required' => :true,
          'values' => [[nil,nil],["#{dialog_clone_source_path}", "#{dialog_clone_source_path}" ↔
             11,
      $evm.log("info", "===== EVM Automate Method: <#{@method}> display drop-down: #{ \leftrightarrow
         list_values}")
      list_values.each {|k,v| $evm.object[k] = v }
  end
  #
  # Exit method
  $evm.log("info", "#{@method} - EVM Automate Method Ended")
  exit MIQ_OK
    #
    # Set Ruby rescue behavior
rescue => err
  $evm.log("error", "#{@method} - [#{err}]\n#{err.backtrace.join("\n")}")
  exit MIQ_ABORT
         </MigAeMethod>
endll>
    <MiqAeMethod name="Retrieve_Object" language="ruby" scope="instance" location="inline"><![</pre>
       # EVM Automate Method: Execute_Rapid_Clone
begin
  @method = 'Execute_Rapid_Clone'
  $evm.log("info", "===== EVM Automate Method: <#{@method}> Started")
  ############################
  # Method: dumpRoot
  # Description: Dump Root information
  #############################
  def dumpRoot
    $evm.log("info", "#{@method} - Root:<$evm.root> Begin Attributes")
    \texttt{\$evm.root.attributes.sort.each} ~ \texttt{k, v} ~ \texttt{\$evm.log("info", "\#{@method} - Root:<\$evm.root>} ~ \leftarrow
       Attributes - \#\{k\}: \#\{v\}")}
    $evm.log("info", "#{@method} - Root:<$evm.root> End Attributes")
    $evm.log("info", "")
  # dump root object attributes
  dumpRoot
  require 'savon'
  require 'httpclient'
```

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```
HTTPI.adapter = :httpclient
  HTTPI.log = false
  @servername = 'mcimgmt1.mcis.usmc.mil'
  @username = 'MCIS\jose'
  @password = 'Password1234!@#$'
  def getObjectRef(servername, username, password, arg_name, arg_type)
    Savon.configure do |config|
      config.log = false
      config.log_level = :info
      config.pretty_print_xml = true
    client = Savon::Client.new do |wsdl, http, wsse|
     wsdl.document = "https://#{@servername.to_s}:8143/kamino/public/api?wsdl"
      wsdl.endpoint = "https://#{@servername.to_s}:8143/kamino/public/api?wsdl"
     http.auth.ssl.verify_mode = :none
    response = client.request "ser:getMoref" do
      soap.namespaces.merge!({
         "xmlns:soapenv" => "http://schemas.xmlsoap.org/soap/envelope/",
         "xmlns:ser" => "http://server.kamino.netapp.com/"
      soap.header = {}
      soap.body = { 'arg0' => "#{arg_name}", 'arg1' => "#{arg_type}", 'arg2' => { 'serviceUrl' \leftrightarrow
          => "https://#{servername.to_s}/sdk", 'vcPassword' => "#{password.to_s}", 'vcUser' ←
         => "#{username.to_s}" } }
    end
    response_hash = response.to_hash[:get_moref_response]
    ref_obj = "#{response_hash[:return]}"
   return ref_obj
  end
  vm_object = getObjectRef(@servername, @username, @password, "w2k8r2-jump-template-20140506", ↔
      "VirtualMachine")
  $evm.log("info", "==== EVM Automate Method: <#{@method}> vm_object: #{vm_object.inspect}")
  # Exit method
  #
  $evm.log("info", "==== EVM Automate Method: <#{@method}> Ended")
  exit MIQ_OK
    # Set Ruby rescue behavior
rescue => err
  $evm.log("error", "<#{@method}>: [#{err}]\n#{err.backtrace.join("\n")}")
  exit MIQ_STOP
end]]>
         </MiqAeMethod>
    <MiqAeSchema>
      <MiqAeField name="servername" substitute="true" aetype="attribute" datatype="string" \leftrightarrow
         priority="1" message="create">
mcimgmt1.mcis.usmc.mil </MiqAeField>
```

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```
<MiqAeField name="username" substitute="true" aetype="attribute" datatype="string" ←
         priority="2" message="create">
MCIS\jose
               </MiqAeField>
      <MiqAeField name="password" substitute="true" aetype="attribute" datatype="password" ←
         priority="3" message="create">
v1:{+YT9r2mlxaPyr4RY+dWrlN3HuBkVZ3ePnvGDT48NTsE=}
                                                        </MigAeField>
      <MigAeField name="controller_ip" substitute="true" aetype="attribute" datatype="string" ←
         priority="4" message="create">
10.2.100.19
                 </MigAeField>
      <MiqAeField name="controller_username" substitute="true" aetype="attribute" datatype=" \leftrightarrow
         string" priority="5" message="create">
vsc.netapp.svc
                  </MigAeField>
      <MiqAeField name="controller_password" substitute="true" aetype="attribute" datatype=" ←
         password" priority="6" message="create">
v1:{dbXYedjKxZEGfxtiGNbFqciiC1YEyCca1wR3X8FkC0c=}
                                                       </MigAeField>
      <MiqAeField name="action" substitute="true" aetype="attribute" datatype="string" \leftrightarrow
         priority="7" message="create">
      </MiqAeField>
      <MiqAeField name="method1" substitute="true" aetype="method" datatype="string" priority= ↔
          "8" message="create">
      </MigAeField>
      <MiqAeField name="method2" substitute="true" aetype="method" datatype="string" priority= ↔
          "9" message="create">
      </MiqAeField>
    </MiqAeSchema>
    <MiqAeInstance name="Dialog_Storage_Controller">
      <MiqAeField name="servername">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="username">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="password">
        <![CDATA[]]>
      </MigAeField>
      <MiqAeField name="controller_ip">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="controller_username">
        <![CDATA[]]>
      </MigAeField>
      <MiqAeField name="controller_password">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="action">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="method1">
Dialog_Storage_Controller
                              </MiqAeField>
      <MiqAeField name="method2">
        <![CDATA[]]>
      </MiqAeField>
    </MiqAeInstance>
    <MiqAeInstance name="Dialog_VM_Sizing_CPU">
      <MiqAeField name="servername">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="username">
        <![CDATA[]]>
```

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```
</MigAeField>
      <MiqAeField name="password">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="controller_ip">
        <![CDATA[]]>
      </MigAeField>
      <MiqAeField name="controller_username">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="controller_password">
        <![CDATA[]]>
      </MigAeField>
      <MigAeField name="action">
         </MigAeField>
cpu
      <MiqAeField name="method1">
Dialog_VM_Sizing </MiqAeField>
      <MiqAeField name="method2">
        <![CDATA[]]>
      </MigAeField>
    </MiqAeInstance>
    <MiqAeInstance name="Dialog_VM_Sizing_Memory">
      <MiqAeField name="servername">
        <![CDATA[]]>
      </MigAeField>
      <MiqAeField name="username">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="password">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="controller_ip">
        <![CDATA[]]>
      </MigAeField>
      <MiqAeField name="controller_username">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="controller_password">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="action">
memory
           </MiqAeField>
      <MiqAeField name="method1">
Dialog_VM_Sizing </MiqAeField>
      <MiqAeField name="method2">
        <![CDATA[]]>
      </MiqAeField>
    </MiqAeInstance>
    <MiqAeInstance name="Execute_Rapid_Clone">
      <MiqAeField name="servername">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="username">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="password">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="action">
```

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```
<![CDATA[]]>
      </MigAeField>
      <MiqAeField name="method1">
Execute_Rapid_Clone </MiqAeField>
      <MiqAeField name="method2">
        <![CDATA[]]>
      </MigAeField>
    </MigAeInstance>
    <MiqAeInstance name="GetVMinfo">
      <MiqAeField name="servername">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="username">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="password">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="controller_ip">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="controller_username">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="controller_password">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="action">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="method1">
              </MiqAeField>
      <MiqAeField name="method2">
        <![CDATA[]]>
      </MiqAeField>
    </MiqAeInstance>
    <MiqAeInstance name="Rapid_Clone_Email_Complete">
      <MiqAeField name="servername">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="username">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="password">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="controller_ip">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="controller_username">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="controller_password">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="action">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="method1">
```

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```
Rapid_Clone_Email_Complete
                           </MiqAeField>
      <MiqAeField name="method2">
       <![CDATA[]]>
      </MiqAeField>
    </MiqAeInstance>
    <MiqAeInstance name="Retrieve_Clone_Source">
     <MigAeField name="servername">
       <![CDATA[]]>
      </MigAeField>
      <MiqAeField name="username">
       <![CDATA[]]>
      </MigAeField>
      <MiqAeField name="password">
       <![CDATA[]]>
      </MigAeField>
     <MiqAeField name="controller_ip">
       <![CDATA[]]>
     </MiqAeField>
      <MiqAeField name="controller_username">
       <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="controller_password">
       <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="action">
clone_source
                 </MiqAeField>
      <MiqAeField name="method1">
Retrieve_Clone_Source
                        </MigAeField>
     <MiqAeField name="method2">
       <![CDATA[]]>
      </MiqAeField>
    </MiqAeInstance>
    <MiqAeInstance name="Retrieve_Clone_Source_Path">
      <MiqAeField name="servername">
       <![CDATA[]]>
      </MiqAeField>
     <MiqAeField name="username">
       <![CDATA[]]>
      </MiqAeField>
     <MiqAeField name="password">
       <![CDATA[]]>
      </MiqAeField>
     <MiqAeField name="controller_ip">
       <![CDATA[]]>
      </MiqAeField>
     <MiqAeField name="controller_username">
       <![CDATA[]]>
      </MiqAeField>
     <MiqAeField name="controller_password">
       <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="action">
clone_source_path
                  </MiqAeField>
      <MiqAeField name="method1">
Retrieve_Clone_Source
                          </MiqAeField>
     <MiqAeField name="method2">
       <![CDATA[]]>
     </MiqAeField>
   </MiqAeInstance>
```

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```
<MiqAeInstance name="Retrieve_Customization_Specification">
      <MiqAeField name="servername">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="username">
        <![CDATA[]]>
      </MigAeField>
      <MiqAeField name="password">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="action">
        <![CDATA[]]>
      </MigAeField>
      <MiqAeField name="method1">
Retrieve_Customization_Specification
                                          </MigAeField>
     <MiqAeField name="method2">
        <![CDATA[]]>
      </MiqAeField>
    </MiqAeInstance>
    <MigAeInstance name="Retrieve_Datastore_List">
      <MiqAeField name="servername">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="username">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="password">
       <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="action">
        <![CDATA[]]>
      </MigAeField>
      <MiqAeField name="method1">
Retrieve_Datastore_List
                             </MiqAeField>
      <MiqAeField name="method2">
       <![CDATA[]]>
      </MigAeField>
    </MiqAeInstance>
    <MiqAeInstance name="Retrieve_Destination_Folder">
      <MiqAeField name="servername">
       <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="username">
       <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="password">
       <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="action">
       <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="method1">
Retrieve_Destination_Folder
                              </MiqAeField>
      <MiqAeField name="method2">
       <![CDATA[]]>
      </MiqAeField>
    </MiqAeInstance>
    <MiqAeInstance name="Retrieve_Destination_Host">
      <MiqAeField name="servername">
```

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```
<![CDATA[]]>
      </MigAeField>
      <MiqAeField name="username">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="password">
        <![CDATA[]]>
      </MigAeField>
      <MiqAeField name="action">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="method1">
Retrieve_Destination_Host
                              </MiqAeField>
     <MigAeField name="method2">
       <![CDATA[]]>
      </MiqAeField>
    </MiqAeInstance>
    <MiqAeInstance name="Retrieve_Object">
      <MiqAeField name="servername">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="username">
       <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="password">
        <![CDATA[]]>
      </MiqAeField>
      <MigAeField name="controller_ip">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="controller_username">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="controller_password">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="action">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="method1">
Retrieve_Object </MiqAeField>
      <MiqAeField name="method2">
       <![CDATA[]]>
      </MiqAeField>
    </MiqAeInstance>
    <MiqAeInstance name="Retrieve_Storage_Controller">
      <MiqAeField name="servername">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="username">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="password">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="action">
        <![CDATA[]]>
      </MiqAeField>
      <MiqAeField name="method1">
```

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4 Issues Encountered