



## CHAPTER 4

# Managing RME Device Groups Using Group Administration

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Grouping devices and working with groups provides convenience to you in selecting required devices. You can define several groups of devices based on a set of criteria and manage the same. Device grouping provides an easy way of selecting the required devices.

There are two types of groups:

- **System-defined Groups**—The default grouping of devices in RME. This is a read only group. You cannot create groups under System-defined Groups. See [Types of RME System-defined Groups](#).
- **User-defined Group**—Groups that you create to reflect the way you manage the network. You can create user-defined groups for RME (but not for Common Services).

The User-defined groups can be either dynamic or static groups with private or public access privileges. You can also create subgroups under groups. Hence, each child group is a subgroup of a parent group.

RME manages groups in a hierarchical fashion that supports sub-grouping. Each child group is a subgroup of a parent group; in order to belong to a child group, a device must belong to the parent group. For an device to belong to a group, it must satisfy the child group rules and the parent group rules.

The features of grouping services are:

- The application groups are created by their respective grouping services.  
For example, RME groups are created by RME Grouping Services.
- The devices added to the applications are evaluated according to their respective group rules.  
For example, devices added to the RME are listed in appropriate device group based on the RME group rules.
- Based on the applications that are installed on the CiscoWorks server, you can view other applications' System-defined groups in RME user interface. The other applications User-defined groups are displayed in the RME user interface based on the Visibility Scope (public or private) for the group that you define at the time of device group creation.  
For example, you can view DFM System-defined groups in RME device selector.
- Based on the applications that are installed on the CiscoWorks server, you can view other applications' System-defined groups in RME user interface. However, only the RME devices are listed in the other application's System-defined groups.  
For example, you can view only RME devices in the DFM System-defined groups.

### Types of RME System-defined Groups

The available RME System Groups are:

- All Devices—Contains all devices in RME. This a dynamic read-only group.
- Normal Devices—Contains all devices that have been successfully contacted by RME or the device has contacted RME at least once (Inventory polling, successful job completion, Syslog receipt etc.). This indicates that this is a real device in the network (at one point in time). This a dynamic read-only group.
- Pre-deployed—Contains all devices that are not reachable by RME. This a dynamic read-only group.
- Previous selection—Contains devices that are selected in previous RME task in the same session. This group is provided for your convenience in case you need to do different RME tasks on same set of devices. This a static read-only group.
- Saved device list—Contains all devices that are saved explicitly by you while generating the Inventory Reports (**Reports > Generator**). This group is provided for your convenience in case you need to do different RME tasks on same set of devices. This a static read-only group.

The Previous selection and Saved device groups are RME-specific groups and must be used only when you are working on a RME application. You cannot use these device groups when you are working on another CiscoWorks application. That is, if you are working on the Campus Manager application, these groups must not be used.

See [Understanding the RME Device States](#) for more details to understand how the devices are grouped based on RME System-defined rules.

## Using RME Group Administration

The Group Administration page is where all group management activities take place. To open the Group Administration page from RME, select **Devices > Group Administration**.

The RME Group Administration window contains these fields. (See [Table 4-1](#)):

**Table 4-1** Fields on Group Administration and Configuration Page

Field/Button	Description
Group Selector	Hierarchical display of all available groups.
Group Info	When you select an item from the Group Selector, the Group Info pane displays the following information: <ul style="list-style-type: none"> <li>• Group Name—The name of the group you selected.</li> <li>• Type—The type of objects in the selected group.</li> <li>• Description—A text description of the group.</li> <li>• Created By—The person who created the group.</li> <li>• Last Modified By—The last person to modify the group settings.</li> </ul>
Create	Starts the Group Creation Wizard for creating a group, as described in the <a href="#">Creating a User-defined Group</a> .
Edit	Starts the Group Edit Wizard for editing an existing group, as described in the <a href="#">Editing a User-defined Group</a> .
Details	Opens the Properties: Details page, as described in the <a href="#">Viewing Group Details</a> and <a href="#">Viewing Membership Details</a> .

**Table 4-1** Fields on Group Administration and Configuration Page (continued)

Field/Button	Description
Refresh	Refreshes a group's membership, as described in the <a href="#">Refreshing Membership</a> .
Delete	Deletes a group, as described in the <a href="#">Deleting Groups</a> .

## Creating a User-defined Group

Creating an User-defined Group involves the four steps:

1. [Entering the Group Properties Details in Properties: Create Dialog Box](#)
2. [Defining the Group Rules in the Rules: Create Dialog Box](#)
3. [Assigning Group Membership in the Membership: Create Dialog Box](#)
4. [Understanding the Summary: Create Dialog Box](#)

You must complete all the four tasks in this sequence to create a group. If you exit the wizard at any stage using **Cancel**, the details you have specified will be lost and the group will not be created.

## Entering the Group Properties Details in Properties: Create Dialog Box


In this step, you will enter the properties such as name and description, and modify the parent group and membership update method, if required.

The Properties:Create Dialog box contains the following fields. ([Table 4-2](#)):

**Table 4-2** Fields on the Properties:Create Dialog Box

Field	Description
Group Name	Name of the group you are creating.
Copy Attributes from Group	Copy the attributes of an existing group to your new group using the button Select Group. You can select either RME System-defined or User-defined groups.
Parent Group	The parent group of the group you are creating. You can change the parent group using the Change Parent button. You can select only RME User-defined groups.
Description	Text description of the group.
Membership Update	How group membership is updated. Membership updates can be automatic (updated every time the group is accessed) or can be upon user request only (updated only when you click the Refresh button).
Visibility Scope	Describes if the group is visible for public (all users) or private (only for the group owner).

To enter the values in Properties:Create dialog box:

- 
- Step 1** Select **Resource Manager Essentials > Devices > Group Administration**.
- The Group Administration and Configuration dialog box appears. This dialog box contains two panes.
- Group Selector—Lists all the System-defined Group and User-defined Group.
  - Group Info—Contains the device group description.
- Step 2** Select a User Defined Groups under which you want to create a new group from the Group Selector pane.
- The Group Info pane displays detail of the selected user defined group.
- The group that you have selected is the parent group for the new group you are about to create. You can change the parent group later, if required (see for changing the parent).
- Step 3** Click **Create**.
- The Properties:Create dialog box appears.
- Step 4** Enter a name for the group in Group Name field of the Properties:Create dialog box.
- The Group Name must be unique within the parent group. However, you can specify the same name in some other groups.
- For example, if you already have a group named 'MyGroup' in a group named Views under User Defined Groups, you cannot use the same name for another sub-group in the group Views. However, you can use the name 'MyGroup' for the sub- group of another group in User Defined Groups.
- If you do not want to copy the attributes of an existing group to your new group, proceed to [Step 5](#). If you want to copy the attributes of an existing group to the new group, do the following:
- All attributes except the group name are copied to the new group.
- a. Click **Select Group**.
- The Replicate Attributes dialog box appears.
- b. Select a group.
- You can select either RME System-defined or RME User-defined groups.
- c. Click **OK**.
- The parent group you have selected for the group does not change even if you are copying attributes from a group that belongs to a different parent group.
- To change the parent group, do the following:
- a. Click **Change Parent**.
- The Select Parent dialog box appears.
- b. Select the group.
-  **Note** You can select only RME User-defined groups.
- c. Click **OK**.
- The RME Group Administration changes the parent group to the one you selected, and returns to the Properties:Create dialog box.
- Step 5** Enter a description for the group.

- Step 6** Select the Membership Update mode for the group:
- Automatic (Dynamic)—The membership of the group is recomputed each time the group is invoked.
  - Only upon user request (Static)—The membership of the group is recomputed only when an explicit request is made, using the Refresh option (**Resource Manager Essentials > Devices > Group Administration**).
- Step 7** Select the Visibility Scope for the group:
- Private
  - Public
- Step 8** Click **Next**.
- The Rules:Create dialog box appears.

## Defining the Group Rules in the Rules: Create Dialog Box

In this step, you will define the rules for the group. The rules you define in this phase determine the contents of the group. The rules you specify here determine the devices to be included in the group.

If you have created the group copying the attributes of another group, the rules specified for that group appears in the Rule Text field. You can retain these and add more rules, or delete these rules and create a new set of rules.



### Note

All rules assigned to a parent group also apply to any of its subgroups.

In the Rules:Create dialog box, you can either enter the rules directly in the Rule Text field, or select the components of the rule from the Rule Expression fields, and form a rule.

The Rules:Create dialog box has the following fields:

Field/Buttons	Description
OR, AND, EXCLUDE	<p>Logical operators.</p> <ul style="list-style-type: none"> <li>• OR—Include objects that fulfill the requirements of either rule.</li> <li>• AND—Include only objects that fulfill the requirements of both rules.</li> <li>• EXCLUDE—Do not include these objects.</li> </ul> <p>This field appears only after a rule expression is added in the Rule Text box.</p>
Object Type	Type of object (device) that is used to form a group. All RME rule expressions begin with the same Object Type, RME:INVENTORY:Device.
Variable	<p>Device attributes, based on which you can define the group.</p> <p>See <a href="#">Table 4-6Group Attributes</a>.</p>
Operator	<p>Operator to be used in the rule. The list of possible operators changes based on the Variable selected.</p> <p>When using the <i>equals</i> operator the rule is case-sensitive.</p>

Field/Buttons	Description
Value	Value of the rule expression. The possible values depend upon the variable and operator selected. Depending on the operator selected, the value may be free-form text or a list of values.  The wildcard characters are not supported.
Add Rule Expression	Used to add the rule expression to the group rules.
Rule Text	Displays the rule.
Check Syntax	Verifies that the rule syntax is correct.  Use this button if you have entered the rules manually.
View Parent Rules	Used to view the parent group rules.  All parent group rules apply to the subgroups.

See [Understanding the Grouping Rules](#) for group rule restrictions and examples.

To create a new set of rules:

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**Step 1** Select the boolean operator field in the Rules:Create dialog box.

**Step 2** Select the parameters for Object Type, Variable, and Operator.

**Step 3** Enter the desired value for the Variable you have selected.

**Step 4** Click **Add Rule Expression**.

The RME Group Administration creates the rule based on the parameters you specified and adds it to the rules already present in the Rule Text field. You can use the same procedure to add more rules.

You can manually add or change any of the text in the Rule Text box. If you enter a single backslash (\), an error is displayed.

To enter a single backslash in the Rule Text box, you must type two backslashes (\\) in place of the single backslash. You should always check the syntax after changing a rule expression.

You can delete the rules displayed in the Rule Text field by selecting the complete rule expression.

For example, if the Rule expression is,

```
:RME:INVENTORY:Device.Chassis.Port_Count > "3" OR
```

If you want to delete a rule expression, you have to select the complete expression including the logical operator and press the delete key on your keyboard.

**Step 5** Click **Check Syntax** to validate the rules expression syntax.

If the Syntax is correct, an information box appears with a message, The rule syntax is valid. If the Syntax is incorrect, an error box appears with syntax error messages along with the line and column number.

**Step 6** Click **Next**.

The Membership:Create dialog box appears.

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## Assigning Group Membership in the Membership: Create Dialog Box

In this step, you will select devices to create a highly customized User Defined Group.

The RME Group Administration uses the details you have already specified while setting the group properties and group rules to decide the devices available to the group.

The Membership:Create dialog box contains two panes:

- Available Objects From Parent Group—Lists the devices that are available in the Parent Group.
- Objects Matching Membership Criteria—Lists the devices that match the membership criteria.

You can add or remove the devices from Objects Matching Membership Criteria list.

To add devices to the group:

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**Step 1** Select devices from Available Objects From Parent Group pane.

You can select multiple devices using Ctrl or Shift keys.

**Step 2** Click **Add**.

The selected devices are removed from Available Objects From Parent Group pane to Objects Matching Membership Criteria pane.

Do not click the Refresh button on your browser after adding the devices. If you accidentally do so, the device at the top of the Available Object From Parent Group pane gets added to list of the devices in the Objects Matching Membership Criteria pane.

**Step 3** Click **Next**.

The Summary: Create dialog box appears with the group properties.

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To remove devices to the group:

---

**Step 1** Select devices from Objects Matching Membership Criteria pane.

You can select multiple devices using Ctrl or Shift keys.

**Step 2** Click **Remove**.

The selected devices are removed from Objects Matching Membership Criteria pane to Available Objects From Parent Group pane.

**Step 3** Click **Next**.

The Summary: Create dialog box appears with the User Defined Group properties.

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## Understanding the Summary: Create Dialog Box

The final step in the Create Group is a summary page that displays the new group's definition.

The Summary: Create dialog box contains the following information. (See [Table 4-3](#)):

**Table 4-3** Fields on the Summary:Create Dialog Box

Field	Description
Group Name	Name of the group you are creating.
Parent Group	Parent group of the group you are creating.
Description	A text description of the group.
Membership Update	How group membership is updated. Membership updates can be automatic (updated every time the group is accessed) or can be upon user request only (updated only when you click the Refresh button).
Rules	Rules used to filter group membership.
Visibility Scope	Whether the group is visible for public (all users) or private (only for the group owner).

After reviewing the group summary, either:

- 
- Step 1** Click **Finish** to complete the procedure for Creating Groups.  
A confirmation box appears.
- Step 2** Click **OK**.  
You can view the newly created User Defined Group in the Group Selector pane.  
Or  
Click **Back** to change the group properties.
- 

## Editing a User-defined Group

You can edit all attributes that are defined while creating a group except for the *Parent Group* attribute.

The workflow for editing a User-defined group is:

1. Entering the Group Properties Details in Properties:Edit Dialog Box. You cannot modify the Parent Group.

See [Entering the Group Properties Details in Properties: Create Dialog Box](#).

2. Defining the Group Rules in the Rules:Edit Dialog Box

See [Defining the Group Rules in the Rules: Create Dialog Box](#).

3. Assigning Group Membership in the Membership:Edit Dialog Box

See [Assigning Group Membership in the Membership: Create Dialog Box](#).

4. Understanding the Summary:Edit Dialog Box

See [Understanding the Summary: Create Dialog Box](#).

**Note**

You can click **Finish** at any point in the workflow.

## Viewing Group Details

A group's information is displayed on the Properties: Details page.

- Step 1** Select **Resource Manager Essentials > Devices > Group Administration**.  
The Group Administration and Configuration dialog box appears.
- Step 2** Select the group for which you want to view details from the Group Selector pane.
- Step 3** Click **Details**.  
The Properties: Details dialog box appears with the following information (See [Table 4-4](#))

**Table 4-4** *Fields on the Properties: Details Dialog Box*

Field/Button	Description
Group Name	Name of the group you are viewing.
Parent Group	Parent group of the group you are viewing.
Type	Type of the objects that belong to the group.
Description	Text description of the group.
Membership Update	How group membership is updated. Membership updates can be automatic (updated every time the group is accessed) or can be upon user request only (updated only when you click the Refresh button).
Created By	Person who created the group. This also displays the time when it was created.
Last Modified By	Last person to modify the group. This also displays the time when it was modified.
Rules	Rules used to filter group membership.
Visibility Scope	Describes if the group is visible for public (all users) or private (only for the group owner).
View Parent Rules	Used to view the parent group rules.
This is a button.	All parent group rules apply to the subgroups.
Membership Details	Used to view the list of devices that belong to the group. See <a href="#">Viewing Membership Details</a> .
This is a button.	
Cancel	Closes the page and takes you back to the Group Administration and Configuration page.

## Viewing Membership Details

You can view a list of the objects that belong to a group by accessing the Properties: Details page.

**Step 1** Select **Resource Manager Essentials > Devices > Group Administration**.

The Group Administration and Configuration dialog box appears.

**Step 2** Select the group for which you want to view details from the Group Selector pane.

**Step 3** Click **Details**.

The Properties: Details dialog box appears.

**Step 4** Click **Membership Details**.

The Membership Details dialog box appears with the following information (See [Table 4-5](#)).

**Table 4-5** *Fields on the Membership: Details Dialog Box*

Heading/Button	Description
Name	Name of the device.
Object Type	Type of object.
Property Details	Takes you back to the Properties: Details page.
Cancel	Closes the page and takes you back to the Group Administration and Configuration page.

## Refreshing Membership

Refreshing a group's membership forces the group to recompute its membership by reevaluating its rules and obtaining membership information from the data collectors.

**Step 1** Select **Resource Manager Essentials > Devices > Group Administration**.

The Group Administration and Configuration dialog box appears.

**Step 2** Select the group for which you want to view details from the Group Selector pane.

**Step 3** Click **Refresh**.

A confirmation dialog box dialog shows that the group membership will be recomputed.

**Step 4** Click **Yes**.

A confirmation dialog box shows that the group membership is recomputed.

**Step 5** Click **OK**.

## Deleting Groups

You can only delete User-defined groups that are not one of the System-defined groups.

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- Step 1** Select **Resource Manager Essentials > Devices > Group Administration**.  
The Group Administration and Configuration dialog box appears.
- Step 2** Select the group for which you want to view details from the Group Selector pane.
- Step 3** Click **Delete**.  
A confirmation dialog box shows that the group will be deleted.
- Step 4** Click **OK**.
- 

## Understanding the Grouping Rules

Every group is defined by a set of rules. A rule set contains a Boolean combination of individual rule expressions.

Rules are created to filter in the devices that you want to include to the group, and to filter out those that you do not want in the group.

When determining which devices belong to a group, Group Management compares device information to the rule. If the information on a device satisfies all the requirements of the rule then it is placed in the group.

The devices are filtered based on the data present in the RME Inventory database.

One or more rule expressions can be applied to form a rule.

Each rule expression contains the following:

```
<object type>.<variable> <operator> <value>
```

For examples on creating rules, see [Examples for Grouping Rules](#).

Field/Buttons	Description
OR, AND, EXCLUDE	Logical operators. <ul style="list-style-type: none"> <li>OR—Include objects that fulfill the requirements of either rule.</li> <li>AND—Include only objects that fulfill the requirements of both rules.</li> <li>EXCLUDE—Do not include these objects.</li> </ul> This field appears only after a rule expression is added in the Rule Text box.
Object Type	The type of object (device) that is used to form a group. All RME rule expressions begin with the same Object Type, :Device.
Variable	Device attributes, based on which you can define the group. See <a href="#">Table 4-6Group Attributes</a> .

Field/Buttons	Description
Operator	Operator to be used in the rule. The list of possible operators changes based on the Variable selected.  When using the <i>equals</i> operator the rule is case-sensitive.
Value	Value of the rule expression. The possible values depend upon the variable and operator selected. Depending on the operator selected, the value may be free-form text or a list of values.  The wildcard characters are not supported.
Add Rule Expression	Used to add the rule expression to the group rules.
Rule Text	Displays the rule.
Check Syntax	Verifies that the rule syntax is correct.  Use this button to verify the syntax of the rule created before proceeding to the next step.
View Parent Rules	Used to view the parent group rules.  All parent group rules apply to the subgroups.

#### RME Group Attributes

The following table lists the available group attributes that you can use for defining the User Defined groups.

**Table 4-6 Group Attributes**

Attribute Group	Attribute Type	Description
Asset	Asset.CLE_Identifier	CLE identifier of the asset.
	Asset.Part_Number	Orderable part number of the asset.
	Asset.User_Defined_Identifier	User-defined identifier of the asset
Chassis	Chassis.Model_Name	Name of the model.
	Chassis.Number_Of_Slots	Number of slots in that chassis.
	Chassis.Port_Count	Total port count of the chassis.
	Chassis.Serial_Number	Serial number of the chassis.
	Chassis.Vendor_Type	Type of vendor for the chassis.
	Chassis.Version	Version number of the chassis.
Flash	Flash.File_Name	Location of flash file.
	Flash.File_Size	Flash file size in MB.
	Flash.Model_Name	Model name of the flash device.
	Flash.Partition_Free	Free space in MB.
	Flash.Partition_Name	Flash partition name.
	Flash.Partition_Size	Flash partition size in MB.
	Flash.Size	Total flash device size in MB.

**Table 4-6** Group Attributes (continued)

Attribute Group	Attribute Type	Description
Image	Image.ROM_Sys_Version	System ROM software version
	Image.ROM_Version	Version of ROM.
	Image.Sys_Description	Image system description
	Image.Version	Running Device image version.
IP Address	IP.Address	Device IP address.
	IP.Address_Type	Version of IP, IPv4 or IPv6
	IP.Network_Mask	Network Mask address
Memory	Memory.Free	Free memory in MB.
	Memory.Name	Name of the memory.
	Memory.Size	Total RAM size in MB.
	Memory.Type	Memory type.
	Memory.Used	Used memory in MB.
Module	Module.HW_Version	Module hardware version.
	Module.Model_Name	Name of the model.
	Module.Port_Count	Total ports on that module.
	Module.Serail_Number	Serial number of the module.
	Module.Vendor_Type	Type of vendor for the module.
Processor	Processor.Model_Name	Name of the model.
	Processor.NVRAM_Size	Size of the processor NVRAM in MB.
	Processor.NVRAM_Used	Size of the processor NVRAM that has been utilized, in MB.
	Processor.Port_Count	Total port count of the processor
	Processor.RAM_Size	Size of the processor RAM in MB.
	Processor.Serial_Number	Serial number of the processor.
	Processor.Vendor_Type	Type of vendor for the processor.
State	State	RME device state such as Normal, Alias, etc.
System	System.Contact	Device contact person name.
	System.Description	Description of the system.
	System.DomainName	Device domain name.
	System.Location	Device location information.
	System.SystemOID	System Object ID of the device (sysObjectID).

## Examples for Grouping Rules

### Rule to select all the devices in Pending state

This rule filters all devices in Pending state.

To provide rule expression for this scenario:

From the Create Rules dialog box:

- Select **Device** from the Object Type drop down listbox
- Select **State** from the Variable drop down listbox
- Select **=** from the Operator drop down listbox
- Select **Pending** from the Value drop down listbox
- Click **Add Rule Expression**

The following rule gets added to the Rule Text:

```
Device.State = "Pending"
```

### Rule to select devices whose System Description contains the string: Cisco Internetwork Operating System

This rule filters all devices whose System description consists of the string Cisco Internetwork Operating System.

To provide rule expression for this scenario:

From the Create Rules dialog box:

- Select **Device** from the Object Type drop down listbox
- Select **System.Description** from the Variable drop down listbox
- Select **contains** from the Operator drop down listbox
- Enter **Cisco Internetwork Operating System** in the Value textbox
- Click **Add Rule Expression**

The following rule gets added to the Rule Text:

```
Device.System.Description contains "Cisco Internetwork Operating System"
```

### Rule to select devices whose contact person name consists of the word: Davis

This rule filters all devices whose contact person name consists of the word Davis.

To provide rule expression for this scenario:

From the Create Rules dialog box:

- Select **Device** from the Object Type drop down listbox
- Select **System.Contact** from the Variable drop down listbox
- Select **contains** from the Operator drop down listbox
- Enter **Davis** in the Value textbox
- Click **Add Rule Expression**

The following rule gets added to the Rule Text:

```
Device.System.Contact equals "Davis"
```

**Rule to select devices whose location name equals: San Jose**

This rule filters all devices whose location equals to San Jose.

To provide rule expression for this scenario:

From the Create Rules dialog box:

- Select **Device** from the Object Type drop down listbox
- Select **System.Location** from the Variable drop down listbox
- Select **equals** from the Operator drop down listbox
- Enter **San Jose** in the Value textbox
- Click **Add Rule Expression**

The following rule gets added to the Rule Text:

```
Device.System.Location equals "San Jose"
```

**Rule with OR Operator**

Rule to list all devices in normal state and/or the devices whose domain names contain the word cisco.

To provide rule expression for this scenario:

1. From the Create Rules dialog box:
  - Select **Device** from the Object Type drop down listbox
  - Select **State** from the Variable drop down listbox
  - Select **=** from the Operator drop down listbox
  - Select **Normal** from the Value drop down listbox
  - Click **Add Rule Expression**

The following rule gets added to the Rule Text:

```
Device.State = "Normal"
```

2. Select the **OR** option from the logical operator list box.
3. From the Create Rules dialog box:
  - Select **Device** from the Object Type drop down listbox
  - Select **System.DomainName** from the Variable drop down listbox
  - Select **contains** from the Operator drop down listbox
  - Enter **cisco** in the Value textbox
  - Click **Add Rule Expression**

The following rule gets appended to the Rule Text:

```
Device.State = "Pending" OR  
Device.System.DomainName contains "cisco"
```

The OR logical operator evaluates if either or both of the conditions are satisfied. The devices are selected based on either or both of the matching criteria.

**Rule with AND Operator**

Rule to list all the devices in Normal state with occurrences of 1.3.6.1.4.1.9.1 in the System Object ID.

To provide rule expression for this scenario:

1. From the Create Rules dialog box:
  - Select **Device** from the Object Type drop down listbox
  - Select **State** from the Variable drop down listbox
  - Select = from the Operator drop down listbox
  - Select **Normal** from the Value drop down listbox
  - Click **Add Rule Expression**

The following rule gets added to the Rule Text:

```
Device.State = "Normal"
```

2. Select the **AND** option from the logical operator list box.
3. From the Create Rules dialog box:
  - Select **Device** from the Object Type drop down listbox
  - Select **System.SystemOID** from the Variable drop down listbox
  - Select **contains** from the Operator drop down listbox
  - Enter **1.3.6.1.4.1.9.1** in the Value textbox
  - Click **Add Rule Expression**

The following rule gets appended to the Rule Text:

```
Device.State = "Normal" AND
Device.System.SystemOID contains "1.3.6.1.4.1.9.1"
```

The AND logical operator evaluates if both the criterias are satisfied. Only devices that satisfy both the criteria are selected.

Use Group Administration under Common Services (**Common Services > Groups > Group Admin**), to create groups with other device attributes such as, displayname, user defined attributes, management address in DCR. For more information see Common Services Online Help.

## RME Group Administration Process

The RME Group Administration depends on the *RMEOGSServer* process. If this process is not running, then an error message appears:

```
Error in communicating with Group Administration Server.
```

It may be down or not yet up. Please make sure that the Group Administration Server is up and running, then refresh the page.

You can resolve this error by starting the *RMEOGSServer* process.

You can start this process using **Common Services > Server > Admin > Processes**. In the Process Management page, select the *RMEOGSServer* and click **Start**.