

# vRO Power Off Idle vRA VM and Notify

Workflow intended for calling by vRealize Operations Manager action, such as on an alarm. Shuts down a managed virtual machine in vRealize Automation and notifies the current owner of the shutdown.

The workflow operates as below:

- Takes 3 inputs, all from vR Ops: VM identity (object name), Correlation Event ID and vCenter UUID.
- Looks up vCenter VM object, pulls out the UUID that vRA needs as reference
- Looks up vRA object, pulls out Shutdown action object, and Owner email and URL to the VM in vRA.
- Calls vRA shutdown action
- Emails owner with notification, including URL to take the owner straight to the VM if needed.

The workflow needs the following static fields populated for the deployed environment:

- vCACCAFEHost: points to the vRA appliance instance.
- Email details:
  - smtpHost: email server for sending notifications
  - smtpPort: (probably can leave it as port 25, standard)
  - username and password: for email server authentication, if needed.
  - fromName and fromAddress: to repr

## 1. Versions

Version	Date	User	Comment
0.0.1	Aug 7, 2015	Administrator	
0.0.2	Aug 7, 2015	Administrator	
0.0.3	Aug 7, 2015	Administrator	
0.0.4	Aug 7, 2015	Administrator	
0.0.5	Aug 7, 2015	Administrator	
0.0.6	Aug 7, 2015	Administrator	

Version	Date	User	Comment
0.0.7	Aug 7, 2015	Administra tor	
0.0.8	Aug 7, 2015	Administra tor	
0.0.9	Aug 7, 2015	Administra tor	
0.0.10	Aug 10, 2015	Administra tor	
0.0.11	Aug 10, 2015	Administra tor	
0.0.12	Aug 10, 2015	Administra tor	
0.0.13	Aug 10, 2015	Administra tor	
0.0.14	Aug 12, 2015	Administra tor	

Current version:0.0.14

## 2. Inputs

Name	Type	Description
targetId	string	
CorrelationId	string	
targetvCenteruuid	string	

## 3. Outputs

Name	Type	Description
STATUS	string	

## 4. Attributes

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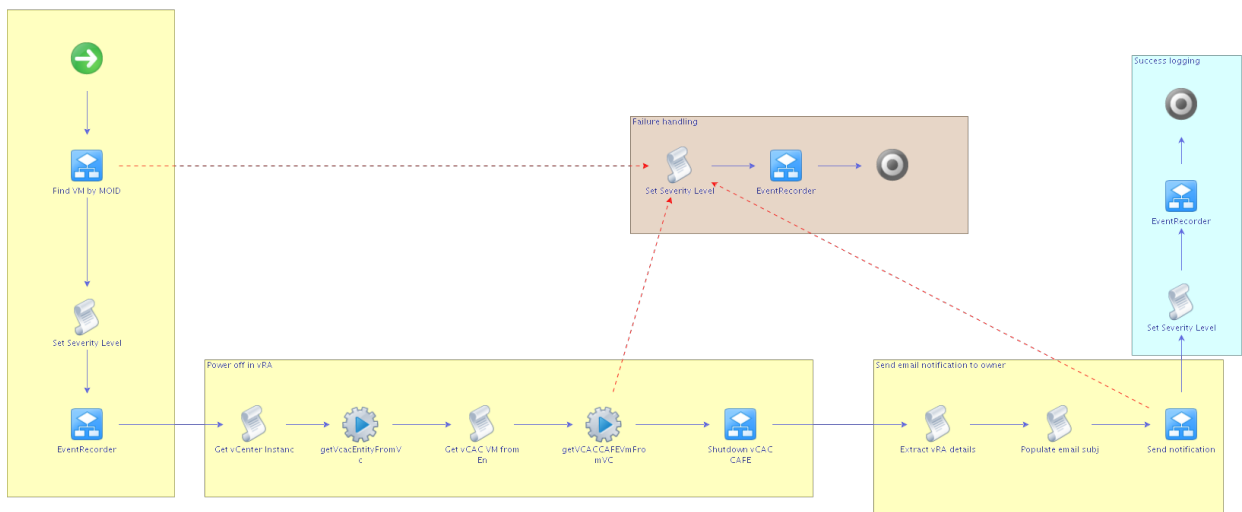
Name	Type	Description
foundVm	string	
severity	string	
foundVmName	string	
PowerOffVm	string	
successfulPowerOff	string	
Failed	string	
vm	VC:VirtualMachine	
statusOut	boolean	
vcVmUuid	string	
vcACHost	vcAC:VCACHost	vCloud Automation Center host
vcACEntity	vcAC:Entity	
vcACVm	vcAC:VirtualMachine	The virtual machine's property used for post-provisioning
ownerEmail	string	Email address of owner of the VM being shut down
smtpHost	string	SMTP host
smtpPort	number	SMTP port
username	string	Username for authentication
password	SecureString	Password for authentication
fromName	string	Sender's name
fromAddress	string	Sender's address
subject	string	Email subject
content	string	Email content (text or HTML)
vmUrl	string	URL to browse directly to VM in vRA

Name	Type	Description
vCACCAFEVm	vCACCAFE:CatalogResource	
vCACCAFEHost	vCACCAFE:VCAHost	

### 5. Parameter presentation

Parameter	Description	Parameter Info
targetId	targetId	
CorrelationId	CorrelationId	
targetvCenteruuid	targetvCenteruuid	

### 6. Workflow schema



### 7. Workflow items

Name	Type	Next item	Description
	WorkflowItemEnd		
EventRecorder	WorkflowItemLink	Get vCenter Instance UUID	

Name	Type	Next item	Description
Set Severity Level Info	WorkflowItemTask	EventRecorder	
Set Severity Level Info	WorkflowItemTask	EventRecorder	
EventRecorder	WorkflowItemLink		
Set Severity Level Info	WorkflowItemTask	EventRecorder	
	WorkflowItemEnd		
EventRecorder	WorkflowItemLink		
Find VM by MOID	WorkflowItemLink	Set Severity Level Info	
Get vCenter Instance UUID	WorkflowItemTask	getVcacEntityFromVcVmUuid	
Get vCAC VM from Entity	WorkflowItemTask	getVCACCAFEVMFromVCACVm	
Send notification	WorkflowItemLink	Set Severity Level Info	<p>Sends an email with specified content to given email address.</p> <p>Uses the default settings from the Orchestrator Configuration interface for the following optional input parameters: SMTP host, SMTP port, username, password, from Address and from Name. You can override these values by providing input parameters.</p>
Populate email subject and content	WorkflowItemTask	Send notification	

Name	Type	Next item	Description
getVCACCAFEVmFromVCACVm	WorkflowItemTask	Shutdown vCAC CAFE Vm	Take a vCAC (IaaS) VM object, and return the vRA (CAFE) catalog resource object.
Extract vRA details	WorkflowItemTask	Populate email subject and content	Extract URL to VM, and owner's email
getVcacEntityFromVcVmUuid	WorkflowItemTask	Get vCAC VM from Entity	Searches vCAC data model for all VMs that are managed ("IsManaged = true") and have the given custom property defined, and with the specified value (string).
Shutdown vCAC CAFE Vm	WorkflowItemLink	Extract vRA details	Taking a vCAC:VirtualMachine as input, find the vCACCAFE:CatalogResource and the owner email

## 8. Source code for the used actions

### 8.1. Set Severity Level Info

```
severity = "info";
```

```
System.log("severity is " + severity);
```

### 8.2. Set Severity Level Info

```
severity = "info";
STATUS = "Success"
```

```
System.log("severity is " + severity);
```

### 8.3. Set Severity Level Info

```
severity = "error";
STATUS = Failed;
```

```
System.log("severity is " + severity);
```

### 8.4. Get vCenter Instance UUID

```
vcVmUuid = vm.config.instanceUuid;

var vCACHosts = Server.findAllForType("vCAC:VCACHost");
if (vCACHosts.length > 0) {
    vCACHost = vCACHosts[0];
} else {
    throw "No vCAC hosts found";
}

//var vCACCAFEHosts = Server.findAllForType("vCACCAFE:VCACHost");
//if (vCACCAFEHosts.length > 0) {
//    vCACCAFEHost = vCACCAFEHosts[0];
//} else {
//    throw "No vCACCAFE hosts found";
//}
```

### 8.5. Get vCAC VM from Entity

```
vcCACVm = vCACEntity.getInventoryObject();
```

### 8.6. Populate email subject and content

```
subject = "Notification: Shutdown of idle VM \"" + vCACCAFEVm.name + "\"";
content = "This is a notification that a virtual machine owned by you has been identified as idle and has been shutdown accordingly.<BR/>";
content += "<BR/>Virtual machine details:<BR/>Name: " + vCACCAFEVm.name;
content += "<BR/>Description: " + vCACCAFEVm.description;
content += "<BR/><BR/>If you need to utilise this machine, you can power it back on by visiting the URL directly as below."
content += "<BR/>    <A HREF=\"" + vmUrl + "\">"+vmUrl+"</A>";
content += "<BR/><BR/>Thanks for your cooperation.<BR/>IT Services team.";
```

### 8.7. getVCACCAFEVmFromVCACVm

```
//Auto generated script, cannot be modified !
actionResult = System.getModule("com.vmware.wheatcloud").getVCACCAFEVmFromVCACVm(vCACVm) ;
```

### 8.8. Extract vRA details

```
ownerEmail = vCACCAFEVm.getOwners()[0].getRef();
System.log("Owner email is: " + ownerEmail);

var hostUrl = vCACCAFEHost.url;
System.log("vCACCAFEHost: " + vCACCAFEHost.url);
System.log("vCACCAFEHost (tenant): " + vCACCAFEHost.getHostForCurrentUser());
var orgRef = vCACCAFEVm.getOrganization().getTenantRef();
var vmID = vCACCAFEVm.getId();
vmUrl = hostUrl + "/vcac/org/" + orgRef + "/#csp.catalog.item.details[resourceId:=" +
vmID;
//vmUrl = vCACCAFEHost.getHostForCurrentUser() + "/#csp.catalog.item.details[resourceId:="
+ vmID;
```

### 8.9. getVcacEntityFromVcVmUuid

```
//Auto generated script, cannot be modified !
actionResult =
System.getModule("com.vmware.wheatcloud").getVcacEntityFromVcVmUuid(host,VcVmUuid) ;
```