



## Supported Lifecycle Stages (LCS)

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## Supported Lifecycle Stages (LCS)

*Table 1: Conditions and their Scope*

Condition Name	Scope	Description
LCS::PRE_DEPLOY	Deployment	Occurs just before deploying VMs of the deployment.
LCS::POST_DEPLOY_ALIVE	Deployment	Occurs immediately after the deployment is active.
LCS::DEPLOY_ERR	Deployment	Occurs immediately after the deployment fails.
LCS::POST_DEPLOY:: VM_RECOVERY_ERR	Deployment	Occurs immediately after the recovery of one VM fails.  (This is specified at deployment level and applies to all VM groups)
LCS::POST_DEPLOY:: VM_RECOVERY _REDEPLOY_ERR	Deployment	Occurs immediately after the redeployment of one VM fails.  (This is specified at deployment level and applies to all VM groups)
LCS::DEPLOY_UPDATE:: VM_ PRE_VOLUME_DETACH	Deployment	Triggered just before the ESC detaches a volume.  (This is specified for a group of individual VMs and specified under <vm_group> rather than the entire deployment.)

LCS::DEPLOY_UPDATE:: VM_VOLUME_ATTACHED	Deployment	Triggered immediately after ESC has attached a new volume  (This is specified for a group of individual VMs and specified under <vm_group> rather than the entire deployment.)
LCS::DEPLOY_UPDATE:: VM_SOFTWARE_VERSION_UPDATED	Deployment	Triggered immediately after ESC has updated the software version of the VM  (This is specified for a group of individual VMs and specified under <vm_group> rather than the entire deployment.)

### Fetching Files From Remote Server Using LCS Actions

Prior to ESc Release 4.0, a file locator is added to the LCS action scripts to fetch external configuration files. The file locator contains a reference to the file server, and the relative path to the file to be downloaded. Starting from ESC Release 4.0, the file locator attribute is defined at the deployment level, that is, directly under the deployment container instead of policy actions and day 0 configuration sections.

```
<esc_datamodel xmlns="http://www.cisco.com/esc/esc">
  <tenants>
    <tenant>
      <name>test-tenant</name>
      <deployments>
        <deployment>
          <name>test-deployment</name>
          <file_locators>
            <file_locator>
              <name>custom_bool_action</name>
              <remote_file>
                <file_server_id>http-my-server</file_server_id>
                <remote_path>share/qatest/custom_bool_action.sh</remote_path>
              </remote_file>
            </file_locator>
            <file_locator>
              <name>custom_bool_metric</name>
              <remote_file>
                <file_server_id>http-my-server</file_server_id>
                <remote_path>/share/qatest/custom_bool_metric.sh</remote_path>
              </remote_file>
            </file_locator>
          </file_locators>
          <!-- truncated for brevity -->
        <vm_group>
          <name>ASA-group</name>
          <!-- truncated for brevity -->
          <kpi_data>
            <kpi>
              <event_name>MY_CUSTOM_BOOL_ACTION</event_name>
              <metric_value>5</metric_value>
              <metric_cond>LT</metric_cond>
              <metric_type>UINT32</metric_type>
              <metric_occurrences_true>1</metric_occurrences_true>
              <metric_occurrences_false>1</metric_occurrences_false>
              <metric_collector>
                <type>MY_CUSTOM_BOOL_METRIC</type>
                <nicid>0</nicid>
                <poll_frequency>3</poll_frequency>
                <polling_unit>seconds</polling_unit>
              </metric_collector>
            </kpi>
          </kpi_data>
        </vm_group>
      </deployment>
    </tenant>
  </tenants>
</esc_datamodel>
```

```

        <continuous_alarm>false</continuous_alarm>
    </properties>
    <!-- Add file locator reference here -->
    <property>
        <name>file_locator_name</name>
        <value>custom_bool_action</value>
    </property>
</properties>
</metric_collector>
</kpi>
</kpi_data>
<rules>
    <admin_rules>
        <rule>
            <event_name>MY_CUSTOM_BOOL_ACTION</event_name>
            <action>ALWAYS log</action>
            <action>TRUE my_custom_bool_action</action>
            <properties>
                <!-- Add file locator reference here -->
                <property>
                    <name>file_locator_name</name>
                    <value>custom_bool_action</value>
                </property>
            </properties>
        </rule>
    </admin_rules>
</rules>
</vm_group>
</deployment>
</deployments>
</tenant>
</tenants>
</esc_datamodel>

```

See [Fetching Files From Remote Server](#) for more information.

To encrypt the files see, [Encrypting Configuration Data](#).

## Lifecycle Stage (LCS) Policy Conditions Defined at Different Stages

The tables below shows all policy conditions defined in the data model.

**Table 2: LifeCycle Stages**

Condition Name	Scope
LCS::VM::PRE_VM_DEPLOY	VM
LCS::VM::POST_VM_DEPLOYED	VM
LCS::VM::POST_VM_ALIVE	VM
<b>Lifecycle Stages in Deployment</b>	
LCS::PRE_DEPLOY	VM / Deployment
LCS::DEPLOY:: POST_VM_DEPLOYED	VM

Condition Name	Scope
LCS::POST_DEPLOY_ALIVE	Deployment
LCS::DEPLOY_ERR	Deployment
<b>Lifecycle Stages in Deployment Update</b>	
LCS::DEPLOY_UPDATE::POST_VM_ALIVE	VM
LCS::DEPLOY_UPDATE::	VM
LCS::DEPLOY_UPDATE:: POST_VM_VOLUME_DETACHED	VM
LCS::DEPLOY_UPDATE:: POST_VM_VOLUME_ATTACHED	VM
LCS::DEPLOY_UPDATE:: PRE_VM_SOFTWARE_VERSION_UPDATED	VM
<b>Lifecycle Stages in Recovery</b>	
LCS::POST_DEPLOY:: POST_VM_RECOVERY_COMPLETE	VM
LCS::POST_DEPLOY:: VM_RECOVERY_ERR	VM
<b>Lifecycle Stages in Recovery and Redeploy</b>	
LCS::POST_DEPLOY:: VM_RECOVERY_REDEPLOY_ERR	VM