14th generation iDRAC9 release supports lockdown feature, also known as System Lockdown Mode. This feature provides a mechanism to protect configuration from any unintentional or accidental changes after the system is provisioned to a certain level. The lockdown mode is applicable to both system configuration and firmware updates.

When System Lockdown Mode is enabled, the system’s configuration is locked and system cannot be configured or updated until the lockdown mode is disabled. There are some exceptional configuration settings that are allowed even when System Lockdown Mode is enabled. Exceptions are as follows:

- Power operations (System power on, power off, reset)
- Power budget and power profiles
- Identify operations to blink an LED
- Run diagnostics

**Note:** This feature is available only for Enterprise licensed users.

### Configuration

System Lockdown Mode setting can be enabled or disabled by using interfaces such as iDRAC GUI, RACADM, WS-Man, and System setup (by pressing F2 when the company logo is displayed).

#### iDRAC GUI

User can enable or disable this feature by clicking **Dashboard->More Actions-> Turn on the System Lockdown mode** on the iDRAC9 GUI. By default, this feature is disabled.

**Enable system lockdown mode:**

![Enable system lockdown mode](image)

**Disable lockdown mode:**

![Disable lockdown mode](image)
After the system lockdown mode is enabled, following notification is shown in iDRAC GUI, and all the configuration settings are greyed out as shown in screen shot here.

When lockdown mode is enabled, iDRAC GUI login page shows the following notification:
RACADM

User can enable or disable this feature by using RACADM also.

Following screenshot shows command to enable or disable system lockdown mode.

![Screenshot showing command to enable or disable system lockdown mode](image)

After the lockdown mode is enabled, changing the configuration is not allowed. Following screen shot is an example.

![Screenshot showing error message](image)
User can enable or disable this feature by using WS-Man also.

Following screenshot shows WS-Man command to enable system lockdown mode and the Event and Error message displayed when a set request is made when system lockdown mode enabled.

```
C:\users\rochak_gupta> winrm i ApplyAttribute http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/root/dcim/DCIM_IDRACCardService?SystemCreationClassName=DCIM_ComputerSystem/SystemName=DCIM:ComputerSystemCreationClassName=DCIM_IDRACCardServiceName=IDRAC:IDRACCardService -u:root -p:calvin -r:https://100.101.24.218/wsmanskipChCkskipCachecheck-encoding:utf-8-a-basic @Target="IDRAC.Embedded.1";AttributeName="Lockdown.1#SystemLockdown";AttributeValue="1"
ApplyAttribute_OUTPUT
Message = The command was successful.
MessageID = RAC001
ReturnValue = 0
SetResult = Set CurrentValue
```

```
C:\users\rochak_gupta> winrm i SetAttribute http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/root/dcim/DCIM_SystemManagementService?SystemCreationClassName=DCIM_ComputerSystem/SystemName=DCIM:ComputerSystemCreationClassName=DCIM_SystemManagementServiceName=DCIM:SystemManagementService -u:root -p:calvin -r:https://100.101.24.218/wsmanskipChCkskipCachecheck-encoding:utf-8-a-basic @Target="System.Embedded.1";AttributeName="QuickSync.1#MifiEnable";AttributeValue="1"
SetAttribute_OUTPUT
Message = Unable to start the configuration operation because the System Lockdown mode is enabled. QuickSync.1#MifiEnable
MessageArguments = QuickSync.1#MifiEnable
MessageID = SYS291
ReturnValue = 2
```

Following screen shot shows the WS-Man command used to disable system lockdown mode, and the set request is succeful when a set request is made with system lockdown mode disabled.

```
C:\users\rochak_gupta> winrm i ApplyAttribute http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/root/dcim/DCIM_IDRACCardService?SystemCreationClassName=DCIM_ComputerSystem/SystemName=DCIM:ComputerSystemCreationClassName=DCIM_IDRACCardServiceName=IDRAC:IDRACCardService -u:root -p:calvin -r:https://100.101.24.218/wsmanskipChCkskipCachecheck-encoding:utf-8-a-basic @Target="IDRAC.Embedded.1";AttributeName="Lockdown.1#SystemLockdown";AttributeValue="0"
ApplyAttribute_OUTPUT
Message = The command was successful.
MessageID = RAC001
ReturnValue = 0
SetResult = Set CurrentValue
```

```
C:\users\rochak_gupta> winrm i SetAttribute http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/root/dcim/DCIM_SystemManagementService?SystemCreationClassName=DCIM_ComputerSystem/SystemName=DCIM:ComputerSystemCreationClassName=DCIM_SystemManagementServiceName=DCIM:SystemManagementService -u:root -p:calvin -r:https://100.101.24.218/wsmanskipChCkskipCachecheck-encoding:utf-8-a-basic @Target="System.Embedded.1";AttributeName="QuickSync.1#MifiEnable";AttributeValue="1"
SetAttribute_OUTPUT
Message = The command was successful.
MessageID = SYS001
RebootRequired = No
ReturnValue = 0
SetResult = Set PendingValue
```

```
C:\users\rochak_gupta>
**System Setup (F2):**

User can enable or disable this feature by using System Setup also.

The screen shot here shows command to enable or disable system lockdown mode.

The screen shot here shows notification message when system lockdown mode is enabled.
The screenshot here shows an example of all configuration settings becoming greyed out when the system lockdown mode is enabled.

![IDRAC Settings](image)

### Configuring the System Lockdown mode by using WS-Man

WS-Man (Web Services-Management) is a DMTF open standard defining a SOAP-XML based protocol for the management of servers, devices, applications used by systems management consoles or management applications.

### Enabling or disabling the System Lockdown mode

The following attribute is available in DCIM_iDRACCardEnumeration class will enable or disable the SystemLockDown feature.

- `iDRAC.Embedded.1#Lockdown.1#SystemLockdown`

By Default, the System Lockdown mode is set to “Disabled”.

The `DCIM_iDRAService.ApplyAttribute()` method will be used to set the attribute. For more information about the method interface, see the iDRAC Card Profile 4.0.0 Session 8.21 and 7.5.52 in [http://en.community.dell.com/techcenter/systems-management/w/wiki/1906.dcim-library-profile](http://en.community.dell.com/techcenter/systems-management/w/wiki/1906.dcim-library-profile).

After the system lockdown mode is enabled on iDRAC, none of the system configuration features are allowed, except the following:

- Power operations (System power on, power off, reset)
- Setting power budget, power profiles
- Identify operations to blink an LED.
- Run diagnostics
- Read system configuration and status information
Management application receives the following message whenever performing the locked configuration features:

“RAC095 : Unable to start the configuration operation because the System Lockdown mode is enabled.”

Note: It is recommended to use the ApplyAttribute method to set the SystemLockDownMode. ApplyAttributes and SetAttributes will not accept multiple attributes in input, if one of the attribute is SystemLockDownMode. We cannot set this attribute to pending state, this attribute will always be set to current value.

SOAP Request to GET Lockdown.1#SystemLockdown attribute.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<wsa:To s:mustUnderstand="true">http://IDRAC_IP_Address:443/wsman</wsa:To>
<wsa:ReplyTo s:mustUnderstand="true">http://schemas.dmtf.org/wbem/wsman/1/cim-schema/2/DCIM_DCIMCard Enumeration</wsa:ReplyTo>
<wsa:Address s:mustUnderstand="true">http://schemas.dmtf.org/wbem/wsman/1/cim- schema/2/DCIM_Dcim_card enumeration</wsa:Address>
<wsa:RelatesTo s:mustUnderstand="true">urn:uuid:52c903a1-seed-11e7-aec0-005046000008</wsa:RelatesTo>
<wsa:MessageID s:mustUnderstand="true">urn:uuid:52c903a1-seed-11e7-aec0-005046000008</wsa:MessageID>
<wsa:OperationTimeout s:mustUnderstand="true">PT120.0S</wsa:OperationTimeout>
<wsam:SelectorSet>
<wsam:Selector Name="InstanceID" s:mustUnderstand="true">IDRAC.Embedded.1#Lockdown.1#SystemLockdown</wsam:Selector>
</wsam:SelectorSet>
</wsa:To>
</s:Body>
</s:Envelope>
```

SOAP Response to GET Lockdown.1#SystemLockdown attribute.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<wsa:To s:mustUnderstand="true">http://schemas.dmtf.org/wbem/wsman/1/cim-schema/2/DCIM_Dcim_card enumeration</wsa:To>
<wsa:MessageID s:mustUnderstand="true">uuid:504a6380-f9e6-19e6-b519-2403d5eb7b84</wsa:MessageID>
</s:To>
</s:Body>
</s:Envelope>
```
SOAP request for the ApplyAttribute method to Set Lockdown.1#SystemLockdown attribute

```xml
   xmlns:swbem="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/ncs/1"
   <SOAP-ENV:Header>
     <nc:Action nc:mustUnderstand="true">ApplyAttribute</nc:Action>
   </SOAP-ENV:Header>
   <SOAP-ENV:Body>
     <nc:ApplyAttribute_INPUT>
       <nc:AttributeName>Lockdown.1#SystemLockdown</nc:AttributeName>
       <nc:AttributeName>Enabled</nc:AttributeName>
     </nc:ApplyAttribute_INPUT>
   </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

SOAP Response for the ApplyAttribute method

```xml
   xmlns:swbem="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/ncs/1"
   <SOAP-ENV:Header>
     <nc:Message nc:mustUnderstand="true">The command was successful</nc:Message>
   </SOAP-ENV:Header>
   <SOAP-ENV:Body>
     <nc:ApplyAttribute_OUTPUT>
       <nc:Message nc:mustUnderstand="true">The command was successful</nc:Message>
     </nc:ApplyAttribute_OUTPUT>
   </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```