Troubleshoot Addition of New PLM to HCM-F

Contents

Introduction

This document describes how to troubleshoot Hosted License Manager (HLM) and Prime License Manager (PLM) when a new PLM added. Perform this checklist before you open a TAC case.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Cisco Hosted Collaboration Solution (HCS)
- Cisco Hosted Collaboration Mediation Function (HCM-F)
- License installation in ELM/PLM

Components Used

The information in this document is based on these software and hardware versions:

- HCM-F 10.6.2
- PLM 10.5.2

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Problem: HCM-F Administrator is not able to Add a New PLM2 Instance
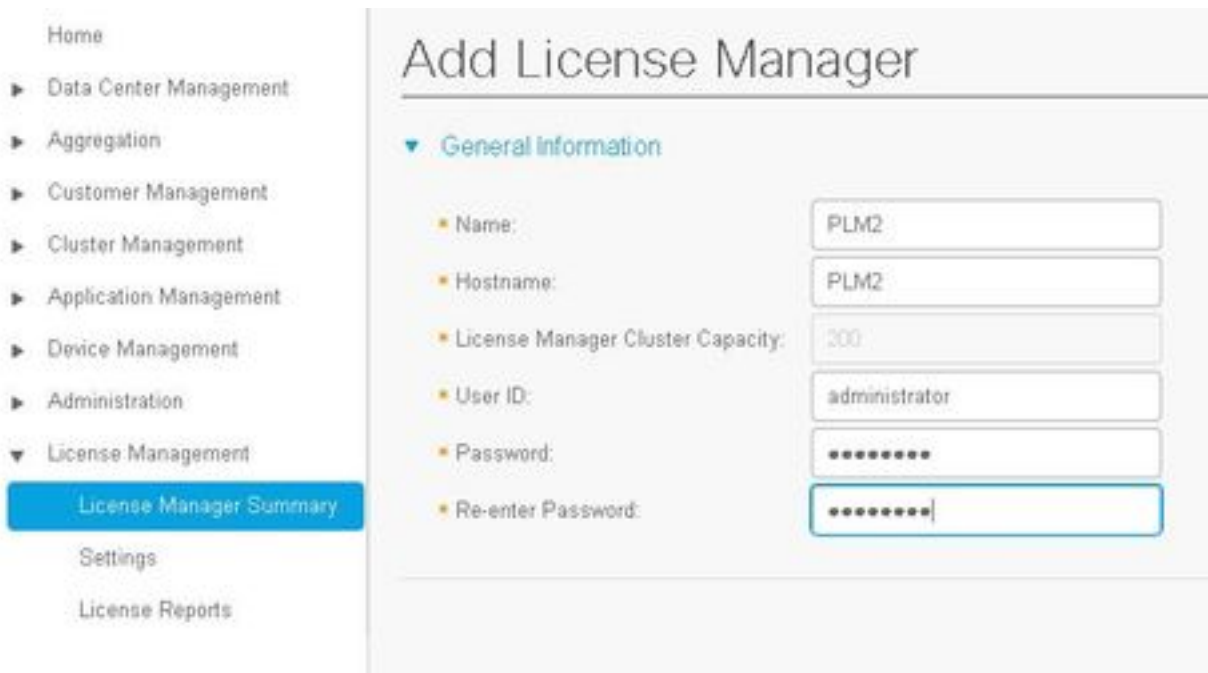
This is the error message that is seen.
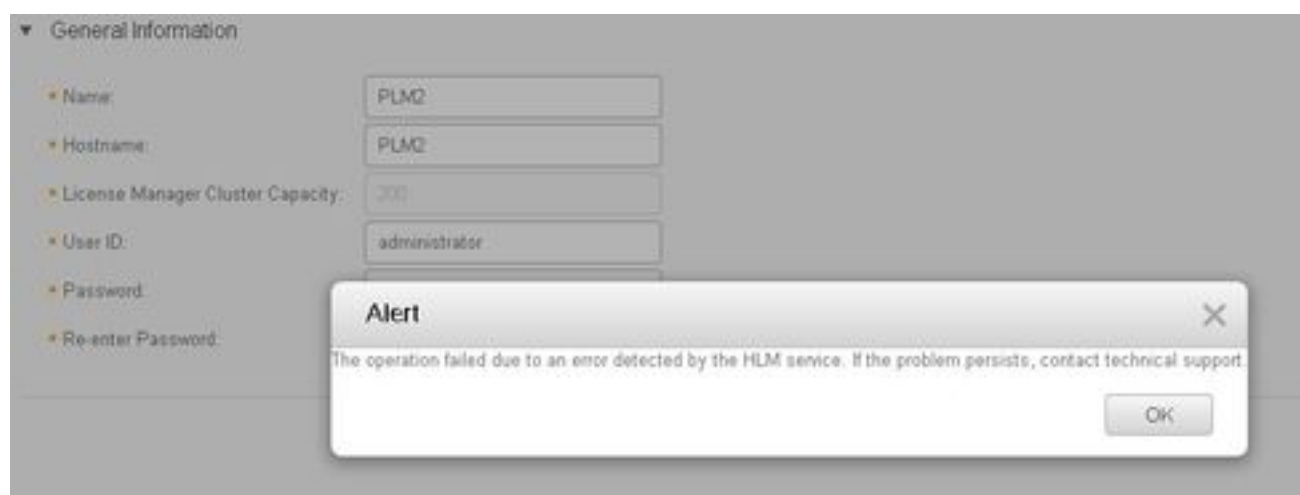
In order to troubleshoot this issue, the HLM detailed logs are required as several conditions can lead to the same GUI error.

1. Log into the HCM-F. CLI enables the logs level and collects the logs.

2. Run **set trace tracelevel** command.

3. Enter the tracelevel (use CLI **show tracelevels** in orderto find allowed tracelevels).

4. Enter the servicename: **Cisco HCS License Manager Service**.

5. Reproduce the issue and collect the logs with this command **file get activelog /hcs/HLM/***.

Solution 1.

HLM logs shows that HLM is not able to create a Representational State Transfer (REST)

connection to the PLM due a connection timeout.

```
| 2016-09-02 04:52:55.025 | [63406] | SdlSig | CreateELMRequest | null0 | HLM(HLMCORE) |
SDRUI(NBI-HLM-v90-                        LIB0) | null

2016-09-02 16:52:55,025 INFO  [63406] HLMCoreAgent:null0_CreateELMRequest is fired...

2016-09-02 16:52:55,025 INFO  [63406] HLMCoreAgent:null0_CreateELMRequest recieved

2016-09-02 16:52:55,025 INFO  [63406] HLMCoreAgent:elmName PLM2

2016-09-02 16:52:55,025 INFO  [63406] HLMCoreAgent:elmHost PLM2

2016-09-02 16:52:55,025 INFO  [63406] HLMCoreAgent:elmUser administrator

2016-09-02 16:52:55,025 INFO  [63406] HLMCoreAgent:elmPass ******

2016-09-02 16:52:55,025 INFO  [63406] HLMCoreAgent:deploymentMode HCS

2016-09-02 16:52:55,025 INFO  [63406] HLMCoreAgent:null0_CreateELMRequest opening REST
connection to supplied                    LM

2016-09-02 16:52:55,025 INFO  [63406] ELMApi: init, connecting to PLM2

2016-09-02 16:52:55,025 DEBUG [63406] Got the sslCtx

2016-09-02 16:52:55,025 INFO  [63406] Initialized the context

2016-09-02 16:52:55,096 INFO  [63406] ELMApi: initialized with connection timeout, connected to
PLM2

2016-09-02 16:52:55,096 INFO  [63406] HLMCoreAgent:null0_CreateELMRequest validating connection
to LM

2016-09-02 16:52:55,096 DEBUG [63406] ELMApi: validateConnection Called

2016-09-02 16:52:55,097 ERROR [63406] ELMApi: ClientHanglerException caught validating
connection, throwing C                  onnectException

2016-09-02 16:52:55,097 ERROR [63406] HLMCoreAgent:CreateELMRequest Exception:
java.net.UnknownHostException:              PLM2



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2016-09-02 16:52:55,100 DEBUG [63406] Agent: Sent message to SDRUI(NBI-HLM-v90-LIB0)

2016-09-02 16:52:55,100 DEBUG [63406] HLMCoreAgent:CreateELMResponse message was sent.

2016-09-02 16:52:55,100 ERROR [63406] Sdl...

5 | 2016-09-02 04:52:55.100 | [63406] | SdlExcept | CreateELMRequest | null0 | HLM(HLMCORE) |
SDRUI(NBI-HLM-v                  90-LIB0) | Error in fire: java.net.UnknownHostException:
PLM2

2016-09-02 16:52:55,101 ERROR [63406] Agent caught exception while processing message type
CreateELMRequest

com.sun.jersey.api.client.ClientHandlerException: java.net.UnknownHostException: PLM2
```
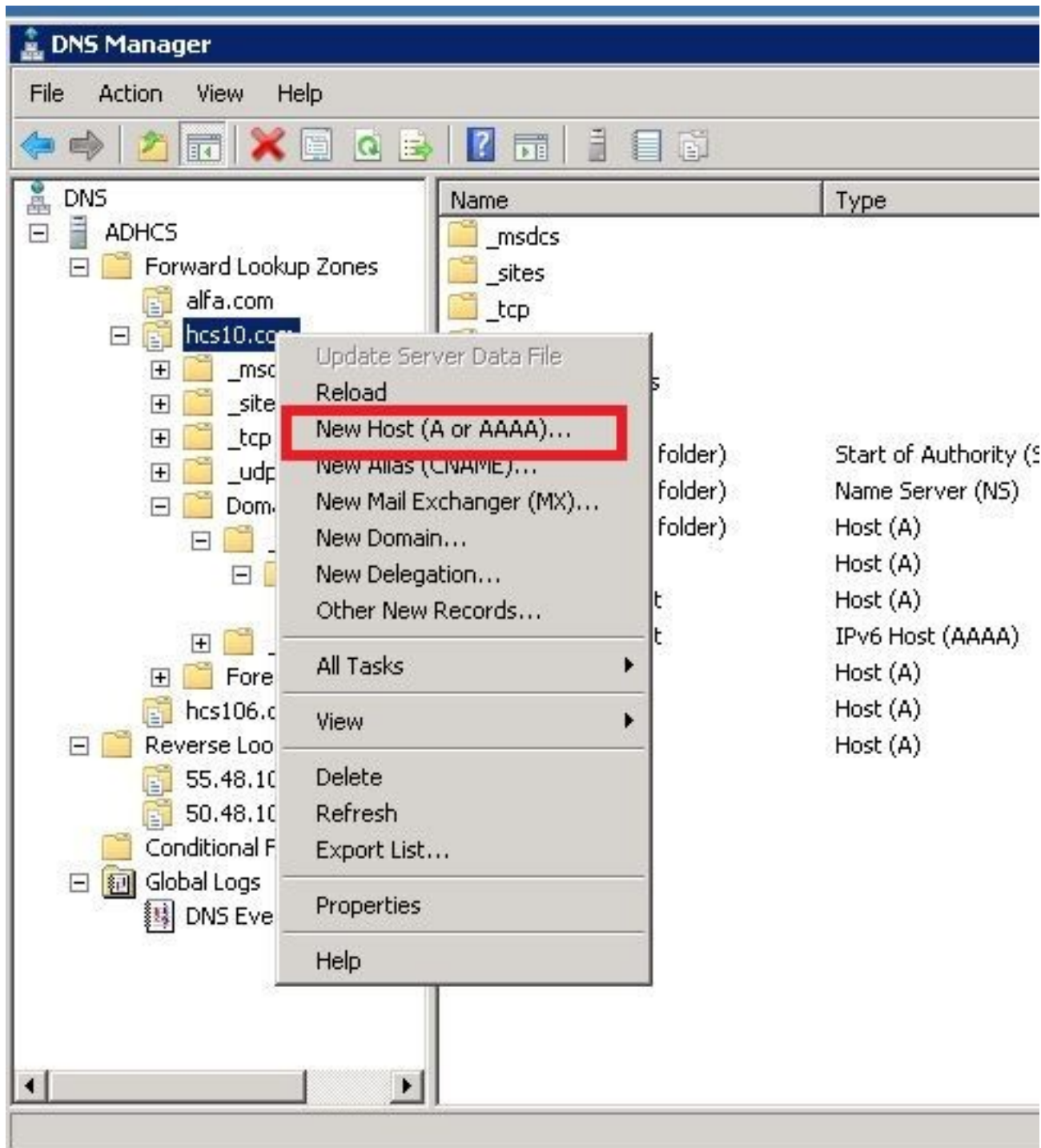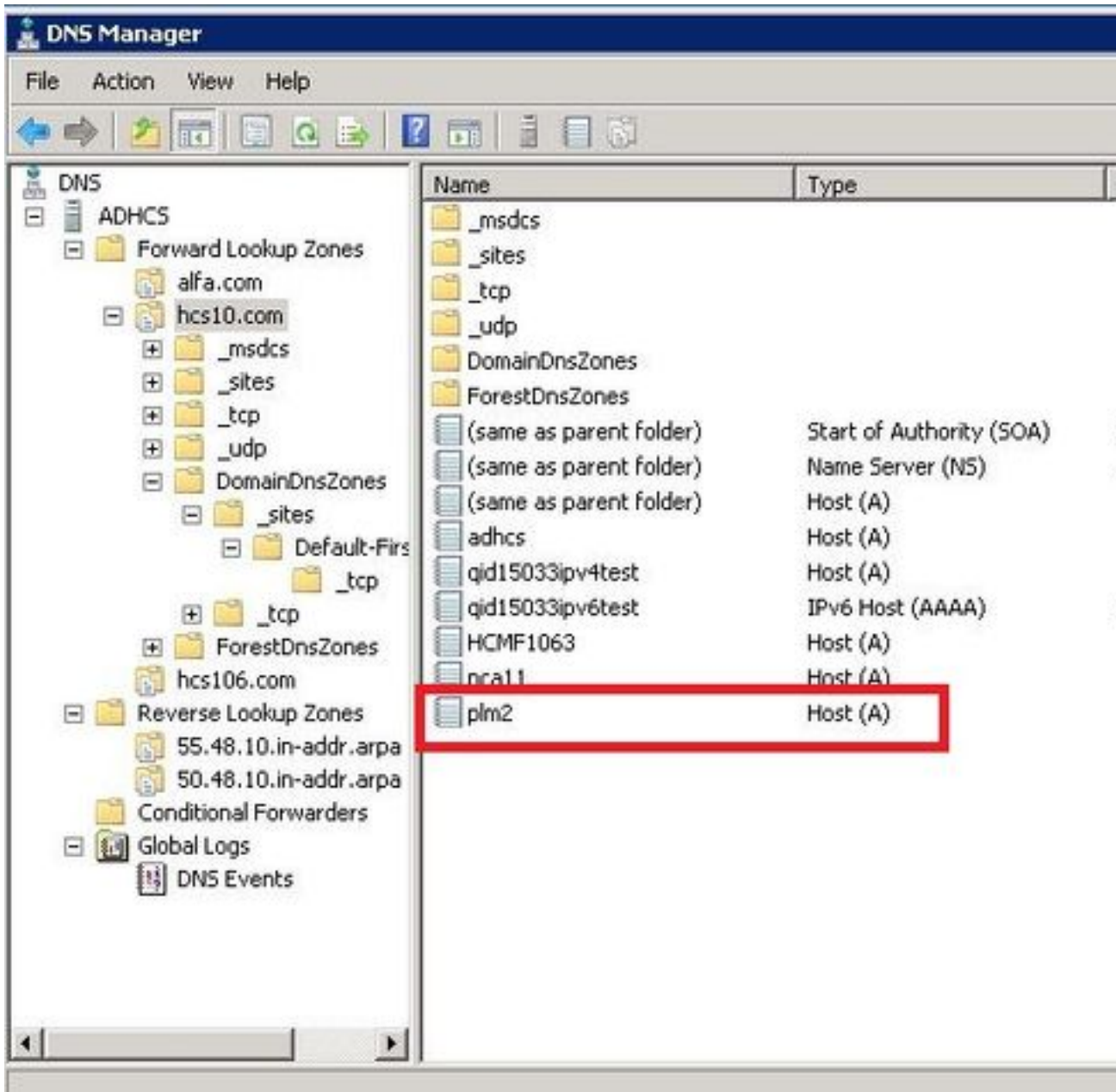
```
        at
com.sun.jersey.client.urlconnection.URLConnectionClientHandler.handle(URLConnectionClientHandler
.j                      ava:151)
```

Add a direct and reverse lookup in the HCS management of the Domain Name Server (DNS) and verify any connectivity issue, as shown in these images.

Verify

Run the commands.

```
admin:show network eth0
Ethernet 0
DHCP : disabled Status : up
IP Address : 10.48.50.70 IP Mask : 255.255.255.128
Link Detected: yes Mode : Auto disabled, Full, 1000 Mbits/s
Duplicate IP : no

DNS
Primary : 10.48.55.76 Secondary : Not Configured
Options : timeout:5 attempts:2
Domain : hcslab.com
Gateway : 10.48.50.1 on Ethernet 0
```

```
admin:utils network ping plm2
PING plm2.hcs10.com (10.48.50.72) 56(84) bytes of data.
64 bytes from plm2.hcs10.com (10.48.50.72): icmp_seq=1 ttl=64 time=0.484 ms
64 bytes from plm2.hcs10.com (10.48.50.72): icmp_seq=2 ttl=64 time=0.493 ms
64 bytes from plm2.hcs10.com (10.48.50.72): icmp_seq=3 ttl=64 time=0.441 ms
64 bytes from plm2.hcs10.com (10.48.50.72): icmp_seq=4 ttl=64 time=0.590 ms

--- plm2.hcs10.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3021ms
rtt min/avg/max/mdev = 0.441/0.502/0.590/0.054 ms
```

Solution 2.

HLM logs shows that HLM is able to create a REST connection with the PLM instance but PLM replies back with error message of "404 Not Found".

```
2016-09-02 17:01:08,561 INFO  [63414] ELMApi: initialized with connection timeout, connected to
10.48.55.29

2016-09-02 17:01:08,561 INFO  [63414] HLMCoreAgent:null0_CreateELMRequest validating connection
to LM

2016-09-02 17:01:08,561 DEBUG [63414] ELMApi: validateConnection Called

2016-09-02 17:01:08,614 ERROR [63414] HLMCoreAgent:CreateELMRequest Exception: GET
https://10.48.55.29/elm-resources returned a response status of 404 Not Found

2016-09-02 17:01:08,616 DEBUG [63414] Agent: sending to [SDRUI]

-------
```

```
<com.cisco.hcs.HLM.jms.CreateELMResponse>

  <messageType>CreateELMResponse</messageType>

  <source>

    <serviceName>HLM</serviceName>

    <instance>HLMCORE</instance>

  </source>

  <destination>

    <serviceName>SDRUI</serviceName>

    <instance>NBI-HLM-v90-LIB0</instance>

  </destination>

  <sessionID>b0a354ec-6249-4cf6-ac7d-f73bac6918d4</sessionID>

  <fault>true</fault>

  <exception>

    <detailMessage>GET https://10.48.55.29/elm-resources returned a response status of 404 Not
Found</detailMessage>
```

        <stackTrace>

<trace>com.cisco.hcs.HLM.core.HLMCoreAgent$null0_CreateELMRequest.fire(HLMCoreAgent.java:363)</trace>

        <trace>com.cisco.hcs.hcsagent.agent.AgentFSM.fireTransition(AgentFSM.java:554)</trace>

        <trace>com.cisco.hcs.hcsagent.agent.AgentFSM.fire(AgentFSM.java:445)</trace>

        <trace>com.cisco.hcs.hcsagent.agent.Agent.process(Agent.java:324)</trace>

        <trace>com.cisco.hcs.hcsagent.agent.AgentTask.run(AgentTask.java:75)</trace>

        <trace>java.util.concurrent.Executors$RunnableAdapter.call(Executors.java:471)</trace>

        <trace>java.util.concurrent.FutureTask.run(FutureTask.java:262)</trace>

<trace>java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1145)</trace>

<trace>java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:615)</trace>

        <trace>java.lang.Thread.run(Thread.java:745)</trace>

    </stackTrace>

    <suppressedExceptions class="java.util.Collections$UnmodifiableRandomAccessList" resolves-to="java.util.Collections$UnmodifiableList">

        <c class="list"/>

        <list reference="../c"/>

    </suppressedExceptions>

  </exception>

  <Fork>false</Fork>

  <requeueCount>0</requeueCount>

</com.cisco.hcs.HLM.jms.CreateELMResponse>

2016-09-02 17:01:08,618 DEBUG [63414] Agent: Sent message to SDRUI(NBI-HLM-v90-LIB0)

2016-09-02 17:01:08,618 DEBUG [63414] HLMCoreAgent:CreateELMResponse message was sent.

2016-09-02 17:01:11,625 INFO [63414] AgentFSM::currentState changed from null0 to null0

The PLM API services must be activeted in order to fix the issue.

Run the following commands from PLM CLI.

```
admin:utils service activate Cisco Prime LM Resource API

Service Manager is running

Cisco Prime LM Resource API[STARTED]


admin:utils service activate Cisco Prime LM Resource Legacy API

Service Manager is running

Cisco Prime LM Resource Legacy API[STARTED]
```

Verify

Run the command from PLM CLI.

```
admin utils service list
```

```
Cisco Prime LM Admin[STARTED]
Cisco Prime LM DB[STARTED]
Cisco Prime LM Resource API[STARTED]
Cisco Prime LM Resource Legacy API[STARTED]
```

Solution 3.

 HLM logs show that the PLM runs in demo mode.

```
11 | 2016-09-02 05:21:07.615 | [63406] | SdlSig | CreateELMRequest | null0 | HLM(HLMCORE) |
SDRUI(NBI-HLM-v90-LIB0) | null

2016-09-02 17:21:07,615 INFO  [63406] HLMCoreAgent:null0_CreateELMRequest is fired...

2016-09-02 17:21:07,615 INFO  [63406] HLMCoreAgent:null0_CreateELMRequest recieved

2016-09-02 17:21:07,615 INFO  [63406] HLMCoreAgent:elmName PLM2

2016-09-02 17:21:07,615 INFO  [63406] HLMCoreAgent:elmHost 10.48.55.29

2016-09-02 17:21:07,615 INFO  [63406] HLMCoreAgent:elmUser administrator

2016-09-02 17:21:07,615 INFO  [63406] HLMCoreAgent:elmPass ******

2016-09-02 17:21:07,615 INFO  [63406] HLMCoreAgent:deploymentMode HCS

2016-09-02 17:21:07,615 INFO  [63406] HLMCoreAgent:null0_CreateELMRequest opening REST
connection to supplied LM

2016-09-02 17:21:07,615 INFO  [63406] ELMApi: init, connecting to 10.48.55.29

2016-09-02 17:21:07,615 DEBUG [63406] Got the sslCtx
```

2016-09-02 17:21:07,615 INFO [63406] Initialized the context

2016-09-02 17:21:07,687 INFO [63406] ELMApi: initialized with connection timeout, connected to 10.48.55.29

2016-09-02 17:21:07,687 INFO [63406] HLMCoreAgent:null0_CreateELMRequest validating connection to LM

2016-09-02 17:21:07,687 DEBUG [63406] ELMApi: validateConnection Called

2016-09-02 17:21:07,795 DEBUG [63406] ELMApi: connection Validated

2016-09-02 17:21:07,795 DEBUG [63406] ELMApi: getELMReg Called

2016-09-02 17:21:07,846 INFO [63406] HLMCoreAgent:Found LM to be in Demo Mode

2016-09-02 17:21:07,846 DEBUG [63406] HLMCoreAgent: CreateELMRequest closing the connection

2016-09-02 17:21:07,847 DEBUG [63406] Agent: sending to [SDRUI]

<com.cisco.hcs.HLM.jms.CreateELMResponse>

  <messageType>CreateELMResponse</messageType>

  <source>

    <serviceName>HLM</serviceName>

    <instance>HLMCORE</instance>

  </source>

  <destination>

    <serviceName>SDRUI</serviceName>

    <instance>NBI-HLM-v90-LIB0</instance>

  </destination>

  <sessionID>ae3b7f12-d5cb-4db4-bc37-291833d00f83</sessionID>

  <fault>true</fault>

  <exception>

    <detailMessage>ELM is in demo license.</detailMessage>

    <stackTrace>

<com.cisco.hcs.HLM.jms.CreateELMResponse>

  <messageType>CreateELMResponse</messageType>

  <source>

```
  <serviceName>HLM</serviceName>

  <instance>HLMCORE</instance>

</source>

<destination>

  <serviceName>SDRUI</serviceName>

  <instance>NBI-HLM-v90-LIB0</instance>

</destination>

<sessionID>ab8cbfc5-cbe5-4c3f-8c33-324517d69d7d</sessionID>

<fault>true</fault>

<exception>

  <detailMessage>ELM is in demo license.</detailMessage>

  <stackTrace>
```
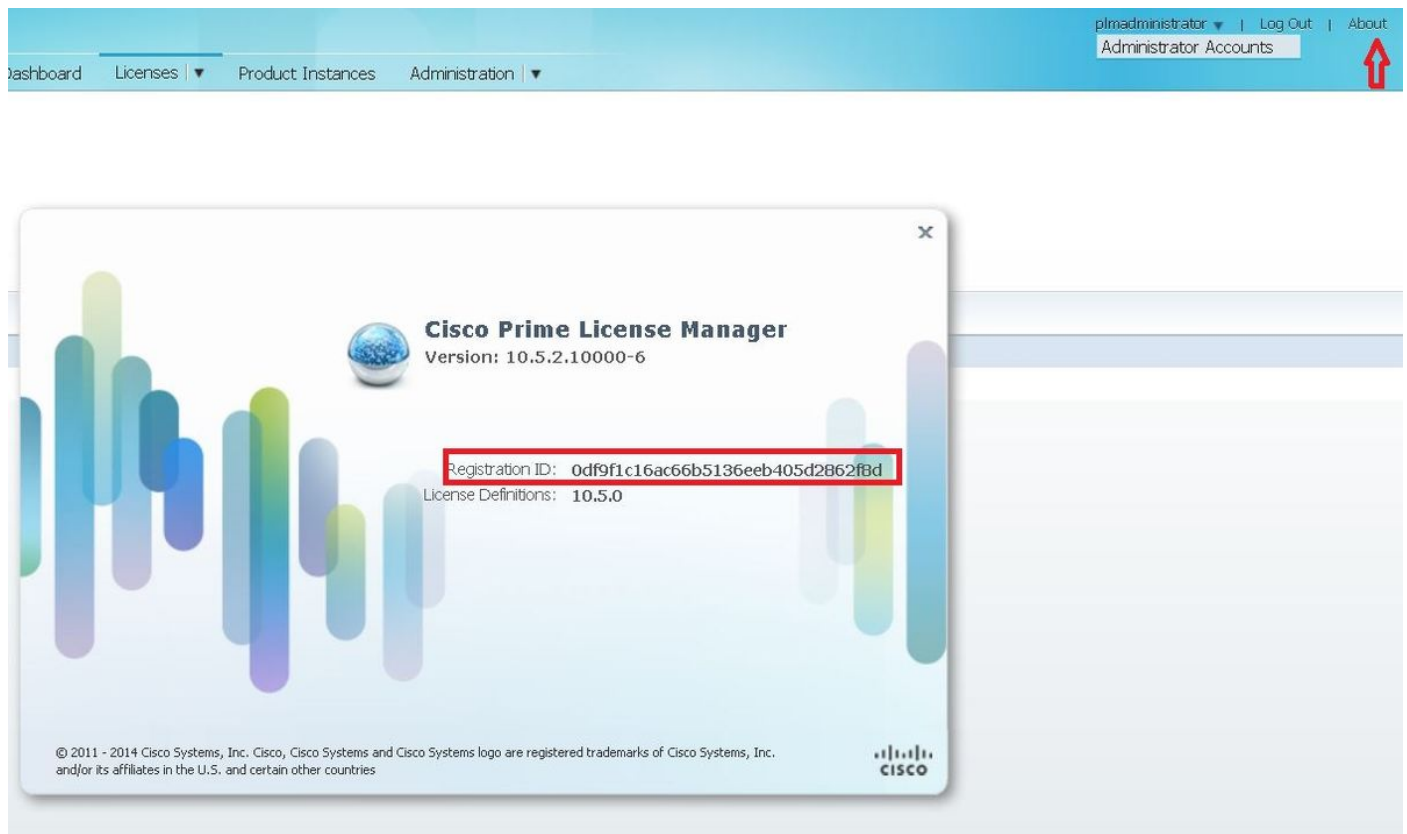
Add HCS licenses into PLM and re-attempt to add the PLM.

Verify

Login to the PLM user interface and click on **About**. After you add the HCS licenses, the PLM shows up a valid registritation ID as shown in the image:

Solution 4.

HLM is able to contact the PLM but PLM replies with 401 message.

12 | 2016-09-02 05:22:51.594 | [63414] | SdlSig | CreateELMRequest | null0 | HLM(HLMCORE) | SDRUI(NBI-HLM-v90-LIB0) | null

2016-09-02 17:22:51,594 INFO [63414] HLMCoreAgent:null0_CreateELMRequest is fired...

2016-09-02 17:22:51,594 INFO [63414] HLMCoreAgent:null0_CreateELMRequest recieved

2016-09-02 17:22:51,595 INFO [63414] HLMCoreAgent:elmName PLM2

2016-09-02 17:22:51,595 INFO [63414] HLMCoreAgent:elmHost 10.48.55.29

2016-09-02 17:22:51,595 INFO [63414] HLMCoreAgent:elmUser administrator

2016-09-02 17:22:51,595 INFO [63414] HLMCoreAgent:elmPass ******

2016-09-02 17:22:51,595 INFO [63414] HLMCoreAgent:deploymentMode HCS

2016-09-02 17:22:51,595 INFO [63414] HLMCoreAgent:null0_CreateELMRequest opening REST connection to supplied LM

2016-09-02 17:22:51,595 INFO [63414] ELMApi: init, connecting to 10.48.55.29

2016-09-02 17:22:51,595 DEBUG [63414] Got the sslCtx

2016-09-02 17:22:51,595 INFO [63414] Initialized the context

2016-09-02 17:22:51,673 INFO [63414] ELMApi: initialized with connection timeout, connected to 10.48.55.29

2016-09-02 17:22:51,673 INFO [63414] HLMCoreAgent:null0_CreateELMRequest validating connection to LM

2016-09-02 17:22:51,673 DEBUG [63414] ELMApi: validateConnection Called

2016-09-02 17:22:53,546 ERROR [63414] HLMCoreAgent:CreateELMRequest Exception: GET https://10.48.55.29/elm-resources returned a response status of 401 Unauthorized

2016-09-02 17:22:53,548 DEBUG [63414] Agent: sending to [SDRUI]

<com.cisco.hcs.HLM.jms.CreateELMResponse>

  <messageType>CreateELMResponse</messageType>

  <source>

    <serviceName>HLM</serviceName>

    <instance>HLMCORE</instance>

  </source>

  <destination>

    <serviceName>SDRUI</serviceName>

    <instance>NBI-HLM-v90-LIB0</instance>

  </destination>

```
   <sessionID>06e919ba-1c30-47bb-b72d-a4a0a1ca049c</sessionID>

   <fault>true</fault>

   <exception>

      <detailMessage>GET https://10.48.55.29/elm-resources returned a response status of 401
Unauthorized</detailMessage>

      <stackTrace>


<trace>com.cisco.hcs.HLM.core.HLMCoreAgent$null0_CreateELMRequest.fire(HLMCoreAgent.java:363)</t
race>
```

Add the the PLM OS Admin User Id and Password.

Solution 5.

HLM is able to contact the PLM, however PLM replies back with an incompatible version.

```
2016-09-05 11:53:19,131 INFO  [63394] HLMCoreAgent:null0_CreateELMRequest is fired...

2016-09-05 11:53:19,131 INFO  [63394] HLMCoreAgent:null0_CreateELMRequest recieved

2016-09-05 11:53:19,132 INFO  [63394] HLMCoreAgent:elmName PLM11

2016-09-05 11:53:19,132 INFO  [63394] HLMCoreAgent:elmHost 10.48.53.120

2016-09-05 11:53:19,132 INFO  [63394] HLMCoreAgent:elmUser admin

2016-09-05 11:53:19,132 INFO  [63394] HLMCoreAgent:elmPass ******

2016-09-05 11:53:19,132 INFO  [63394] HLMCoreAgent:deploymentMode HCS

2016-09-05 11:53:19,132 INFO  [63394] HLMCoreAgent:null0_CreateELMRequest opening REST
connection to supplied LM

2016-09-05 11:53:19,132 INFO  [63394] ELMApi: init, connecting to 10.48.53.120

2016-09-05 11:53:19,132 DEBUG [63394] Got the sslCtx

2016-09-05 11:53:19,132 INFO  [63394] Initialized the context

2016-09-05 11:53:19,206 INFO  [63394] ELMApi: initialized with connection timeout, connected to
10.48.53.120

2016-09-05 11:53:19,206 INFO  [63394] HLMCoreAgent:null0_CreateELMRequest validating connection
to LM

2016-09-05 11:53:19,206 DEBUG [63394] ELMApi: validateConnection Called

2016-09-05 11:53:19,457 DEBUG [63394] ELMApi: connection Validated

2016-09-05 11:53:19,457 DEBUG [63394] ELMApi: getELMReg Called

2016-09-05 11:53:19,560 DEBUG [63394] ELMApi: getELMVer Called
```

```
2016-09-05 11:53:19,667 DEBUG [63394] HLMCoreAgent:null0_createELMRequest LM PLM11 version is
11.0.1.10000-2

2016-09-05 11:53:19,667 DEBUG [63394] hlmSDRUtil.createELM

2016-09-05 11:53:19,669 DEBUG [63394] hlmSDRUtil.getHCMFDeploymentMode

2016-09-05 11:53:19,669 DEBUG [63394] hlmSDRUtil.beginTransaction

2016-09-05 11:53:19,670 DEBUG [63394] hlmSDRUtilcommitTransaction

2016-09-05 11:53:19,671 DEBUG [63394] hlmSDRUtil.beginTransaction

2016-09-05 11:53:19,672 INFO  [63394] LM version is 11.0.1.10000-2

2016-09-05 11:53:19,673 ERROR [63394] hlmSDRUtil.createELM: SDR exception(SDRSyncSession): null

2016-09-05 11:53:19,673 DEBUG [63394] hlmSDRUtil.rollbackTransaction

2016-09-05 11:53:19,673 ERROR [63394] HLMCoreAgent:CreateELMRequest Exception: Attribute
TypeELMVersion is required.
```

Ensure that the PLM release that is added is suported by the HCM-F and is referred to the HCS compatiblity matrix.

Related Information

- **http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/hcs/10_6_1/HCMF_Product/Troubleshooting_Guide/CHCS_BK_C434C53C_00_cisco-hcm-f-troubleshooting-guide-10_6_1/CHCS_BK_C434C53C_00_cisco-hcm-f-troubleshooting-guide-10_6_1_chapter_010.html**
- **https://www.cisco.com/c/en/us/support/docs/unified-communications/hosted-collaboration-solution-hcs/119377-config-hcmf-00.html**
- **Technical Support & Documentation - Cisco Systems**