配置Expressway智能许可并对其进行故障排除

| 目录 |
|-----------------------------|
| <u>简介</u> |
| 先决条件 |
| <u>要求</u> |
| 使用的组件 |
| <u>背景</u> |
| <u>智能许可证的类型</u> |
| <u>将传统许可证转换为智能软件许可证</u> |
| <u>传输设置</u> |
| 使用令牌的智能许可 |
| |
| <u>使用特定许可证预留(SLR)的智能许可</u> |
| |
| 返回保留的许可证 |
| <u>更新预留许可证</u> |
| <u>从PAK许可证(选项密钥)迁移到智能许可</u> |
| <u>故障排除</u> |
| <u>注册问题</u> |
| <u>评估模式</u> |
| <u>诊断日志</u> |
| <u>已知问题</u> |
| <u>缺陷</u> |
| 相关信息 |

简介

本文档介绍如何使用思科软件智能许可(CSSM)配置Expressway。

先决条件

要求

Cisco 建议您了解以下主题:

• Expressway和CSSM。

使用的组件

本文档中的信息基于以下软件和硬件版本:

- 思科Expressway x14.0.11
- 思科Expressway x14.3.1
- 云CSSM

本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原 始(默认)配置。如果您的网络处于活动状态,请确保您了解所有命令的潜在影响。

背景

思科智能许可使许可管理更加灵活,并简化整个企业的管理。利用智能许可报告的许可证消费的设备,无需使用选项密钥(产品激活密钥)。许可证授权集中到一个帐户,可在Expressway之间或不同的Expressway集群间使用。Expressway在x12.6版本中开始使用思科智能许可。当时,部署可以使用传统许可证或智能许可。对于版本x14.1及更高版本,Expressway仅支持智能许可。从使用传统许可证的部署升级到任何版本x14.1或更新版本会自动启用智能许可并开始90天的宽限期。Expressway版本x14.2引入了特定许可证预留(SLR)。

以下是智能许可的一些优势:

- 提高了许可的灵活性,并简化了整个企业的it工作。
- 更轻松地获取、部署和管理许可证,设备可以自助注册并报告许可证使用情况,从而无需使用 产品激活密钥(PAK)。
- 利用本地卫星思科智能软件管理器或云智能软件管理器,在需要时轻松分配许可证(<u>CSSM</u>)。



注意:由于2023年1月software.cisco.com上发生根证书更改,除非运行X14.0.11或 X14.2.5(或更高版本),否则Expressway无法与直接或代理连接配合使用到智能许可。在 这些版本之前,只有卫星CSSM可用。

智能许可证的类型

Expressway上的智能许可有4种类型的许可证预留类型。 这些用于创建部署中的每个 Expressway可以利用的许可证池。

- Cisco Expressway富媒体会话许可证(富媒体会话)
- UC Manager Enhanced许可证(桌面/用户设备)
- UC Manager网真会议室许可证(网真会议室)
- 永久许可证保留(PLR)(仅限思科内部使用)

这些许可证在智能许可上不可用,因此,如果使用这些许可证,部署将无法升级到14.0.x以上

• 高级帐户安全-116341J00

- Hardware Security Module (HSM) 116341H00
- Microsoft互操作性- 116341 COO



注意:除非从MRA客户端向域外的地址发出视频呼叫,否则移动远程访问(MRA)无需许可 证。 如果是后者,则Expressway E需要RMS许可证。

将传统许可证转换为智能软件许可证

如果您的虚拟帐户中还没有智能许可证,您可以在智能软件许可门户(<u>https://software.cisco.com</u>)中 将现有许可证转换为智能许可证。如果您没有符合条件的SKU(只有RMS和设备许可证符合智能许 可的条件),则您需要拥有要转换的许可证的PAK编号,并在转换之前将其与智能帐户关联。您将 在产品许可证注册门户中执行此关联。如果您没有PAK编号,请与思科许可部门联系并提供您的销 售订单编号,以便他们帮助您完成转换。

 1. 导航到思科软件中心>智能软件许可 > 转换为智能许可,并根据您的需求选择转换PAK或转换 许可证。

| Cisco Software Central > Smart So | ftware Licensing | | | | | | |
|--|---|--|--|--|---|----------------------------|------|
| Smart Software Lie | censing | | | | SL Product Details | Support | Help |
| Alerts Inventory Convert to | Smart Licensing Reports | Preferences On-Prem Accounts | Activity | | | | |
| License Conversion | | | | | | | |
| Convert PAKs Convert L | Conversion Histor | ry Conversion Settings | Event Log | | | | |
| The table below contains devices that it has been assigned to your 3 | in your Smart Account that are usir Smart Account in the Product Licen | ng traditional licenses that can be com se Registration Portal. You can also tr | verted to Smart Software y entering the device inf | Licenses. If you do not see a device you exportation in the License Conversion wizard. | pect to see in the table | e, ensure | |
| There may be licenses that are | eligible to be converted, based on | your automatic conversion settings. | Convert Now | | | | |
| | | | | | | | |
| Last Updated : 2024-Feb-13 11:3 | 0:08 🚯 | | | | | | |
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| Last Updated : 2024-Feb-13 11:3 | 0:08 e File Product Family | Eligible SKUs | Virtual Account | Search Identifier, Product Family or Virtual A Status | Actions | ٩, | |
| Last Updated : 2024-Feb-13 11:3 | 0:08 e File Product Family Cisco On PremTelePresen | Eligible SKUs A-FLEX-EXP-RMS (10). A-FLEX | Virtual Account | Search Identifier. Product Family or Virtual A Status | Account Actions Convert License | ٩, | |
| Last Updated : 2024-Feb-13 11:3 | 0:08 Product Family Cisco On PremTelePresen2 | Eligible SKUs A-FLEX-EXP-RMS (10), A-FLEX | Virtual Account DEFAULT DEFAULT | Search Identifier. Product Family or Virtual A Status | Actions Convert License Convert License | Q. 15. | |
| Last Updated : 2024-Feb-13 11:3 | 0:08 Product Family Cisco On PremTelePresen | Eligible SKUs A-FLEX-EXP-RMS (10), A-FLEX | Virtual Account DEFAULT DEFAULT DEFAULT | Search Identifier. Product Family or Virtual A Status | Actions Convert License Convert License Convert License | Q. 5 15 | |
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许可证转换

2. 选择要转换的许可证(A-FLEX-EXP-RMS、A-FLEX-EXP-DESK、A-FLEX-EXP-ROOM),然后单 击转换许可证。

3. 在转换为智能软件许可证弹出菜单上:

a:选择要转换的许可证,点击"下一步"

b:查看您的选择,然后点击转换许可证(Convert Licenses)

传输设置

在Expressway上配置智能许可时,必须在维护>智能许可页面配置传输设置。本节告诉 Expressway如何访问智能许可。

| Transport | | |
|---|--|------------|
| Transport settings | Direct | (i) |
| | Direct Cisco Smart Software Manager On-Prem | |
| ORL | Proxy server | |
| Do not share my hostname or IP address with Cisco | | |
| Do not share my hostname or IP address with Cisco | | |

Save

Expressway传输设置

直接:Expressway通过智能接收器直接连接互联网。 Expressway要求通过HTTPS访问 Internet才能使用此方法。

本地思科智能软件管理器:Expressway与网络上本地运行的卫星服务器对话。(使用卫星 URL末尾的/SmartTransport配置卫星服务器URL)。 代理服务器:Expressway必须通过代理服务器连接互联网。不允许设备通过HTTPS直接访问 互联网的部署需要代理服务器才能使流量通过。

请勿与思科共享我的主机名或IP地址:如果未选中该复选框,主机名将显示在智能许可>产品实例页面。 仅当使用令牌时才会出现这种情况。 如果使用许可证预留,产品实例页面将显示 Expressway和设备序列号。 在本示例中,e1和e2显示为名称,因为部署使用令牌且未选中该 框。

| General | Licenses | Product Instances | Event Log | | | |
|------------|-----------------|-------------------|--------------|-------------------------------|--------------|-----------|
| Authorize | e License-Enfor | ced Features | | etj | | × |
| Name | | | Product Type | Last Contact | Alerts | Actions |
| 381a299b9 | 50211edac28024 | 2cb007106 | CTSPMP | 2023-Feb-04 20:52:27 (Reserv | ed Licenses) | Actions - |
| e1 | | | EXPY | 2023-Sep-27 17:25:24 | | Actions - |
| e2 | | | EXPY | 2023-Sep-27 17:25:07 | | Actions - |
| fbf40ec698 | 8911ebb8150242 | cb007104 | CTSPMP | 2023-Jul-19 15:37:00 (Reserve | d Licenses) | Actions - |

产品实例页面- CSSM

使用令牌的智能许可

使用令牌的智能许可是连接版本x12.6和x14.0.11之间的智能许可的唯一方法,并且要求 Expressway能够访问CSSM(云或内部部署)以访问可用许可证或更新许可证使用情况。智能许可 的引入使管理Expressway许可证变得更加轻松,消除了PAK许可的需求。在x14.1之前的版本中 ,必须在维护>智能许可中启用智能许可,但从x14.1以后,默认情况下启用智能许可。

令牌允许Expressway访问CSSM上虚拟帐户(VA)中的所有可用许可证。



注意:Expressway集群中的每个节点都必须分配令牌。将令牌应用到主expressway节点不 会许可对等节点。

配置

- 1. 登录software.cisco.com并转到虚拟帐户中的常规选项卡,然后选择新令牌。
- 2. 使用Description、Expires After(令牌在应用于服务器之前有效的天数,以天为单位)和 Max填写令牌注册。使用次数,然后点击创建令牌。

| | Central > Smart | Software Licensing | | Smart account | nternalTestDemoAccount8.cisco.com |
|-------------|-----------------|-----------------------|--|---|-----------------------------------|
| Smart S | oftware L | icensing | | | SL Product Details Support Help |
| derts Inver | tory Convert | to Smart Licensing Re | ports Preferences On-Prem A | Accounts Activity | |
| /irtual Acc | ount: | | Virtual Account | | 3 Minor Hide Alerts |
| General | Licenses | Product Instances | Event Log | | |
| Virtual A | ccount | | | | |
| Descriptio | n: | Darren M | cKinnon | | |
| Default Vi | rtual Account: | No | | | |
| New Tol | (en | | | and the second se | A 1 |
| L | | | Create Registration This will create a token that is created, go to the Smart Licen Virtual Account: | 1 Token used to register product instances, so that they can use licenses from this virtual account. Once it aing configuration for your products and enter the token, to register them with this virtual account. | |
| | | | Create Registration This will create a token that is created, go to the Smart Licen Virtual Account: Description | Token used to register product instances, so that they can use licenses from this virtual account. Once it sing configuration for your products and enter the token, to register them with this virtual account. Description | |
| | | | Create Registration Triss will create a token that is created, go to the Smart Licen Virbual Account: Description: • Expire After: | Token used to register product instances, so that they can use licenses from this virtual account. Once it aing configuration for your products and enter the token. to register them with this virtual account. Description 30 Days How many days do you have to apply this token to your server | |
| | | | Create Registration This will create a token that is created, go to the Smart Licen Virbual Account: Description: • Expire After: | Token used to register product instances, so that they can use locenses from this virtual account. Once it sing configuration for your products and enter the token, to register them with this virtual account Description Jo Days How many days do you have to apply this token to your server Between 1 - 365, 30 days recommended | |
| | | | Create Registration This will create a token that is created, go to the Smart Licen Virbual Account: Description: • Expire After: Max. Number of Uses: | Token used to register product instances, so that they can use loonses from this virtual account. Once it sing configuration for your products and enter the token. To register them with this virtual account. Description Journal Control Contrecontrol Control Control Control Control Control Control Control C | |
| | | | Create Registration This will create a token that is created, go to the Smart Licen Virtual Account: Description: • Expire After: Max. Number of Uses: Max. Number of Uses: | Token used to register product instances, so that they can use licenses from this virtual account. Once if sing configuration for your products and enter the token. To register them with this virtual account Description | |

CSSM令牌创建



注意:智能许可于2023年1月更改了他们的证书颁发机构(CA)。从那时起,如果使用到 x14.0.11之前的CSSM的直接或代理连接,令牌将不起作用。请参阅Cisco bug ID <u>CSCwe09378</u>。



注意:只有注册的思科用户才能访问内部思科漏洞信息。

- 3. 复制令牌并在部署中的每个Expressway上打开维护>智能许可。如果在Expressway版本 x12.6 - x14.0.x上,您必须手动启用智能许可。系统将显示一条提示,告知您启用智能许可 是不可逆的,如果您想要恢复使用传统许可证,则需要重置工厂。
- 4. 将令牌粘贴到页面底部的Registration字段中,然后单击Register。

| Registration | |
|--|-----|
| Product Instance Registration token | (j) |
| Rereaister this product instance if it is already registered | |
| | |

Register

Expressway令牌字段

从Expressway到CSSM,部署许可证使用率每6小时自动更新一次,但如果您想在任何给定时间更 新使用率,可以在Expressway 维护>智能许可中执行此操作,然后选择更新使用率详细信息。



注意:这是资源密集型操作,必须谨慎使用。



注:此步骤假设您已经在Expressway Maintenance > Smart Licensing中设置传输设置。

使用特定许可证预留(SLR)的智能许可

在Expressway x14.2中引入的SLR许可方法适用于气隙部署,其中Expressway无法到达互联网,但 适用于使用云CSSM的任何部署。只有云CSSM可以具有许可证预留,因此,如果您具有内部部署 CSSM,则需要使用智能许可令牌或联系思科许可团队来帮助您在云CSSM中创建可以具有许可证 预留的新虚拟帐户。 集群中的每个节点都必须启用和配置智能许可证预留。

在开始之前,集群的部署必须没有任何警报。有关集群的详细信息,请参阅Cisco Expressway集群 创建文档。

注意:必须在Expressway集群中的每个节点上执行特定许可证保留(SLR)。

提示:SLR不能与卫星CSSM一起使用,也不能在使用与卫星CSSM连接所用的同一虚拟帐 户(VA)的云CSSM中使用。如果要使用SLR,Expressway智能许可证需要转移到云 CSSM中的其他或新VA。如果需要,请与思科许可团队联系以获取帮助。

配置

启用SLR的步骤:

- 1. 在CLI中,运行命令xconfiguration license Smart reservationEnable: on。
- 2. 在CLI中,运行命令xcommand license Smart reservation request。
- 3. 复制预留请求代码,并在<u>思科软件智能许可</u>上登录智能帐户。
- 4. 在"虚拟帐户"中,单击许可证保留,然后粘贴预留请求代码。

Cisco Software Central > Smart Software Licensing

Smart Software Licensing

| tual Acc | ount: | * | | |
|----------|----------|-------------------|-----------|---|
| General | Licenses | Product Instances | Event Log | |
| | | | | 1 |

注意:如果许可证预留不是虚拟帐户,请与思科许可团队联系。

5. 选择要为此请求保留的许可证数量。

注意:集群中的所有节点都必须注册到智能许可,这意味着必须有某些许可证可用于所有 节点。请勿将所有许可证分配给一个节点。

| art License Reservat | ion | | | | | |
|--|--|--|------------------------------|---------------|---------|--|
| STEP 1 🗸 | STEP 2 Select Licenses | STEP 3 Review and Confirm | STEP 4 Authorization Code | | | |
| Host Identifier: UDI VID: | 310ea119 1.0 | | | | | |
| Licenses to Reserve | you have a sumula of the linenses y | our want to reserve in the Virtual Acros | and . | | | |
| Reserve a specific license | Too rene a surpris of the sources y | AN THEN IN THEFT IS NOT TRUE PLOT | a 11. | | | |
| License | | Expir | es Purcha | sed Available | Reserve | |
| Level2 Supports substitution | Kana and Anna and An | | | | | |
| UC Manager Telepresence | Room License | 2024 | I-Feb-16 5 | 5 | 0 | |
| UC Manager Telepresence Room Li | Centur | | | | | |
| Level 3 | | | | | | |
| UC Manager Telepresen UC Manager Telepresence Roo | ce Room License (12 x) n License | 199 199 | 0 | 2 | 0 | |
| Level2 Supports substitution | 0 | | | | | |
| | | | | | | |
| | | | | | | |

CSSM许可证预留

6. 查看后,单击Generate Authorization Code。

| STEP 2 ✓ | 0 | | |
|-----------------|---|---|---|
| | STEP 3 | STEP 4 | |
| Select Licenses | Review and Confirm | Authorization Code | |
| EXPY | | | |
| Expressway | | | |
| 098AA971 | | | |
| 310ea119 | | | |
| 1.0 | | | |
| | | | |
| | | Expres | Quantity to Reserve |
| | | | |
| License | | 2024-Feb-16 | 1 |
| | | | |
| | | | |
| | | | Cancel Back Generate Authorization Code |
| | EXPY Expressway 098AA971 310ea119 1.0 | EXPY Expressway 098AA971 310ea119 1.0 | EXPY Expressively 098AA971 310ea119 1.0 Loense 2024-Feb-16 |

CSSM审核和确认

7. 复制授权码,或下载为文件,然后关闭此窗口。

| STEP 1 | STEP 2 | STEP 2 | STEP 1 | | | |
|---|---|--|---|--|--|--|
| | 2 | 5. | | | | |
| Enter Request Code | Select Licenses | Review and Confirm | Authorization Code | | | |
| Product Type: | EXPY | | | | | |
| UDI PID: | Expressway | | | | | |
| UDI Serial Number: | 098AA971 | | | | | |
| Host Identifier: | 310ea119 | | | | | |
| UDI VID: | 1.0 | | | | | |
| | | | | | | |
| <specificplr>-authorization(<entitiement>-tag>regid 2019 <enddate>2024-Feb-16 UTC Telepresence Room License- <signature>MEQCIHT9Ks2c8 <ud>>PExpressway.S 098A47</ud></signature></enddate></entitiement></specificplr> | Code> <flag>A </flag> C+03.com cisco.UCM_TelePresenceR censeType>TERM flagDescription><subscriptionid>//arReNNuQv8D8xUh>/AN3da+Ybsc 971,V:1.0,H:310ea119</subscriptionid> | rsion> <piid>4481dfb4-b10e-4ce1-ba4 toom,14.0_21d59e6c-87fa-4d7c-9c9c enseType><displayname>UC Manag ubscriptionID>ubscriptionID>cPLR></displayname></piid> | 5-8864c5f06e6f <timestamp: afb36fb93276<count>1er Telepresence Room Licenseents> gxs/QSeg/It0w4XVEEYDp11A==<td>1695065663125int><startdate>2023- splayName><tagdes- ignature></tagdes- </startdate></td><td>nestamp>-entitiements> Feb-16 UTC cription>UC Manager</td><td></td></count></timestamp: | 1695065663125int> <startdate>2023- splayName><tagdes- ignature></tagdes- </startdate> | nestamp>-entitiements> Feb-16 UTC cription>UC Manager | |
| cspecificPLR>-cauthorizationd sentimement>-tag-regid_2019 vendDate>2024-Feb-16 UTC Telepresence Room License- csignature>MEQCIH196(azc8 vudi>P_Expressway,8:09BAA/ viewn how to enter this code, | Code> <flag>A</flag> 03.com.cisco.UCM TelePresenceR viendDate> tagDescription> <ubscription><ubscription><ubscription><ubscription><ubscription><ubscription><ubscription><ubscription><ubscription><ubscription><ubscription><ubscription><ubscription><ubscription><ubscription><ubscription><ubscription><ubscription><ubscription><ubscription><ubscription><ubscription><ubscription></ubscription><ubscription></ubscription></ubscription></ubscription></ubscription></ubscription></ubscription></ubscription></ubscription></ubscription></ubscription></ubscription></ubscription></ubscription></ubscription></ubscription></ubscription></ubscription></ubscription></ubscription></ubscription></ubscription></ubscription></ubscription> <td>rsion><piid>4481dfb4-b10e-4ce1-ba4 com;14:0_21d59e5c-87fa-4d7c-9c9c- enseType><displayname>UC Manag ubscrptionID><\entitlement><\entitlem r2FSXhTAIAK7bpOq90cuZoloyieOmu cPLR> roduct being licensed</displayname></piid></td> <td>5-8864c5f06e6f<timestamp: afb36fe93276-count>1er Telepresence Room License ents> gxsQSeg/II0w4XVEEYDp1fA==<td>1695065663125-vtm nt><standate>2023- iplayName><tagdes ignature></tagdes </standate></td><td>restamp>-centitiements> Feb-16 UTC-/startDate> orption>UC Manager</td><td></td></timestamp: </td> | rsion> <piid>4481dfb4-b10e-4ce1-ba4 com;14:0_21d59e5c-87fa-4d7c-9c9c- enseType><displayname>UC Manag ubscrptionID><\entitlement><\entitlem r2FSXhTAIAK7bpOq90cuZoloyieOmu cPLR> roduct being licensed</displayname></piid> | 5-8864c5f06e6f <timestamp: afb36fe93276-count>1er Telepresence Room License ents> gxsQSeg/II0w4XVEEYDp1fA==<td>1695065663125-vtm nt><standate>2023- iplayName><tagdes ignature></tagdes </standate></td><td>restamp>-centitiements> Feb-16 UTC-/startDate> orption>UC Manager</td><td></td></timestamp: | 1695065663125-vtm nt> <standate>2023- iplayName><tagdes ignature></tagdes </standate> | restamp>-centitiements> Feb-16 UTC-/startDate> orption>UC Manager | |
| cspecificPLR>-authorizationd entitlement>-dap-regid_2019 <enddate>2024-Feb-18 UTC Telepresence Room License- csignature>MEQCHT9Kdzc8 cudi>P_Expressway.5:09BAA i learn how to enter this code,</enddate> | Code> <flag>A</flag> Code> <flag>A</flag> Version>C V | rsion> <piid>4481dfb4-b10e-4ce1-ba4 com,14.0_21d59e5c-876a-4d7c-9c9c- ensType>-cdpslayName-VUC Manage ubscriptionID>22FSXhTAIAK7bpOq90cu2oloyieOmu cPLR> roduct being licensed</piid> | 5-8864c5f06e6f <timestamp: atb36b63276-count>1rents> gxsGSeg/It0w4XVEEYDp1fA==<td>1695065663125nt><standate>2023- playName><tagdes ignature></tagdes </standate></td><td>nestamp-<entitlements> Feb-16 UTC cription>UC Manager</entitlements></td><td></td></timestamp: | 1695065663125nt> <standate>2023- playName><tagdes ignature></tagdes </standate> | nestamp- <entitlements> Feb-16 UTC cription>UC Manager</entitlements> | |
| cspecificPLR>-authorizationd entitlement>-dap-regid_2019 <enddate>2024-Feb-18 UTC Telepresence Room License- csignature>MEQCHT9Kdzc8 <udi>P_Expressway.5.09BAA3 i learn how to enter this code,</udi></enddate> | bode> <flag>A</flag> <version>C</version> CCCCCType>TERM rendData> ragDescription> subscription> su | rsion> <piid>4481dfb4-b10e-4ce1-ba4 com,14.0_21d59e5c-876a-4d7c-9c9c- ensType>-cdpslayName-UC Manag ubscriptionID>/2FSXhTAIAK7bpOq90cu2oloyieOmu cPLR> roduct being licensed</piid> | 5-8864c5f06e6f <timestamp: atb36b63276-count>1 rentpsreamers/do rentps-(authorizationCode> gxsQSeg/t0w4XVEEYDp1fA==<td>1695065663125nt><startdate>2023.splayName><tagdes< td="">ignature></tagdes<></startdate></td><td>nestamp-<entitlements> Feb-16 UTC crption>UC Manager</entitlements></td><td></td></timestamp: | 1695065663125nt> <startdate>2023.splayName><tagdes< td="">ignature></tagdes<></startdate> | nestamp- <entitlements> Feb-16 UTC crption>UC Manager</entitlements> | |

CSSM SLR身份验证代码

8. 在Expressway CLI中,输入命令xcommand License Smart Reservation Install <copied auth token>(SLR身份验证令牌必须注明引号尾部和前导)。无需向CSSM输入确认代码。

| Expressway SLR安装 | xcommand License Smart Reservation I mestamp>169506563125en t>12023-Feb-16 UT e <tagdescription>UC Ma ode>>signature>MEQCIHTSKszc8/YaReNNU dea119 Authorization code installed. Please enter the confirmation code t</tagdescription> | nstall " <specificplr><author titlements><entitlement><tac C<enddate>2024-f nager Telepresence Room Licc QVB08xUhAIAN3da4Ybsc/2FSXhT/ o CSSM account: bbcda4ac</enddate></tac </entitlement></author </specificplr> | rizationCode≫flag>Ap>regid.2019-03.com.cisco Feb-16 UTCnse <sub AiAK7bp0q90cuZoloyieOmugx:</sub | p>cversion>Ccq/i UCM_TelePresenceRoom,14.6 useType>TERM criptionID>QSeg/It0w4XVEEYDp1fA== <th>id>4481dfb4-b10e-4ce1-ba45-8864c5f06e6f 2 21d59e5c.87fa-ad7c-9c9c-afb36fb93276 ≪displayName>UC Manager Telepresence Room Licens ID>ignature><udi>P:Expressway,S:098AA971,V:1.0,H:32</udi></th> | id>4481dfb4-b10e-4ce1-ba45-8864c5f06e6f 2 21d59e5c.87fa-ad7c-9c9c-afb36fb93276 ≪displayName>UC Manager Telepresence Room Licens ID>ignature> <udi>P:Expressway,S:098AA971,V:1.0,H:32</udi> |
|---|---|--|---|---|---|
| Smart licensing Wanning. Your current hardware does not meet supported VM configuration or standard configuration for this version of Expression, view <u>VAtalization for Clace Expression</u> , page. Configuration Smart licensing mode Configuration status License authorization status License authorization status Control VAtalization Status Control VAtalizat | Expressway SLR安装 | | | | |
| Wanding Your current hardware does not meet supported VM configuration nor standard configuration for this version of Expressively, view V/husization for Circo Excessively page. Configuration Smart locarising mode Reservation Configuration Status Provide configuration status Smart locarising mode Provide configuration status Status Provide configuration status Status Configuration status Provide configuration status </th <th>Smart licensing</th> <th></th> <th></th> <th></th> <th>You are here: Maintenance * Smart licensing</th> | Smart licensing | | | | You are here: Maintenance * Smart licensing |
| Contiguration Resentation view Small locating mode Resentation view Literating status | Warning: Your current hardware does not meet supported VM of | onfiguration requirements. For information on standard | d configuration for this version of Expressway, view | v Virtualization for Cisco Expressway page | |
| Literating status Resentation (Internation status) Indicates SLR licensing is being used Literating status ✓ Registration status ✓ Indicates SLR licensing is being used Smart account ✓ Authorated - Resented ✓ Indicates SLR licensing is being used Visual account ✓ Indicates SLR licensing is being used ✓ Indicates SLR licensing is being used Under using that updated: 41:34:27 UTC) ✓ Indicates SLR licensing is being used ✓ Indicates SLR licensing is being used Uotate used plate updated: 41:34:27 UTC) ✓ Indicates SLR licensing is being used ✓ Indicates SLR licensing is being used Uotate used based based that updated: 41:34:27 UTC) ✓ Indicates SLR licensing is being used ✓ Indicates SLR licensing is being used Uotate used based | | | | | |
| Small locarsing mode Resension v Licarsing status Indicates SLR licensing is being used Registration status ✓ Registrated - Specific License Reservation ✓ Authoraged - Reserved Small account ✓ Authoraged - Reserved Vitual account ✓ Authoraged - Reserved Underse authorization status ✓ Authoraged - Reserved Discrete authorization status ✓ Authoraged - Reserved Underse authorization status ✓ Authoraged - Reserved Vitual account ✓ Authoraged - Reserved UCM_TelePreserveReserve | Configuration | | | | |
| Licensing status ✓ Begistated - Secolfic License Reservation Authorized - Secolfic License Reservation ✓ Authorized - Reservation Mail account ✓ Authorized - Reservation Under search 4134/27 UFC) ✓ Authorized - Reservation Under search 4134/27 UFC) ✓ Settion Control Under search 4134/27 UFC) ✓ Settion Control Under search 4134/27 UFC) ✓ Settion Control UCM_TelePestorRoom 1 AutHoRizED ✓ Settion Control UCM_TelePestorRoom 1 AutHoRizED UCM Manager Extense Room License UCM_TelePestorRoom 0 NOT IN USE UCM Manager Extense Room License UCM_TelePestorRoom 0 NOT IN USE UCM Manager Extense Room License UCM_TelePestorRoom 0 NOT IN USE UCM Manager Extense Room License | Smart licensing mode | Reservation > (j) | | | |
| Liennic l | | | | | |
| Registered - Socific License Reservation ✓ Registered - Socific License Reservation ✓ Authorized - Reservation ✓ Authorized - Reservation ✓ Authorized - Reservation ✓ Authorized - Reservation ✓ Authorized - Reservation ✓ Authorized - Reservation Virtual account ✓ Ucense using Rest under Reservation ✓ Ucense using Rest under Reservation ✓ UCM_TelePresenceRoom 1 UCM_TelePresenceRoom AUTHORIZED UC Manager Enhanced License UCM_TelePresenceRoom 0 NOT IN USE UC Manager Enhanced License UCM_TelePresenceRoom 0 NOT IN USE UC Manager Enhanced License UCM Example Center 0 NOT IN USE USecore Reservation License | Licensing status | | | | |
| Lease autoritation status ✓ Autorizant - Reserved Indicates SLR licensing is being used Smart account Virula account Virula account Virula account Virula account Virula account Under usage (Rat updated: 14:34:27 UTC) Virula account Virula account Under usage (Rat updated: 14:34:27 UTC) Virula account Virula account Under usage (Rat updated: 14:34:27 UTC) Virula account Virula account Under Usage (Rat updated: 14:34:27 UTC) Virula account Virula account UCM_TelePesenceRoom 1 AUTHORIZED UCM Ranger Enhanced License UCM_TelePesenceRoom 0 NOT IN USE UCM Manager Enhanced License EXPY_RMS 0 NOT IN USE Cacco Expression Ricense | Registration status | | Registered - Specific License Reservation | | |
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| Virus account Lecres ou page (Ast 424-27 UTC) Lecres ou page (Ast 424-27 UTC) Description UCM_Ende/PresenceRoom 1 AUTHORIZED UC Manager Telepresence Room License UCM_TelePresenceRoom 0 NOT IN USE UC Manager Telepresence Room License EXPY_RMS 0 NOT IN USE Conce Expressioner, Ricense Room License | Smart account | | | | |
| License usage Data Updated: 14.34.27 UTC) License usage Data Updated: 14.34.27 UTC) Current usage Status Description U/D_M_TelePersencRoom 1 AUTHORIZED UC Manager Telepresence Room License U/D_M_TelePersencRoom 0 NOT IN USE UC Manager Enhanced License EXPY_RMS 0 NOT IN USE Cacce Expression Ricense U/Didde usaid etablis | Virtual account | | | | |
| License type Current usage Status Description UCM_TolePresenceRoom 1 AUTHORIZED UC Manager Telespresence Room License UCM_TolePresenceRoom 0 NOT IN USE UC Manager Enhanced License USM_Enhanced 0 NOT IN USE UC Manager Enhanced License Ubdate usage details NOT IN USE Cisco Expressively Rich Media Session License | License usage (last updated: 14:34:27 UTC) | | | | |
| UCM_TelePresenceRoom 1 AUTHORIZED UC Manager Telepresence Room Lionse UCM_TelePresenceRoom 0 NOT IN USE UD Manager Enhanced Lionse UEPry: RMS 0 NOT IN USE Claco Expressively Rich Media Session Lionse | License type | Current usage | | Status | Description |
| UCM_Enhanced 0 NOT IN USE UC Manager Enhanced License EXPY_EMS 0 NOT IN USE Cisco Expressing Rich Media Session License Uddet usaige details | UCM_TelePresenceRoom | 1 | | AUTHORIZED | UC Manager Telepresence Room License |
| EXPY_RMS 0 NOT IN USE Clace Expression Vicense Update usage details | UCM_Enhanced | 0 | | NOT IN USE | UC Manager Enhanced License |
| Update usage defails | EXPY_RMS | 0 | | NOT IN USE | Cisco Expressway Rich Media Session License |
| | Update usage details | | | | |

向SLR注册的Expressway

返回保留的许可证

在某个时刻,您可能希望或需要返回您保留的许可证。这可能是由于一个Expressway停用以及另一 个或某些其他原因导致的。 如果需要更新预留以添加更多许可证,请参阅更新许可证部分。无需返 回许可证并重新开始更新。

1. 在Expressway命令行界面中,运行xcommand license Smart reservation return命令。

2. 复制代码(如果丢失此代码,请与思科许可部门联系以删除产品实例)。

Expressway CLI -许可证返回代码

3. 在智能许可上的虚拟帐户中,转到问题Expressway的产品实例>操作菜单,点击删除,然后输 入从CLI复制的保留返回代码。

| Seneral Licenses Product Instances E | vent Log | | | |
|---|--|---|--|--------------------------------------|
| Authorize License-Enforced Features | | | expressway | × 0, |
| Name | Product Type | Last Contact | Alerts | Actions |
| e1 | EXPY | 2023-Sep-18 18:41: | 28 | Actions - |
| 62 | EXPY | 2023-Sep-18 18:24: | 20 | Actions + |
| e3 | EXPY | 2023-Sep-18 18:24: | 50 | Actions - |
| 64 | EXPY | 2023-Sep-18 18:25: | 17 | Actions 🕶 |
| expewebapp | EXPY | 2023-Sep-18 15:38 | 16 | Actions + |
| UDI_PID:Expressway; UDI_SN:098AA971; UDI_VID:1.0; | EXPY | 2023-Sep-18 19:34: | 23 (Reserved Licenses) | Actions - 🕕 |
| | | | | Update Reserved Licenses Remove 2 |
| Remove To remove available to Product Ins • Reserva | Reservation a Product Instance that other Product Instance tance. If you cannot ger thion Return Code: | has reserved licenses and make those lic s, enter in the Reservation Return Code g nerate a Reservation Return Code, contar CMcmMV-TriR2T-hKD6pi-c3h43U-sT8i 6CRCji-9J1GRA-6wZEnV-M2u | enses once again enerated by the t Cisco Support | Rehost Licenses from a Failed Produc |
| | | 6 Remove Res | ervation Cancel | |

CSSM -许可证返回

更新预留许可证

如果您需要将其他许可证添加到其SLR预留,可以首先在云CSSM中进行更改,然后更新 Expressway自身,最后从Expressway将确认代码输入到云CSSM中。

1. 在CSSM中,在虚拟帐户>产品实例中查找Expressway预留。

2. 选择活动>更新预留许可证。

| ual Acc | ount: | * | | | | 3 Minor Hide Alerts |
|------------|------------------|--------------------------|--------------|-------------------|-------------------------------------|---|
| General | Licenses | Product Instances | Event Log | | | |
| Authoriz | e License-Enfor | ced Features | | | Search by Device or by Product Type | ٩ |
| Name | | | Product Type | Last Contact | Alerts | Actions |
| tb140ec698 | 8911ebb8150242 | tcb007104 | CTSPMP | 2023-Jul-19 15:37 | 7:00 (Reserved Licenses) | Actions - |
| UDI_PID.E | xpressway; UDI_: | SN-0A3BA3D7: UDI_VID:1.0 | EXPY | 2023-Sep-29 14.4 | 7:13 (Reserved Licenses) | Actions + |
| | | | | | | Transfer |
| 10 🗸 | | | | | Showing Page 2 of | Update Reserved Licenses |
| | | | | | | Remove Rebost Licenses from a Failed Produ |

CSSM产品实例更新

3. 选择"保留特定许可证"并输入新金额。

4. 单击下一步>生成授权码。

| STEP 3 Authorization Code |
|--|
| Authorization Code Quantity to Reserve |
| Quantity to Reserve |
| Quantity to Reserve |
| Quantity to Reserve |
| 5 |
| 5 |
| |
| 5 |
| |
| 1 |
| |
| |
| Cancel Back Generate Authorization |
| |

CSSM生成身份验证代码

- 5. 复制新的授权码。
- 6. 保持此窗口打开以输入Expressway生成的确认代码,但如果关闭此窗口,则可以稍后输入确 认代码。
- 7. 在Expressway的命令行界面中,运行xcommand license Smart reservation install <auth code>命令并复制确认代码。
- 8. 返回至CSSM以输入确认代码。 在完成此操作后,许可证预留才会完成。

Expressway CLI -更新

提示:将授权码输入到Expressway命令行界面时,不要忘记使用授权码周围的引号。

9. 如果CSSM中的预留窗口已关闭,请转到产品实例并查找Expressway。

10. 选择操作>输入确认代码,然后粘贴代码以完成此过程。

| tual Acco | ount: | 1 | • | | | | | | Minor | Hide Alerts |
|-------------|----------------|-----------------|------------|-----------|------|-------------------|--------------------------|------------------|---------------------------|-------------------------|
| General | Licenses | Product Insta | nces | Event Log | | | | | | |
| Authorize | License-Enfor | ced Features | G | | | | Search by Device or by I | Product Type | | Q |
| Name | | | | Product | Гуре | Last Contact | | Alerts | | Actions |
| fbf40ec6988 | 911ebb8150242 | 2cb007104 | | CTSPM | | 2023-Jul-19 15:37 | :00 (Reserved Licenses) | | | Actions 👻 |
| UDI_PID:Ex | pressway; UDI_ | SN:0A3BA3D7; UD | H_VID:1.0; | EXPY | | 2023-Sep-29 14:4 | 5:24 (Reserved Licenses) | 1 License Ren | servation Pe | Actions + |
| 10 ~ | | | | | | | s | howing Page 2 of | Transfer Update Reserv | ved Licenses |
| | | | | | | | | | Enter Confirm | ation Code |
| | | | | | | | | | Remove | |
| | | | | | | | | | Rehost Licens | es from a Failed Produc |

CSSM产品实例更新

从PAK许可证(选项密钥)迁移到智能许可

如果部署当前使用选项密钥,但您想要升级到仅智能可用的x14.1或更新版本,或者您想立即启用智能,除非您使用的是卫星CSSM,否则唯一的选项是升级到x14.2.5或更新版本(x14.0.11和更新版本也具有修复程序)。 这是因为智能许可在2023年1月更改了根证书。请参阅Cisco Bug ID <u>CSCwe09378</u>

注意:只有注册的思科用户才能访问内部思科漏洞信息。

如果您尝试在固定版本之前注册运行软件的Expressway,注册将失败,并提示以下错误消息:

"SSL证书问题:证书链中的自签名证书"

如果使用卫星CSSM服务器,可以随时启用智能许可,但请确保其虚拟帐户上有足够的许可证来覆 盖所需的注册数量和RMS许可证。

Expressway升级到X14.1或更高版本后,除非先前设置为使用智能许可,否则服务器将以90天的许可宽限期运行。

故障排除

注册问题

1. 如果终端注册失败,请检查事件日志以查看它是否报告任何许可问题。

| Results | |
|--|--|
| 2023-09-29T15-07:14.426+00.00 atam: Levels" <u>WARN</u> " Events" <u>Atam: Raised</u> " Ids"10005" UUID=" <u>b256ec13-7592-4753-ail&-fb83ble5ed6d</u> " Seventys" <u>warning</u> " Detail=" <u>Unsuitable hartware way</u> " UTCTmee="2023-09-29.15.07:14.426" | rning. Your current hardware does not meet supported VM configuration requirements for this version of Expresswa |
| 2023-09-29T15-06-54-831+00:00 ticensemanager: Level="YMARN" Event="Airm Raised" Id="20028" UUID="s2386346-dtt2-1165-5656-9a7805669478" Seventty="saming" Detail="Room system icenses, You are licensed for 1 concurrent TelePresence nom system registrations," UTCTime="2023-09-29-15:05:54-831" | Icense limit reached. A TelePresence room system redistration failed because there were no available room system I |
| 2023-09-29T15:06:54:830+00.00 tvcs: Events"Registration Rejected" Reasons" License limit exceeded" Services" SIP" Src-ips" 172.18.229.96" Src-ports" 506:1" Protocols" TLS" AORs" UTC Times" 2022-09-29 15:06:54:830 | roomkit@darmckin.local" Contact="sip:roomkit@172.18.229.96.5061:transport=tis" Duration="60" Level="1" |

Expressway事件日志-注册已拒绝

2. 未知CA

x14.2.5之前的已知问题,请参阅思科漏洞ID <u>CSCwe09378</u>。如果expressway运行的是x14.2.5或更 高版本,但由于未知CA仍无法连接到云中的智能许可,如以下数据包捕获所示。 无法向智能许可 的Expressway信任添加其他CA,因此唯一的解决方法是传递代理服务器,或将 <u>https://smartreceiver.cisco.com/</u>添加到Internet代理上的白名单。

| | | 2001.04 | C-East Incolution | Provocat | series of | addine Port | Description Port | |
|---|--------------------------------|----------------|-------------------|----------|-----------|-------------|------------------|--|
| | 827 2824-03-02 21:33:59.313638 | Exp C | SmartLicensing | TOP | 74 | 33594 | 443 | 33594 + 443 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 SACK_PERM TSval=1169137224 TSecr=0 WS=128 |
| | 828 2824-03-02 21:33:59.327001 | SmartLicensing | Exp C | TCP | 74 | 443 | 33594 | 443 + 33594 [SYN, ACK] Seq+0 Ack=1 Win+43648 Len+0 MSS=1420 SACK_PERM TSval=3171140928 TSecr=1169137224 WS=512 |
| Т | 829 2024-03-02 21:33:59.327018 | SmartLicensing | Exp C | TCP | 66 | 33594 | 443 | 33594 + 443 [ACK] Seq=1 Ack=1 Win=64256 Len=0 TSval=1169137237 TSecr=3171140928 |
| | 830 2024-03-02 21:33:59.340129 | Exp C | SmartLicensing | TLSv1.2 | 583 | 33594 | 443 | Client Hello (SNI-smartreceiver.cisco.com) |
| | 831 2024-03-02 21:33:59.376485 | SmartLicensing | Exp C | TCP | 66 | 443 | 33594 | 443 + 33594 [ACK] Seq=1 Ack=518 Win=524288 Len=0 TSval=3171140958 TSecr=1169137250 |
| ł | 833 2024-03-02 21:33:59.505820 | SmartLicensing | Exp C | TLSv1.2 | 1470 | 443 | 33594 | Server Hello |
| 1 | 841 2024-03-02 21:33:59.505932 | SmartLicensing | Exp C | TLSv1.2 | 667 | 443 | 33594 | Certificate, Server Key Exchange, Certificate Request, Server Hello Done |
| | 842 2024-03-02 21:33:59,505940 | Exp C | SmartLicensing | TCP | 66 | 33594 | 443 | 33594 → 443 [ACX] Seq=518 Ack=6218 Win=61056 Len=0 TSval=1169137416 TSecr=3171141088 |
| | 843 2024-03-02 21:33:59.506878 | Exp C | SmartLicensing | TLSv1.2 | 73 | 33594 | 443 | Alert (Level: Fatal, Description: Unknown CA) |

Expressway数据包捕获

| ✓ Certificates (5601 bytes) |
|--|
| Certificate Length: 1025 First certificate is from Cisco |
| > Certificate [truncated]: 308203fd308202c5a003020102021051afa227c7c90b1c99898fb3b2fa9fa5300d06092a864886f70dd1010b050030818a31153013060355040a130c42474320506172746e657273311d301b060355640b1314496e566f726d6174696f6e205355545637572697479312a3028 |
| Certificate Length: 1507 |
| v Certificate (truncated): 308205df308203c7x00302010202134d00000078b1fc95d04ec7599x000000000078300d06092x864886f70d01010b0500305c310b300906035554406130255533111300f660355640813084e657720596f726b3111300f6003550440713084e657720596f726b3104300000 |
| signedCertificate Second certificate is from the Proxy server. |
| version: v3 (2) |
| serialNumber: 0x4d0000078b1fc95d04ec7599400000000878 |
| > signature (sha256With#SAEncryption) |
| > issuer: rdnSequence (0) |
| > validity |
| ✓ subject: rdnSequence (∅) |
| > rdnSequence: 4 items (pkcs-9-at-emailAddress= |
| subjectPublicKeyInfo |
| > algorithm (rsaEncryption) |
| > subjectPublicKey [truncated]: 3082010#0282010100c30edf2ec6fb429213566cd3d52237047276f4b3e2f8cdbca4ae9e3a9c9a815e92ace8e6761a2a9f62a3b4110520406df81082ea728fba665a888853e8as53adf9288d1107e1ec399b8ca1d081901a1f89b882ce5e0180246b27c384aca64 |
| > extensions: 7 items |
| > algorithmIdentifier (sha256withRSAEncryption) |
| |
| |
| |

证书数据包详细信息

评估模式

如果使用令牌时Expressway无法到达CSSM,或者部署已启用智能许可但未配置(从x14.0.x升级到 x14.1或更高版本时出现常见问题),则expressway会开始90天倒计时。部署可在评估模式下运行 90天。如果部署是集群的,则在90天后不要尝试对集群进行任何更改。这可能会导致数据库出现不 可逆问题,导致需要出厂重置节点。

- 评估期仅为90天。 当服务器未注册到智能许可时,它会倒计时。一旦注册,时钟将停止,但 不会重置。
- 当评估模式已过期时,请勿更改任何集群配置。这可能会中断集群,并可能导致需要重建集群 (出厂重置、重建)。
- 当评估模式过期时,"集群"菜单将灰显。
- Xstatus显示评估模式还剩多少天。

```
License Authorization:
Status: EVAL MODE
Evaluation Period Remaining: 89 days, 0 hours, 4 minutes, 34 seconds
```

xstatus评估模式

诊断日志

对于其他故障排除,可在Expressway中启用调试。标准日志记录可以捕获一些问题。 诊断日志套 件> 日志记录快照相关行包含短语Smartlicenseagent。

调试可以在维护>诊断>高级>支持日志配置中启用

| Status | SCO Cisco Expressway-C | ns> Users> Maintenance> | |
|--------|--|---|---|
| Supp | port Log configuration | | You are he |
| 1 | Warning: Your current hardware does not meet supported V | A configuration requirements. For information on standard configuration for this version of Express | way, view Virtualization for Cisco Expressway page. |
| | Name - | Level | Actions |
| U | developer.sipservice.server.nt/mstatusresponder | INFO | <u>View/Edit</u> |
| | developer sipservice sipservicesync | INFO | View/Edit |
| | developer sipservice stats | INFO | View/Edit |
| | developer.sipservice.status | INFO | <u>View/Edit</u> |
| | developer.smartlicense | INFO | <u>View/Edit</u> |
| | developer.smartlicense.admin | INFO | View/Edit |
| | developer.smartlicense.agent | INFO | <u>View/Edit</u> |
| | developer.smartlicense.agent.modulefactory | INFO | View/Edit |
| | developer.smartlicense.alarm | INFO | <u>View/Edit</u> |
| | developer.smartlicense.configuration | INFO | <u>View/Edit</u> |
| | developer.smartlicense.curl | INFO | <u>View/Edit</u> |
| | developer.smartlicense.daemon | INFO | View/Edit |
| | developer.smartlicense.entitlement | INFO | <u>View/Edit</u> |
| | developer.smartlicense.getinfo | INFO | <u>View/Edit</u> |
| | developer.smartlicense.notification | INFO | <u>View/Edit</u> |
| | developer.smartlicense.plugin | INFO | View/Edit |
| | developer.smartlicense.smartlicenseappcommon | INFO | <u>View/Edit</u> |
| | developer.smartlicense.testconfiguration | INFO | View/Edit |
| - | developer.sockhandler | INFO | View/Edit |

Expressway支持日志配置调试

已知问题

缺陷

1. "smartlicenseget"和"signal SIGABRT, Aborted"中检测到意外的软件错误。 请参阅Cisco Bug ID <u>CSCwh22349</u>

2. "Detail="Smart license communication error: The system failed to communicate with cloudbased Cisco Smart Software Manager or Cisco Smart Software Manager On-Prem"(详细信息 ="智能许可证通信错误:系统无法与基于云的思科智能软件管理器或思科内部智能软件管理器通信)。 请参阅Cisco Bug ID <u>CSCwe09378</u>

相关信息

• <u>思科技术支持和下载</u>

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