

了解智能许可概述和电邮与Web安全的最佳实践

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简介

本文档介绍激活过程、定义以及如何对ESA/SMA/WSA上的智能许可服务进行故障排除。

先决条件

使用的组件

本文档中的信息基于以下软件和硬件版本：

- 邮件安全设备(ESA)AsyncOS 12.0版及更高版本。
- 安全管理设备(SMA)AsyncOS 12.0版及更高版本。
- 网络安全设备(WSA)AsyncOS版本11.7及更高版本。

注意：在ESA/SMA/WSA上启用智能许可证功能是永久性的，不允许选择将设备恢复为经典许可证模式。

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。

背景信息

智能许可能够：

- 从中心位置管理所有产品许可证
- 规范化物理和虚拟ESA/SMA/WSA之间的流程，使用一种方法应用和管理许可证
- 将许可证轻松应用于ESA/SMA/WSA
- 接收与许可证到期相关的警报
- 硬件型号ESA/SMA/WSA开箱即用，对所有服务具有90天的评估期

思科智能许可证全球主题摘要

尽管本文的核心目的是在ESA/SMA/WSA上配置智能许可服务，但其中还包括一些链接，提供该主题培训的一般指导。

要向智能许可注册ESA/SMA/WSA主机，首先需要设备所有者拥有智能帐户。

- 每个域颁发一个智能帐户。
- 智能帐户的管理员可以创建允许资源隔离的子级虚拟帐户。
- 虚拟帐户可用于根据您的需求限制对不同思科产品许可证的访问。
- 您可以访问思科智能软件管理器(CSSM)来管理许可证和下载令牌。

思科提供的链接包括与智能许可相关的视频、指南和说明：

- [创建新智能帐户或请求将用户添加到现有帐户](#)
- [智能软件许可概述思科网页](#)
- [智能许可部署指南](#)
- [思科智能帐户思科页面](#)
- [智能软件管理器思科页面](#)
- [思科智能软件管理器\(CSSM\)](#)

开箱即用

- 购买的所有硬件型号ESA/SMA/WSA都包括适用于所有功能的90天评估许可证。
- 使用当前传统许可证(CL)迁移的所有硬件型号均会获得90天的评估许可证。
- 所有虚拟ESA/SMA/WSA型号都需要基本虚拟许可证(VLN)(.xml)文件加载到设备，以链接到升级/更新服务器。
- 所有虚拟ESA/SMA/WSA型号在创建时均不包括90天许可证，并且需要通过传统许可证VLAN(.xml)进行注册。
- 使用当前传统许可证(CL)迁移的所有虚拟ESA/SMA/WSA型号都包括90天评估许可证。

通信要求

- TCP端口443上的网络或代理通信smartreceiver.cisco.com。

CSSM工具和选项卡的说明

CSSM选项卡的基本图示：

- General 选项卡
生成令牌的位置(令牌基于时间，可用于注册多个ESA/SMA/WSA。确保 **Virtual Account** 已选中

，因为一个用户可以拥有多个虚拟帐户。新令牌，打开要完成的模板并生成一个 Token 表中的行条目。操作可根据需要重复执行，并显示要执行的选项；Copy, Download,和 Revoke 令牌。

Virtual Account: **ESA**

General | Licenses | Product Instances | Event Log

Virtual Account

Description: ESA testing

Default Virtual Account: No

Product Instance Registration Tokens

The tokens are used to register product instances so they can use licenses from this virtual account.

New Token...

Token	Expiration Date	Uses	Export-Controlled	Description	Created By	Actions
MDAyYjAzOTUyZjFjNy00	2019-Apr-23 08:53:14 (in 85 ...)	9 of 300	Allowed			Actions
OTQ4ZjQ4ZTYiMmQzYjY0	2019-Feb-06 06:50:39 (in 9 ...)		Allowed	Testing	akukar3	Copy Download... Revoke...
NjdZDM4MGMGNjVmNy00	2019-Feb-02 10:51:25 (in 5 ...)		Allowed		shrib	
MThhNzc2YzgZWY5YS00	2020-Jan-03 09:29:59 (in 34...)		Allowed	esa2	pparalik	
OTNNDiMDAIOGQ0YS00	Expired	5 of 10	Allowed	ESA	dpadzensky	Actions

CSSM常规选项卡

- 许可证选项卡 审核并确认许可证存在和可用性的位置。此 License 列中列出了所购买的服务或捆绑包的名称。此 Purchased 列中列出了可用密钥的存在。此 Alerts 列显示有关特定许可证的重要消息。

Virtual Account: **ESA**

General | **Licenses** | Product Instances | Event Log

Available Actions | Manage License Tags | Search by License

License	Billing	Purchased	In Use	Balance	Alerts	Actions
<input type="checkbox"/> Content Security Management Centralized Reporting	Prepaid	8	8	0	Licenses Expiring	Actions
<input type="checkbox"/> Content Security Management Centralized Tracking	Prepaid	8	8	0	Licenses Expiring	Actions
<input type="checkbox"/> Content Security Management Config Manager	Prepaid	17	9	+8	2 Alerts	Actions
<input type="checkbox"/> Content Security Management Master ISQ	Prepaid	5	8	-3	2 Alerts	Actions

CSSM许可证选项卡

- 产品实例选项卡 显示各个设备名称、型号、上次通信和警报。

Smart Software Licensing

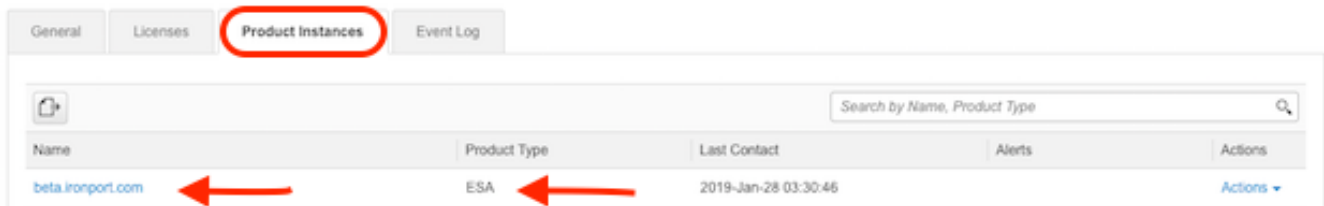
Feedback Support Help

Alerts | Inventory | Convert to Smart Licensing | Reports | Preferences | Satellites | Activity

Questions About Licensing?
Try our Virtual Assistant

Virtual Account: ESA

36 Major 186 Minor Hide Alerts



Name	Product Type	Last Contact	Alerts	Actions
beta.ironport.com	ESA	2019-Jan-28 03:30:46		Actions

CSSM产品实例选项卡

从CSSM生成令牌

- 启动CSSM网页。 [思科智能软件管理器\(CSSM\)](#)
- 在页面顶部，选择 **Inventory**. 加载后，选择适当的 Virtual Account 从页面的左上角部分大型组织可以将多个虚拟帐户分配到单个智能帐户，这需要选择与ESA/SMA/WSA许可证相关的适当虚拟帐户选项卡：General, Licenses, **Product Instances**, 和 Event Log
- 从CSSM生成令牌。选择 **General** 选项卡在标题下 **Product Instance Registration Tokens**，选择 **New Token** 按钮出现一个窗口，用于完成 Description 和 Expire After 价值创建令牌返回 General 选项卡，选择 **Actions** 用于复制或下载令牌的下拉选项卡

SAMPLE TOKEN FILE

Token:

```
M2UyYmIxYTktNzJmMy00ZxxxxxxxxxxxxxxxxxxxxxZjVhMDMwLTF1NDE3Mzcx%0ANDU2ODR8R1luSVI5NmxCUS92SnVzUjUvcVViV0ZyVVFrcHBxNVh2TVdNa1My%0AeGJYMD0%3D%0A
```

Virtual Account: ESA

Smart Account: InternalTestDemoAccount.MY_DOMAIN.com

Token Description: SMA_token

Export-Controlled Functionality: Allowed

Created by User: my_CCOID

Contact Email: ADMIN@MY_DOMAIN.com

Expiry Date: 2018-Nov-09 04:19:05 (in 18 days)

* Note: this token file was downloaded on October 22nd 2018

* Note: copy entire token string to use for product instance registration


在ESA/SMA/WSA上启用智能许可证功能

- Web UI激活：
 - 浏览到 **System Administration > Smart Software Licensing**. 选择 **Enable Smart Software Licensing**. 列出了用于请求功能密钥的选项：选项1：使用令牌注册和请求所需功能选项2：不使用令牌注册，评估期为90天选择 **OK**. 提交更改。
- CLI激活：
 - 执行命令：license_smart > Enable > Y. 选项1和选项2与前面的UI描述列出的是相同的。选择 **OK**. 提交。

使用令牌将ESA/SMA/WSA注册到智能帐户

- 导航至 System Administration > Smart Software Licensing.

- 选择 Register 按钮以打开弹出注册页面。
- 将复制的令牌粘贴到步骤4下提供的空间中。
- 选择 Register 完成这些步骤（弹出窗口关闭）。
- 刷新 Smart Software Licensing 页面，查看新状态。
- 完成后，Registration Status 字段显示单词 Registered，以及注册到期日期。

Smart Software Licensing Status	
Action: ?	Register 
Evaluation Period: ?	In Use
Evaluation Period Remaining: ?	81 days 7 hours 32 minutes
Registration Status: ?	Unregistered
License Authorization Status: ?	Evaluation Mode
Last Authorization Renewal Attempt Status: ?	No Communication Attempted
Product Instance Name: ?	beta.ironport.com
Transport Settings: ?	Direct (https://smartreceiver.cisco.com/licservice/license) (Edit)

智能软件许可“注册”


Smart Software Licensing

Smart Software Licensing Product Registration


To register the product for Smart Software Licensing:

1. Ensure this product has access to the internet or a Smart Software Manager satellite installed on your network. This might require you to edit the Transport Settings. Product communicates directly or via proxy to Smart Software Licensing.
URL - https://smartreceiver.cisco.com/licservice/license
2. Create or login into your Smart Account in Smart Software Manager or your Smart Software Manager satellite.
3. Navigate to the Virtual Account containing the licenses to be used by this Product Instance.
4. Generate a Product Instance Registration Token (this identifies your Smart Account) and copy or save it here :


jANDYyNzd8cjJLOVZWM01JaURNuHhDeG4yS0p0N1hnL0RUWmplOUxkdVdGQ0tT%0AS2Vscz0%3D%0A



Reregister this product instance if it is already registered

Cancel **Register** 

注册弹出页面。

Smart Software Licensing Status	
Action: ?	--Select an Action--  Go
Evaluation Period: ?	Not In Use
Evaluation Period Remaining: ?	81 days 7 hours 30 minutes
Registration Status: ?	✔ Registered (28 Jan 2019 08:41) Registration Expires on: (28 Jan 2020 08:36)
License Authorization Status: ?	Out Of Compliance (28 Jan 2019 08:41) Authorization Expires on: (28 Apr 2019 09:35)
Smart Account: ?	InternalTestDemoAccount9.cisco.com
Virtual Account: ?	ESA
Last Registration Renewal Attempt Status: ?	SUCCEEDED on 28 Jan 2019 08:41
Last Authorization Renewal Attempt Status: ?	SUCCEEDED on 28 Jan 2019 08:41
Product Instance Name: ?	beta.ironport.com
Transport Settings: ?	Direct (https://smartreceiver.cisco.com/licservice/license)

注册确认。

操作

可通过智能许可执行其他任务 Actions 下拉菜单。

- **更新授权** 完成此任务以手动更新“许可证类型”下列出的所有许可证的许可证授权状态。

注：许可证授权每30天自动续订。如果ESA/SMA/WSA不与CSSM通信，则许可证授权状态将在90天后过期。

- **续订注册** 请完成此操作以手动更新注册。

注：初始注册有效期为一年。如果设备连接到CSSM，注册续约每六个月自动执行一次。

- **取消注册** 断开ESA/SMA/WSA与CSSM的连接。系统转换到Evaluation Mode。ESA/SMA/WSA使用的许可证将释放并记入智能帐户以供重复使用。

- **重新注册** 向CSSM重新注册ESA/SMA/WSA。

注意：重新注册可用于在组织之间迁移多个虚拟帐户。

与智能许可证相关的定义

许可证类型：

- 传统许可证(CL):CL是指用于硬件和虚拟许可证的传统方法。
- 智能许可证(SL):SL是指智能许可。

License Authorization Status — 设备内给定许可证的状态。

- ESA/WSA/SMA不会在智能许可证页面中显示实际到期日期。
- 地点：Web UI > System Administration > Licenses.
- 地点：CLI > license_smart > summary.

特定功能的状态将显示为以下值之一：

- **评估**: SL服务已在新的（硬件）ESA/SMA上启用，无需令牌注册已在安装了当前CL的设备上启用了SL服务
- **评估已过期**：90天评估服务级别已过期，并且设备已过渡到额外的30天宽限期
- **合规性**：设备已向令牌注册，当前功能使用有效的许可证
- **在以下两种情况下可以观察到不合规（宽限期）的情况**：
30天临时功能许可证的一次点击请求正在使用中设备上的许可证已过期，30天宽限期已启动
- **不合规（过期）**：注册已完全过期，相关服务不再运行

Licenses	
Licenses	
License Name	License Authorization Status ?
Email Security Appliance Anti-Spam License	In Compliance
Email Security Appliance Outbreak Filters	In Compliance
Email Security Appliance Graymail Safe-unsubscribe	In Compliance
Email Security Appliance External Threat Feeds	In Compliance
Email Security Appliance Advanced Malware Protection Reputation	In Compliance
Mail Handling	In Compliance
Email Security Appliance Sophos Anti-Malware	Not requested
Email Security Appliance PXE Encryption	In Compliance
Email Security Appliance Advanced Malware Protection	In Compliance
Email Security Appliance McAfee Anti-Malware	Not requested

Licenses" /> *System Administration > Licenses*

注意：Web UI智能许可页面包含许多信息按钮，形式为？帮助定义值。

如何查看许可证到期

如何查看实际的到期日期？

可以在CSSM智能软件管理站点中查看许可证到期日期。

- 导航至：**Inventory > Virtual Account > Licenses >**单击许可证名称以打开弹出窗口。
- 此 **Overview** 选项卡显示当前许可证计数、购买和到期日期。
- 此 **Transaction History** 选项卡显示每个交易的每个采购/到期日期。

Smart Software Licensing

Alerts **1** Inventory | Convert to Smart Licensing | Reports | Preference

Virtual Account: **ESA** ▾ **2**

General

3 Licenses

Product Instances

Event Log

Available Actions ▾

Manage License Tags



License

Billing



4 Content Security Management Centralized Reporting

Prepaid



Content Security Management Centralized Reporting



Content Security Management Centralized Reporting



Content Security Management Centralized Reporting

Content Security Management Centralized Reporting in ESA

Overview **5**

Product Instances

Event Log

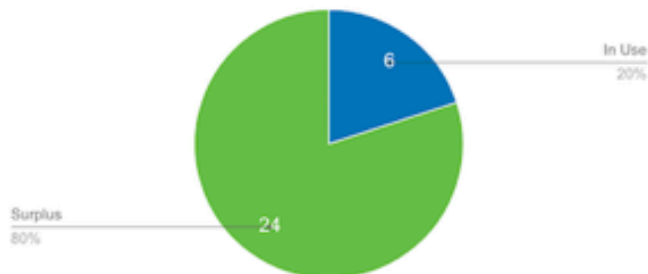
Transaction History

Description

Content Security Management Centralized Reporting

Virtual Account Usage

Purchased: 30 / In Use: 6 / Balance: + 24



License Types

Count	Type	Reserved	Start Date	Expiration Date
6	Term	0	2019-Apr-05	2020-Apr-04

Content Security Management Centralized Reporting in ESA

Overview

Product Instances

Event Log

Transaction History **7**

Transaction Date	License SKU	Quantity	License Expiration
2019-Apr-05 05:40:14	SMA-EMGT-LIC=	8 10	2020-Apr-04 (Term)
2019-Apr-05 05:34:57	SMA-EMGT-LIC=	10	2020-Apr-04 (Term)
2019-Apr-05 05:34:37	SMA-EMGT-LIC=	10	2020-Apr-04 (Term)

CSSM : 查看许可证到期。

智能许可的日志服务

与智能许可相关的ESA/SMA/WSA日志活动 smartlicense 日志。可从CLI查看日志。也可以将日志下载到本地计算机进行查看。

显示的输出是 smartlicense 日志：

```
Mon Jan 28 08:40:57 2019 Info: The administrator has requested to register the product with Smart Software Manager.
Mon Jan 28 08:41:07 2019 Info: Smart License: NotifyExportControlled notification has been ignored
Mon Jan 28 08:41:12 2019 Info: The product is registered successfully with Smart Software Manager.
Mon Jan 28 08:41:17 2019 Info: Smart License: Moved out of evaluation mode
Mon Jan 28 08:41:17 2019 Info: Renew authorization of the product with Smart Software Manager is successful.
Mon Jan 28 08:42:18 2019 Info: Email Security Appliance Anti-Spam License license has been moved to In Compliance successfully.
Mon Jan 28 08:42:23 2019 Info: Email Security Appliance Outbreak Filters license has been moved to In Compliance successfully.
Mon Jan 28 08:42:28 2019 Warning: Email Security Appliance Graymail Safe-unsubscribe license has been moved to Out of Complainece successfully.
Mon Jan 28 08:42:33 2019 Warning: Email Security Appliance Cloudmark Anti-Spam license has been moved to Out of Complainece successfully. Mon Jan 28 08:42:44 2019 Warning: The Mail Handling is in Out of Compliance (OOC) state. You have 4 days remaining in your grace period.
Mon Jan 28 08:42:48 2019 Info: Email Security Appliance Sophos Anti-Malware license has been moved to In Compliance successfully.
Mon Jan 28 08:42:53 2019 Warning: Email Security Appliance PXE Encryption license has been moved to Out of Complainece successfully.
Mon Jan 28 08:42:59 2019 Warning: Email Security Appliance Data Loss Prevention license has been moved to Out of Complainece successfully.
Mon Jan 28 08:43:04 2019 Warning: Email Security Appliance Advanced Malware Protection license has been moved to Out of Complainece successfully.
Mon Jan 28 08:43:09 2019 Warning: Email Security Appliance McAfee Anti-Malware license has been moved to Out of Complainece successfully.
Mon Jan 28 08:43:14 2019 Warning: Email Security Appliance Intelligent Multi-Scan license has been moved to Out of Complainece successfully.
Mon Jan 28 08:43:15 2019 Warning: The Email Security Appliance Intelligent Multi-Scan is in Out of Compliance (OOC) state. You have 4 days remaining in your grace period.
Mon Jan 28 08:43:19 2019 Info: Email Security Appliance External Threat Feeds license has been moved to In Compliance successfully.
Mon Jan 28 08:43:24 2019 Info: Email Security Appliance Bounce Verification license has been moved to In Compliance successfully.
Mon Jan 28 08:43:29 2019 Info: Email Security Appliance Image Analyzer license has been moved to In Compliance successfully.
Mon Jan 28 10:18:56 2019 Info: Renew authorization of the product with Smart Software Manager is successful.
```

对值进行解释的示例：

此示例显示：

- 评估期已停止计数，因为主机已注册。

- 主机已注册到智能帐户：`InternalTestDemo111.cisco.com`.
- ESA与虚拟帐户相关联：`ESA_EMEA`.
- 状态中的密钥 **Out of Compliance 18 days**. 密钥已过期，并且会增加30天的宽限期。状态中的密钥 **Out of Compliance Expired**. 密钥已过期，已耗尽30天的宽限期。此功能已禁用。

Smart Licensing is : Enabled

Evaluation Period: Not In Use

Evaluation Period Remaining: 81 days 7 hours 32 minutes

Registration Status: Registered (30 Oct 2018 07:57) Registration Expires on: (04 Dec 2019 16:11)

Smart Account : InternalTestDemol111.cisco.com

Virtual Account : ESA_EMEA

Last Registration Renewal Attempt Status : SUCCEEDED on 04 Dec 2018 16:16

License Authorization Status: Out Of Compliance (30 Oct 2018 07:57) Authorization Expires on: (05 Mar 2019 03:29)

Last Authorization Renewal Attempt Status: SUCCEEDED on 05 Dec 2018 03:34

Product Instance Name: beta.ironport.com

Transport Settings: Direct (<https://smartreceiver.cisco.com/licservice/license>)

beta.ironport.com (SERVICE)> license_smart

Choose the operation you want to perform:

- URL - Set the Smart Transport URL.
- REQUESTSMART_LICENSE - Request licenses for the product.
- RELEASESMART_LICENSE - Release licenses of the product.
- DEREGISTER - Deregister the product from Smart Licensing.
- REREGISTER - Reregister the product for Smart Licensing.
- RENEW_AUTH - Renew authorization of Smart Licenses in use.
- RENEW_ID - Renew registration with Smart Licensing.
- STATUS - Show overall Smart Licensing status.
- SUMMARY - Show Smart Licensing status summary.

[]> summary

Feature Name	Status	Grace Period	License Authorization
Email Security Appliance Anti-Spam License Compliance		N/A	In
Email Security Appliance Outbreak Filters Compliance		18 days	Out Of
Email Security Appliance Graymail Safe-unsubscribe Compliance		Expired	Out Of
Email Security Appliance Cloudmark Anti-Spam Compliance		Expired	Out Of
Email Security Appliance Advanced Malware Protection Reputation Compliance		Expired	Out Of
Mail Handling Compliance		N/A	In
Email Security Appliance Sophos Anti-Malware Compliance		N/A	In
Email Security Appliance PXE Encryption Compliance		Expired	Out Of
Email Security Appliance Data Loss Prevention Compliance		Expired	Out Of
Email Security Appliance Advanced Malware Protection Compliance		Expired	Out Of
Email Security Appliance McAfee Anti-Malware			Out Of

Compliance	Expired	
Email Security Appliance	Intelligent Multi-Scan	Out Of
Compliance	17 days	
Email Security Appliance	External Threat Feeds	Out Of
Compliance	17 days	
Email Security Appliance	Bounce Verification	Out Of
Compliance	17 days	
Email Security Appliance	Image Analyzer	Out Of
Compliance	21 days	

相关信息

- [ESA用户指南](#)
- [ESA版本说明](#)
- [ESA CLI参考指南](#)

关于此翻译

思科采用人工翻译与机器翻译相结合的方式将此文档翻译成不同语言，希望全球的用户都能通过各自的语言得到支持性的内容。

请注意：即使是最好的机器翻译，其准确度也不及专业翻译人员的水平。

Cisco Systems, Inc. 对于翻译的准确性不承担任何责任，并建议您总是参考英文原始文档（已提供链接）。