

与LPCOR配置示例的CME

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简介

本文描述使用逻辑分区类限制(LPCOR)与Cisco Unified Communications Manager Express (CME)。多数常见原因为使用LPCOR是网内呼叫的预防从转移或会议的与一公共交换机电话网(PSTN)呼叫反之亦然。

印度(TRAI)的电信管理局调控混合的语音流量的限制PSTN和VoIP网络之间的。最新的法规允许单个网络结构和单个电子专用自动小交换机(EPABX)连接到PSTN和VoIP网络。EPABX连接对PSTN和VoIP网络并且使用在PSTN和IP租用的线路之间的一个逻辑分区。

[先决条件](#)

[要求](#)

Cisco 建议您了解以下主题：

- Cisco IOS
- Cisco Unified CME

[使用的组件](#)

本文档中的信息基于以下软件和硬件版本：

- Cisco IOS版本15.0(1)XA或以上
- Cisco Unified CME版本8.0或以上

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。如果您使用的是真实网络，请确保您已经了解所有命令的潜在影响。

背景信息

Cisco Unified CME支持限制一高层次类并且允许您对逻辑上分成其资源例如PSTN中继、IP中继、IP电话和模拟电话，到不同的组。

您创建各自的资源组的一个LPCOR策略矩阵并且定义了其LPCOR策略对接受或拒绝起源于任何其他资源组的呼叫。您能定义每资源组的一项LPCOR策略。默认LPCOR策略意味着没有在呼叫来源和其目标目的地之间的限制。

您创建定义了呼叫限制适用于呼叫产生或终止在资源的这些类型的LPCOR策略：

- **模拟电话-**，如果电话本地注册对Cisco Unified CME，TRAI法规允许一个模拟局外交换站(FXS)电话接受PSTN和VoIP呼叫。本地连接的电话不必须关联与任何资源组;默认LPCOR策略应用对此电话类型。
- **IP电话-** LPCOR支持内部呼叫控制协议(SCCP)和会话初始化协议(SIP) IP电话。如果IP电话注册本地对Cisco Unified CME通过LAN，TRAI法规允许IP电话接受PSTN和VoIP呼叫。如果IP电话注册对Cisco Unified CME通过广域网，必须从远程IP电话阻塞PSTN呼叫。

如果IP电话总是注册对从同一个本地或远程区域的Cisco Unified CME，电话配置有静态LPCOR策略。如果电话是莫比尔类型IP电话并且移动在本地和远程地区之间，例如Extension Mobility电话或softphone (CIPC)，LPCOR策略动态地设置当前根据IP电话的注册的IP地址。

PSTN建立中继-流入LPCOR资源组用PSTN中继关联通过语音端口或中继组。流出的LPCOR资源组在呼出POT dial-peer应用，并且这可以根据语音端口或中继组也。

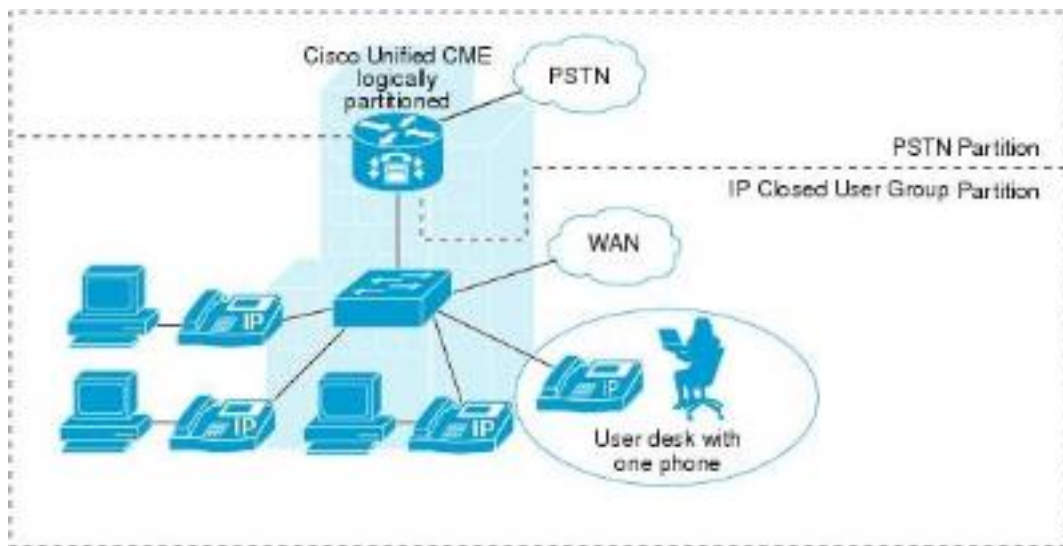
VoIP中继-一个流入VoIP长途电话(H.323或SIP)关联与根据远程IP地址的LPCOR策略如下：

- 流入H.323长途电话-上一个集线器或始发网关的IP地址
- 流入SIP长途电话- (a)始发网关的IP地址，(b)从最早期的主机名通过报头流入邀请消息

如果主机名在域名格式，DNS查询执行为了解析名称在IP地址。VoIP目标的LPCOR策略通过出局的VoIP拨号对等体的配置确定。

配置

网络图



注意：使用[命令查找工具](#) ([仅限注册用户](#)) 可获取有关本部分所使用命令的详细信息。

参见与两个需求的此示例：

您应该允许一个IP电话(对的远程CME)做国际召集对PSTN。您只也要允许一个模拟电话(连接通过FXS和本地对CME)接受从PSTN的呼入呼叫。

IP 电话----CME----PRI----PSTN

模拟电话----FXS----CME----FXO----PSTN

1. 定义授权包的参数。application

```
package auth // Enters package authorization configuration mode
param passwd-prompt flash:enter_pin.au // Plays an audio prompt requesting the
caller to enter a valid password

param max-retries 0 // Specifies number of attempts to re-enter an account or a password

param user-prompt flash:enter_account.au // Plays an audio prompt requesting the caller
to enter a valid username

param term-digit # // Specifies digit for terminating an username or password digit
collection

param passwd 12345 // Character string that defines a predefined password for
authorization. Password digits collection is optional if password digits are predefined
here

param abort-digit * // Specifies the digit for aborting username or password digit input

param max-digits 32. // Maximum number of digits in a username or password. Range:1 - 32
```

2. 配置AAA强制代码和PIN的FAC。gw-accounting aaa

```
aaa new-model

aaa authentication login h323 local
aaa authorization exec h323 local
aaa authorization network h323 local

aaa session-id common
```

3. 定义用户名和密码。 username 1111 password 1111 // for authenticating the
username and password.
These will be taken as the FAC.

```
username 2222 password 2222
```

4. 定义LPCOR策略。 **voice lpcor enable:** enables LPCOR on CME

voice lpcor call-block cause <1-180>: (optional) defines the cause code to use when a call is blocked due to LPCOR validation failure

voice lpcor custom: defines LPCOR resource groups in a resource list (just like with COR)
group 1 ipphone

```
group 2 international_out
```

```
group 3 anlphones
```

```
group 4 international_in
```

voice lpcor policy international_out: create a policy which accepts only calls from/to resource groups in it

```
accept ipphone fac
```

```
service fac
```

```
voice lpcor policy anlphones
```

```
service fac>
```

5. 连结LPCOR策略与设备/资源。 只考虑需求有一个IP电话做国际召集对PSTN : 适用于流入LPCOR IP电话。 **voice lpcor enable:** enables LPCOR on CME

voice lpcor call-block cause <1-180>: (optional) defines the cause code to use when a call is blocked due to LPCOR validation failure

voice lpcor custom: defines LPCOR resource groups in a resource list (just like with COR)
group 1 ipphone

```
group 2 international_out
```

```
group 3 anlphones
```

```
group 4 international_in
```

voice lpcor policy international_out: create a policy which accepts only calls from/to resource groups in it

```
accept ipphone fac
```

```
service fac
```

```
voice lpcor policy anlphones
```

```
service fac>适用于流出的LPCOR直接中继组(或语音端口)。 voice lpcor enable: enables  
LPCOR on CME
```

voice lpcor call-block cause <1-180>: (optional) defines the cause code to use when a call is blocked due to LPCOR validation failure

voice lpcor custom: defines LPCOR resource groups in a resource list (just like with COR)
group 1 ipphone

group 2 international_out

group 3 anlphones

group 4 international_in

voice lpcor policy international_out: create a policy which accepts only calls from/to resource groups in it

accept ipphone fac

service fac

voice lpcor policy anlphones

service fac>适用于中继组语音端口。 **voice lpcor enable:** enables LPCOR on CME

voice lpcor call-block cause <1-180>: (optional) defines the cause code to use when a call is blocked due to LPCOR validation failure

voice lpcor custom: defines LPCOR resource groups in a resource list (just like with COR)
group 1 ipphone

group 2 international_out

group 3 anlphones

group 4 international_in

voice lpcor policy international_out: create a policy which accepts only calls from/to resource groups in it

accept ipphone fac

service fac

voice lpcor policy anlphones

service fac>给trunkgroup给用于国际拨号的呼出拨号对端。 **voice lpcor enable:** enables LPCOR on CME

voice lpcor call-block cause <1-180>: (optional) defines the cause code to use when a call is blocked due to LPCOR validation failure

voice lpcor custom: defines LPCOR resource groups in a resource list (just like with COR)
group 1 ipphone

group 2 international_out

group 3 anlphones

```
group 4 international_in
```

voice lpcor policy international_out: create a policy which accepts only calls from/to resource groups in it

```
accept ipphone fac
```

```
service fac
```

```
voice lpcor policy anlphones
```

`service fac>`当IP电话尝试做国际呼叫时，CME证实电话的流入LPCOR (IP电话)是否在流出的LPCOR策略的已接受列表分配到呼出拨号对端(international_out)。只考虑的使用的需求收到从PSTN的呼入呼叫一个模拟电话。应用流入LPCOR对入站FXO端口。**voice lpcor enable:** enables LPCOR on CME

voice lpcor call-block cause <1-180>: (optional) defines the cause code to use when a call is blocked due to LPCOR validation failure

voice lpcor custom: defines LPCOR resource groups in a resource list (just like with COR)

```
group 1 ipphone
```

```
group 2 international_out
```

```
group 3 anlphones
```

```
group 4 international_in
```

voice lpcor policy international_out: create a policy which accepts only calls from/to resource groups in it

```
accept ipphone fac
```

```
service fac
```

```
voice lpcor policy anlphones
```

`service fac>`适用于流出的LPCOR策略模拟电话。**voice lpcor enable:** enables LPCOR on CME

voice lpcor call-block cause <1-180>: (optional) defines the cause code to use when a call is blocked due to LPCOR validation failure

voice lpcor custom: defines LPCOR resource groups in a resource list (just like with COR)

```
group 1 ipphone
```

```
group 2 international_out
```

```
group 3 anlphones
```

```
group 4 international_in
```

voice lpcor policy international_out: create a policy which accepts only calls from/to resource groups in it

```

accept ipphone fac

service fac

voice lpcor policy anlphones

service fac>(或)voice lpcor enable: enables LPCOR on CME

voice lpcor call-block cause <1-180>: (optional) defines the cause code to use when a call
is blocked due to LPCOR validation failure

voice lpcor custom: defines LPCOR resource groups in a resource list (just like with COR)
group 1 ipphone

group 2 international_out

group 3 anlphones

group 4 international_in

voice lpcor policy international_out: create a policy which accepts only calls from/to
resource groups in it

accept ipphone fac

service fac

voice lpcor policy anlphones

service fac>

```

当呼叫通过局外交换管理办公室端口1/0/0时进来，CME证实FXO端口的流入LPCOR (international_in)是否在“接受”流出的LPCOR策略的列表分配到任何电话。

验证

使用本部分可确认配置能否正常运行。

[命令输出解释程序工具](#) ([仅限注册用户](#)) 支持某些 **show** 命令。请使用Output Interpreter Tool为了查看show命令输出分析。

显示语音lpcor命令显示关于LPCOR呼叫的信息包括LPCOR策略关联与每个资源组和目录号和统计信息失败呼叫的。

```

Router#show语音lpcor policy1
语音lpcor策略international_out (组2) :
服务fac启用
(请接受fac) ipphone (组1)
(请接受) international_out (组2)
(拒绝) anlphones (组3)

```

(拒绝) international_in (组4)

```
Router#show语音lpcor IP电话dn  
ephone-dn 1第2001 :  
ephone 1 :  
Lpcor类型 : 远程
```

```
Router#show语音lpcor统计信息  
失败呼叫的语音LPCOR统计信息 :  
全面基本呼叫 : 5  
全面转发呼叫 : 2  
全面转移呼叫 : 0  
全面电话会议 : 0  
全面暂留(Park)检索呼叫 : 0  
托塔尔接收呼叫 : 0
```

故障排除

目前没有针对此配置的故障排除信息。