

配置Thousand Eyes - Enterprise Agent for ASR1k、ISR4k和Cat8k平台 (Docker安装)

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简介

本文档介绍如何在Cisco IOS-XE®平台上配置ThousandEyes。

先决条件

要求

思科建议在ThousandEyes文档门户验证要求：

[支持矩阵，千只眼睛](#)

使用的组件

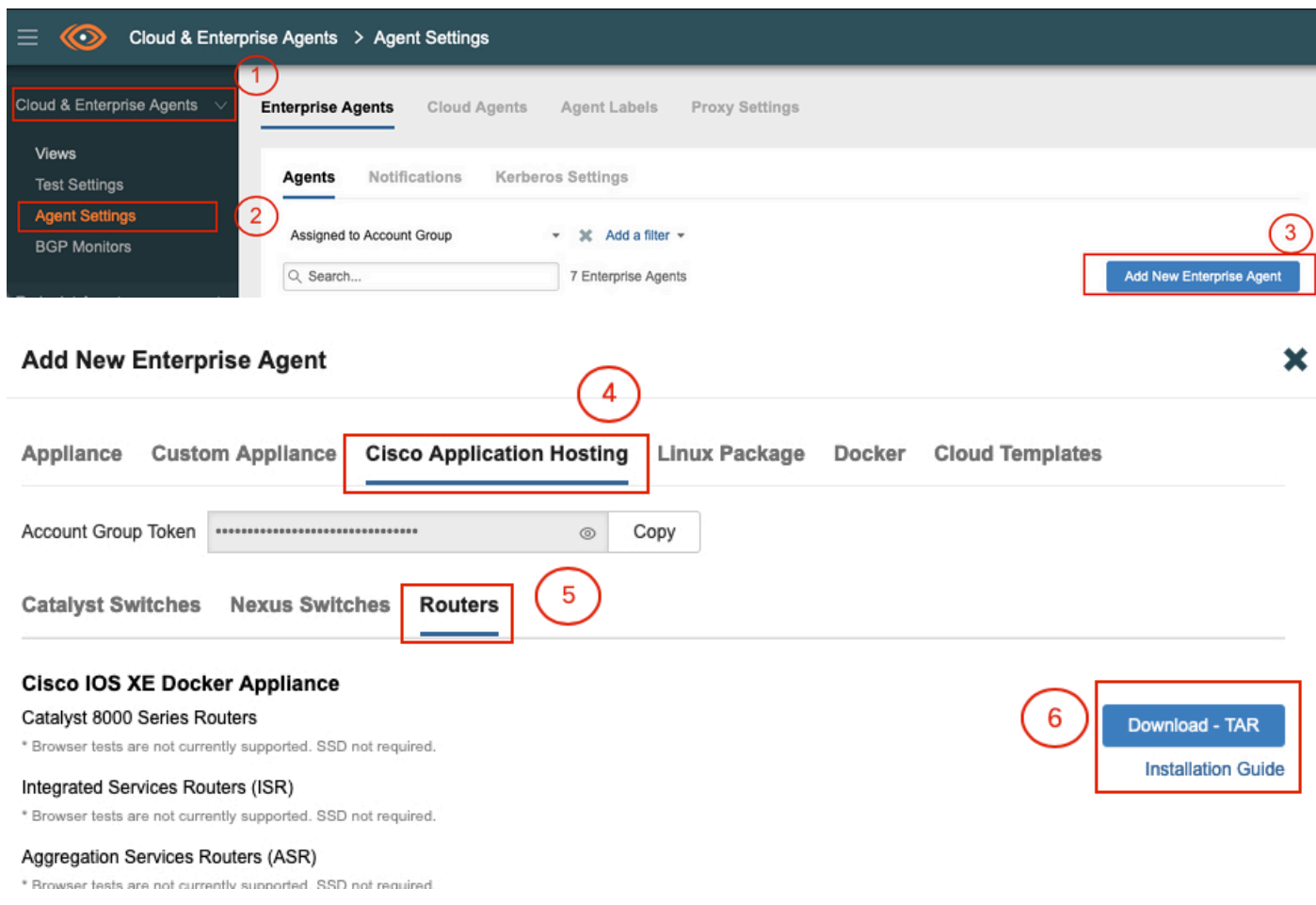
本文档中的信息基于采用Cisco IOS-XE的路由器。

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。

ISR4Ks Docker安装

步骤1:

从Cloud & Enterprise Agents > Agent settings > Add New Enterprise Agent > Cisco Application Hosting菜单下的<https://app.thousandeyes.com>下载ThousandEyes代理：



第二步：

将.tar文件复制到路由器的bootflash中。这可以通过TFTP完成。或者，将文件下载到USB闪存驱动器并将其复制到路由器bootflash中。

```
<#root>
```

```
Router#
```

```
dir bootflash: | sec .tar
```

```
24577 -rw- 186705920 May 19 2022 16:26:31 +00:00 thousandeyes-enterprise-agent-4.2.2.cisco.tar
```

第三步：

使用iox命令在路由器上启用IOx后台守护程序并验证服务状态。

<#root>

Router(config)#

iox

*May 19 16:40:48.485: %UICFGEXP-6-SERVER_NOTIFIED_START: R0/0: psd: Server iox has been notified to sta
Router#

show iox-service

IOx Infrastructure Summary:

```
-----  
IOx service (CAF)           : Not Running  
IOx service (HA)           : Not Supported  
IOx service (IOxman)       : Not Running  
IOx service (Sec storage)   : Not Supported  
Libvirtd 5.5.0             : Running
```

第四步：

使用命令app-hosting install appid <agent_name> package bootflash:<file.tar>安装以前存储在bootflash上的代理。

<#root>

Router#

```
app-hosting install appid ISR4k_Agent package bootflash:thousandeyes-enterprise-agent-4.2.2.cisco.tar
```

Installing package 'bootflash:thousandeyes-enterprise-agent-4.2.2.cisco.tar' for 'ISR4k_Agent'. Use 'sh

第五步：

使用show app-hosting list命令验证代理是否已正确安装。

<#root>

Router#

```
show app-hosting list
```

```
App id                               State  
-----  
ISR4k_Agent                           DEPLOYED
```

第六步：

配置虚拟端口接口。

```
<#root>
```

```
interface VirtualPortGroup1  
ip address 192.168.2.254 255.255.255.0  
no mop enabled  
no mop sysid  
end
```

步骤 8

为应用托管配置VNIC。

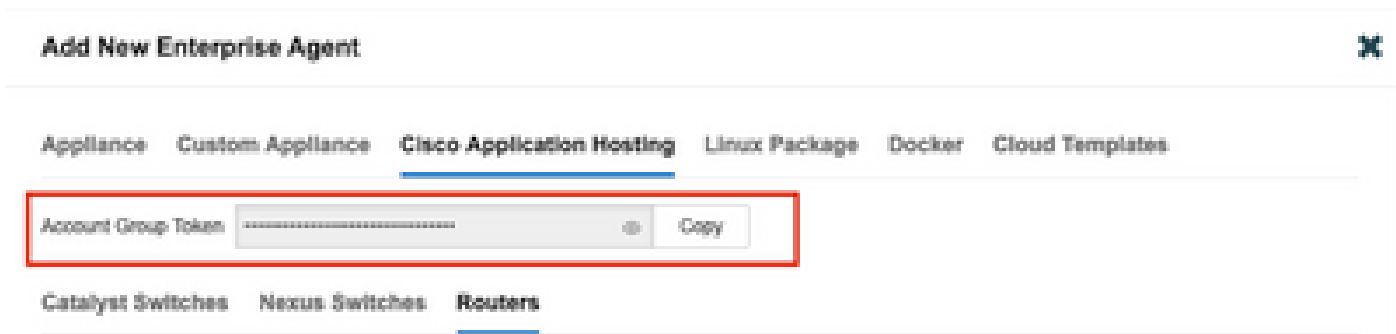
```
<#root>
```

```
Router(config)#  
app-hosting appid ISR4k_Agent  
Router(config-app-hosting)#  
app-vnic gateway1 virtualportgroup 1 guest-interface 1  
Router(config-app-hosting-gateway1)#  
guest-ipaddress 192.168.2.10 netmask 255.255.255.0  
Router(config-app-hosting-gateway#)#  
exit  
Router(config-app-hosting)#  
app-default-gateway 192.168.2.254 guest-interface 1  
Router(config-app-hosting)#  
name-server1 8.8.8.8  
Router(config-app-hosting)#  
end
```

注意：name-server命令的IP地址可以是内部或外部DNS服务器。

步骤 7.

设置Docker所需令牌可在Cloud & Enterprise Agents > Agent settings > Add a New Enterprise Agent > Cisco Application Hosting菜单下的<https://app.thousandeyes.com>获得。



单击小眼图标。这将显示未加密的令牌编号。复制该字符串并继续路由器上的安装。

Docker安装命令：

```
<#root>
```

```
Router(config-app-hosting)#
```

```
app-resource docker
```

```
Router(config-app-hosting-docker)#
```

```
prepend-pkg-opts
```

```
Router(config-app-hosting-docker)#
```

```
run-opts 1 "-e TEAGENT_ACCOUNT_TOKEN= EAGENT_ACCOUNT_TOKEN= xxxxxxxxxxxxxxxxxxxxxxxx"
```

```
Router(config-app-hosting-docker)#
```

```
run-opts 2 "--hostname ISR_Agent"
```

```
Router(config-app-hosting)#
```

```
start
```

```
Router(config-app-hosting)#
```

```
end
```

```
Router#
```

```
*May 30 20:10:00.282: %SYS-5-CONFIG_I: Configured from console by console
```

```
*May 30 20:10:06.980: %IM-6-START_MSG: R0/0: ioxman: app-hosting: Start succeeded: ISR_Agent started su
```

步骤 9

使用命令show app-hosting list验证代理是否处于活动状态。

```
<#root>
```

```
Router#
```

```
show app-hosting list
```

App id	State
ISR_Agent	RUNNING

ASR1K Docker安装

步骤1:

从Thousand Eyes website thousandeyes-enterprise-agent-x.x.x.cisco.tar下载代理.tar存档。

第二步：

将.tar文件复制到路由器的bootflash中。这可以通过TFTP完成。或者，将文件下载到USB闪存驱动器并将其复制到路由器bootflash中。

```
<#root>
```

```
Router#
```

```
dir bootflash: | sec .tar
```

```
16 -rw- 186705920 Sep 21 2022 15:02:21 +00:00 thousandeyes-enterprise-agent-4.2.2.cisco.tar
```

第三步：

使用命令iox在路由器上启用IOx守护程序并验证服务状态。

```
<#root>
```

```
Router(config)#
```

```
iox
```

```
Router#
```

```
show iox-service
```

```
IOx Infrastructure Summary:
```

```
-----  
IOx service (CAF)           : Running  
IOx service (HA)           : Not Supported  
IOx service (IOxman)       : Running  
IOx service (Sec storage)   : Not Supported  
Libvirt 5.5.0              : Running
```

第四步：

使用命令app-hosting install appid <agent_name> package bootflash:<file.tar>安装以前存储在bootflash上的代理。

```
<#root>
```

Router#

```
app-hosting install appid ASR_TE package bootflash:thousandeyes-enterprise-agent-4.2.2.cisco.tar
```

Installing package 'bootflash:thousandeyes-enterprise-agent-4.2.2.cisco.tar' for 'ASR_TE'. Use 'show ap
*Sep 21 16:10:12.900: %IOXCAF-6-INSTALL_MSG: R0/0: ioxman: app-hosting: ASR_TE installed successfully C

<#root>

Router#

```
show app-hosting list
```

App id	State
ASR1k_TE	DEPLOYED

第五步：

使用私有IP地址配置虚拟端口接口。

<#root>

```
interface VirtualPortGroup0
```

```
ip address 192.168.2.254 255.255.255.0  
no mop enabled  
no mop sysid  
end
```

第六步：

为应用托管配置VNIC。

<#root>

```
Router(config)#
```

```
app-hosting appid ASR1k_TE
```

```
Router(config-app-hosting)#
```

```
app-vnic gateway1 virtualportgroup 0 guest-interface 0
```

```
Router(config-app-hosting-gateway0)#
```

```
guest-ipaddress 192.168.2.1 netmask 255.255.255.0
```

```
Router(config-app-hosting-gateway0)#
```

```
exit
```

```
Router(config-app-hosting)#
```

```
app-default-gateway 192.168.2.254 guest-interface 0
```

```
Router(config-app-hosting)#
name-server0 8.8.8.8
Router(config-app-hosting)#
app-resource docker
Router(config-app-hosting-docker)#
prepend-pkg-opts
Router(config-app-hosting-docker)#
run-opts 1 "--hostname ASR1kTE"
Router(config-app-hosting-docker)#r
un-opts 1 "-e TEAGENT_ACCOUNT_TOKEN=XXXXXXXXXXXXXXXXXXXX"
Router(config-app-hosting-docker)#
exit
```

步骤 7.

为引用的应用ID激活应用托管。

```
<#root>
```

```
Router(config)#
app-hosting appid ASR1k_TE
Router(config-app-hosting)#
start
```

步骤 8

安装ThousandEyes代理，并使用命令show app-hosting list验证其处于活动状态。

```
<#root>
```

```
Router#
app-hosting install appid ASR1k_TE package bootflash:thousandeyes-enterprise-agent-4.2.2.cisco.tar
Installing package 'bootflash:thousandeyes-enterprise-agent-4.2.2.cisco.tar' for 'ASR1k_TE'. Use 'show
```

```
<#root>
```

```
Router#
show app-hosting list
```


App id	State
ASR1k_TE	RUNNING

Catalyst 8K Docker安装

Catalyst 8200配置

步骤1:

从ThousandEyes-enterprise-agent-x.x.x.cisco.tar网站下载代理.tar文件

第二步 :

将.tar文件复制到设备的硬盘。

```
<#root>
```

```
C8200k#
```

```
dir harddisk:thousandeyes-enterprise-agent-4.3.0.cisco.tar
```

```
Directory of harddisk:/thousandeyes-enterprise-agent-4.3.0.cisco.tar
```

```
12      -rw-          123064320  Nov 12 2022 21:35:06 +00:00  thousandeyes-enterprise-agent-4.3.0.cisco.t
```

```
15239921664 bytes total (14280880128 bytes free)
```

```
C8200k#
```

第三步 :

使用命令iox在路由器上启用IOx守护程序并验证服务状态。

```
<#root>
```

```
C8200k(config)#
```

```
iox
```

```
*Nov 12 21:46:51.539: %UICFGEXP-6-SERVER_NOTIFIED_START: R0/0: psd: Server iox has been notified to sta
```

```
*Nov 12 21:46:52.443: %SYS-5-CONFIG_I: Configured from console by console
```

```
*Nov 12 21:47:13.866: %IM-6-IOX_ENABLEMENT: R0/0: ioxman: IOX is ready.
```

```
C8200k#
```

```
show iox-service
```

I0x Infrastructure Summary:

```
-----  
I0x service (CAF)           : Running  
I0x service (HA)           : Not Supported  
I0x service (IOxman)       : Running  
I0x service (Sec storage)   : Not Supported  
Libvirtd 5.5.0             : Running
```

第四步：

配置平台资源应用负载。保存配置更改并重新加载机箱。

<#root>

```
C8200k(config)#  
platform resource service-plane-heavy
```

```
C8200k(config)#
```

```
end
```

```
C8200k#
```

```
wr
```

```
C8200k#
```

```
reload
```

第五步：

配置虚拟端口接口。

<#root>

```
interface virtualportgroup 0  
ip address 192.168.2.254 255.255.255.0  
exit
```

第六步：

为应用托管配置VNIC。

<#root>

```
C8200k(config)#
```

```
app-hosting appid TEcat8k
```

```
C8200k(config-app-hosting)#
```

```
app-vnic gateway1 virtualportgroup 0 guest-interface 0

C8200k(config-app-hosting-gateway1)#
guest-ipaddress 192.168.2.10 netmask 255.255.255.0

C8200k(config-app-hosting-gateway1)#
exit

C8200k(config-app-hosting)#
app-default-gateway 192.168.2.254 guest-interface 0

C8200k(config)#
app-hosting appid TEcat8k

C8200k(config-app-hosting)#
app-resource docker

C8200k(config-app-hosting-docker)#
prepend-pkg-opts

C8200k(config-app-hosting-docker)#
run-opts 1 "-e TEAGENT_ACCOUNT_TOKEN=xxxxxxxxxxxxxxxxxxxxxxxx"

C8200k(config-app-hosting-docker)#
run-opts 2 "--hostname TEcat8k"

C8200k(config-app-hosting)#
name-server0 8.8.8.8

C8200k(config-app-hosting)#
end
```

步骤 7.

为引用的应用ID激活应用托管。

```
<#root>
```

```
C8200k(config)#
app-hosting appid TEcat8k

C8200k(config-app-hosting)#
start
```

步骤 8

安装ThousandEyes代理并验证其正在运行。

```
<#root>
```

```
C8200k#
```

```
app-hosting install appid TEcat8k package harddisk:thousandeyes-enterprise-agent-4.3.0.cisco.tar
```

```
Installing package 'harddisk:thousandeyes-enterprise-agent-4.3.0.cisco.tar' for 'TEcat8k'. Use 'show ap
```

```
*Jan 21 21:30:17.194: %IM-6-INSTALL_MSG: R0/0: ioxman: app-hosting: Install succeeded: TEcat8k installed
```

```
*Jan 21 21:30:41.019: %IM-6-START_MSG: R0/0: ioxman: app-hosting: Start succeeded: TEcat8k started succ
```

```
C8200k#
```

```
show app-hosting list
```

App id	State
TEcat8k	RUNNING

Catalyst 8300配置

步骤1:

从Thousand Eyes-enterprise-agent-x.x.x.cisco.tar网站下载代理.tar文件

第二步 :

将.tar文件复制到设备的硬盘。

```
<#root>
```

```
Router#
```

```
dir harddisk:thousandeyes-enterprise-agent-4.2.2.cisco.tar
```

```
Directory of harddisk:/thousandeyes-enterprise-agent-4.2.2.cisco.tar
```

```
12 -rw- 186705920 Sep 14 2022 19:02:02 +00:00 thousandeyes-enterprise-agent-4.2.2.cisco.tar
```

第三步 :

使用命令iox在路由器上启用IOx守护程序并验证服务状态。

```
<#root>
```

```
Router(config)#
```

iox

*Sep 5 17:48:31.952: %UICFGEXP-6-SERVER_NOTIFIED_START: R0/0: psd: Server iox has been notified to start

*Sep 5 17:48:40.953: %IM-6-IOX_ENABLEMENT: R0/0: ioxman: IOX is ready.

Router#

show iox-service

IOx Infrastructure Summary:

IOx service (CAF)	: Running
IOx service (HA)	: Not Supported
IOx service (IOxman)	: Running
IOx service (Sec storage)	: Not Supported
Libvirtd 5.5.0	: Running

第四步：

配置虚拟端口接口。

<#root>

```
interface VirtualPortGroup1
```

```
ip address 192.168.2.254 255.255.255.0
```

```
no mop enabled
```

```
no mop sysid
```

```
end
```

第五步：

为应用托管配置VNIC。

<#root>

```
Router(config)#
```

```
app-hosting appid Cat8k_TE
```

```
Router(config-app-hosting)#
```

```
app-vnic gateway1 virtualportgroup 1 guest-interface 1
```

```
Router(config-app-hosting-gateway1)#
```

```
guest-ipaddress 192.168.2.1 netmask 255.255.255.0
```

```
Router(config-app-hosting)#
```

```
app-default-gateway 192.168.2.254 guest-interface 1
```

```
Router(config-app-hosting)#
```

```
app-resource docker
```

```
Router(config-app-hosting-docker)#
```

```
prepend-pkg-opts
```

```
Router(config-app-hosting-docker)#
run-opts 1 "--hostname C8k_TE"
Router(config-app-hosting-docker)#
run-opts 2 "-e TEAGENT_ACCOUNT_TOKEN=xxxxxxxxxxxxxxxxxxxxxx"
Router(config-app-hosting)#
name-server1 8.8.8.8
Router(config-app-hosting)#
start
```

第六步：
配置start命令以启动应用程序。

```
<#root>
Router(config)#
app-hosting appid Cat8k_TE
Router(config-app-hosting)#
start
```

步骤 7.
安装ThousandEyes代理并验证是否已部署该代理。

```
<#root>
Router#
app-hosting install appid TEcat8k package harddisk:
thousandeyes-enterprise-agent-4.2.2.cisco.tar
```

```
Router#
show app-hosting list
```

App id	State
Cat8k_TE	DEPLOYED

Catalyst 8500L 配置

步骤1:
从ThousandEyes-enterprise-agent-x.x.x.cisco.tar网站下载代理.tar文件

第二步：

在设备的硬盘上复制.tar文件。

```
<#root>
```

```
Router#
```

```
dir harddisk:thousandeyes-enterprise-agent-4.2.2.cisco.tar
```

```
Directory of harddisk:/thousandeyes-enterprise-agent-4.2.2.cisco.tar
```

```
12 -rw- 186705920 Sep 14 2022 19:02:02 +00:00 thousandeyes-enterprise-agent-4.2.2.cisco.tar
```

第三步：

使用命令iox在路由器上启用IOx守护程序并验证服务状态。

```
<#root>
```

```
Router#
```

```
conf t
```

```
Enter configuration commands, one per line. End with CNTL/Z.
```

```
Router(config)#
```

```
iox
```

```
Router(config)#
```

```
end
```

```
*Sep 15 15:41:23.992: %UICFGEXP-6-SERVER_NOTIFIED_START: R0/0: psd: Server iox has been notified to sta
```

```
*Sep 15 15:41:25.006: %SYS-5-CONFIG_I: Configured from console by console
```

```
*Sep 15 15:41:32.914: %IM-6-IOX_ENABLEMENT: R0/0: ioxman: IOX is ready.
```

```
Router#
```

```
show iox-service
```

```
IOx Infrastructure Summary:
```

```
-----
```

```
IOx service (CAF)           : Not Running
IOx service (HA)            : Not Supported
IOx service (IOxman)        : Not Running
IOx service (Sec storage)    : Not Supported
Libvirtd 5.5.0              : Running
```

第四步：

配置虚拟端口接口。

```
<#root>
```

```
interface VirtualPortGroup1  
  
ip address 192.168.2.254 255.255.255.0  
no mop enabled  
no mop sysid  
end
```

第五步：

为应用托管配置VNIC。

```
<#root>
```

```
Router(config)#  
  
app-hosting appid Cat8500L_TE  
  
Router(config-app-hosting)#  
  
app-vnic gateway0 virtualportgroup 0 guest-interface 0  
  
Router(config-app-hosting-gateway0)#  
  
guest-ipaddress 192.168.2.1 netmask 255.255.255.0  
  
Router(config-app-hosting-gateway0)#  
  
exit  
  
Router(config-app-hosting)#  
  
guest-gateway 192.168.2.254 guest-interface 0  
  
Router(config-app-hosting)#  
  
app-resource docker  
  
Router(config-app-hosting-docker)#prepend-pkg-opts  
Router(config-app-hosting-docker)#  
  
run-opts 1 "--hostname Cat8500L_TE"  
  
Router(config-app-hosting-docker)#  
  
run-opts 2 "-e TEAGENT_ACCOUNT_TOKEN=TEAGENT_ACCOUNT_TOKEN=xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx"  
  
Router(config-app-hosting)#  
  
name-server1 8.8.8.8  
  
Router(config-app-hosting)#  
  
start
```

第六步：

配置平台资源应用负载。接下来，保存配置更改并重新加载机箱。


```
<#root>
Router(config)#
platform resource app-heavy
Please reboot to activate this template
Router(config)#
exit
Router#
wr
Router#
reload
```

步骤 7.

安装ThousandEyes代理并验证是否已部署该代理。

```
<#root>
Router#
app-hosting install appid Cat8500L_TE package harddisk:thousandeyes-enterprise-agent-4.2.2.cisco.tar
Installing package 'harddisk:thousandeyes-enterprise-agent-4.2.2.cisco.tar' for 'Cat8500L_TE'. Use 'show
Router#
show app-hosting list
```

App id	State
Cat8500L_TE	DEPLOYED

注意：NAT可用于ThousandEyes。

虚拟端口接口可用作NAT的内部接口。

示例：

```
<#root>
Router(config)#
ip nat inside source list NAT interface gi0/0/0 overload
Router(config)#
ip access-list extended NAT
Router(config-ext-nacl)#
```

```
permit ip 192.168.2.0 0.0.0.255 any
```

```
interface VirtualPortGroup1
```

```
description ThousandEyes  
192.168.2.254 255.255.255.0  
ip nat inside
```

```
interface GigabitEthernet0/0/0
```

```
description WAN interface  
192.168.114.10 255.255.255.252  
ip nat outside
```

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。

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