

# Configure Thousand Eyes - Agente Corporativo para Plataformas ASR1k, ISR4k e Cat8k (Instalação do Docker)

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## Introduction

Este documento descreve como configurar ThousandEyes em plataformas Cisco IOS-XE®.

## Prerequisites

### Requirements

A Cisco recomenda a validação dos requisitos no portal de documentação ThousandEyes:

[Matriz de Suporte - Mil Olhos](#)

### Componentes Utilizados

As informações neste documento são baseadas em Roteadores com Cisco IOS-XE.

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. Se a rede estiver ativa, certifique-se de que você entenda o impacto potencial de qualquer comando.

## Instalação do ISR4Ks Docker

### Etapa 1.

Baixe o agente ThousandEyes de <https://app.thousandeyes.com> no menu **Cloud & Enterprise Agents** >

## Agent settings > Add New Enterprise Agent > Cisco Application Hosting:

The screenshot shows the Cisco Cloud & Enterprise Agents interface. The sidebar on the left has 'Agent Settings' highlighted with a red box and the number 2. The top navigation bar has 'Enterprise Agents' highlighted with a red box and the number 1. The main content area has 'Cisco Application Hosting' highlighted with a red box and the number 4. Below this, 'Routers' is highlighted with a red box and the number 5. The 'Add New Enterprise Agent' section is visible, and the 'Account Group Token' field has a 'Copy' button. The search bar shows '7 Enterprise Agents'. The 'Cisco IOS XE Docker Appliance' section is also visible, with a red box and the number 6 on the right side.

### Etapa 2.

Copie o arquivo .tar para o flash de inicialização do roteador. Isso pode ser feito via TFTP. Ou faça o download do arquivo em uma unidade flash USB e copie-o para o bootflash do roteador.

```
<#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
```

### Etapa 3.

Ative o daemon IOx no roteador com o comando **iox** e valide o status do serviço.

```
<#root>
```

```
Router(config)#
```

```
iox
```

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

#### Etapa 4.

Instale o agente armazenado anteriormente no bootflash com o comando **app-hosting install appid <agent\_name> package bootflash:<file.tar>**.

```
<#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 'show
```

#### Etapa 5.

Verifique se o agente está instalado corretamente com o comando **show app-hosting list**.

```
<#root>
```

```
Router#
```

```
show app-hosting list
```

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

#### Etapa 6.

Configure uma interface de porta virtual.

```
<#root>  
  
interface VirtualPortGroup1  
  
ip address 192.168.2.254 255.255.255.0  
no mop enabled  
no mop sysid  
end
```

## Etapa 8.

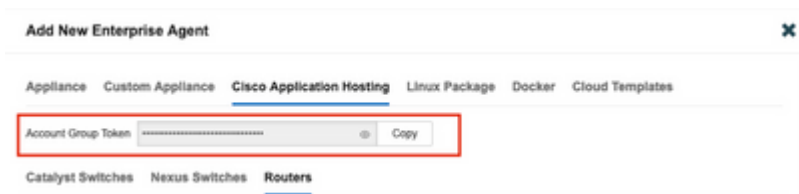
Configure o VNIC para hospedagem de aplicativos.

```
<#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
```

**OBSERVAÇÃO:** o endereço IP do comando name-server pode ser um servidor DNS interno ou externo.

## Passo 7.

Configurar o Docker. O token necessário pode ser obtido em <https://app.thousandeyes.com> no menu **Cloud & Enterprise Agents > Agent settings > Add a New Enterprise Agent > Cisco Application Hosting**.



Clique no ícone de olho pequeno. Isso exibe o número do token não criptografado. Copie a string e continue com a instalação no roteador.

Comandos de instalação do Docker:

```
<#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
```

## Etapa 9.

Verifique se o agente está ativo com o comando **show app-hosting list**.

```
<#root>
```

```
Router#
```

```
show app-hosting list
```

App id	State
ISR_Agent	RUNNING

# Instalação do Docker ASR1K

## Etapa 1.

Faça download do arquivo .tar do agente no site da Thousand Eyes thousandeyes-enterprise-agent-x.x.x.cisco.tar.

## Etapa 2.

Copie o arquivo .tar para o flash de inicialização do roteador. Isso pode ser feito via TFTP. Ou faça o download do arquivo em uma unidade flash USB e copie-o para o bootflash do roteador.

```
<#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
```

## Etapa 3.

Ative o daemon IOx no roteador com o comando **iox** e valide o status do serviço.

```
<#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
Libvirtd 5.5.0             : Running
```

## Etapa 4.

Instale o agente armazenado anteriormente no bootflash com o comando **app-hosting install appid <agent\_name> package bootflash:<file.tar>**.

```
<#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 app  
\*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

## Etapa 5.

Configure uma interface de porta virtual com um endereço IP privado.

```
<#root>
```

```
interface VirtualPortGroup0
```

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

## Etapa 6.

Configure o VNIC para hospedagem de aplicativos.

```
<#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
```

## Passo 7.

Ative a hospedagem de aplicativos para a ID de Aplicativo citada.

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

## Etapa 8.

Instale o agente ThousandEyes e verifique se ele está ativo com o comando **show app-hosting list**.

```
<#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 a

<#root>
Router#
show app-hosting list
```

App id	State
ASR1k_TE	RUNNING



# Instalação do Catalyst 8K Docker

## Configuração do Catalyst 8200

### Etapa 1.

Faça download do arquivo .tar do agente no site [ThousandEyes-enterprise-agent-x.x.x.cisco.tar](https://www.cisco.com/.../thousandeyes-enterprise-agent-x.x.x.cisco.tar)

### Etapa 2.

Copie o arquivo .tar para o disco rígido do dispositivo.

```
<#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.ta
15239921664 bytes total (14280880128 bytes free)
C8200k#
```

### Etapa 3.

Ative o daemon IOx no roteador com o comando **iox** e valide o status do serviço.

```
<#root>
C8200k(config)#
iox
*Nov 12 21:46:51.539: %UICFGEXP-6-SERVER_NOTIFIED_START: R0/0: psd: Server iox has been notified to start
*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

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
```

#### **Etapa 4.**

Configure o **recurso de plataforma com carga de aplicativo**. Salve as alterações de configuração e recarregue o chassi.

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

C8200k(config)#
end
C8200k#
wr
C8200k#
reload
```

#### **Etapa 5.**

Configure uma interface de porta virtual.

```
<#root>
interface virtualportgroup 0
ip address 192.168.2.254 255.255.255.0
exit
```

#### **Etapa 6.**

Configure o VNIC para hospedagem de aplicativos.

```
<#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=XXXXXXXXXXXXXXXXXXXXX"

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
```

### **Passo 7.**

Ative a hospedagem de aplicativos para a ID de Aplicativo citada.

```
<#root>
```

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

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

### **Etapa 8.**

Instale o agente do ThousandEyes e verifique se ele está em execução.

```
<#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 app

\*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 succe

C8200k#

**show app-hosting list**

App id	State
TEcat8k	RUNNING

## Configuração do Catalyst 8300

### Etapa 1.

Faça download do arquivo .tar do agente no site Thousand Eyes-enterprise-agent-x.x.x.cisco.tar

### Etapa 2.

Copie o arquivo .tar para o disco rígido do dispositivo.

<#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

### Etapa 3.

Ative o daemon IOx no roteador com o comando **iox** e valide o status do serviço.

<#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

#### Etapa 4.

Configure uma interface de porta virtual.

```
<#root>
interface VirtualPortGroup1
ip address 192.168.2.254 255.255.255.0
no mop enabled
no mop sysid
end
```

#### Etapa 5.

Configure o VNIC para hospedagem de aplicativos.

```
<#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=xxxxxxxxxxxxxxxxxxxxxxxx"
Router(config-app-hosting)#
name-server1 8.8.8.8
Router(config-app-hosting)#
start
```

## Etapa 6.

Configure o comando **start** para iniciar o aplicativo.

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

## Passo 7.

Instale o agente ThousandEyes e verifique se ele está implantado.

```
<#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

## Configuração do Catalyst 8500L

### Etapa 1.

Faça download do arquivo .tar do agente no site ThousandEyes-enterprise-agent-x.x.x.cisco.tar

### Etapa 2.

Copie o arquivo .tar no disco rígido do dispositivo.

```
<#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
```

### Etapa 3.

Ative o daemon IOx no roteador com o comando iox e valide o status do serviço.

```
<#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 start
*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
Libvirt 5.5.0              : Running
```

### Etapa 4.

Configure a interface de Porta Virtual.

```
<#root>

interface VirtualPortGroup1

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

### Etapa 5.

Configure o VNIC para hospedagem de aplicativos.

```
<#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=xxxxxxxxxxxxxxxxxxxx"
Router(config-app-hosting)#
name-server1 8.8.8.8
Router(config-app-hosting)#
start

```

## Etapa 6.

Configure o **recurso de plataforma app-heavy**. Em seguida, salve as alterações de configuração e recarregue o chassi.

```

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

```

## Passo 7.



Instale o agente ThousandEyes e verifique se ele está implantado.

```
<#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

**Observação: o NAT pode ser usado com ThousandEyes.**

A interface de porta virtual pode ser usada como interface interna para NAT.

Exemplo:

```
<#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
```

## Sobre esta tradução

A Cisco traduziu este documento com a ajuda de tecnologias de tradução automática e humana para oferecer conteúdo de suporte aos seus usuários no seu próprio idioma, independentemente da localização.

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