Usando o Cisco IOS Firewall para permitir miniaplicativos Java de sites conhecidos e negando outros

Contents

Introduction

Esta configuração de exemplo demonstra como usar o Cisco IOS® Firewall para permitir miniaplicativos Java de sites da Internet especificados e negar todos os outros. Esse tipo de bloqueio nega o acesso a miniaplicativos Java que não estão incorporados em um arquivo arquivado ou compactado. O Cisco IOS Firewall foi introduzido nas versões 11.3.3.T e 12.0.5.T do software Cisco IOS. Ele só está presente quando determinados conjuntos de recursos são adquiridos.

Você pode ver quais conjuntos de recursos do Cisco IOS suportam o IOS Firewall com o Software Advisor (somente clientes registrados) .

Prerequisites

Requirements

Não existem requisitos específicos para este documento.

Componentes Utilizados

As informações neste documento são baseadas nestas versões de software e hardware:

- Cisco 1751 Router
- Software Cisco IOS versão c1700-k9o3sy7-mz.123-8.T.bin

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. If your network is live, make sure that you understand the potential impact of any command.

Conventions

For more information on document conventions, refer to the Cisco Technical Tips Conventions.

Negar miniaplicativos Java da Internet

Siga este procedimento:

1. Crie listas de controle de acesso (ACLs).
2. Adicione comandos **ip inspect http java** à configuração.
3. Aplique os comandos **ip inspect** e **access-list** à interface externa.**Observação:** neste exemplo, a ACL 3 permite miniaplicativos Java de um site amigável (10.66.79.236) enquanto nega implicitamente miniaplicativos Java de outros sites. Os endereços mostrados na parte externa do roteador não são roteáveis pela Internet porque este exemplo foi configurado e testado em um laboratório.**Observação:** a **lista de acesso não é mais necessária** para ser aplicada na interface externa se você usar o Cisco IOS Software Release 12.3.4T ou posterior. Isso está documentado no novo Recurso de desvio de ACL de firewall.

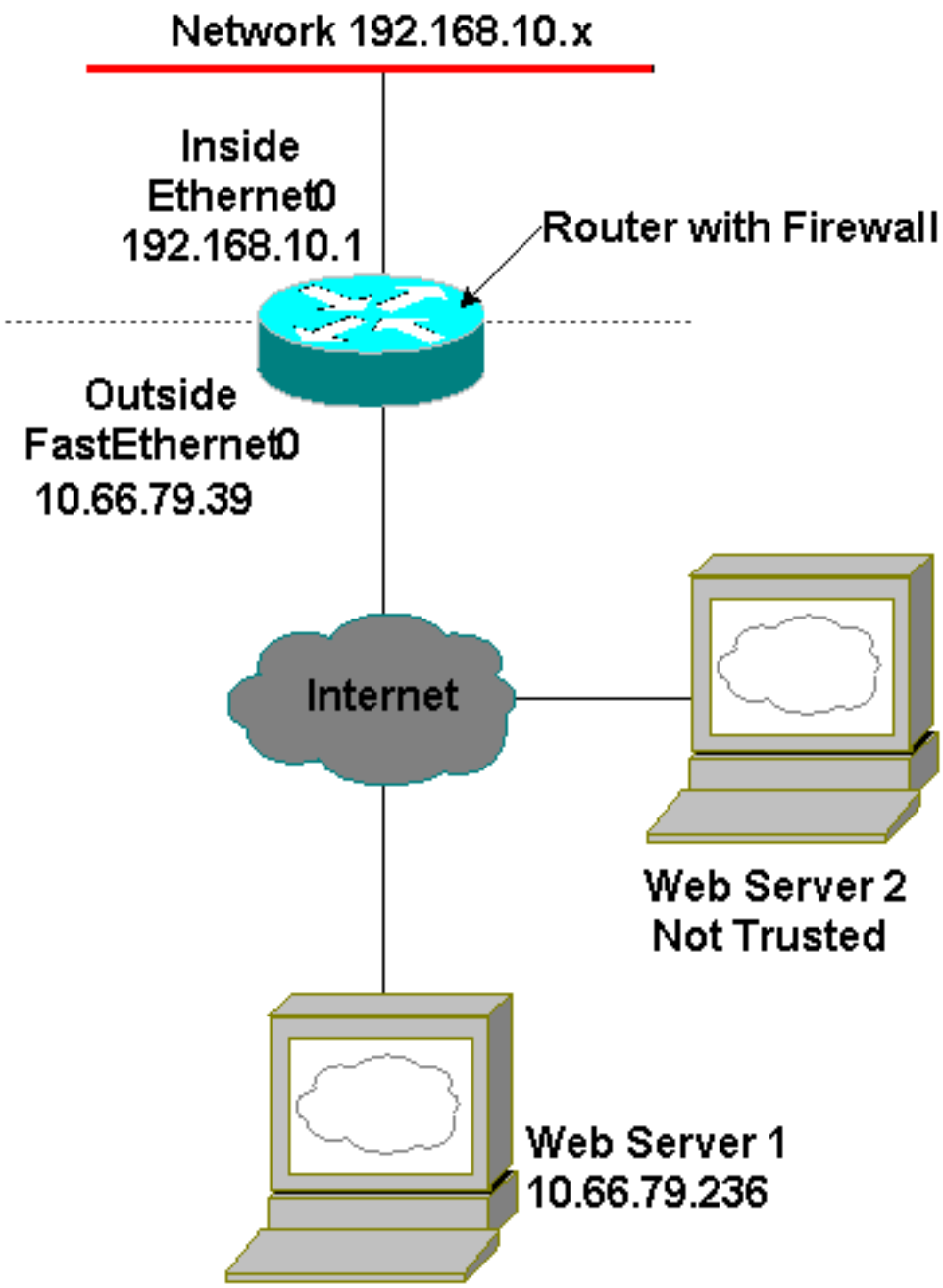
Configurar

Esta seção apresenta as informações que você pode usar para configurar os recursos descritos neste documento.

Observação: para encontrar informações adicionais sobre os comandos usados neste documento, consulte a Command Lookup Tool (somente clientes registrados) .

Diagrama de Rede

Este documento utiliza a seguinte configuração de rede:



Configurações

Este documento utiliza esta configuração:

Configuração do roteador

```
Current configuration : 1224 bytes
!
version 12.3
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname Australia
!
boot-start-marker
boot-end-marker
!
```

```
memory-size iomem 15
mmi polling-interval 60
no mmi auto-configure
no mmi pvc
mmi snmp-timeout 180
no aaa new-model
ip subnet-zero
!
ip cef
ip inspect name firewall tcp
ip inspect name firewall udp

!--- ACL used for Java. ip inspect name firewall http
java-list 3 audit-trail on
ip ips po max-events 100
no ftp-server write-enable
!
interface FastEthernet0/0
 ip address 10.66.79.39 255.255.255.224

!--- ACL used to block inbound traffic !--- except that
permitted by inspects. !--- This is no longer required
on Cisco IOS Software !--- Release 12.3.4T or later. ip
access-group 100 in
 ip nat outside
 ip inspect firewall out
 ip virtual-reassembly
 speed auto
!
interface Serial0/0
 no ip address
 shutdown
 no fair-queue
!
interface Ethernet1/0
 ip address 192.168.10.1 255.255.255.0
 ip nat inside
 ip virtual-reassembly
 half-duplex
!
ip classless
ip route 0.0.0.0 0.0.0.0 10.66.79.33
no ip http server
no ip http secure-server

!--- ACL used for Network Address Translation (NAT). ip
nat inside source list 1 interface FastEthernet0/0
overload
!

!--- ACL used for NAT. access-list 1 permit 192.168.10.0
0.0.0.255

!--- ACL used for Java. access-list 3 permit
10.66.79.236

!--- ACL used to block inbound traffic !--- except that
permitted by inspects. !--- This is no longer required
on Cisco IOS !--- Software Release 12.3.4T or later.
access-list 100 deny   ip any any
!
!
control-plane
!
```

```
!
line con 0
 exec-timeout 0 0
line aux 0
line vty 0 4
 login
!
end
```

Verificar

Esta seção fornece informações que você pode usar para confirmar se a sua configuração funciona corretamente.

A Output Interpreter Tool (somente clientes registrados) oferece suporte a determinados comandos show, o que permite exibir uma análise da saída do comando show.

- **show ip inspect sessions** ***[detail]*** —Mostra as sessões atuais rastreadas e inspecionadas pelo Cisco IOS Firewall. O **detalhe da** palavra-chave opcional mostra informações adicionais sobre essas sessões.

Troubleshoot

Esta seção disponibiliza informações para a solução de problemas de configuração.

Comandos para Troubleshooting

A Output Interpreter Tool (somente clientes registrados) oferece suporte a determinados comandos show, o que permite exibir uma análise da saída do comando show.

Observação: antes de emitir comandos **debug**, consulte Informações Importantes sobre Comandos Debug.

- **no ip inspect alert-off** —Ativa mensagens de alerta do Cisco IOS Firewall. Se as negações http forem configuradas, você poderá exibi-las no console.
- **debug ip inspect** —Mostra mensagens sobre eventos do Cisco IOS Firewall.

Este é um exemplo de saída de depuração do comando **debug ip inspect detail** após uma tentativa de conexão com servidores web em 10.66.79.236 e outro site não confiável que tem miniaplicativos Java (conforme definido na ACL).

Log negado do Java

```
*Jan 12 21:43:42.919: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2673)
 -- responder (128.138.223.2:80)
*Jan 12 21:43:43.571: %FW-3-HTTP_JAVA_BLOCK:
 JAVA applet is blocked from (128.138.223.2:80) to (192.168.10.2:2673).
*Jan 12 21:43:43.575: %FW-6-SESS_AUDIT_TRAIL:
 Stop http session: initiator (192.168.10.2:2673) sent 276 bytes
 -- responder (128.138.223.2:80) sent 0 bytes
*Jan 12 21:43:43.575: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2674)
```

```
 -- responder (128.138.223.2:80)
*Jan 12 21:43:43.823: %FW-6-SESS_AUDIT_TRAIL:
 Stop http session: initiator (192.168.10.2:2672) sent 486 bytes
 -- responder (10.66.79.236:80) sent 974 bytes
*Jan 12 21:43:44.007: %FW-3-HTTP_JAVA_BLOCK:
 JAVA applet is blocked from (128.138.223.2:80) to (192.168.10.2:2674).
*Jan 12 21:43:44.011: %FW-6-SESS_AUDIT_TRAIL:
 Stop http session: initiator (192.168.10.2:2674) sent 276 bytes
 -- responder (128.138.223.2:80) sent 1260 bytes
*Jan 12 21:43:44.011: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2675)
 -- responder (128.138.223.2:80)
*Jan 12 21:43:44.439: %FW-3-HTTP_JAVA_BLOCK:
 JAVA applet is blocked from (128.138.223.2:80) to (192.168.10.2:2675).
*Jan 12 21:43:44.443: %FW-6-SESS_AUDIT_TRAIL:
 Stop http session: initiator (192.168.10.2:2675) sent 233 bytes
 -- responder (128.138.223.2:80) sent 1260 bytes
*Jan 12 21:43:44.443: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2676)
 -- responder (128.138.223.2:80)
*Jan 12 21:43:44.879: %FW-3-HTTP_JAVA_BLOCK:
 JAVA applet is blocked from (128.138.223.2:80) to (192.168.10.2:2676).
*Jan 12 21:43:44.879: %FW-6-SESS_AUDIT_TRAIL:
 Stop http session: initiator (192.168.10.2:2676) sent 233 bytes
 -- responder (128.138.223.2:80) sent 1260 bytes
*Jan 12 21:43:44.899: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2677)
 -- responder (128.138.223.2:80)
```

Log permitido de JAVA

```
Jan 12 21:44:12.143: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2685)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:12.343: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2686)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:17.343: %FW-6-SESS_AUDIT_TRAIL:
 Stop http session: initiator (192.168.10.2:2685) sent 626 bytes
 -- responder (10.66.79.236:80) sent 533 bytes
*Jan 12 21:44:17.351: %FW-6-SESS_AUDIT_TRAIL:
 Stop http session: initiator (192.168.10.2:2686) sent 314 bytes
 -- responder (10.66.79.236:80) sent 126 bytes
*Jan 12 21:44:23.803: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2687)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:27.683: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2691)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:28.411: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2692)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:28.451: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2693)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:28.463: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2694)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:28.475: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2695)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:28.487: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2696)
```

```
 -- responder (10.66.79.236:80)
*Jan 12 21:44:28.499: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2697)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:28.515: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2698)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:28.527: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2699)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:28.543: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2700)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:28.551: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2701)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:29.075: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2734)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:29.135: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2735)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:29.155: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2736)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:29.159: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2737)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:29.215: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2739)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:29.231: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2740)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:29.251: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2742)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:29.395: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2747)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:29.403: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2748)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:29.423: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2749)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:30.091: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2798)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:30.095: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2799)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:30.115: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2800)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:30.119: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2801)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:30.123: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2802)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:30.191: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2803)
 -- responder (10.66.79.236:80)
```

```
*Jan 12 21:44:30.219: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2804)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:30.399: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2805)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:30.411: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2806)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:30.423: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2807)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:31.103: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2843)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:31.115: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2844)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:31.127: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2845)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:31.139: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2846)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:31.147: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2847)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:31.159: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2848)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:31.171: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2849)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:31.183: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2850)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:31.195: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2851)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:31.203: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2852)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:32.107: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2908)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:32.123: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2909)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:32.143: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2910)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:32.163: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2911)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:32.175: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2912)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:32.187: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2913)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:32.199: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2914)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:32.211: %FW-6-SESS_AUDIT_TRAIL_START:
```

```
 Start http session: initiator (192.168.10.2:2915)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:32.223: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2916)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:32.235: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2917)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:33.151: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2982)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:33.163: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2983)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:33.175: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2984)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:33.187: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2985)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:33.199: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2986)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:33.211: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2987)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:33.223: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2988)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:33.235: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2989)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:33.251: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2990)
 -- responder (10.66.79.236:80)
*Jan 12 21:44:33.259: %FW-6-SESS_AUDIT_TRAIL_START:
 Start http session: initiator (192.168.10.2:2991)
 -- responder (10.66.79.236:80)
```

Informações Relacionadas

- Página de suporte de firewall do IOS
- Controle de acesso com base no contexto: Introdução e configuração
- Melhorando a Segurança em Cisco Routers
- Suporte Técnico e Documentação - Cisco Systems