

# PIX/ASA 7.x and later : Pre-shared Key Recovery

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## **Introduction**

This document describes how to recover a pre-shared key on the PIX/ASA security appliance.

## **Prerequisites**

### **Requirements**

This document assumes that you have already configured the security appliance with VPN configurations and provided pre-shared key as the authentication parameter.

### **Components Used**

The information in this document is based on the Cisco PIX 500 Series Firewall with software version 7.x and later.

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.

### **Related Products**

This document can also be used with the Cisco 5500 Series Adaptive Security Appliance (ASA) with software version 7.x and later.

### **Conventions**

Refer to Cisco Technical Tips Conventions for more information on document conventions.

# Problem

Once a pre-shared key is configured, it is encrypted, and you cannot see it in the running configuration. It is displayed as \*\*\*\*\*.

## Example:

```
pixfirewall#show running-config
Cryptochecksum: 1b6862ce 661c9155 ff13b462 7b11c531
: Saved
: Written by enable_15 at 00:38:35.188 UTC Fri Feb 16 2007
!
PIX Version 7.2(2)
!
hostname pixfirewall
domain-name default.domain.invalid
enable password 8Ry2YjIyt7RRXU24 encrypted
names
!
interface Ethernet0
 nameif inside
 security-level 100
 ip address 172.16.124.1 255.255.255.0

crypto isakmp policy 1
 authentication pre-share
 encryption des
 hash md5
 group 2
 lifetime 86400

!--- Output is suppressed.

tunnel-group mytunnel type ipsec-ra
tunnel-group mytunnel general-attributes
 default-group-policy myGROUP
tunnel-group mytunnel ipsec-attributes
 pre-shared-key *
telnet timeout 5
ssh timeout 5
```

# Solutions

Use any of the solutions in this section to solve the problem.

## Solution 1

In order to recover a pre-shared key in the VPN configuration, issue the **more system:running-config** command. This command shows the pre-shared key in clear-text format.

## Example:

```
pixfirewall#more system:running-config
Cryptochecksum: 1b6862ce 661c9155 ff13b462 7b11c531
: Saved
: Written by enable_15 at 00:38:35.188 UTC Fri Feb 16 2007
!
PIX Version 7.2(2)
!
hostname pixfirewall
```

```

domain-name default.domain.invalid
enable password 8Ry2YjIyt7RRXU24 encrypted
names
!
interface Ethernet0
 nameif inside
 security-level 100
 ip address 172.16.124.1 255.255.255.0

crypto isakmp policy 1
 authentication pre-share
 encryption des
 hash md5
 group 2
 lifetime 86400

```

*!--- Output is suppressed.*

```

tunnel-group mytunnel type ipsec-ra
tunnel-group mytunnel general-attributes
 default-group-policy myGROUP
tunnel-group mytunnel ipsec-attributes
 pre-shared-key cisco
telnet timeout 5
ssh timeout 5

```

## Solution 2

Copy your configuration to a TFTP server. This is needed because once the configuration is sent to the TFTP server, the pre-shared key appears as clear text (instead of \*\*\*\*\*, as in the **show run** command).

Issue this command in order to copy your configuration to a TFTP server:

```
ASA#write net [[tftp server_ip]:[filename]]:
```

**OR**

```
ASA#copy running-config tftp:
```

Once the file is saved on the TFTP server, you can open it with a text editor and view the passwords in clear text.

### Example:

```

pixfirewall#copy running-config tftp:

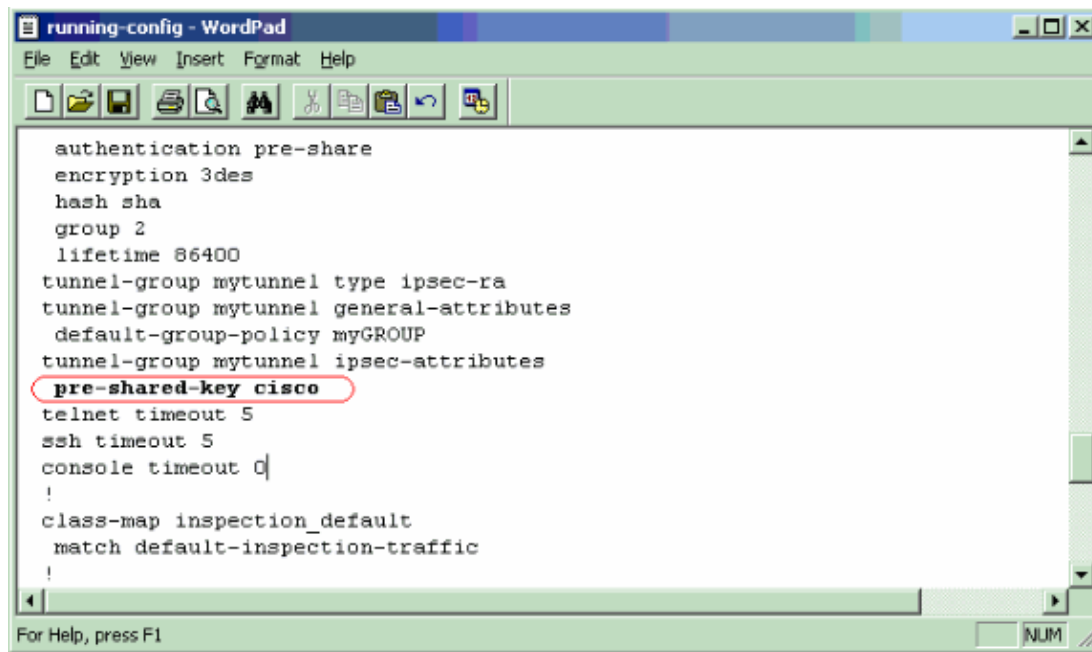
Source filename [running-config]?

Address or name of remote host []? 172.16.124.2

Destination filename [running-config]?
Cryptochecksum: 1b6862ce 661c9155 ff13b462 7b11c531
!
3312 bytes copied in 0.420 secs

```

### Text Editor View



Refer to the **write net** section of the Cisco Security Appliance Command Reference in order to learn more about this command.

### Solution 3

In order to get the clear text of the pre-shared key, access the PIX/ASA through HTTPS.

Create a username/password to get the access of the PIX/ASA configuration.

```
pix(config)#username username password password
```

In order to enable the security appliance HTTP server, use the **http server enable** command in global configuration mode. In order to disable the HTTP server, use the **no** form of this command.

```
hostname(config)#http server enable
```

In order to specify hosts that can access the HTTP server internal to the security appliance, use the **http** command in global configuration mode. In order to remove one or more hosts, use the **no** form of this command. In order to remove the attribute from the configuration, use the **no** form of this command without arguments.

```
hostname(config)#http 10.10.99.1 255.255.255.255 outside
```

Use the username/password to login to the PIX/ASA using the browser as this example shows.

```
https://10.10.99.1/config
```

### Solution 4

The configuration can also be uploaded to an FTP server. This is the command:

```
ASA#copy running-config ftp:<url>
```

**Example:**

```
ASA#copy run ftp://172.16.124.2/running-config

Source filename [running-config]?

Address or name of remote host [172.16.124.2]?

Destination filename [running-config]?
Cryptochecksum: 1b6862ce 661c9155 ff13b462 7b11c531
!
3312 bytes copied in 1.120 secs (3312 bytes/sec)
```

See the figure for text editor view.

## NetPro Discussion Forums – Featured Conversations

Networking Professionals Connection is a forum for networking professionals to share questions, suggestions, and information about networking solutions, products, and technologies. The featured links are some of the most recent conversations available in this technology.

<a href="#">NetPro Discussion Forums – Featured Conversations for Security</a>
<a href="#">Security: Intrusion Detection [Systems]</a>
<a href="#">Security: AAA</a>
<a href="#">Security: General</a>
<a href="#">Security: Firewalling</a>

## Related Information

- [Cisco ASA 5500 Series Adaptive Security Appliances Support Page](#)
- [Technical Support & Documentation – Cisco Systems](#)

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