

# PIX/ASA : Upgrading a License Key on a Failover Pair

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## Introduction

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## Introduction

While upgrading the license for failover units, it is not possible to avoid the network down time, however the downtime can be minimized. This document focuses on how to minimize the downtime during the upgrade of license in failover pair.

Cisco PIX 515, 515E, 525, and 535 Security Appliances support the concept of a Platform License. License levels range from Restricted (R), Unrestricted (UR), Failover (FO), and Failover–Active/Active (FO–AA).

The security appliance supports two failover configurations: Active/Active Failover and Active/Standby Failover.

For a sample configuration that includes a brief introduction to the PIX/ASA Active/Standby Failover, refer to [PIX/ASA: Active/Standby Failover Configuration Example](#).

For a sample configuration that includes a brief introduction to the PIX/ASA Active/Active Failover, refer to [PIX/ASA : Active/Active Failover Configuration Example](#).

## Prerequisites

### Requirements

Cisco recommends that you have knowledge of these topics:

- Failover Health Monitoring
- Memory recommendation for upgrading license.

### Components Used

The information in this document is based on these software and hardware versions:

- Cisco PIX 515, 515E, 525, and 535 Security Appliances with 7.x and later version

The information in this document was created from the devices in a specific lab environment.

## Related Products

You can also use this configuration with Cisco ASA Security Appliance version 7.x and later.

## Conventions

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

## Procedure For Upgrading License

The following steps are used to upgrade the license in failover pairs

- New Activation Key
- Upgrading License
- Verify the Key

### New Activation Key

By default, the license on the PIX will be 'Restricted'(R). A new activation key is required in order to upgrade from a 'Restricted' software bundle to a bundle which supports additional features such as more number of connections, Failover, IPSec or additional interfaces. Also, a new activation key is sometimes necessary after a Flash upgrade on a PIX

In order to request an activation key, send an email to [licensing@cisco.com](mailto:licensing@cisco.com) providing the **serial number** of PIX (or if you are upgrading the flash, provide the serial number of Flash Card) and the output of the **show version** command. Go to the Cisco ASA 3DES/AES License Registration (registered customers only) page to request a AES/3DES activation key. .

**Note:** If you receive the `ERROR: Failed to update flash activation key error`, which is due to a problem in the activation key, request a new activation key to resolve this error.

The following sample "**show version**" command shows the serial number and the activation key for the security appliance.

```
pix# show version

Cisco PIX Security Appliance Software Version 7.1(1)
Device Manager Version 5.1(1)

Compiled on Thu 19-Jan-06 15:02 by builders
System image file is "flash:/pix711.bin"
Config file at boot was "startup-config"

pix up 7 days 20 hours

Hardware:   PIX-515E, 128 MB RAM, CPU Pentium II 433 MHz
Flash E28F128J3 @ 0xffff00000, 16MB
BIOS Flash AM29F400B @ 0xfffd8000, 32KB

Encryption hardware device : VAC+ (Crypto5823 revision 0x1)
 0: Ext: Ethernet0           : address is 000f.908f.2d45, irq 10
 1: Ext: Ethernet1           : address is 000f.908f.2d46, irq 11
 2: Ext: Ethernet2           : address is 0005.5d19.7ad0, irq 11
 3: Ext: Ethernet3           : address is 0005.5d19.7ad1, irq 10
 4: Ext: Ethernet4           : address is 0005.5d19.7ad2, irq 9
```

```
5: Ext: Ethernet5 : address is 0005.5d19.7ad3, irq 5
```

**Licensed features for this platform:**

```
Maximum Physical Interfaces : 6
Maximum VLANs : 25
Inside Hosts : Unlimited
Failover : Active/Active
VPN-DES : Enabled
VPN-3DES-AES : Enabled
Cut-through Proxy : Enabled
Guards : Enabled
URL Filtering : Enabled
Security Contexts : 2
GTP/GPRS : Disabled
VPN Peers : Unlimited
```

**This platform has an Unrestricted (UR) license.**

**Serial Number: 808150103**

**Running Activation Key: 0x8f5bdba6 0x0963cc7f 0xfeffd300 0x9b00f19d**

Configuration last modified by enable\_15 at 01:42:55.492 UTC Wed May 31 2006

## Upgrading License

Once you received the new activation key from Cisco, log into each pix and and enter the key manually in the config terminal mode.

The PIX Security appliance Version 7.0 and above supports two kinds of license keys.

- Existing 4-tuple license key for PIX Version 6.3 or earlier
- A new 5-tuple license key for PIX Security appliance Version 7.0 and above only

Syntax: **activation-key [activation-key-four-tuple | activation-key-five-tuple]**

Example:

```
pix(config)# activation-key 0xe02888da
0x4ba7bed6 0xf1c123ae 0xffd8624e
```

Assuming the primary unit is Active, follow these steps in order to have minimum downtime while upgrading the license.

1. Upgrade the license in primary and do a write mem to save the configuration.
2. Now shut down the primary (do not reboot). This will make secondary active. Do not remove any of the cables throughout the upgradation process.
3. Now since secondary is active, upgrade its license and do a write mem to save the configuration on secondary.
4. Now shut down the secondary and boot up the primary (this would be your network downtime until primary boots up completely).
5. Once primary is up and running, wait for three minutes and boot up the secondary and we are through with it

**Note:** If the primary unit is in Standby, reverse the following procedure. That is in the place of Primary PIX put Secondary PIX and in place of Secondary put Primary PIX

## Verify the Key

You can verify the updated license by issuing "**show version**" or "**show activation-key**" command in both primary and secondary units.

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## Related Information

- [Configuring Failover in PIX 7.x Security Appliance](#)
  - [Technical Support & Documentation – Cisco Systems](#)
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