

# Addressing an Unregistered Network Inside the PIX Firewall Using RFC 1918

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## Introduction

When it is possible, users of unregistered (or "dirty") networks should use the reserved addresses in RFC 1918 on any networks inside the PIX.

## Prerequisites

### Requirements

There are no specific requirements for this document.

### Components Used

This document is not restricted to specific software and hardware versions.

### Conventions

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

## Recommended Address Ranges

As discussed in RFC 1918, the addresses that you should use are shown here.

- **Class A:** 10.0.0.0 – 10.255.255.255 (10/8 prefix)
- **Class B:** 172.16.0.0 – 172.31.255.255 (172.16/12 prefix)
- **Class C:** 192.168.0.0 – 192.168.255.255 (192.168/16 prefix)

There are two advantages of using these numbers on the inside of the PIX.

- You can grow your internal IP networks without worrying about running out of addresses.
- You can eliminate the risk of inadvertently using other networks' legitimate addresses.

For example, if you use the Class C range of 192.31.7.0 for network addresses on the inside of your PIX, your computers are unable to connect to another machine that has a legitimate IP address (such as 192.31.7.31). This is because your hosts try to reach a machine that does not exist on the inside of your firewall.

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## Related Information

- **RFC 1918: Address Allocation for Private Internets**
  - **PIX Support Page**
  - **Documentation for PIX Firewall**
  - **PIX Command References**
  - **Field Notices for PIX Firewall**
  - **Requests for Comments (RFCs)**
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