

Configuring a Cisco SOHO77 Router with Unnumbered E0, PPPoA, PPP-PAP, and Manually Configured LAN Devices

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Introduction

This document shows a Cisco Small Office/Home Office (SOHO)77 Digital Subscriber Line (DSL) router that connects to a Cisco 6130 DSL Access Multiplexer (DSLAM) and terminates on a Cisco 6400 Universal Access Concentrator (UAC). The Cisco SOHO77 has been configured with PPP over ATM (PPPoA).

The Internet Service Provider (ISP) has given the subscriber a range of IP addresses, 10.0.0.1 to 10.0.0.?, with a mask of 255.0.0.0. IP address 10.0.0.1 are manually configured on the Ethernet interface of the Cisco SOHO77. The subscriber manually configures the remaining IP addresses on the local LAN devices. Each local device should be configured with a default gateway IP address of 10.0.0.1 the IP address of the Cisco SOHO77 Ethernet interface.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

The information in this document is based on the software and hardware versions below.

- Cisco SOHO77 customer premises equipment (CPE) IOS Software Release 12.1(3)XP2
- Cisco 6400 UAC-NRP IOS Software Release 12.1(3)DC1
- Cisco 6400 UAC-NSP IOS Software Release 12.1(3)DB
- Cisco 6130 DSLAM-NI2 IOS Software Release 12.1(5)DA

The information presented in this document was created from devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If you are working in a live network, ensure that you understand the potential impact of any command before using it.

Conventions

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

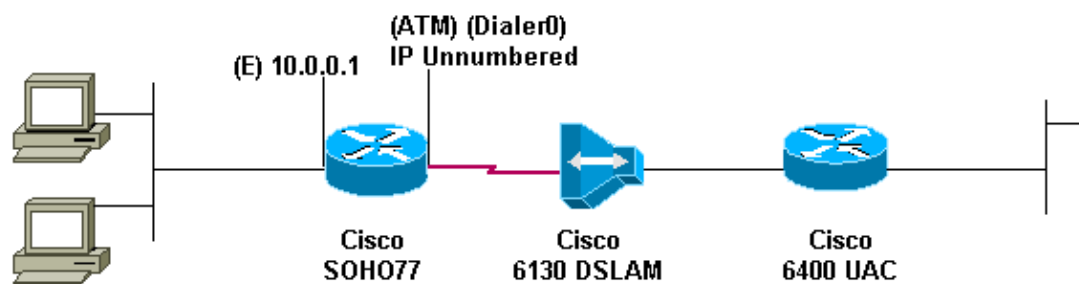
Configure

In this section, you are presented with the information to configure the features described in this document.

Note: To find additional information on the commands used in this document, use the Command Lookup Tool (registered customers only).

Network Diagram

This document uses the network setup shown in the diagram below.



Configurations

This document uses the configuration shown below.

```
Cisco SOHO77
!
version 12.1
service timestamps debug datetime msec
service timestamps datetime msec
!
hostname R1
!
ip subnet-zero
!
interface Ethernet0
 ip address 10.0.0.1 255.0.0.0
 no ip directed-broadcast
 no ip mroute-cache
!
interface ATM0
 no ip address
 no ip directed-broadcast
 no ip mroute-cache
 no atm ilmi-keepalive
 pvc 1/150
  encapsulation aal5mux ppp dialer
  dialer pool-member 1
!
 hold-queue 224 in
!
interface Dialer0
 ip unnumbered Ethernet0
```

```
no ip directed-broadcast
encapsulation ppp
dialer pool 1
dialer-group 1
ppp pap sent-username username password password

!
ip classless
ip route 0.0.0.0 0.0.0.0 Dialer0
no ip http server
!
dialer-list 1 protocol ip permit
!
end
```

Verify

There is currently no verification procedure available for this configuration.

Troubleshoot

There is currently no specific troubleshooting information available for this configuration.

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