

# Configuring a Cisco 827 Router With NAT and Easy IP Using PPPoA (aal5mux ppp)

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## Introduction

This sample configuration shows how to configure addressing using the following:

- Network Address Translation (NAT)
- Easy IP Phases 1 and 2
- A Cisco 827 Digital Subscriber Line (DSL) Router connected to a Cisco 6130 Digital Subscriber Line Access Multiplexer (DSLAM) and terminating on a Cisco 6400 Universal Access Concentrator (UAC)

## Prerequisites

### Requirements

There are no specific prerequisites for this document.

### Components Used

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

- Cisco 827–4V customer premises equipment (CPE) IOS? Software Release 12.1(1)XB
- Cisco 6400 UAC–NRP IOS Software Release 12.0(7)DC
- Cisco 6400 UAC–NSP IOS Software Release 12.0(4)DB
- Cisco 6130 DSLAM–NI2 IOS Software Release 12.1(1)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.

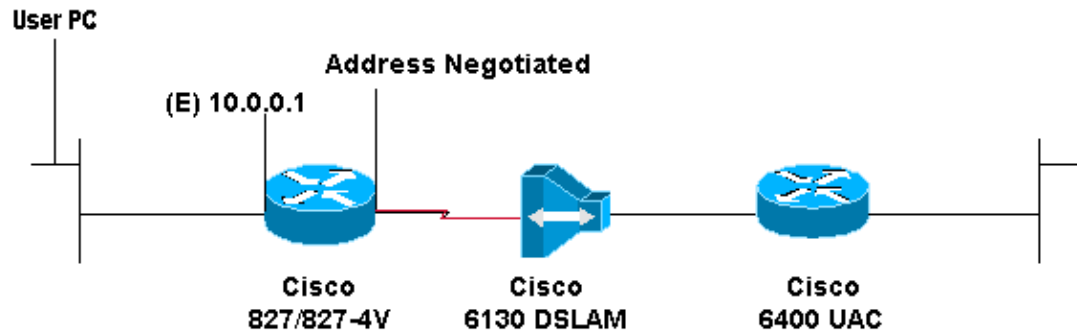
# Configure

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

Cisco 827
<pre>Current configuration: ! version 12.1 service timestamps debug datetime msec service timestamps log datetime msec no service password-encryption ! hostname R1 ! ip subnet-zero ! interface Ethernet0  ip address 10.0.0.1 255.0.0.0  no ip directed-broadcast  ip nat inside  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 address negotiated  no ip directed-broadcast  ip nat outside  encapsulation ppp</pre>

```

dialer pool 1
dialer-group 1
ppp pap sent-username <username> password <password>
!
ip nat inside source list 101 interface Dialer0 overload
ip classless
ip route 0.0.0.0 0.0.0.0 Dialer0
no ip http server
!
access-list 101 permit ip 10.0.0.0 0.255.255.255 any
dialer-list 1 protocol ip permit
!
voice-port 1
  timing hookflash-in 0
!
voice-port 2
  timing hookflash-in 0
!
voice-port 3
  timing hookflash-in 0
!
voice-port 4
  timing hookflash-in 0
!
end

```

### Cisco Access 6400 NRP1

```

username <username> password <password>

!--- The username and password values must match
!--- the username and password values of the remote device.

!
interface ATM0/0/0.200 point-to-point
  no ip directed-broadcast
  no ip route-cache
  pvc 1/301
    encapsulation aal5mux ppp Virtual-Templatell
!
interface Virtual-Templatell
  ip unnumbered Ethernet0/0/0
  no ip directed-broadcast
  peer default ip address pool <pool name>
  ppp authentication pap

ip local pool <pool name> 172.17.0.1 172.17.0.10

```

## 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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## Related Information

- [Cisco DSL Technology Support Information](#)
  - [Cisco DSL Technical Tips](#)
  - [Technical Support – Cisco Systems](#)
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