

## H3C AR 18-3X Series Branch Access Router

The H3C AR 18-3x Series Router is oriented to SMB and Small Office Home Office (SOHO), which includes AR 18-30E/18-31E/18-32E/18-33/18-33E/18-34/18-34E/18-35E models. AR 18-3x Series Router belongs to xDSL routers and provides a new solution to situations where high bandwidth is required such as small and medium-sized enterprises and some large branches and offices.

In the uplink direction, H3C AR 18-3x Series Routers provide ADSL/ADSL2+, G.SHDSL interface or ISDN interface directly connected to the equipment at the central office through one or two subscriber lines to solve the broadband network access problem. The ISDN interface primarily functions as a backup interface.

In the downlink direction, H3C AR 18-3x Series provides four 10/100BASE-T Ethernet ports. Data exchange between these ports is a layer 2 switching and port isolation can be implemented.

The AR 18-33/18-34/18-33E/18-34E is based on SHDSL access of ATM. The AR 18-33/34 supports two-wire mode while AR 18-33E/34E supports four-wire mode. The AR 18-30E/31E adopts ADSL2+ over POTS (ANNEX A Standard) interface while AR 18-32E/35E adopts ADSL2+ over ISDN (ANNEX B Standard) interface.



H3C AR18-30E Rear View



H3C AR18-31E Rear View



H3C AR18-32E Rear View



H3C AR18-33/33E Rear View



H3C AR18-34/34E Rear View



H3C AR18-35E Rear View

### Product Features

#### I Diverse and Flexible Interface

The AR 18-3x Series xDSL Router has an integrated xDSL WAN port and four-port fast Ethernet LAN switch with ISDN BRI S/T interface for backup. Customers can flexibly select ADSL/ADSL2+ over POTS, ADSL/ADSL2+ over ISDN, G.SHDSL or common ISDN as WAN link.

#### I Powerful Packet Forwarding Capability

Advanced CPU technology, highly effective, real time and multi-task operating system and unique software are used to substantially enhance its capability to process packets. Users can take advantage of wire-speed xDSL technology.

### I Rich Security Service

AR 18-3x Series Routers provide abundant network security features, such as firewall, packet filtering, network address translation (NAT), authentication, authorization, accounting (AAA) and callback. Hence, users can select different security policies to build enterprise networks. In addition, the AR 18-3x Series Router provide plentiful VPN solutions, such as dynamic VPN, L2TP, GRE, IPSec, IKE as well as MPLS VPN. It can be used in Intranet VPN and Access VPN, thus greatly reducing customers' costs.

### I Dial Control Center

AR 18-3x Series Routers provides perfect dial-in solutions and support two dial-in modes, namely legacy DCC and dialer profiles. In addition, they also support the link layer protocols like point to point protocol (PPP), the network layer protocols like Internet Protocol (IP) and Internet Packet Exchange (IPX), and have the capability of running multiple dynamic routing protocols on the dial-in interfaces, thereby satisfying various requirements on network topology. The dialer profiles own more functions, and can enable multiple dial-in users to share a physical interface via the dialer pool and make different calls.

### I Reliability

The backup center technology can greatly enhances the network reliability. The features of synchronous interface, asynchronous interface, CT1/PRI interface and ISDN BRI interface implement line backup to meet the requirements on high reliability.

## Product Specifications

### I Software Specification

Data Link Layer Protocols	Ethernet, PPPoE Server / Client, DCC, PPP, MP, ATM, IPoA, IPoEoA, PPPoA, PPPoEoA
Network Layer Protocols	IP, ICMP, IP Fast Switch, DHCP Client / Server / Relay, ARP, Proxy ARP
Routing Protocols	Static Routing, OSPF, RIP v1 / v2, Policy Routing
Application Layer Protocols	Telnet, SSH, FTP Server / Client, TFTP, File system, NTP, Configuration function, SNMP, RMON
Security Characteristics	AAA, RADIUS, Huawei-TACACS, Firewall,

	ASPF, NAT, ACL, L2TP, GRE, IPSec, IKE, PKI
QoS	RED/WRED, CAR, GTS, LR, PQ, CQ, WFQ, CBQ, RTPQ, LLQ
Reliability Functions	VRRP, Backup Center

## I Hardware Specification

Description	AR 18-30E/31E	AR 18-33/34	AR 18-33E/34E	AR 18-32E/35E
Interfaces	One ADSL2+ over POTS Interface One ISDN BRI S/T Interface (AR 18-31E)	One G.SHDSL Interface (two wire) One ISDN BRI S/T (AR 18-34)	One G.SHDSL Interface (four wire) One ISDN BRI S/T (AR 18-34E)	One ADSL2+ over ISDN Interface One ISDN BRI S/T Interface (AR 18-35E)
	Four 10/100M Ethernet Interfaces One Console Port			
SDRAM	64MB			
Flash	16M	8M		16M
Max. Power Consumption	10W			
Power Supply Module (external)	Input: Rated voltage: 100-240v AC; 50/60Hz; Current: < 0.5A			
	Output: Voltage: 12V DC; Current: ,< 1A			
Dimensions (H X W X D)	180 X 300 X 45mm (maximum dimensions)			
Weight	1kg			
Operating Temperature	0 to 40 <sup>0</sup> C			
Operating Humidity	10 to 90%, non-condensing			

## Typical Applications

### I xDSL & ISDN Backup Solutions

As xDSL routers, AR18-3x can provide a high efficiency, high security and high reliability solution of internet access.

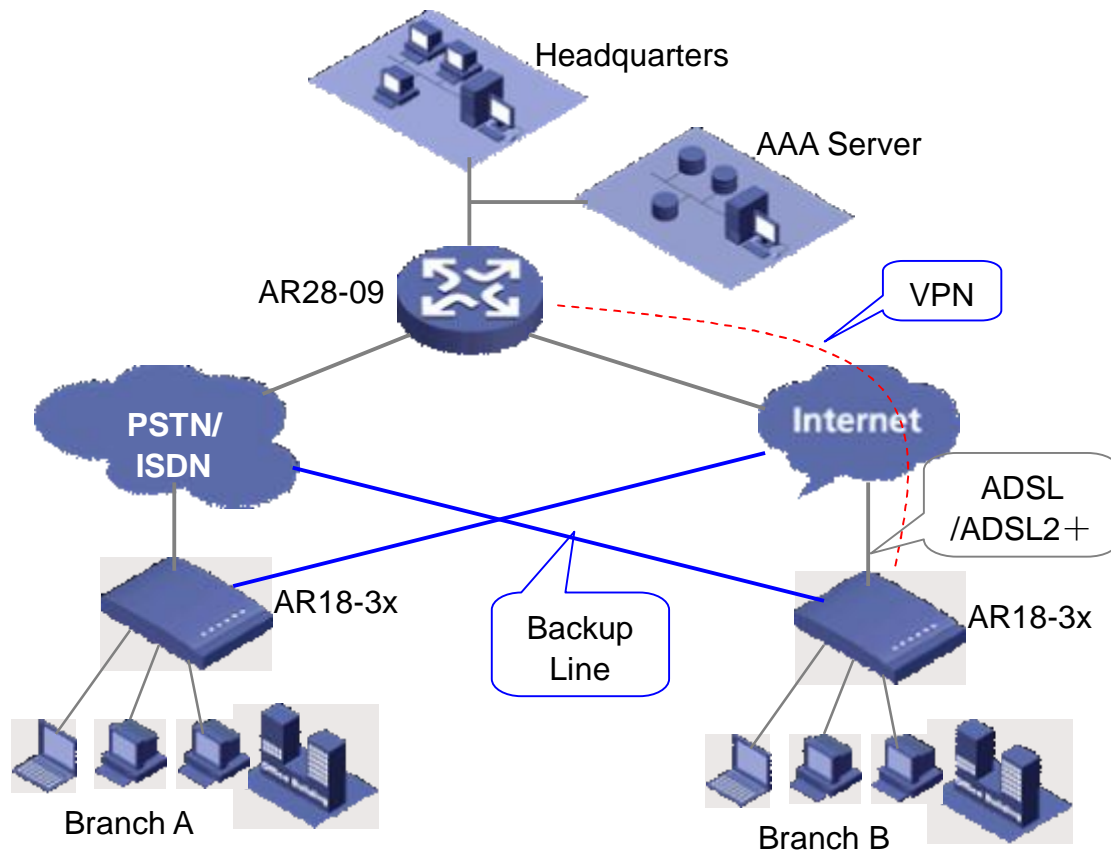


Figure 1 xDSL & ISDN Backup Solution

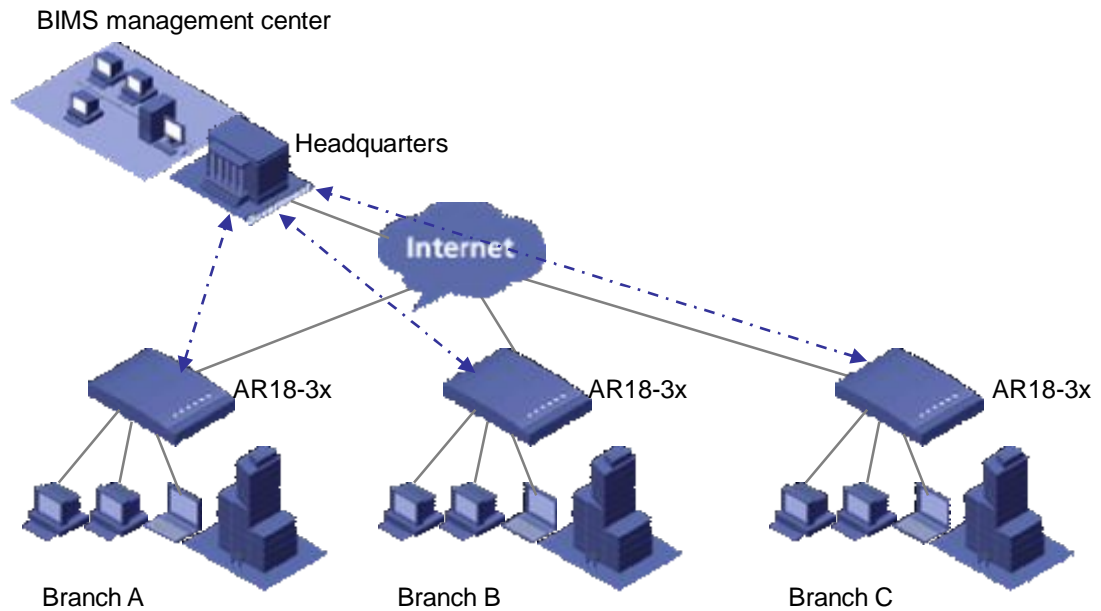
### I Networking Application of BIMS

SNMP is used to implement centralized management in large networks. This is a top-down management, that is, the central node provides all the management. The load of the centralized management increases with the number of branches. In addition, SNMP network management has difficulty in managing dynamic IP addresses or the devices behind a NAT gateway.

To solve this problem, branch intellectual management system (BIMS) has been developed. This solution can be applied to a leased line network, minimizing the maintenance cost and improving management efficiency.

The routers in the branches use the leased line or dial-up to connect to the router in the headquarters. The public or private IP address can be configured on the router or can be obtained dynamically.

The BIMS server runs on the server in the headquarters to manage all the routers in the branches.



**Figure 2 Networking Application of BIMS**

**High reliability:** Using ISDN BRI as backup line. Supporting data packet backup.

**Security guarantee:** Branches access HQ by L2TP/DVPN. User authentication by 802.1x based. RADIUS/AAA authentication.

## Order Information

### I Ordering AR 18-3x Series Routers

The following table lists the models in AR 18-3x Series Routers and their accessories.

**Table 1 Purchase list of the AR 18 series**

Item	Quantity	Remark
Router (AR 18-30E/18-31E/18-32E/18-35E/18-33/18-34/18-33E/18-34E)	1	Only 12 VDC-powered routers are available. You may choose the model according to the desired interfaces.
External power supply unit (PSU)	1	AC/DC PSU, required
AC power cord	1	Required
PGND wire	1	Required
Console cable	1	Required
Dual-pair G.SHDSL interface cable	1	Required. For the AR 18-33E/18-34E.

## I Purchasing Cables

Users can select cables from the external cable assembly suite provided by AR 18-3x Series Routers. For configuration details, refer to AR 18-3x Series Routers Installation Manual.

**Table 2 External cable assembly suite for the AR 18 series**

Item	Quantity	Remark
Ethernet cable	1/4	Optional
Telephone line	1/2	Optional
AUX cable	1	Optional

- I “Required” means that the item will be provided along with the host, and there is no need to make a selection.
- I “Optional” means that the item will not be provided along with the host unless the user selects it.

## Safety and Compliance

### I Emissions / Agency Approvals

CISPR 22 Class B

ETSI EN300 386 Class B

EN 61000-3-2

### I Immunity

Product conforms to:

IEC61000-4-3 (1995) Class A

ETSI EN300 386 V1.3.1(2001) Class A

IEC1000-4-6(1996) Class A

ETSI EN300 386 V1.3.1(2001) Class A

### I Safety Agency Certifications

Insulation (indoor/outdoor)	IEC60950
Dielectrical Strength (indoor/outdoor)	IEC60950
Leakage Current (indoor/outdoor)	IEC60950
Construction inspection (indoor/outdoor)	IEC60950
Fire resistance (indoor/outdoor)	IEC60950

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