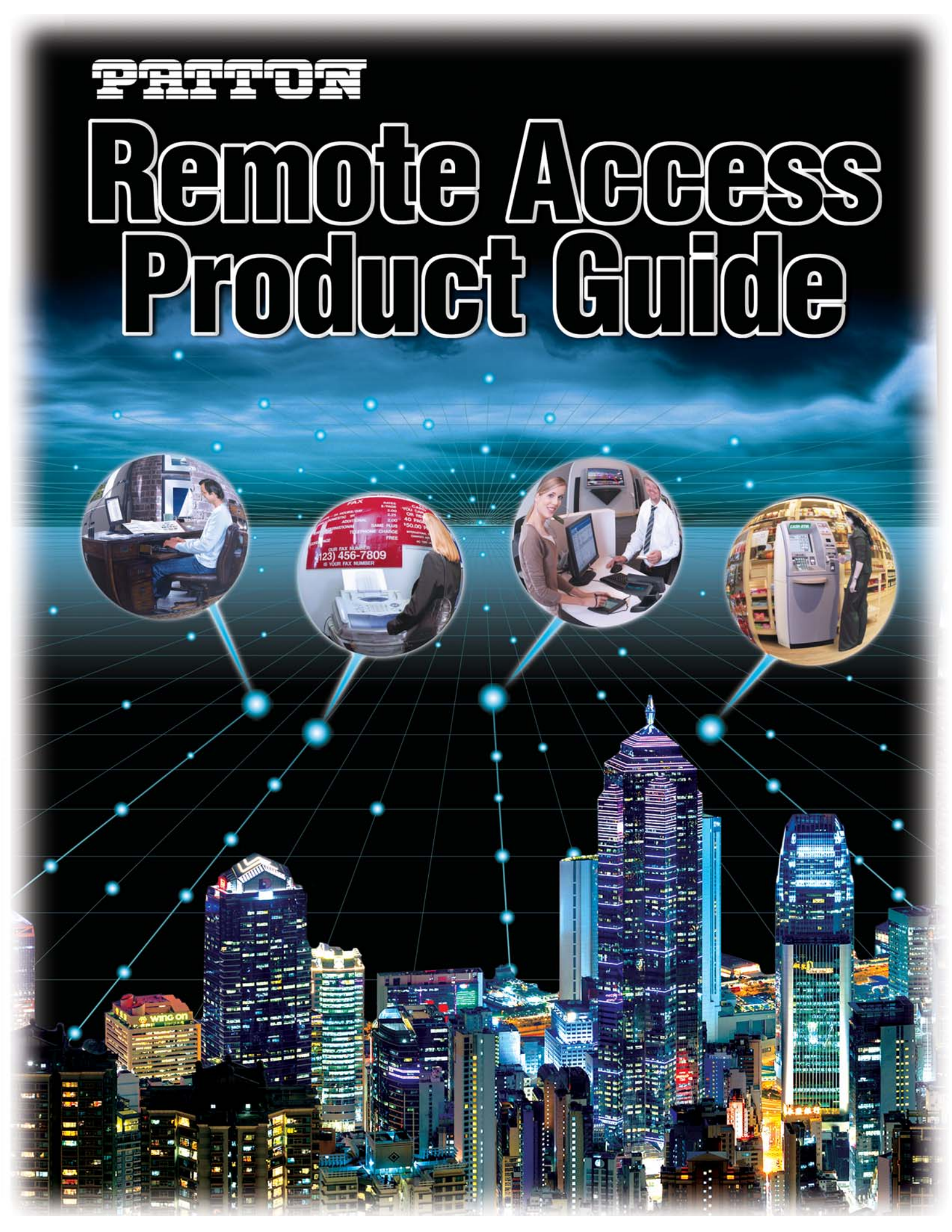
PATTON

Remote Access Product Guide



Top 9 Reasons

. . . You should choose Patton's DialFire RAS

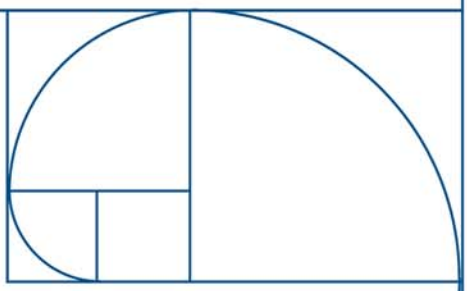
- *FREE* top-notch technical support for life.
- Every unit comes with a 2-year warranty.
- There is no risk…we offer a 30-day money-back guarantee.
- All hardware and software for dial-up RAS in one low cost package.
- Simple to use with web-based HTTP or SNMP network management.
- Scales from 24/72 to 32/120 ports in a 1U-high chassis.
- The best price/performance *ever*.
- The products are tested, approved and deployed in over 40 countries.
- We offer financing. Ask about our divide-by-12 and other payment plans.

a c c e s s . p a t t o n . c o m

"We just bought one and love it. The box works great. After it shipped, they called me to find out if it had arrived and if I needed any assistance in getting set up. Never had that happen before!

A lot of people could take a lesson from Patton on service. Technical support and a two-year warranty are included in the price of the box."

–Patti Jones, V.I.P. Link Internet



RAS

Our dial-up remote access servers terminate 24–120 analog (V.90, V.92, V.44, K56Flex, V.34+) and digital (ISDN) modem calls from T1/PRI or E1/PRI lines. Patton's RAS is driving the price-per-port to new record lows for ISPs, carriers, and corporate customers. Learn more about our RAS, visit access.patton.com.

Industrial & Retail Solutions

Industrial & Retail

Remote Access Services

Extend the lifetime of legacy technology investments.

It is amazing how far our communication technology has changed from dial-up access to fiber access or 4G wireless in the last ten years. However, many other technologies have a much longer lifetime. Although these devices are not as fashionable as the new lifestyle electronics, they provide a safety net for our day-to-day life. This equipment has been used for traffic light control, remote utility monitoring, and credit card transactions. Redesigning or redeploying the dial-up link of these devices is neither profitable nor practical. As competing products go obsolete, Patton's remote access product line remains available to protect your technology investment.

Headquarters

Why Are Dial-up Modems Still Needed?

1 Protect existing investment

Dial-up technology has been around for a long time and it is very inexpensive now. It has been incorporated into very costly industrial control and medical equipment that have very long life-cycles, but would require millions of dollars to redesign or retrofit. So it just makes sense to continue using dial-up to protect legacy technology.

2 Widely deployed copper networks

Copper-based networks are by far the most widely established. For many applications, copper is the only available communication media. Dial-up is the best low cost solution for capitalizing on this media.

3 Low cost technology for low bandwidth applications

In many retail or industrial applications, the requirement for data throughput is very limited, frequently amounting to just a few hundred bytes a day. Dial-up is an ideal solution for such applications.

4 Larger reachable area than DSL

Although DSL is widely deployed, it is not as universally available as dial-up service. There are still many remote telephone sites that cannot be served by DSL and for whom dial-up is the only alternative.

Integrated Dial-Up

Remote Monitoring, Maintenance, and Logistics

Dial-up remote access technology can be used to monitor and control a wide variety of machines:

- Control traffic signal timing from headquarters to keep traffic flowing smoothly
- Change highway digital sign messages from headquarters
- Control timing and water consumption of sprinklers and irrigation systems
- Monitor the status and inventory of vending machines
- Remotely monitor the interior of a vault to ensure valuables are securely stored in stable temperature/humidity conditions
- Monitor temperature and status of a grocery store freezer and receive alerts automatically

Machine to Machine

Machine to machine solutions typically consist of two machines (computers or other electronic devices) connected by a data link. These machines transfer data between themselves on demand without human interaction. Examples include:

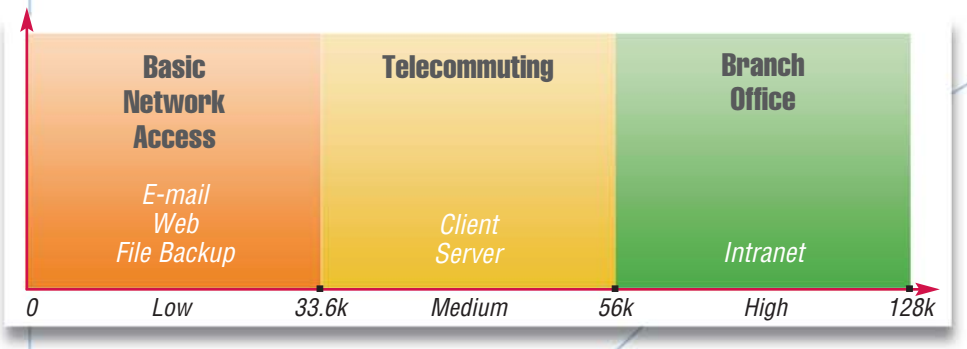
- Gasoline vapor containment system control based on remote measurement.
- Medical devices transferring test results to a computer at a doctor's office
- Cinema screening approval—a serial port modem is used to send a coded key to authorize a cinema to screen a particular film

PSTN

Point of Sales (PoS)

Most credit card purchases at point-of-sale terminals use a dial-up modem to complete the transaction. So do many other transaction authorization machines including: credit card payment terminals in restaurants or retail stores such fax service providers; ticketing machines in train stations, bus stations, and airports; pre-pay gas pumps, Internet vending kiosks, and ATM cash machines.

Enterprise Solutions



Dial-Up Access Speeds/Applications

Still Using Modems?

Some offices are using dial-up modems, terminal servers and external routers to address their remote access requirements. Our RAS includes integrated routing and digital signal processing to answer up to 120 digital ISDN or analog V.90/V.92 modem calls in a 1U-high chassis. This integrated solution saves on equipment costs, installation, technical support, maintenance and day-to-day network management.

Enterprise

Remote Access Services

The new corporate office is quickly being defined as "any place where work is done." Legislative mandates, highway traffic and employee retention issues are speeding the growth of telecommuting. As more companies respond to this trend, reliable remote access equipment is needed. We have it.

Patton's Remote Access Servers provide dial-up access to company e-mail, to the corporate intranet and to other resources for telecommuters and remote users. The Patton family of products delivers the right solution for small, medium and large offices.

"…Patton's web interface makes setting up the boxes a breeze. Everything is point-and-click and menu driven."

–Larry Sanford
CEO, Sanford Industries

Why Corporations Deploy Patton's RAS

1 Saves On Office Costs

Maintaining common work areas for flex-time staff saves money. Employers spend an annual average of $10,000 per employee providing basic office space, insurance and other infrastructure. Remote staff cost less.

2 Helps Retain Employees

Most corporations spend 30% of an employee's salary to recruit the worker. Offering even a little relief to sitting in traffic and providing your employees with more-flexible work hours pleases your workforce and promotes employee retention.

3 Extends Geographic Reach

From business services to recruiting new employees, offering network access and telecommuting programs makes your company more competitive and attractive.

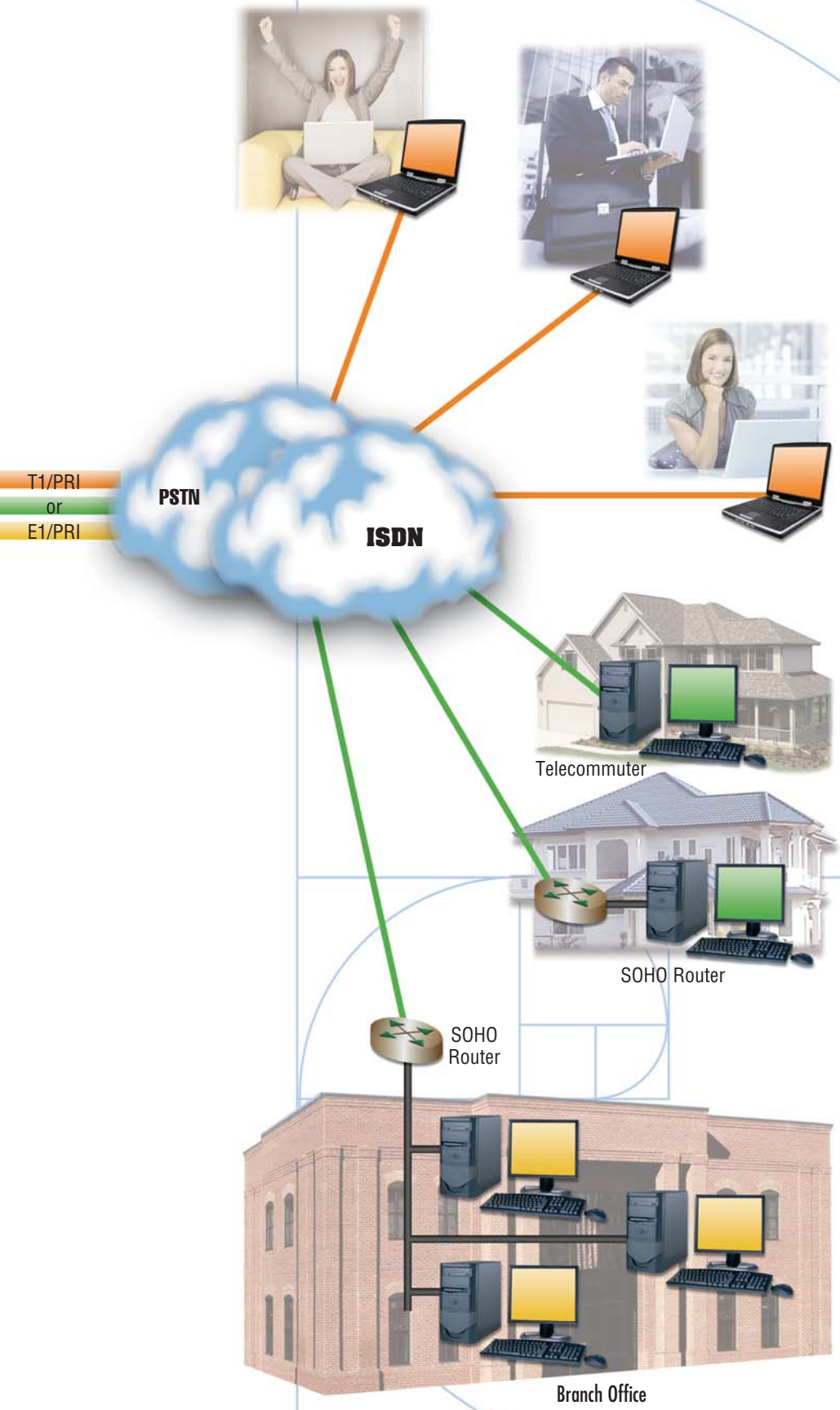
4 It's Environmentally Responsible

Do your part to improve air quality before being subject to pending legislation, regulation and local ordinances.

5 It Just Makes Sense

The number of US telecommuters continues to grow as businesses realize telecommuting is fiscally sound, good for employees and environmentally responsible.

Telecommuting/Dial Access



Network Access on the Road

On the road, users want to get online quickly, send their reports and get their e-mail. The DialFire RAS offers fast V.90/ISDN/Mobile connections. With a built-in modem pool, users won't get busy signals either. The next available modem will answer.

The DialFire RAS includes built-in analog and digital modems, support for new services like the Wire Access protocol (WAP) and support for well-known services like V.42 bps compression. If the goal is to get on and off the network quickly, we offer the fastest turnaround time.

Telecommuting

Rather than fight traffic, telecommuters answer e-mails or work at home each day. They require client-server Intranet access with the greater bandwidth this application demands. The DialFire RAS provides for this through integrated ISDN support and the combining of services using standards-based Multichassis and MultiLink. With MultiLink, the bandwidth available from two or more calls is combined to provide the dial-up user a blazingly-fast connection. It's just like being at the office—without the lengthy travel or the wait to get there.

Branch Office Access

With wide deployment of broadband access though DSL, cable, and fiber, remote branch office networking has become a popular choice. The corporate network manager can outfit a small remote office with these remote access technologies to better integrate the work force.

However, these access technologies are not as reliable as plain old telephone service (POTS) and are subject to power outage. The network manager at headquarters can install a low cost RAS from Patton to support emergency dial-in service. Most laptop computers and UPS-backed computers can stay connected with headquarters during any power outage.

Service Provider Solutions

Dial-Up

Remote Access Services

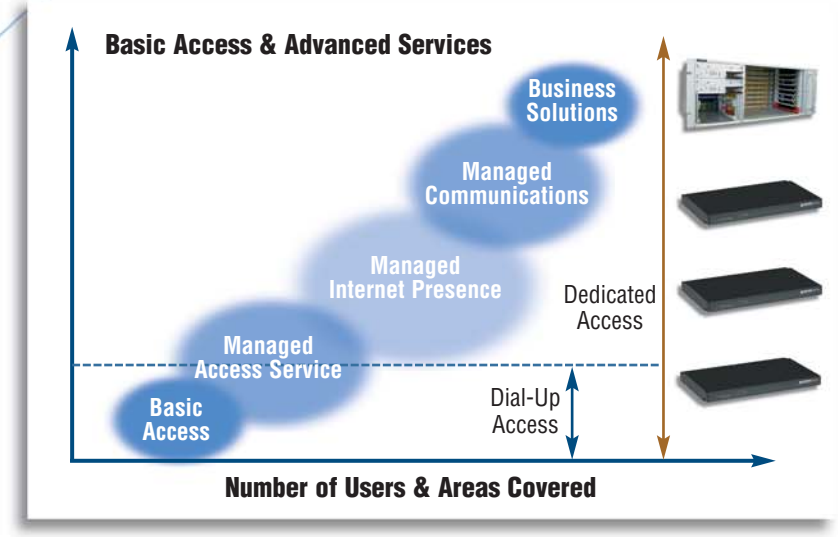
Service Providers are expanding their dial-up access systems as more users connect to the Internet for entertainment, education, and e-commerce. Dial-up is also the method used to terminate virtual private networks (VPNs) for Corporate intranet access.

Our family of remote access servers connects these dial-up users to your network using high density, fully-redundant, cost-effective systems.

Dial-Up: Your Foundation

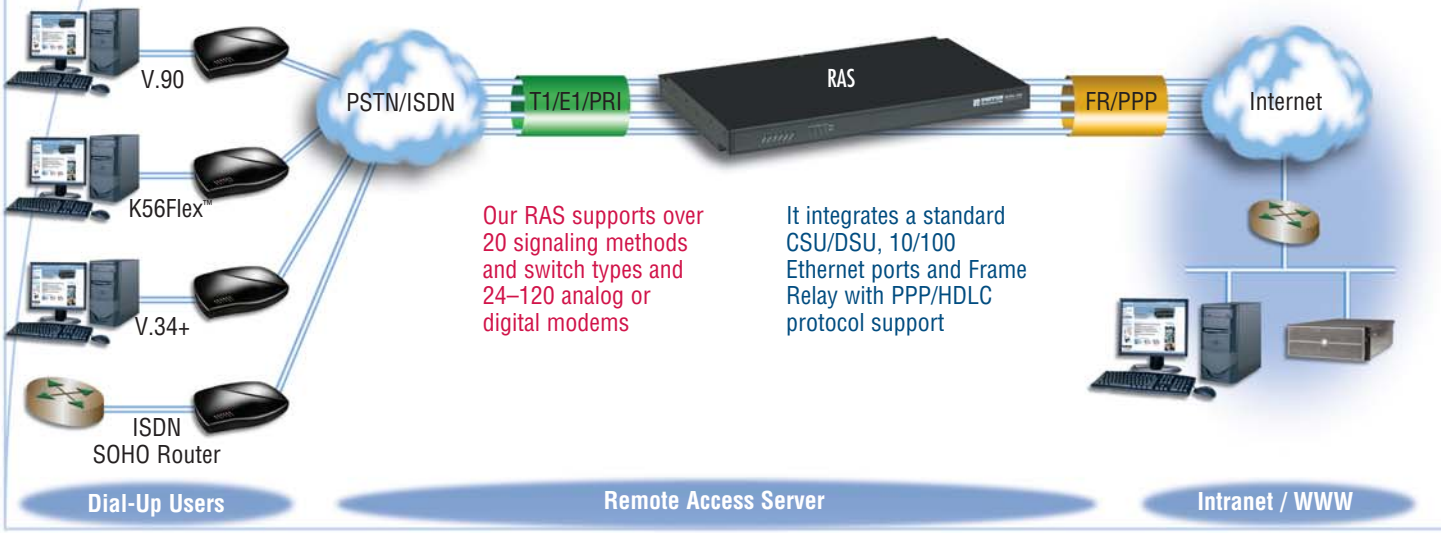
RAS systems form the foundation of the Internet Service Provider (ISP) business, ensuring customers can dial up when a dedicated connection is unavailable or unaffordable.

Every telecommuter, mobile user, and consumer wanting temporary access to the Internet or an Intranet does so through a dial-up connection between an analog modem or ISDN terminal adapter and a remote access server.



Use High-Density Dial-Up Access

Dial-Up RAS systems have come a long way since the days of 1200-bps modems, terminal servers and bulletin boards. The DialFire™ RAS uses the latest in digital signal processor (DSP) technology to terminate analog (V.90, K56Flex, V.34+, etc.) and digital (ISDN BRI) modem calls. This architecture provides highest density and ensures the highest connection speeds at the lowest possible costs. With technology advances driving continued reduction in price-per-port, ISPs and corporate customers alike will benefit from expanding their dial-up access with our DialFire RAS systems.

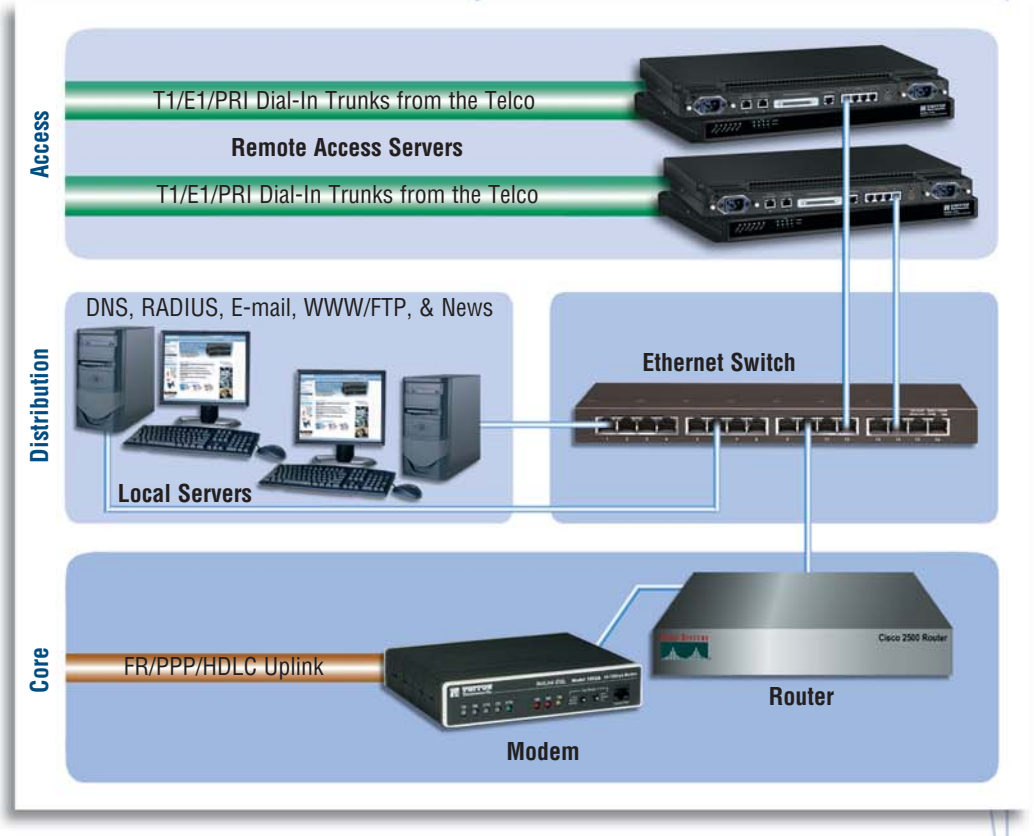


Integrated Dial-Up

Access Network
This is where access services are added. For example, these can be remote access servers for terminating dial-up modems or DSL modems for leased-line connections.

Distribution Network
This is where your access services connect to your backbone network. Ethernet defines the ISP's backbone and glues everything together.

Core Network
This is the backbone connection to the Wide-Area-Network. As the Internet is a network-of-networks, this connection is to another ISP.



An Overview of Dial-Up...

The RAS connects to the local phone company through a T1/E1 or PRI line and to your local Ethernet switch. When users call to get on-line, the RAS is the box that will answer the call with a modem. After a dial-in user connects, the RAS will take IP packets and send them off to the Internet. Here is how a remote access server works:

- A user dials the ISP's access phone number using their modem/terminal adapter and Windows® dial-up networking. The call is answered by the RAS with a modem.
- Upon modem connection, a PPP session begins between the user and the RAS.
- Using PPP, the RAS obtains username and password. This is the same username and password that was typed in by the user before dialing the ISP.
- The RAS queries a RADIUS server to authenticate the user.
- Assuming the user is valid, the RAS automatically issues an IP address to the user and finishes setting up the connection. The user is now connected and can access any of the ISP's local servers (e-mail, news, etc.) or any Internet-connected server.

...And Our RAS Product Family

The Patton family of remote access servers provide a standard feature set for Internet and Intranet access. Our RAS products fit a variety of user environments:

- A start-up ISP will prefer the lower-cost 24/30 port Model 2960 and grow one T1/E1 at a time
- An established ISP expanding into a new location would need the Model 2960 to answer 24/72 calls.
- A PTT/Telco building high-density POPs would use our Model 3120 to answer 32/120 dial-up connections and deliver DSL/T1/E1 dedicated connections too.

Patton's family of RAS products support more calls, come equipped with more uplink ports, and provide greater reliability in a smaller package than any alternative.

ForeFront 3125RC

Carrier Class

Remote Access Services

The ForeFront Model 3125RC provides the ILEC/IOC, CLEC and PTT with a powerful and scalable access solution.

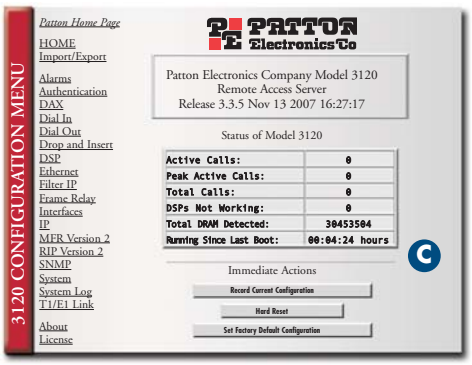
Scaling from 96/120 ports per blade, a single chassis can support up to 1,560 calls. Through its unique distributed processing architecture, each blade operates independently of other system cards for maximum uptime. The ForeFront RAS provides multi-service access technologies such as VoIP and DSL.

Designed for maximum uptime and high availability, the ForeFront modular platform incorporates redundant AC or DC power supplies and hot-swappable/field-upgradable network resource cards providing a versatile, scalable, and complete remote access solution.

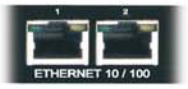
- ✓ High density scalable architecture for easy expansion
- ✓ 96/120 ports per resource card—up to 1,560 calls
- ✓ Dual redundant Hot-Swap architecture
- ✓ Dual 10/100 Ethernet ports per resource card with multiple routing
- ✓ On-board expansion port for additional services and VPN processing
- ✓ V.92/V.44 and legacy modem support
- ✓ Complete SNMP/HTTP management

A **Status at-a-glance**—The 3125RC includes 16 LEDs indicators that detail system and T1/E1 ports status.

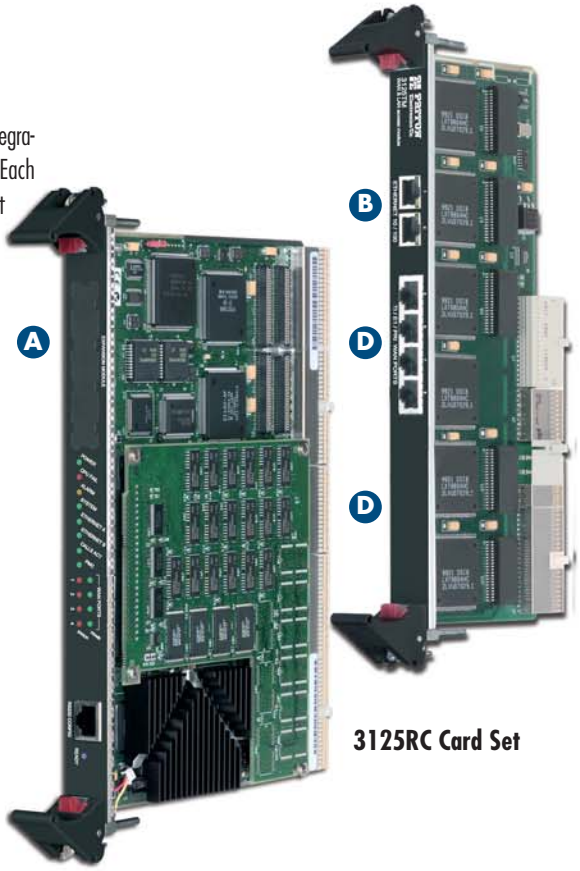
C **SNMP/HTTP management**—Embedded HTTP server provides complete configuration and control using a web browser, as well as standard tools



B **Dual 10/100 Ethernet Ports**—Allow flexible integration options for your high-performance network. Each 10/100 Ethernet provides a primary and secondary port



D **Quad T1/E1 ports for 120 ports of RAS or uplink services**—Terminate any combination of modems/ ISDN connections, or expand into remote locations and use the 3120 as a complete PoP solution

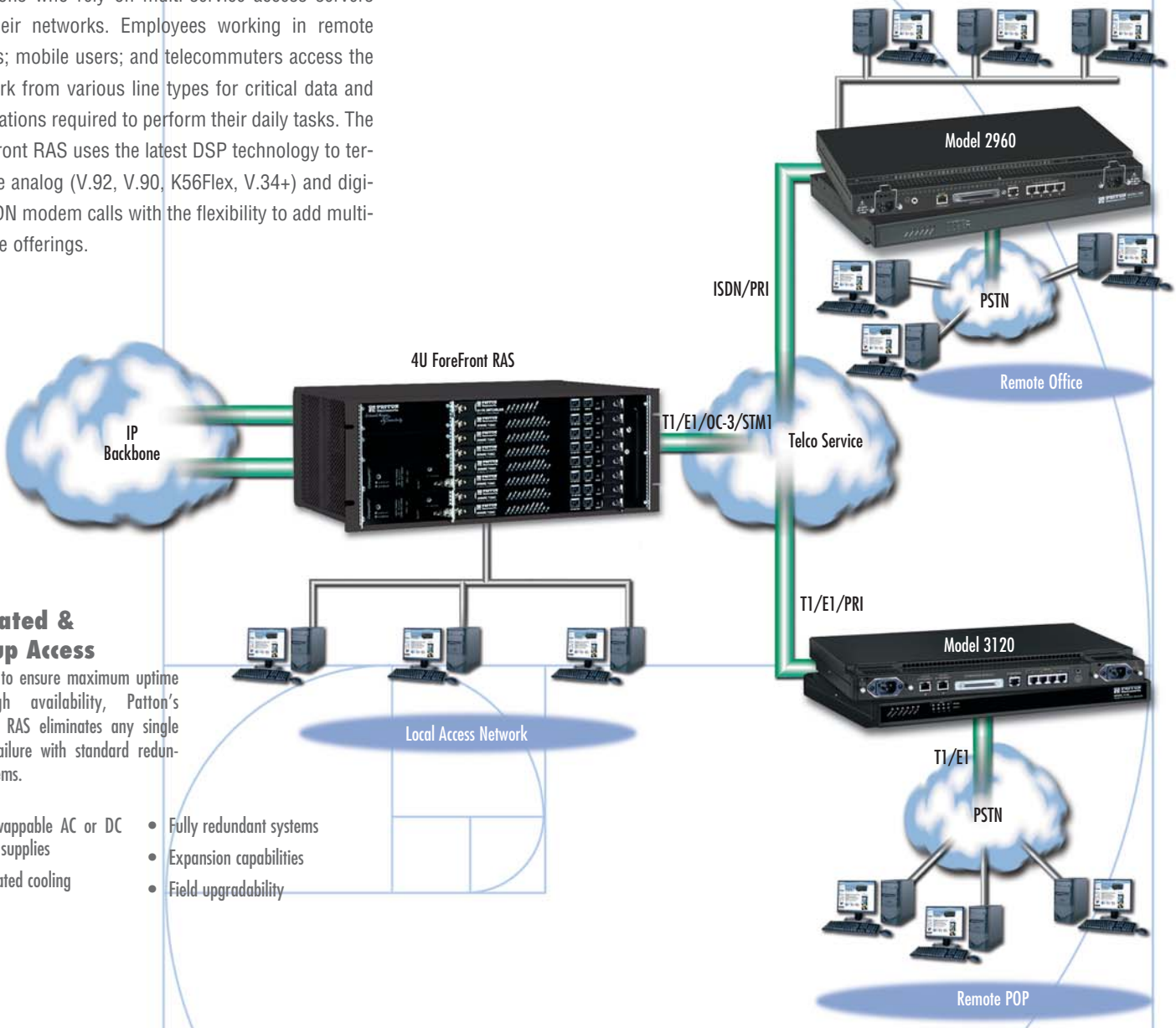


3125RC Card Set

96/120-Port Carrier Class RAS

Corporate site/remote office/POP

Patton designed the ForeFront RAS to meet the infrastructure requirements of service providers and corporations who rely on multi-service access servers for their networks. Employees working in remote offices; mobile users; and telecommuters access the network from various line types for critical data and applications required to perform their daily tasks. The ForeFront RAS uses the latest DSP technology to terminate analog (V.92, V.90, K56Flex, V.34+) and digital ISDN modem calls with the flexibility to add multi-service offerings.

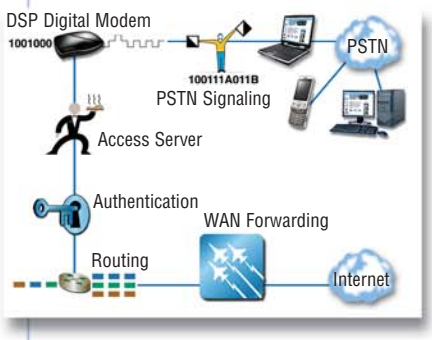


Dedicated & Dial-up Access

Designed to ensure maximum uptime and high availability, Patton's ForeFront RAS eliminates any single point-of-failure with standard redundant systems.

- Hot swappable AC or DC power supplies
- Integrated cooling
- Fully redundant systems
- Expansion capabilities
- Field upgradability

DialFire Model 2960



DialFire RAS

Technical Summary

Legacy solutions using analog-to-digital conversion result in lower connection speeds. These legacy devices also require separate analog modems and ISDN terminal adapters.

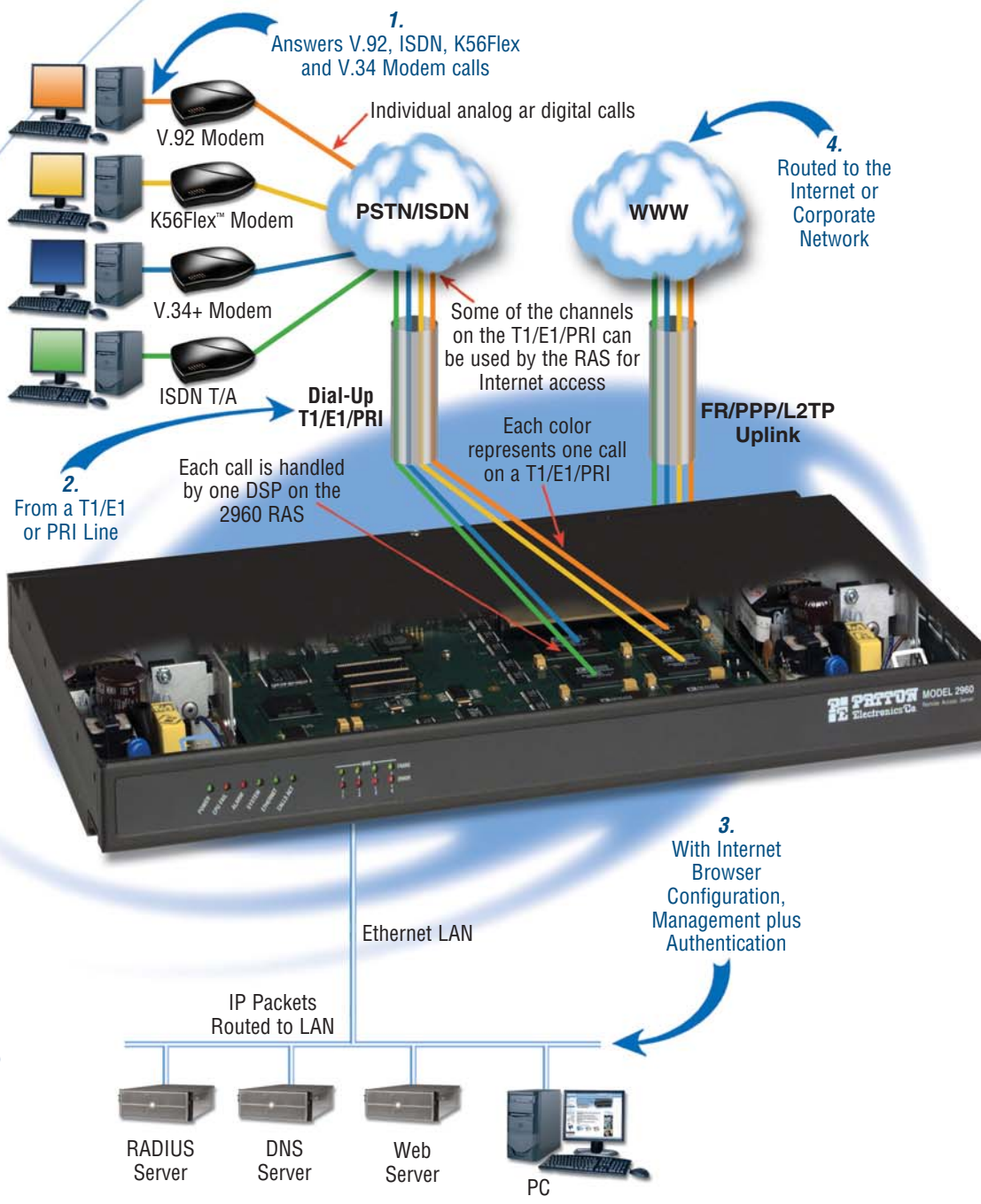
The DialFire Model 2960 has the significant advantage of using of digital signal processors (DSPs) as dynamic communications processors. The 24/72 DSPs terminate both analog and ISDN connections within the same hardware and using the same T1/PR1 or E1/PRI trunk. This solution provides the fastest connections and allows linear growth: one T1/E1 port at a time.

"Just wanted to let you know I'm pleased with the 2960. Connections are very sound and it seems to be less aggressive than the PM3 in negotiating speeds which results in more solid connects. The detail information in the web administration is superior to the Lucent unit as well…"

–Michael Colucci, CoyoteNet

Use 3rd Generation RAS

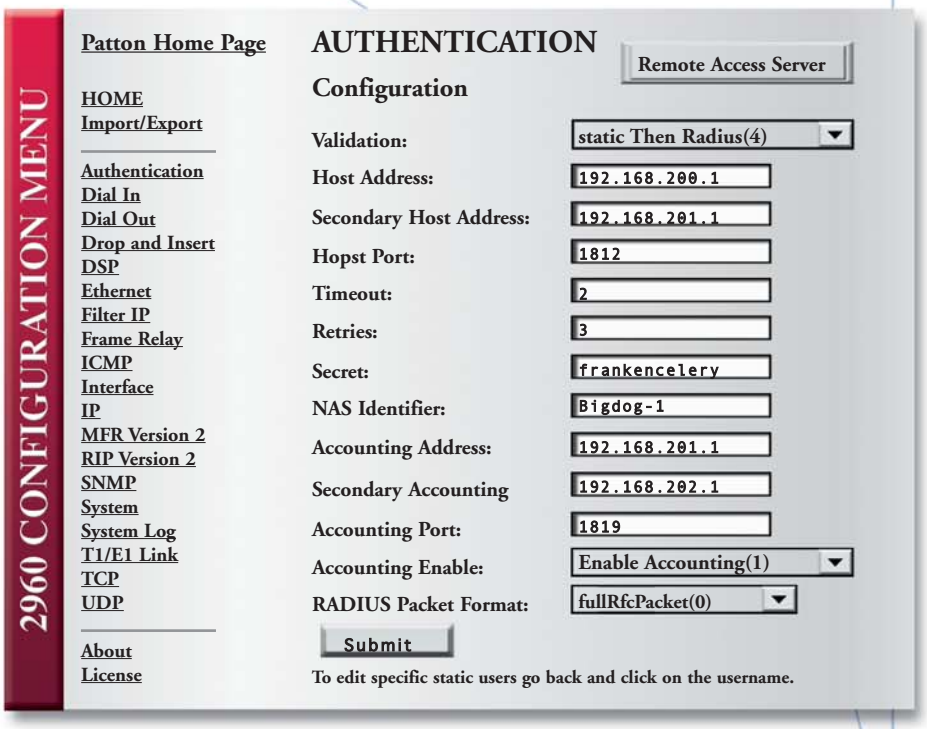
The DialFire Model 2960 Remote Access Server can answer a maximum of 72 dial-in modem calls from V.90, K56Flex™, ISDN, V.34+ and legacy modems—all through its built-in T1/E1/PRI ports. Once the user is authenticated, the IP data is processed by a RISC CPU connected to an Ethernet LAN or Frame Relay/PPP WAN port. Our unique architecture ensures that the DialFire RAS can scale to meet demanding requirements of any application including: Call centers, Web advertising, ISP access and traditional corporate remote access. The DialFire™ RAS serves many applications, including: ISP dial-up, corporate intranet access and hotel dedicated Internet access (see diagram at lower right).



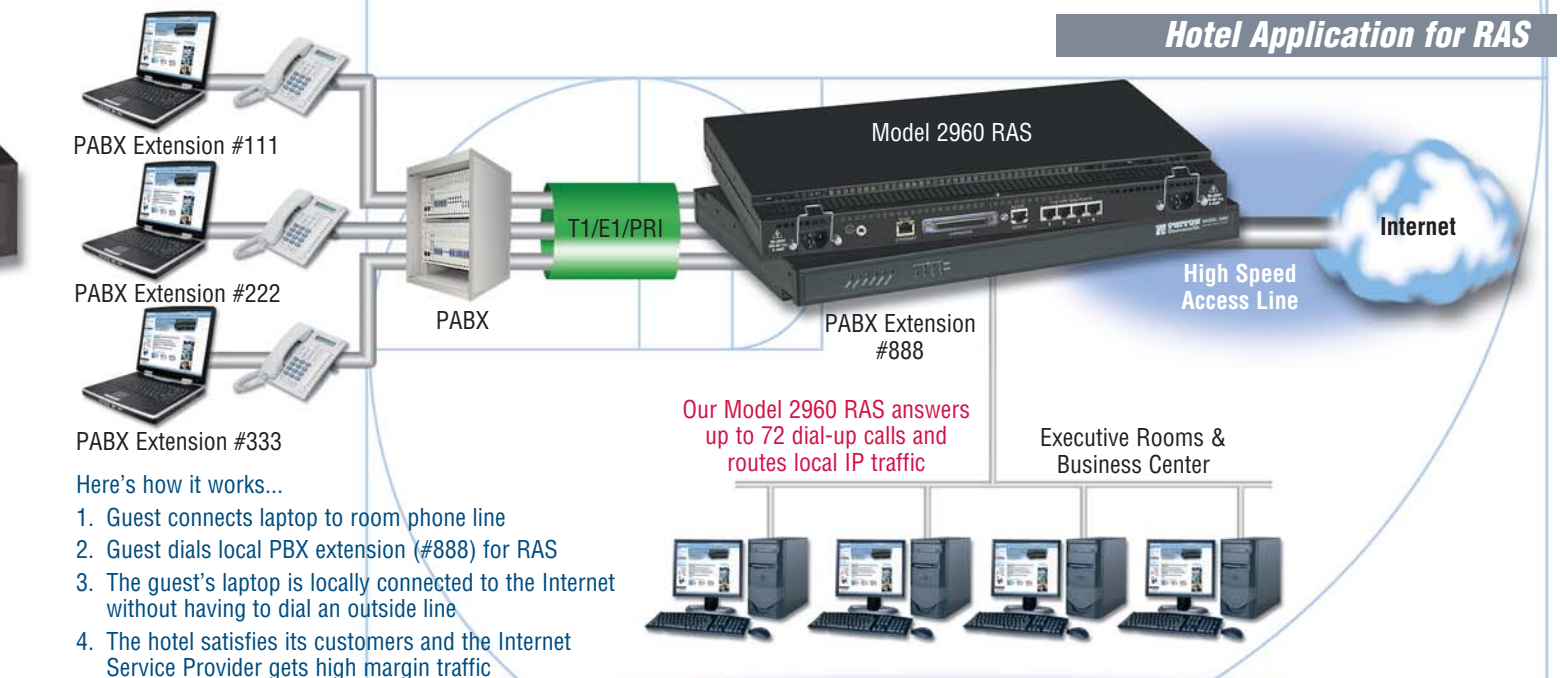
ISP Dial Access

The DialFire Remote Access Server can be managed with a variety of local and remote methods, simultaneously. Each RAS has a built-in SNMP agent, an embedded HTTP web server and a TELNET management interface.

All forms of management are available through the Internet, any dial-up port, the RS-232 console port or the Ethernet port. Operators can configure, control, monitor or receive status from any interface.



Hotel Application for RAS

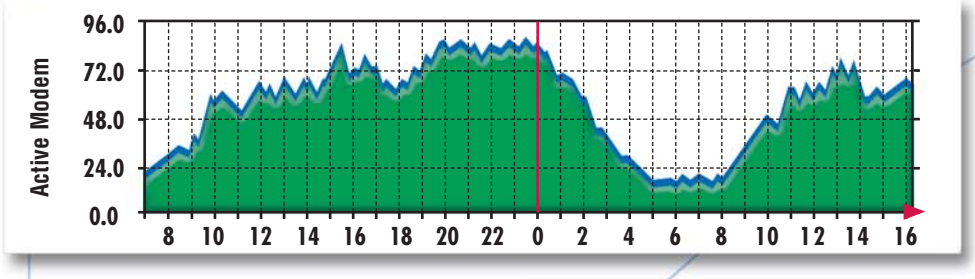


Here's how it works...

1. Guest connects laptop to room phone line
2. Guest dials local PBX extension (#888) for RAS
3. The guest's laptop is locally connected to the Internet without having to dial an outside line
4. The hotel satisfies its customers and the Internet Service Provider gets high margin traffic

2960 Remote Access Server Configuration in an Internet-Ready Hotel

DialFire Model 2960



Reporting the Performance

Performance reporting is built into every DialFire RAS. With our integrated HTTP Web server software, the operator can check on user traffic, examine the statistics, upload new software or simply change the RADIUS server's IP address from anywhere in the world—using the Internet.

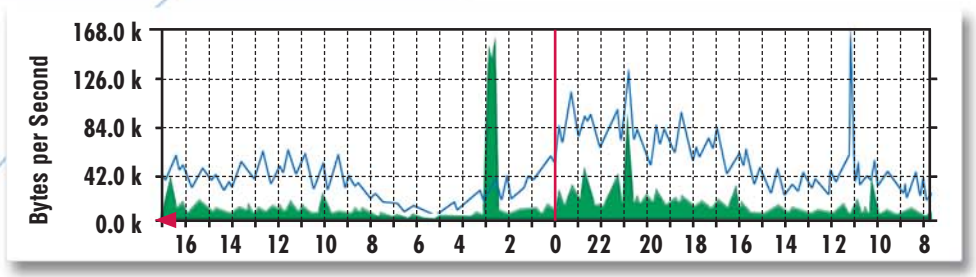
Model 2960

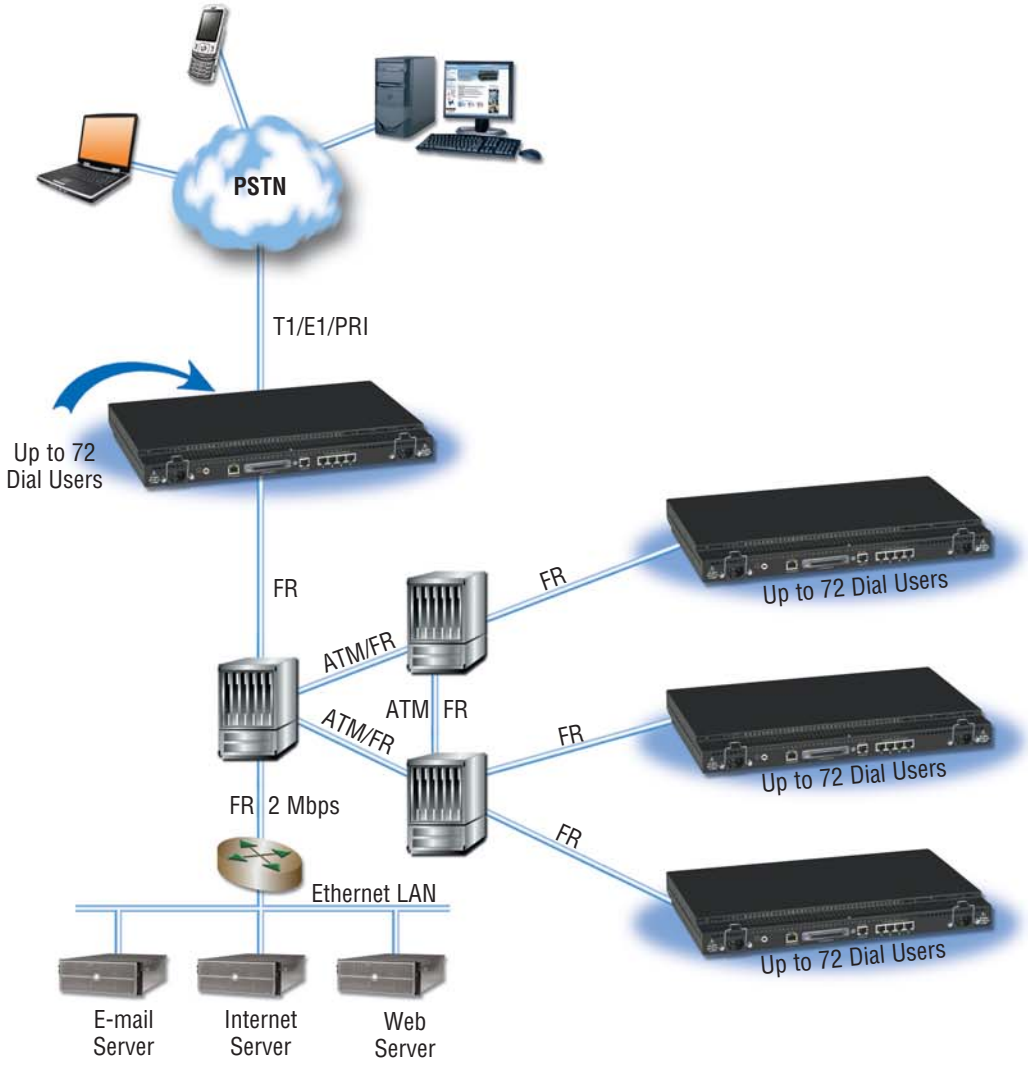
Remote Access Server

Expanding ISPs will be delighted by the 24/72-port DialFire Model 2960's dual-redundant power supply, redundant DSPs, fanless cooling and FR/PPP uplink ports.

The DialFire Model 2960 supports 48 or 60 digital ISDN or analog (V.90, V.92, V.44, K56Flex, V.34+, etc.) modem connections in a single 1U-high (1.75 in./4.45 cm), 19-inch wide rackmount chassis.

Standard features include a 10/100 Ethernet port, four T1/E1/PRI ports with built-in CSU/DSUs and Frame Relay or PPP protocol support. The 2960 is the ideal device for high density ISP environments.

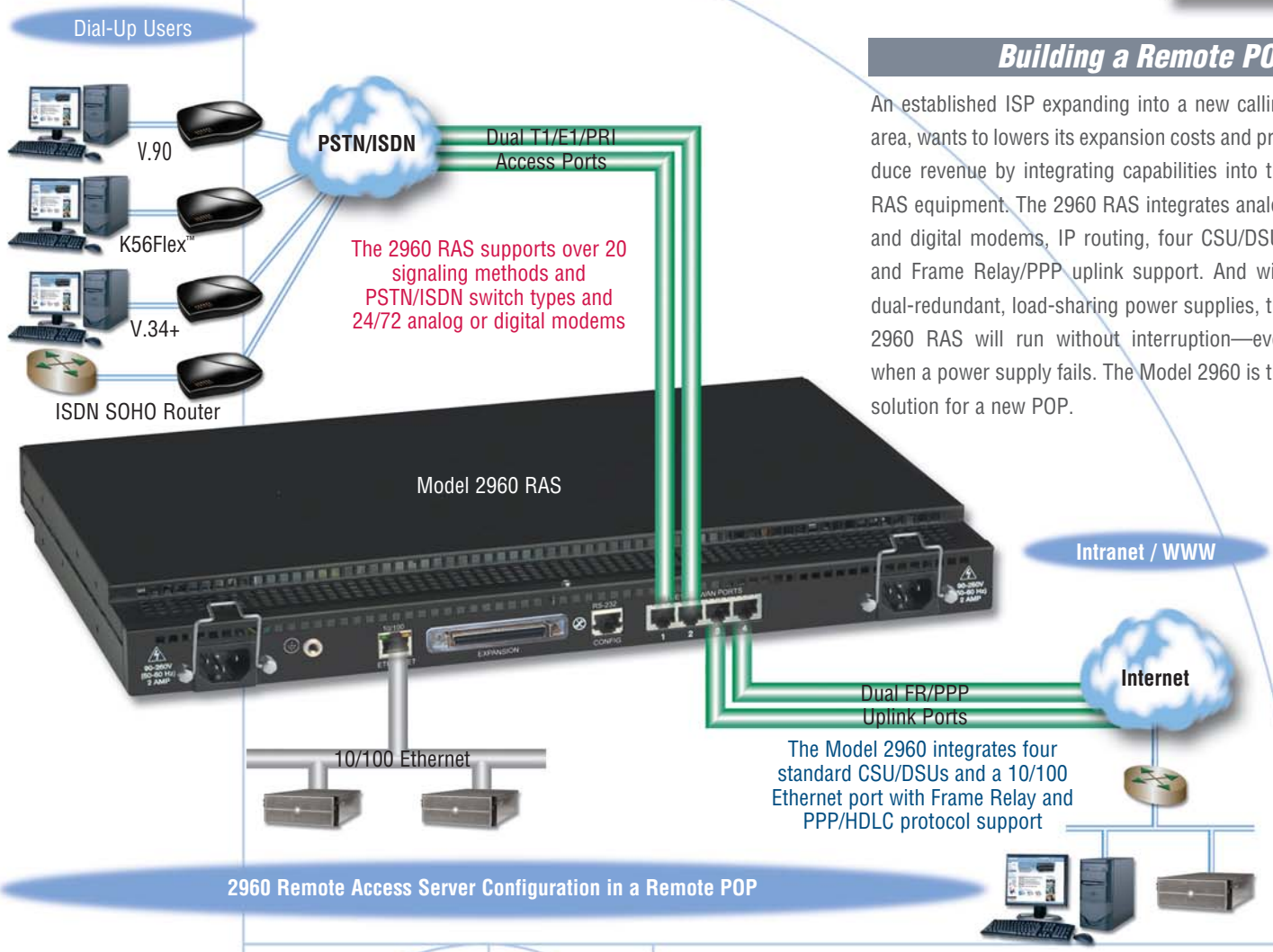




"I've had one in production for about three weeks now. Yes, Patton's support is phenomenal....Kudos guys, and if you want more particulars from a non-biased type. Drop me a line :)"

–Sean Kearns, Catskill Online

ISP Remote Expansion



2960 Remote Access Server Configuration in a Remote POP

Building a Remote POP

An established ISP expanding into a new calling area, wants to lowers its expansion costs and produce revenue by integrating capabilities into the RAS equipment. The 2960 RAS integrates analog and digital modems, IP routing, four CSU/DSUs and Frame Relay/PPP uplink support. And with dual-redundant, load-sharing power supplies, the 2960 RAS will run without interruption—even when a power supply fails. The Model 2960 is the solution for a new POP.

Why use our Model 2960 RAS?

From HTTP management to dual-redundant power supplies to FR/PPP uplink integration, the DialFire Model 2960 provides an all-in-one package for the expanding ISP. Featuring:

- Integrated T1/E1 uplink ports with Frame Relay and PPP.
- An with a temperature sensor-driven self-cooling system (no fans) and dual-redundant power supplies.
- The lowest cost-of-ownership for an ISP or Telco building a Remote POP for 24/72 ports.

The Model 2960 requires half the space of most RAS solutions. With greater reliability and a smaller package than any alternative, the Model 2960 is the cost leader in the industry.

2960 Competitive Positioning

		Patton 2960	Lucent MAX 4000	Lucent PM3
Base Features	Number of V.90 calls	**48/60**	48/60	48/60
	T1/E1/PRI ports	**2**	2	2
	Backhaul/Uplink ports	**2**	2	Add'l $$$
Key Selling Points	Built-in HTTP/WEB Mgmt	**YES**	NO	NO
	100Base-T Ethernet ports	**YES**	NO	NO
	Self Cooling	**YES**	NO	NO
	Rack Height	**1U**	2U	2U
	Dual Redundant Power	**FREE**	Add'l $$$	Add'l $$$
	Tech Support	**FREE**	Add'l $$$	Add'l $$$
	Software Upgrades	**FREE**	Add'l $$$	Add'l $$$

OBSOLETE

OBSOLETE

DialFire Model 3120

Model 3120

Remote Access Server

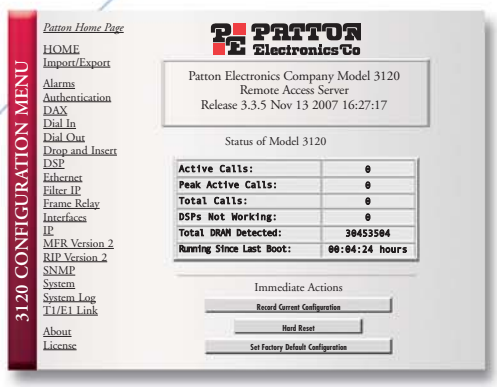
The newest generation of our popular RAS family is the DialFire Model 3120: a modular platform with more standard features and functions than any of the competition.

The DialFire Model 3120 supports up to 120 digital ISDN or analog (V.90, K56Flex, V.34+, etc.) modem connections in a single 1U-high (1.75-in./4.45-cm), 19-inch wide rackmount chassis.

Standard features include hot-swap dual-redundant power supplies, dual 10/100-Mbps Ethernet ports, and an expansion slot. By using the expansion slot for DSL/T1/E1 access, service providers can increase their revenue by providing always-on, dedicated access ports.

"I've switched to Patton Electronics for RAS boxes. $1500 less and FREE SUPPORT!"

–Paul Farber
Farber Technology



D Web-Based SNMP/HTTP management

An embedded HTTP server provides complete configuration and control using standard web browsers

E Quad T1/E1/PRI Ports

Terminate any combination of 120 V.90/ISDN connections, and expand into remote locations using the Model 3120 as a complete PoP solution

A Hot-Swap Dual-Redundant Supplies

Standard—Supports two AC, two DC, or a mix of AC and DC power supply modules

B Dual 10/100 Ethernet Ports

Flexible integration options for your high-performance network

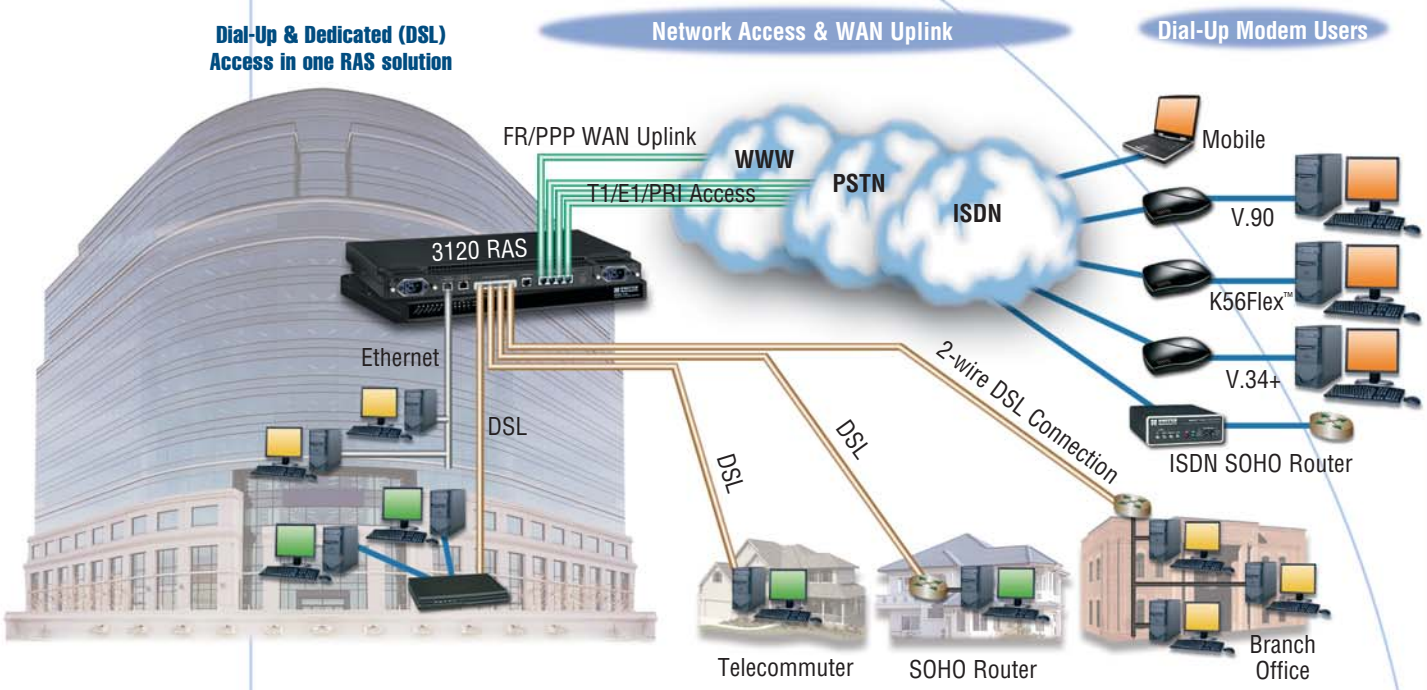
C PMC Expansion Port

The PCI Mezzanine Card (PMC) provides network expansion to enable the Model 3120 to offer additional revenue opportunities using the same box

3120 Product Highlights

120 connections in a 1U-high chassis	Web-based HTTP & SNMP management
Simultaneous analog/digital modems	Dual 10/100-Mbps Ethernet connections
Redundant fans for cool operation	Quad T1/E1/PRI PSTN connections
Redundant AC or DC power supplies	Up to 128 DSPs & 32 Mbytes of DRAM
Dedicated & dial-up access in one chassis	FLASH download via LAN or WAN ports

120-Port ISP RAS



3120 Competitive Positioning

		Patton 3120	Lucent MAX 6000	Cisco AS 5300	3COM TCH 1000
Base Features	Number of V.90 calls	120	96	120	120
	T1/E1/PRI ports	4	4	4	4
	Backhaul/Uplink ports	4	1	4	0
Key Selling Points	Access Expansion ports	16+	NONE	NONE	NONE
	10/100 Ethernet ports	2	1	1	2
	Built-in HTTP/WEB Mgmt	YES	NO	NO	NO
	Rack Height	1U	2U	2U	6U
	Dual Redundant Power	INCLUDED	Add'l $$$	Add'l $$$	Add'l $$$
	Tech Support	FREE	Add'l $$$	Add'l $$$	Add'l $$$
	Software Upgrades	FREE	Add'l $$$	Add'l $$$	Add'l $$$

OBSOLETE

Dedicated & Dial Access

The Model 3120 RAS scales with your customer's requirements: from dial-up V.90 analog to ISDN 128 kbps to dedicated xDSL and fractional T1/E1. Its modular expansion slot can be used for three basic applications:

- Dedicated access using integrated xDSL modems
- Advanced services like Virtual Private Networking (VPN)
- Wide area network uplinks and serial ports, like V.35

And modular expansion means more customers, larger billings for newer Managed Access Services and an overall faster return on your RAS equipment investment. The 3120 RAS delivers a tightly-integrated dial and dedicated access platform that your future requires.

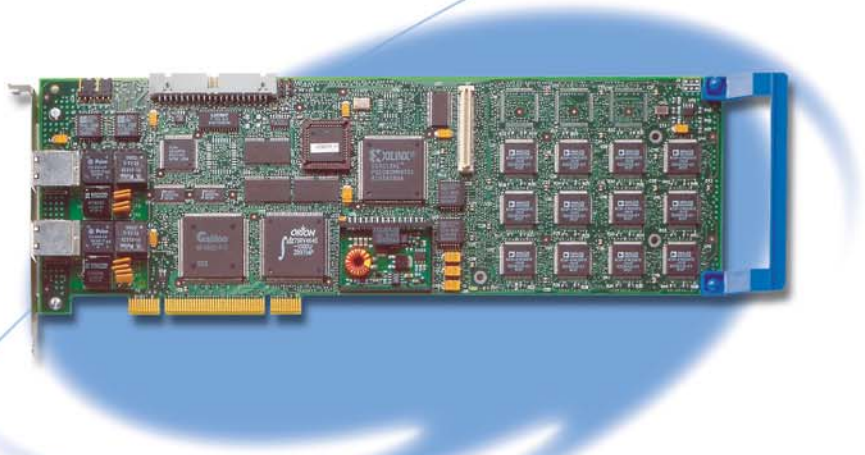
DialFire 2977 Enterprise RAS

Model 2977

Remote Access Server

For demanding, server-based applications including modem-pooling, remote access, advanced fax, World Wide Web and branch office internetworking, you won't find a better product line than Patton's DialFire Model 2977 RAS.

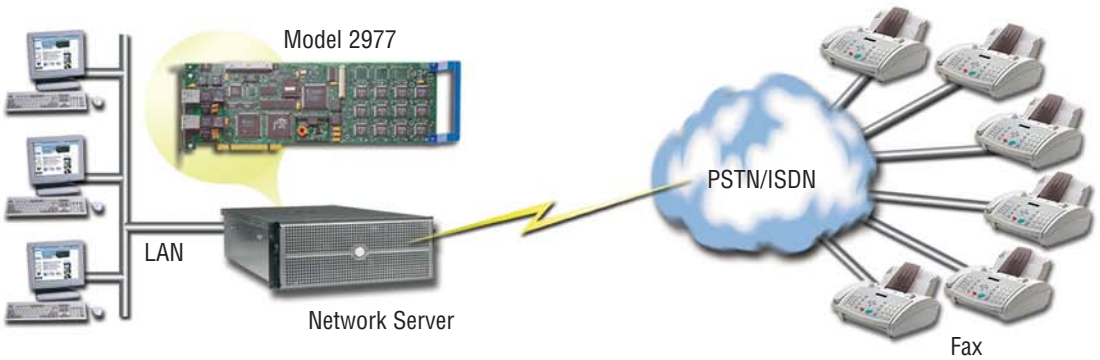
The DialFire Model 2977 DSP-based RAS concentrator provides the widest compatibility and most powerful performance available in a PCI slot. Patton's DialFire Model 2977 adapters support a full range of connections, from low density to high density T1/E1 and Primary Rate Interface (PRI) ISDN. Multiple Model 2977 Digital Domain adapters can be installed in a single server so capability can be added as system needs grow.



- ✓ Dynamic analog/digital/fax support—On-board DSPs provide advanced modem & fax support and maximize the efficiency of each communication channel
- ✓ Field upgradable from 24/30 ports to 48/60 ports supporting up to two 61/E1 ports
- ✓ Advanced DSP Technology—Supports V.90, K56Flex, ISDN, and Advanced FAX applications
- ✓ Wide OS and third-party application support—The Model 2977 DialFire RAS integrates with, and take advantage of, the inherent communications capabilities built-in to your current server operating environments like; Microsoft, Novell, SCO, and Linux
- ✓ Web-based management—The Model 2977 Digital Domain RAS hardware manager provides web-based reporting, diagnostics, and advanced troubleshooting tools
- ✓ Universal server compliance—The Model 2977 Digital Domain RAS operates within the PCI 2.1 mechanical and electrical specifications, support 3.3 or 5-volt PCI servers, and share common software architecture

2977A DialFire RAS configuration in a Corporate Fax Server

Many Companies today rely on faxes to communicate with their customers. From hospitals to distribution companies, having the ability to send faxes simultaneously is a must. With Patton's DialFire 2977 RAS, setting up a fax server is easier than ever. For companies with large faxing requirements, the 2977 RAS adapters for digital & analog communications combine Patton's world-class hardware with high-speed ISDN access to provide up to 60 simultaneous connections.



EtherBITS 2120 Micro RAS

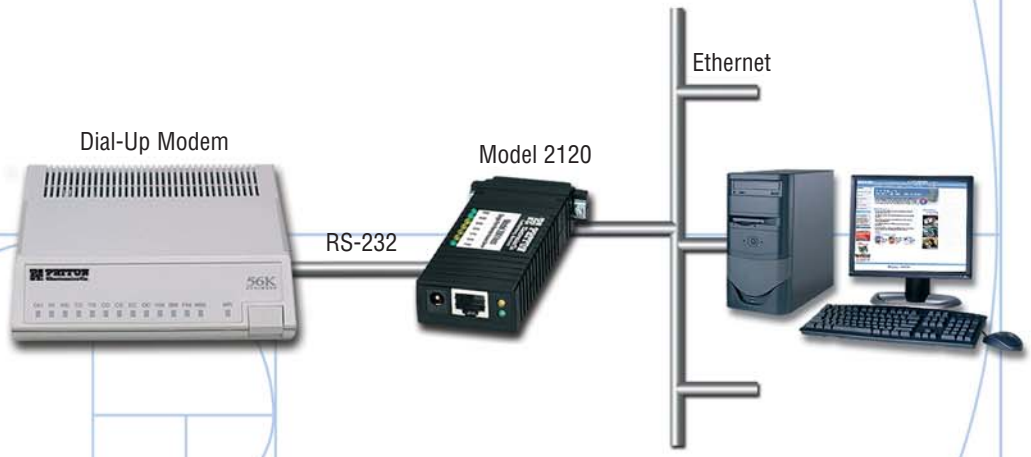
Model 2120

Remote Access Server

Patton's Model 2120 converts your dial up modem into a single port Remote Access Server. By connecting the Model 2120 into the RS-232 serial port of your modem, a dial-in user will automatically be connected to a user defined IP host and Port Number. Simplicity is enhanced by the Model 2120's support for Dynamic Host Control Protocol (DHCP) private IP address assignment. DHCP support relieves the user of the need of applying for and configuring an IP address for each and every device on the LAN. The Model 2120 security features include PAP (Password Authentication Protocol) which verifies incoming calls through an internal database.

Also available with a DB-9 connector

- ✓ Supports a Wide Range of Data Rates (0–115.2 kbps)
- ✓ Ethernet Link and Status indicators
- ✓ Free Software Updates
- ✓ Standard TCP/IP with PPP/SLIP
- ✓ DTE/DCE-selectable serial port
- ✓ Small package attaches directly to serial ports
- ✓ RS-232 status indicators
- ✓ AC or DC Power Options



RAS access.patton.com

Product Family Overview

	Model 2960		Model 3120					ForeFront™ 3125RC	
Model Number	2960/48	2960/60	3120/48	3120/60	3120/72	3120/96	3120/120	3125RC/96	3125RC/120
Number of Connection	48	60	48	60	72	96	120	96	120
Power Supplies	Dual Redundant (Fixed) AC		Dual-Redundant (Hot Swap) AC or DC					ForeFront chassis AC or DC redundant	
Ethernet Ports	One 10/100Base-T		Two 10/100Base-T					Two 10/100Base-T	
WAN Ports	4		4 to 20					4	

Modem Modulations	V.90, K56Flex™, V.34 Annex 12, V.34, V.32bps, V.32, V.23, V.22, V.22bps, V.21, Bell 212A, Bell 202, Bell 103, EIA-PN-2330, V.8, V.8bps, Sync/Async receiver/transmitter for V.14, V.42/V.42 bps error correction & compression.
PSTN Signaling	E1 Primary Rate interface (Q.931), E1 MFCR2 (R2), T1 Primary Rate Interface, Channelized T1, T1 Robbed bit with Loop/Ground Start or E&M Wink, E&M Immed, Taiwan R1
Management Services	HTTP, SNMP, Telnet dial-in and Ethernet or RS-232 console port, SYSLOG client, Remote software upgrade via FTP, User configurable login prompts and banners
Authentication	RADIUS, PAP/CHAP, Username/Password, and Static Users Database (111 Entries)
Software Upgrades	Achieved through Flash upgrades via FTP (upgrades available from **www.patton.com**)
Protocol Services	TCP/IP suite with extensive protocol statistics - ICMP/TFTP/FTP/RLOGIN/TELNET • Ethernet ARP, Proxy ARP and RARP protocols • Point-to-Point Protocol (PPP) • SLIP protocol • Van Jacobson TCP header compression PPP address and protocol compression • RADIUS authentication and accounting, with support for primary and secondary servers • RIP, RIPv2 and OSPF dynamic route distribution - user configurable static routes • MultiLink PPP • Multi-chassis MultiLink • Layer 3 & Layer 4 IP Filtering • L2TP

Ordering Information

Model 2960 Remote/LAN Access Server, Redundant Universal (90–120 VAC) Power Supply

2960/16B/RUI: 16 Call
2960/24B/RUI: 24 Call
2960/30B/RUI: 30 Call
2960/48B/RUI: 48 Call
2960/60B/RUI: 60 Call
2960/72B/RUI: 72 Call

Model 3120 Remote/LAN Access Server

3120/30R/R-115: 30 Call, Redundant (115 VAC) Power Supply
3120/30R/R-230: 30 Call, Redundant (230 VAC) Power Supply
3120/96R/R-115: 96 Call, Redundant (115 VAC) Power Supply
3120/96R/R-230: 96 Call, Redundant (230 VAC) Power Supply
3120/120R/R-115: 120 Call, Redundant (115 VAC) Power Supply
3120/120R/R-230: 120 Call, Redundant (230 VAC) Power Supply

Model 3125RC RAS Card with T1/E1 Transition Module

3125RC/96: 96 Port
3125RC/120: 120 Port

ForeFront™ Chassis

6286/RUI: 4 Slot Chassis, Redundant AC Power Supplies
6286/R48: 4 Slot Chassis, Redundant DC Power Supplies

Online Resources access.patton.com

WHITE PAPERS

How to Become an ISP: The basics of setting up and growing a dial-up Internet service

RAS Product Overview: In-depth RAS applications and product overview

The ISP 80/20 Rule: The generic business elements of small and large ISPs

ARTICLES

I love my RAS because…: The VPN versus RAS debate debunked

Hotel Remote Access Applications: Internet access for the hospitality industry

Patton RAS Competition Roundup: How Patton Compares

Televisa Case Study: A big media company in Mexico using Patton's RAS

APPLICATION NOTES

RAS FAQ: Frequently asked questions about Patton's RAS

RADIUS Server Recommendations: Where to find RADIUS server software

Adding Default Gateways: Application note on basic IP routing

MaxSTAT Software Review: Using MaxSTAT with Patton's RAS

MRTG Examples: Implementing user statistics and graphic with MRTG

RAS Reference Sites: Some of our customers that will talk to you

RAS Interoperability: Using Patton RAS with other network gear

Quick Start Guide: How to set up a 2960 RAS

IP Filtering: How to implement IP security using filters

PATTON

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EtherBITS™
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Patton Electronics—a leader in the production of network access and connectivity products—is building on its expertise in integrated network access, transmission, IP and Frame Relay technologies and leading in the development of right-priced products to simplify human and machine access to the global network.

The Patton brothers, Bobby and Burt, founded Patton Electronics in 1984, while students in college. Over the succeeding 20+ years, Patton has taken those simple beginnings and expanded into a multi-national manufacturing company that today employs more than 180 people and provides a product line in excess of 1000 items.

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QuikConnect™
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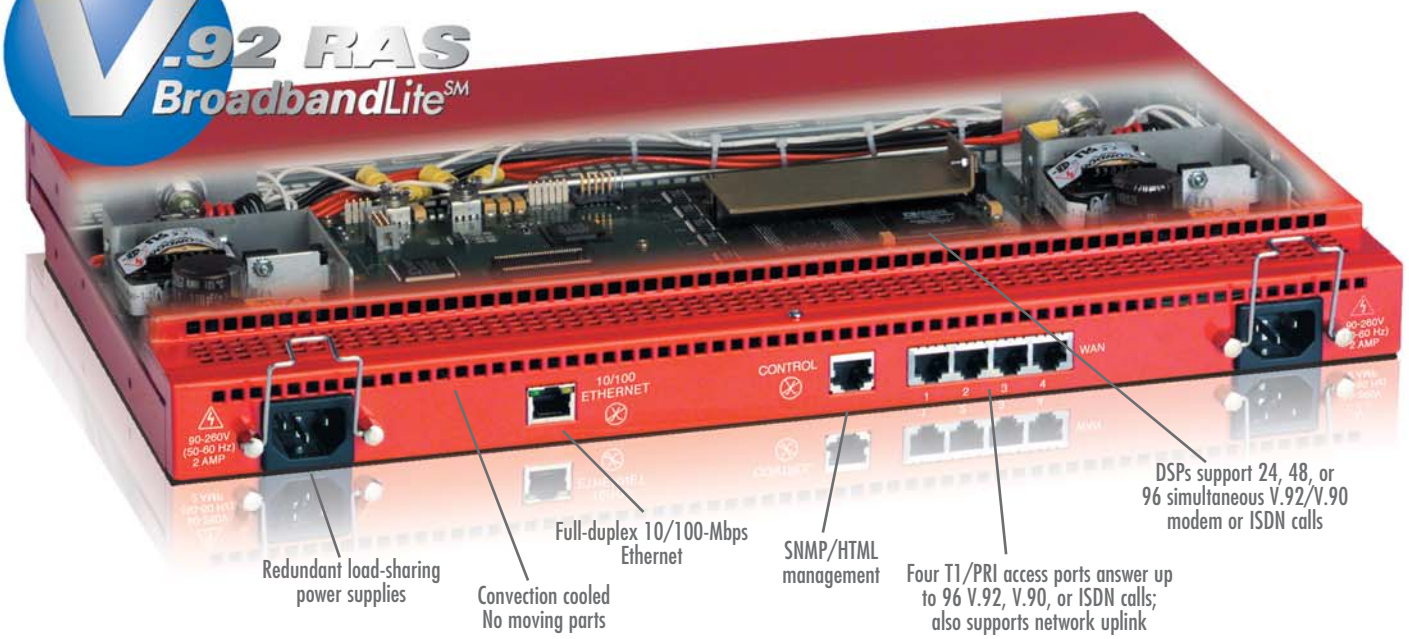
Voice-Over-IP
SmartNode™
More Than Just Talk

WAN Aggregation
ForeFront™
TDM & IP Aggregation

More Dial-Up ...Less Dollars

Patton's DialFire RAS

V.92 RAS BroadbandLite℠



Patton's RAS gives you more!

More RAS, Less Rack.
Up to 96 simultaneous modem (V.92, V.90, etc.) or ISDN calls in 1U of rack space.

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No nasty extra charges for software features like V.92, ISDN etc., and all software updates are FREE.

More Support, Less Hassle.
Free support lines and e-mail are answered promptly by top-notch problem solvers.

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Web based and SNMP/HTTP means you can manage your box from anywhere in the world.

More Customers, Less Churn.
V.92 is a big reason for customers to stay with a provider or switch to one that offers V.92.

More Fun, Less Work.
All of this means you will spend less money for our RAS, have more customers, realize more profits, and have a bit more time to relax.

Visit...
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With Patton, you will get more for less.

Most RAS manufacturers give you LESS and take MORE for it. You pay dearly for all the "extras" like rack-ears, redundant power, or V.92. You pay for a support program that leaves you on hold and your e-mail messages unanswered. You pay more and you get less... but it doesn't have to be that way!

With Patton, you will get *more* for *less*. We give you everything you need in one box with no hidden costs or charges; no upgrade fees for dual power supplies or rack ears, uplink ports or software updates. You get more support, more functionality, more ports, and consequently, more customers.

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