

# Stinger® Portfolio



Now you can launch the most demanding new data, voice, and video offerings, including broadcast T.V., while maintaining rock-solid performance for your existing services.

Only the Stinger® portfolio can meet your toughest DSL requirements. The award-winning Stinger DSL access concentrator puts a full spectrum of DSL capabilities wherever you need it, with the most adaptable, cost-effective platform on the market.

## Benefits

- Increased earning power
- Minimized costs
- Flexible deployment
- Extended reach
- Superior performance
- Competitive edge

**Lucent Technologies**  
Bell Labs Innovations



## Advanced switching and IP intelligence transform your DSL opportunities

The Stinger portfolio of DSL access concentrators expands the capabilities of DSL technology—increasing your opportunity to deliver more competitive high-value broadband services. With its breakthrough ATM/IP architecture, the Stinger platform opens the door to a whole new world of multimedia, including high definition broadcast T.V. So you finally have a way to deliver video services cost-effectively—over the existing copper infrastructure. You can use these advanced capabilities to enhance profitability. Or compete head-to-head with tough new challengers, like cable T.V. operators who target your existing voice and data subscribers.

In today's rapidly changing business environment, the Stinger portfolio can support any emerging service, along with your existing offerings. It makes sure you can meet the full range of subscriber demands—from basic Internet access to the most sophisticated corporate services. And it provides reliable high performance for every service you offer, backed by ATM QoS and advanced IP capabilities. You can count on the Stinger portfolio to deliver—wherever these industry-leading capabilities are needed, at high economies of scale, across five high-density models. The Stinger is built on the highest performance, modular architecture that integrates easily into any network.

Lucent's broadband approach is based on our *Service Intelligent™ Architecture*. With *Service Intelligence™*, you can integrate IP intelligence at the edge of your network, cut the cost of building and deploying new broadband networks while maintaining full compatibility with existing infrastructures.

## Applications

You can make the most of any revenue opportunity, because Stinger DSLAMs offer the power, performance, and flexibility to support both existing and emerging applications-in any location, large or small.

- **Data**—Business-class data services-including VPNs, intranets, extranets, and fast Internet access-as well as residential broadband data services for Internet access, telecommuting, and bundled service offerings

- **Video**—Leading-edge services, including streaming multimedia, broadcast TV, and video-on-demand, that can enable today's first full-service video networks
- **Voice**—Voice-over-broadband, and support for existing telephony services
- **"Extended reach"**—Any service requiring flexible deployment in existing outdoor plant or small indoor facilities

## The Stinger Advantage

- **Industry-leading features and flexibility**—The Stinger portfolio has a solution for every DSL requirement—quickly deployed in any location, indoor or outdoor, no matter what the size. It provides the industry's highest-capacity access concentrators for largest deployments; mid-sized Stinger models utilized around the world for real-world applications like corporate VPN services and QoS for SLA's; compact, environmentally hardened Stingers for the outside plant; or micro-sized access concentrators for smaller deployments and multi-tenant facilities.
- **The highest densities available**—With the highest port densities available on the market in the most cost-effective form-factor, the Stinger is the obvious choice for any existing or new broadband implementation. Each platform is equally cost-effective and provides cost-saving advantages throughout the growth of your network, whether your deployment is small or large. And you can take advantage of the services delivered on each preceding subtended Stinger up to 31,000 subscribers.
- **The highest degree of multi-vendor interoperability**—Supporting the widest range of customer premise and network infrastructure equipment and solutions, the Stinger portfolio is deployed worldwide by existing and new carriers in mixed narrowband and broadband environments in the U.S. and Internationally. It integrates easily with virtually all switching and routing equipment—and provides complete operational support for provisioning and network operations platforms.

- **Operational efficiency**—The Stinger platform enhances network operations on multiple levels. Automated loop qualification and provisioning capabilities speed up service deployment, streamline problem resolution, and cut costs. Enriched management capabilities enable cost-effective integration in any network, with consistent high-quality performance. And Lucent Worldwide Services provides a full suite of technical assistance and customer support designed to keep your network operating at its best.
- **The most economical service delivery**—The Stinger portfolio takes every opportunity to reduce your capital investment and operating expenses—by giving you cost-effective power consumption, a flexible, modular design that allows incremental growth, automated provisioning that streamlines service start up, enhanced management features that minimize staff time, and IP service aggregation, via IP trunking, that slashes backhaul costs.
- **Mission-critical reliability**—The Stinger platform guarantees consistent high performance for the most demanding applications because it incorporates a fully redundant architecture with carrier-class reliability, ATM QoS, and intelligent IP services. Hot-swappable control modules allow you to add new services and subscribers with zero downtime. And you can choose complete system redundancy for services that require the highest levels of dependability.
- **Easy expansion and upgrade**—Stinger’s modular architecture supports multiple DSL types and allows you to take advantage of new broadband technology and switching advances—with minimal investment. As a result, the Stinger platform offers the industry’s most cost-effective network migration, with unlimited opportunity for new growth and service expansion. All at a pace that’s right for you.
- **Competitive edge**—Count on Stinger DSL access concentrators to give you all the power you need to overtake the competition. Integrated ATM/IP switching and routing provide real data throughput of up to 7.2 Gbps, so you can deliver the most sophisticated high-value applications over your existing infrastructure—from the latest business-class data services to high definition broadcast T.V. and video-on-demand. The Stinger is the first of its kind to introduce IP multicasting, Gigabit Ethernet backhaul, and VDSL transport in a single package—crucial capabilities that enable you to compete head-to-head with cable and satellite companies and retain your existing subscribers.

## Key Applications

### Business-class services

The Stinger portfolio’s high-performance architecture provides everything you need to upgrade your data services for businesses of any size. The Stinger FS+ offers the highest capacity and port density in the industry, along with combined switching and routing throughput of up to 7.2 Gbps. This cutting-edge power can satisfy large-scale enterprise needs for internet, intranet, extranet access, corporate VPNs, videoconferencing and advanced multimedia services. For smaller businesses, the Stinger LS and RT deliver the same range of high-performance capabilities cost effectively—and offer easy expansion and upgrade capabilities.

### Consumer video services

The Stinger platform provides you with cost-effective breakthrough video services, including broadcast T.V. With the Stinger IP2000 control module, you can now deliver IP video over DSL—using your existing infrastructure—and maintain the service quality your subscribers demand. Stinger video solutions have the speed, capacity, and economy to make carrier-delivered TV services a success, not only Standard Definition TV (SDTV), but for high-definition TV (HDTV) as well. These advanced capabilities expand revenue opportunities, while giving you a crucial competitive edge.

### Complete broadband service bundles

Stinger advanced video capabilities are available just in time, as cable T.V. operators get set to begin aggressive marketing<sup>1</sup> of full-service “Triple-Play” offerings, designed to attract your lucrative telephony subscribers. With the Stinger platform, you have everything you need in a convergent data, voice, video platform to fight back, offering your own winning “Triple-Play” that will outperform any challenger. While many competing vendors struggle to develop their first viable video solution, Stinger enables cost-effective IP video over DSL now, along with leading data capabilities, and high-quality voice-over-DSL. It’s everything you need to launch your own Triple-Play service package before time runs out.

<sup>1</sup> Source: RKH Inc., March, 2002

## Extended DSL reach

The Stinger RT and MRT are specially designed to deliver the full spectrum of high-value broadband services beyond the limits of the local loop. These models overcome common obstacles to DSL deployment by packing the Stinger platform's powerful ATM capabilities into a highly compact chassis, easily deployed in any location. It's the ideal way to tap into underserved communities offering new revenue opportunities—particularly in the U.S., where half of all potential DSL subscribers still struggle to get DSL service, but can't because of technical deployment issues. Extended reach solutions enhance profitability by enabling you to offer the same high-performance services to everyone, anywhere.

## Stinger Models

With a full portfolio of Stinger models—and modules—you can choose the right capacity and capabilities to meet your specific needs. The Stinger portfolio satisfies any broadband requirement, whether it's for a broadband-only new build, or a broadband overlay in conjunction with existing narrowband services.

### The Stinger FS+

The Stinger FS+ gives you the highest level of reliability and performance for any broadband offering, including today's leading-edge multimedia and video services. As the largest model in the Stinger product portfolio, it has the highest port density available on the market, helps you increase operating efficiency, and cuts costs.

- **Capacity:** 1008 ports—over 500 more than its nearest competitor
- **Deployment:** Central Office or other indoor locations needing high capacity
- **Applications:** Any high-performance broadband application—from corporate VPNs and interactive multimedia to broadcast T.V. for residential customers

### The Stinger LS

Although it's slightly smaller than the FS+, the Stinger LS offers all the same capabilities, including the dependability and throughput needed to support advanced broadband services.

- **Capacity:** Model 1 (for 19" racks)—360 ports, Model 2 (for 23" racks)—504 ports
- **Deployment:** Central Office or other indoor facilities
- **Applications:** Any broadband data, voice, or video application

### The Stinger RT

This hardened version of the Stinger LS is designed for use in outdoor cabinets to extend your network's high-performance broadband capabilities into new locations.

- **Capacity:** Model 1 (for 19" racks)—360 ports, Model 2 (for 23" racks)—504 ports
- **Deployment:** Any indoor or outdoor location
- **Applications:**—Quick service start up and expansion beyond the local loop

### The Stinger MRT

Environmentally hardened, the Stinger MRT helps you take full advantage of the existing space in any outdoor or indoor installation.

- **Capacity:** Up to 48 ports, with built-in POTS splitters—the highest port density available from a compact DSLAM.
- **Deployment:** Small size and flexible deployment options for outdoor/indoor use
- **Applications:**—Take DSL to underserved DSL communities, cost effectively

## Stinger ATM Architecture

The Stinger architecture takes full advantage of ATM technologies, with integrated IP and flexible advanced queuing capabilities, transporting information at the highest possible speeds, with reliable Quality of Service, increased control over traffic flows, exceptional capacity, and reduced costs. Its modular design far exceeds any competitor in its ability to cut operating costs and allow rapid expansion—up to 31,000 connections via subtending. This modular approach also promotes cost-effective integration, enables complete system redundancy, and supports easy upgrades. So you have the most cost-effective way to maintain state-of-the-art processing power, software features, and memory capacity, as well as a complete spectrum of DSL transport options.

- **Switching and Control Modules (CM)**—These modules provide Stinger’s high-speed switching fabric, Quality of Service (QoS) parameters, flexible queuing, traffic prioritization, and system control functions, including initialization, virtual connection establishment, configuration, and management. The newest Stinger CM, the IP2000, integrates intelligent IP routing and multicasting with ATM switching. These breakthrough IP capabilities enable standards-based IP multicasting and Gigabit Ethernet for voice, video, and data services—providing high-density video server aggregation and the most flexible and economical network and backhaul options.
- **Trunk Modules (TM)**—Trunking options include DS3/E3, OC-3/ STM-1, T1/E1, and Gigabit Ethernet. Trunk ports can be assigned for independent use or redundant operation, in any combination.

- **Optional Copper Loop Test (CLT) Module**—This module enables loop testing and qualification of all copper pairs to simplify DSL deployment.
- **Line Interface Modules (LIM)**— Stinger continually upgrades its range of DSL options—including ADSL, SDSL, HDSL.2, G.HDSL, IDSL, and VDSL—so you can choose the technology that best supports your needs. The recently introduced VDSL line card supports the most bandwidth-intensive applications, including multiple TV channels, high-definition television, and interactive TV, in parallel with voice and data services.
- **Line Protection Modules (LPM)**—These modules provide subscriber line connectivity. Redundant versions support 1:n port redundancy and 1:n LIM redundancy. Non-redundant LPMs are also available.
- **Optional Path Selector Module (PSM)**—The PSM enables LIM redundancy and provides external access to all copper pairs terminated on Stinger LPMs. This capability enables externally attached test sets to test and qualify the loops.

## Benefits

- **Increased earning power**—Enhance profitability with wider-reaching subscriber access and a broader range of high-value services—including enhanced Internet access, business-class data services, and IP unicast and multicast services that enable video-on-demand and broadcast TV
- **Minimized costs**—Take advantage of greater port densities, modular design, IP backhaul options, IP multicasting capabilities, and automated provisioning to cut your capital expenditures and operating expenses
- **Flexible deployment**—Integrate the Stinger platform into any network infrastructure, whether CO or outside plant (OSP)
- **Extended reach**—Deliver the same high-performance services to the most remote locations and further than other solutions.
- **Superior performance**—Count on breakthrough integrated ATM/IP/Gigabit Ethernet capabilities for greater switching power, backed by Quality of Service (QoS) capabilities for Service Level Agreements (SLAs)
- **Competitive edge**—Improve your competitive position and gain the video capabilities needed to stay ahead in today's volatile broadband market

To learn more, contact your dedicated Lucent Technologies representative, authorized reseller, or sales agent. You can also visit our Web site at [www.lucent.com](http://www.lucent.com).

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