



## Peribit Background Information ---

### Overview

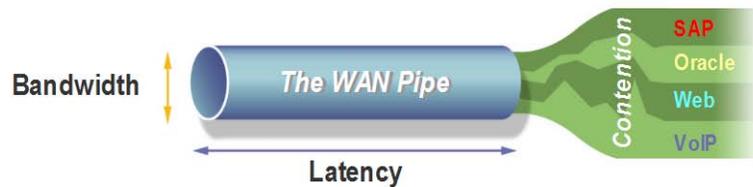
Global connectivity has revolutionized business communications, making it possible for large enterprises to create wide area networks (WANs) that link national or global facilities with common applications and data. But WAN connectivity has become a victim of its own success. As enterprises increase WAN usage by adding new applications or connecting more facilities, the available WAN capacity disappears forcing enterprises to either upgrade WAN links increasing ongoing carrier expenses or live with slower application performance and lower employee productivity.

Founded in May 2000, Peribit Networks delivers instant WAN capacity and application acceleration products that dramatically improve application performance. Peribit's patent-pending Molecular Sequence Reduction (MSR), essential Quality of Service and Packet Flow Acceleration (PFA) technologies address the capacity, contention, and latency issues that cripple WAN performance. The result is up to ten times the link and application performance over the existing WAN infrastructure. Peribit's award-winning products install within minutes, deliver immediate benefits, and frequently provide a hard dollar ROI in a matter of months. A privately held company, Peribit is funded by top-tier investors Accel Partners, Foundation Capital, and Mayfield. Headquartered in Santa Clara, California, Peribit has operations throughout North and South America, Europe, Africa, the Middle East and the Asia Pacific region.

### WAN Performance Challenges

Wide-area networks have revolutionized communications for most businesses and government agencies. These organizations now rely on WANs for everything from simple file transfers to mission-critical applications. In every organization, WAN capacity eventually limits application and data transfer performance, making it difficult to roll out new applications or deliver acceptable response times from existing ones. Traditionally, organizations have addressed WAN performance by adding or upgrading WAN links. However this increases operational costs at a time when organizations are seeking to do more with less. As a result, users are looking for more cost-efficient ways to manage their WAN performance demands and Peribit's mission is to lead the industry in addressing this problem.

There are three factors that influence WAN performance: bandwidth, contention, and latency. Peribit's Sequence Reducer products are the only solutions on the market that simply and effectively address all three of these factors. By installing a Sequence Reducer at each end of a WAN link, users can increase that link's performance up to ten times.



The three factors in WAN performance: bandwidth, latency, and contention.

### **Bandwidth**

Every network link has a fixed amount of capacity or bandwidth. Once network activity overwhelms the available bandwidth, performance suffers. There are only two solutions to this problem: either add another network link or reduce the amount of data that must be carried over the link.

Peribit’s patent-pending Molecular Sequence Reduction (MSR™) technology leads the industry in reducing the amount of bandwidth on a network link. MSR automatically finds and eliminates repetitive data from network traffic in real time on WAN links ranging from 64Kbps to 45Mbps. Since as much as 90 percent of network data contains repetitive information, MSR reduces the amount of data being transmitted and thereby creates up to ten times more capacity over the existing WAN link.

### **Contention**

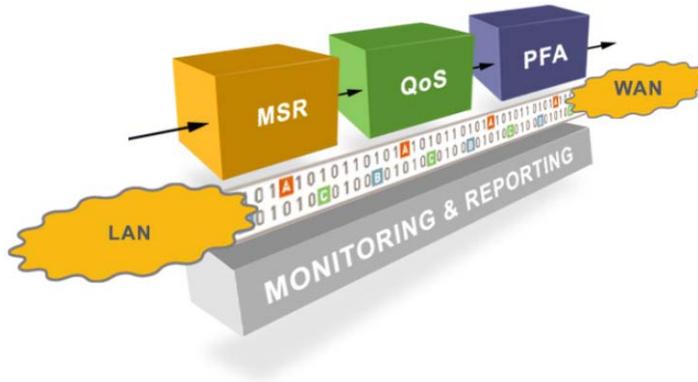
On any WAN link, each application contends with others for the bandwidth it needs for optimum performance. Beyond ensuring that there is enough total bandwidth in a WAN link, acceptable performance depends on ensuring the bandwidth requirement for each application. The solutions to contention are either to segregate traffic on individual WAN links or to use Quality of Service (QoS) mechanisms to assign varying bandwidth levels to each application within one link.

QoS mechanisms can be simple or complex, depending on the degree of granularity and the amount of control over that granularity. However, with granularity and control come increased labor costs for QoS configuration and tuning. All Peribit Sequence Reducers use “essential QoS,” which offers an optimal level of control over the WAN links without requiring complex configuration and tuning.

### **Latency**

Even when a WAN link has adequate bandwidth and that bandwidth is optimally assigned to meet the needs of each application, latency interferes with WAN performance, affecting application response times in particular. No matter what type of data is being transmitted, the TCP/IP protocol works by sending a group of packets and then waiting for the recipient to acknowledge receipt before sending the next group. Due to network latency, there are gaps in the data stream as the transmitter waits for acknowledgments from the receiver.

Peribit's Packet Flow Acceleration (PFA™) technology eliminates gaps in the data stream by pre-transmitting multiple groups of packets from the Sequence Reducer on one end of the WAN link to the Sequence Reducer on the other end. This avoids the gaps in transmitting the data across the network and therefore speeds application response time. Typically, a WAN link using Sequence Reducers can speed application response times by three to four times, enabling higher employee productivity or allowing bandwidth-intensive applications such as data replication or backups to complete well within target windows.



Peribit's technology addresses all three WAN performance challenges.

### **Central Management and Control**

Peribit's Sequence Reducers are designed to interoperate in large groups to enable performance and bandwidth improvements across multiple WAN segments in an organization. Peribit offers a Central Management System that allows users to remotely configure all systems from a single location, and to monitor and report on their performance.

### **Products**

Peribit offers a family of Sequence Reducers for various WAN link speeds and applications. All Sequence Reducers are rack-mountable units that interface to the network as a transparent 2-port LAN switch, situated between the aggregation switch and the WAN router. Sequence Reducers support 10/100/1000 Ethernet interfaces and process data before it is transmitted over the WAN links.

Since Peribit Sequence Reducers are LAN based, they are protocol, transmission, and interface neutral, so they can be used on any physical transmission medium, including fractional T1/E1, T1, fractional T3, T3/E3, frame relay, ATM, or VPN. Peribit's SR products auto-discover other Sequence Reducers in the network and transparently process and encapsulate traffic to these peer devices. The Peribit devices also automatically discover or import network topology information and only process traffic that is destined to subnets that are supported a peer device. All Peribit Sequence Reducers are also equipped with a fault tolerant Switch-to-Wire card that ensures network connectivity under any software or hardware error conditions, including power loss.

Peribit Networks offers the following products:

**SR-80:** Supports up to 45 Mbps circuits via 10/100/1000 and copper or fiber Gigabit Ethernet interfaces and manages up to 320 connections with other Sequence Reducers.

**SR-55:** Supports up to 45 Mbps circuits via copper 10/100/1000 Ethernet interfaces and manages up to 120 connections with other Sequence Reducers.

**SR-50:** Supports up to 45 Mbps circuits via 10/100 Ethernet interfaces and manages up to 120 connections with other Sequence Reducers.

**SR-20:** Supports up to 2 Mbps circuits and manages up to five connections via 10/100 Ethernet interfaces with other Sequence Reducers. Designed for remote offices or smaller sites.

**Central Management System (CMS):** Software to centrally deploy, manage, and monitor large networks of Sequence Reducers with advanced configuration management and monitoring.

## Markets

WAN bandwidth constraints affect operations for any organization that must support large applications or move large amounts of data between any two locations. Peribit has more than 200 customers worldwide, including the following: Bosch, Chevron Texaco, Dow Jones, McKesson, NCR, Thomson, Sears, Raytheon, and Xerox.

## Distribution

Headquartered in Santa Clara, California, Peribit distributes its products through selected resellers around the world, and also maintains sales and support offices in England, Ireland, France, Germany, Hong Kong, India and Brazil.

## Funding

Peribit Networks is a privately held company with strong financial backing from leading venture firms Accel Partners, Foundation Capital, and Mayfield. The company has received a total of \$30.9 million in funding, most recently a \$20.5 million Series B round in February 2002, in which all three firms participated.

## Management

Peribit's management team combines innovative technologists and engineers with seasoned technology business executives.

### **Jef Graham, President & CEO**

Jef is a strong operational executive with over twenty years global experience in the computer and networking hardware, software and services industries. He has been a CEO, senior vice president and general manager in Fortune 500 companies as well as private start-ups. Jef has a track record of driving successful global product development, marketing, sales, and channel management efforts, and has also managed worldwide business acquisition, integration and divestiture..

Before Peribit, Jef was senior vice president of the Commercial and Consumer business at 3Com, where he managed the systems business unit (switches, routers, IP telephony, and wireless products); the connectivity unit (network interface cards and mobile connectivity); and the consumer business unit (modems, home networking, and Internet appliances). He also served on the company's executive committee, reporting directly to 3Com's president and CEO. From 1993 to 1995, Jef served as the CEO of Trident Systems, a document management systems integrator. Prior to Trident, Jef worked for Hewlett Packard for fifteen years, where he variously served as general manager of hardware and software divisions and spent ten years in global sales and marketing. Jef began his career as an IBM systems engineer. He holds a BA with honors in Business Studies from Sheffield Hallam University in the UK.

### **Amit P. Singh, Founder & CTO**

Amit co-founded Peribit Networks while conducting his Ph.D. research in Biomedical Informatics (Computational Molecular Biology) at Stanford University. Amit's interdisciplinary research spans several branches of computer science with an emphasis on designing efficient algorithms for the study of complex and high dimensional systems. His doctoral research focused on the design of advanced algorithms and computational models for the analysis of biomolecular structures and sequences. Amit completed his MS in Electrical Engineering from Stanford University and his BS in Electrical and Computer Engineering from the University of Texas at Austin.

### **Balraj Singh, Founder & Chief Engineer**

Balraj is a cofounder of Peribit Networks and brings to the company nearly ten years of software engineering and microprocessor design experience. Prior to Peribit, Balraj worked in various senior design and management positions at Intel, where he was part of the original Pentium and the Pentium with MMX Technology design groups. Balraj completed his MS in Electrical Engineering from Virginia Polytechnic Institute and State University and his B. Tech. degree in Electrical Engineering from the Indian Institute of Technology, Bombay.

### **Brad Mandell, Vice President, Sales**

Brad has more than 20 years' experience in sales and field operations, most recently at Jetstream, where was vice president of sales and led the company to the number one market position in voice-over-broadband solutions. Prior to Jetstream, he spent 10 years with 3Com in multiple roles covering both the enterprise and carrier markets, most recently as national director of carrier sales. Before joining 3Com, Brad held increasingly responsible positions with IBM's ROLM Systems Division, rising to become an area marketing manager responsible for the development and implementation of business marketing strategies in the enterprise space. Mr. Mandell holds a B.S.C. in Finance from the University of Santa Clara.

### **Joe Hielscher, Vice President, Marketing**

Joe has over 20 years of high-tech marketing experience with computer and networking companies, having held senior management positions at Cisco Systems, Ungermann-Bass and Wang Laboratories. Most recently, Joe was vice president of worldwide marketing at Mirapoint, a wireless Internet messaging startup. Prior to Mirapoint, Joe led some of the top marketing initiatives for Cisco Systems. As director of content and policy networking in Cisco's Enterprise line of business, Joe had responsibility for expanding Cisco's load balancing, web-content distribution, and caching product lines, and he led the creation of the company's first end-to-end policy-based Quality of Service solution. He has also held marketing management positions at Telebit Corporation, a manufacturer of high-speed modems and remote LAN access equipment; The Wollongong Group, pioneers in Internet access software; Ungermann-Bass, producer of the first intelligent LAN hubs; and Wang Laboratories. He holds a BA from the University of California at Los Angeles.

### **Rajiv Batra, Vice President, Software Engineering**

Rajiv came to Peribit from VitalSigns Software, where he was Vice President of Engineering. At VitalSigns, Rajiv assembled and led the engineering team that pioneered end-user performance management with Net.Medic and later developed VitalSuite, the application and network performance product. Prior to the founding of VitalSigns, Rajiv served as vice president of engineering at Bay Networks. He has also held various technical and engineering management positions in networking groups at Sequent Computers, Hewlett Packard, and Tektronix. Rajiv completed his MS in Computer Science from the University of Wisconsin-Madison and his B. Tech. degree in Electrical Engineering and Computer Science from Indian Institute of Technology, Kanpur.

### **Shane Buckley, President Europe, Middle East, & Africa (EMEA)**

Shane has more than 14 years of experience in sales and marketing in Ireland, Great Britain, and Asia-Pacific. Prior to joining Peribit, Shane served as CEO of Conduit Software, a provider of directory assistance and wireless applications solutions. Previously, Shane was 3Com's EMEA vice president for channels, managing a \$2.2 billion business with responsibility for distribution strategy, OEM partnerships and reseller channels for EMEA. Shane also chaired the Global Distribution Council and was a member of the worldwide OEM steering team for 3Com. Shane is a graduate of engineering at the Cork Institute of Technology in Ireland.

### **Steffan Tomlinson, Vice President, Finance**

Steffan has extensive experience in software, data networking, and telecommunications. Prior to joining Peribit, he consulted with a number of early stage companies with a focus on financial modeling and business planning. Previously, Steffan was director of financial planning and analysis for Excite@Home's Subscriber Networks Division, a 1400-person division responsible for delivering residential broadband access. Prior to Excite@Home, Steffan held various finance and financial analyst positions at Oracle,

covering both domestic and international business units. Steffan earned an MBA from Santa Clara University and a BA degree, with honors, from Trinity College in Hartford, Connecticut.

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