

# Improve learning opportunities through a new generation of voice, data and video networks.

New multi-media Internet applications offer exciting approaches to learning. The rapidly developing high-speed Internet puts powerful tools in the hands of your students, educators and administrators.

Sprint is at the leading edge of making new high-speed networks available to schools through integrated networks. This new approach to school networking, called Sprint Network Consolidation<sup>SM</sup>, integrates voice, video and data into a single, cost-efficient, multi-media network.

## **What is an integrated network**

An integrated network can provide your school with distinct advantages by consolidating all your voice, video and data traffic over one simple-to-manage and cost-efficient network. It provides virtually unlimited bandwidth for high-speed Internet access and support of video transmission for advanced teaching applications. An integrated network is an effective solution for school districts that find Internet access, video, multimedia applications and distance learning effective tools for enhancing educational opportunities and productivity.

## **What is Sprint Network Consolidation**

Sprint Network Consolidation consists of Sprint ATM<sup>SM</sup> or Frame Relay<sup>SM</sup> supported by service level agreements, routers, related on-site equipment, managed network services and maintenance. This offers:

- ▶ Complete turn-key services from consultation through implementation and maintenance.
- ▶ Flat monthly fee for all Sprint Network Consolidation equipment and services eliminating up-front capital expenses.
- ▶ On-site Sprint Network Consolidation equipment software upgrades to help future-proof your communication infrastructure.
- ▶ Increases in bandwidth and routing through simple software solutions.
- ▶ Optional IP Services.

Sprint Network Consolidation also allows you to allocate and share bandwidth between applications to manage this valuable resource more effectively. You also get highly reliable and survivable service. Our digital, fiber-optic network incorporates Synchronous Optical Network (SONET) ring technology which employs sophisticated rerouting techniques to provide high service quality and survivable transport across the Sprint SONET backbone. Performance levels are guaranteed and backed by credits.



### **The Services Behind Sprint Network Consolidation**

The service components of Sprint Network Consolidation provide you with the flexibility to create an integrated network specifically designed to meet your school's unique needs. You can choose either Sprint ATM or Frame Relay transport service and select between two levels of network management services.

#### **Sprint ATM Service**

ATM is a packet transport technology offering quality service that is well suited for video and voice applications that require constant flow of information. It supports all protocols and requires only one access line per location. Today, it is the preferred wide area network (WAN) transport.

#### **Sprint Frame Relay Service**

Frame relay is similar to ATM in that it is a packet transport technology that supports all protocols and requires only one access line per location. It is well suited for bursty data applications such as Internet access.

#### **Sprint Managed Network Services<sup>SM</sup> (MNS)**

You can choose MNS services tailored to meet the needs of your school or district. As part of these services, Sprint designs, configures, implements and actively manages and maintains your WAN up to and including the WAN interface to the routers and related equipment located at your school. Sprint Network Consolidation offers two levels of MNS service:

- ▶ Full-service MNS – Twenty-four hours per day, seven days a week (24x7) network monitoring, routing functionality, proactive management and customer premises equipment (CPE) maintenance.  
Also includes network design, installation and configuration of the CPE.
- ▶ 24 x 7 monitoring and maintenance of the school's CPE.

#### **Availability**

Sprint Network Consolidation is being quickly deployed throughout Sprint local telecommunications territories; however it might not be available in your area yet. In these cases, we offer other solutions such as private line, ISDN, unbundled frame relay, ATM transport services and flexible financing packages that can be easily migrated to Sprint Network Consolidation when available.

#### **The E-Rate advantages of Sprint Network Consolidation**

Sprint Network Consolidation provides significant cost savings because it often qualifies for E-Rate funding. Because Sprint Network Consolidation is a telecommunications service, it receives top funding priority at all discount levels. Since E-Rate funding for equipment is often very limited, Sprint's inclusion of the required on-site equipment as part of the telecommunications service is a benefit. This means you can avoid the up-front costs for capital equipment. While no one can guarantee funding, this potential benefit is worth consideration. With a multi-year contract, you have the added advantage of not having to re-file the FCC Form 470 every year. You may also find it easier to get budget and funding because the fee is a predictable monthly expense instead of a lump sum capital purchase. For more information on E-Rate funding, visit the SLD (Schools and Libraries Division) Web site at <http://www.sl.universalservice.org>.



### How schools are using integrated networks

While most schools have Internet access, lack of speed can often impede educational progress. The high-speed Internet access provided by Sprint Network Consolidation enables teachers to:

- ▶ Demonstrate tasks more quickly and conduct multi-media lessons at a more compelling and productive pace.
- ▶ Reduce the amount of unproductive time students spend waiting for others to complete research and execute large file downloads on shared computers.

Schools are using the high-speed connection Sprint Network Consolidation provides to support video applications to:

- ▶ Expand educational opportunities by giving students videoconferencing access to remote experts in specialized fields.
- ▶ Enable more effective teacher collaboration on curricula and lesson plans.
- ▶ Improve human resource management by enabling an instructor to teach in more than one school without the time restrictions and cost of travel.
- ▶ Reduce travel expenses by using videoconferencing to access specialized training and seminars from distant sites.
- ▶ Expand the reach of communications by videotaping important messages and events for those who could not attend and making them readily available via the integrated network.
- ▶ Enable students to travel the world via electronic field trips and develop foreign language skills more effectively by enabling interactive communication with people with different native languages and dialects.

Administrators are also finding they can enhance the value of the tools they purchase, such as software, Internet access and instructional videos, by:

- ▶ Extending their availability over a consolidated network.
- ▶ Creating a centralized media center that is accessible from every classroom.
- ▶ Eliminating scheduling conflicts for equipment by delivering instructional videos via the network.
- ▶ Reducing the risk of damaging expensive video equipment when transporting it between locations.

School districts are using network consolidation to improve efficiency and reduce systems management expenses by:

- ▶ Centralizing Internet/intranet access, firewall, content control and other district-wide applications.
- ▶ Using real-time automated reports to track data across multiple schools.
- ▶ Simplify record keeping, grading and test assessments with timely and efficient delivery of useful information.



### Sprint Network Consolidation case study

A rural school with five sites has limited access to the Internet and expanding access is prohibitive because of the cost of private line services. The high school and middle school have separate connections to the Internet, and they are paying a premium for the dedicated connection from a local Internet service provider (ISP). Administrators do not have content control and must submit student management and administrative files to the district office via the Internet.

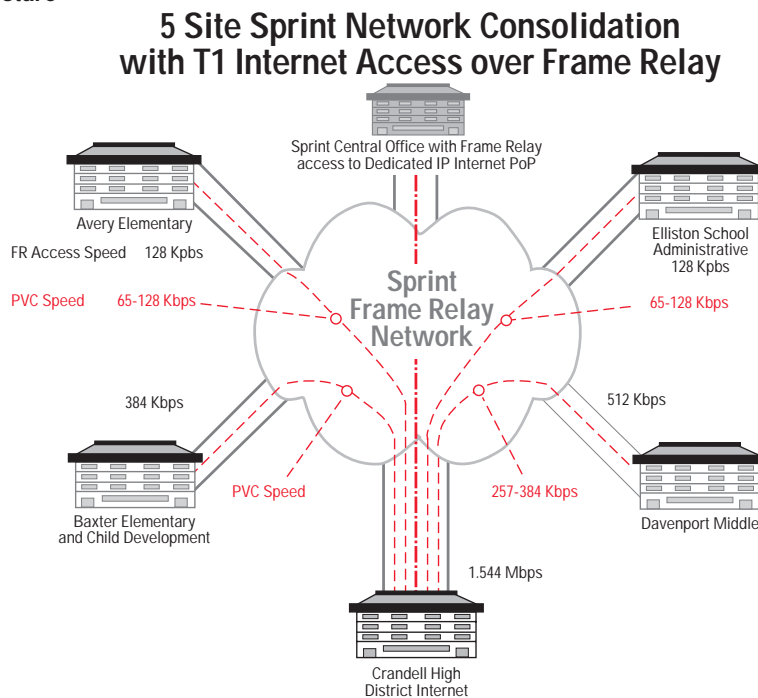
The district leadership has several objectives. They want to provide all sites with Internet access and connect each to their WAN so teachers can share curriculum and management information using the district's intranet and e-mail. They also want to control Internet content and manage the flow of voice and data traffic from a single point.

The Sprint account manager met with school officials to assess the district's needs, then consulted with Sprint data engineers to determine the best solution. Sprint Network Consolidation implemented on a frame relay WAN was chosen. The frame relay access lines are a fraction of the cost of private lines (T1s). Monthly private line charges are also reduced because the district's PBX phone system is able to communicate with PBX remotes at each of the other sites using dedicated voice circuits on the frame relay network. All Internet and WAN traffic is now aggregated to one convenient point – where the district's intranet and e-mail servers are located.

The district commits to a three-year term discount proposal that includes the customer premises equipment, frame relay access lines, private virtual circuits for Internet access and the district WAN, dedicated Internet access, network management and 24 x 7 maintenance. The entire service qualifies for E-Rate funding, and the district realizes significant savings.

### Sprint Network Consolidation structure

The diagram below shows how this district implemented Sprint Network Consolidation with T1 Internet Access over Sprint Frame Relay.



For more information about Sprint products and services, contact your Sprint Representative, or visit our Web site at: [www.sprint.com/education](http://www.sprint.com/education).

