

CaseStudy

University extends campus interconnectivity using ADTRAN integrated access and T1 solutions.

EDUCATION

• Kansas State University



"The ADTRAN ATLAS 800 system allows us to meet our immediate internet-working needs in a very cost-effective manner, while implementing a host-site termination platform that will serve us well into the future."

Spencer Smith
Network Administration/
Telecommunications
Kansas State University



In a recent project to extend voice, data and Internet connectivity to six of its affiliated off-campus housing facilities, Kansas State University realized significant savings by implementing an ADTRAN-based T1 integrated access solution. By using ADTRAN's ATLAS 800 integrated access system to front-end their central PBX, Kansas State was able to satisfy its connectivity requirements, while greatly reducing equipment costs at the host site.

• ATLAS 800 SYSTEM REDUCES PBX UPGRADE COSTS

In a traditional T1 network configuration, adding six remote locations would require six new T1 circuits, terminated at both ends with a drop and insert T1 DSU/CSU. This configuration would also require six new T1 interface cards on the PBX—at a cost of approximately \$33,000.

Using ADTRAN's ATLAS 800 integrated access system at the host site and ADTRAN's TSU 120™ (or similar T1 service units) at remote sites, Kansas State implemented a highly reliable voice and data network that cost \$13,495 less than the alternative.

EQUIPMENT SAVINGS AT THE HOST SITE

DSU-Based Host-Site Solution				Integrated Access-Based Host-Site Solution			
QTY	ITEM	COST	TOTAL	QTY	ITEM	COST	TOTAL
6	TSU 120 T1 Service Unit	\$1,995	\$11,970	1	ATLAS 800 IAD with voice and data cards	\$14,975	\$14,975
6	PBX T1 Interface Card	5,500	33,000	3	PBX T1 Interface Card	5,500	16,500
		TOTAL	\$44,970			TOTAL	\$31,475

Equipment Cost Savings \$13,495

Kansas State University realized more than \$13,000 in savings by choosing the ATLAS 800 host-site solution to satisfy their interconnectivity needs.



About Kansas State University

Kansas State University is a comprehensive, research, land-grant institution serving students and the people of Kansas, and also the nation and the world. Since its founding in 1863, the University has evolved into a modern institution of higher education, committed to quality programs, and responsive to a rapidly changing world and increasingly diverse society. The university supports undergraduate and graduate degree programs, research and creative activities, as well as outreach and public service programs.

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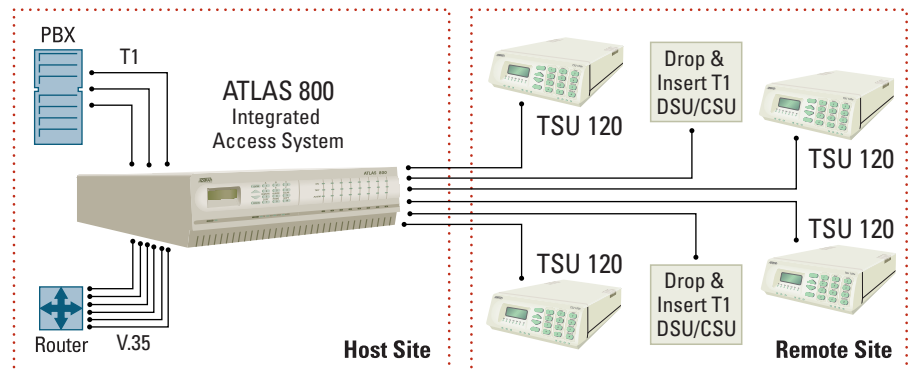
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VOICE CHANNEL GROOMING CONSOLIDATES T1s

The ATLAS 800 system installed at Kansas State uses DACSing capability, which 'grooms' the voice channels from the six incoming remotes onto three T1 interfaces to the main PBX. This feature reduces the number of new PBX interface cards required by 50 percent. Grooming involves the mapping of any DS0 on the incoming T1 circuits (which are only partially filled with voice channels) to any DS0 on the T1s feeding the PBX. The ATLAS 800 system also provides V.35 data connections to the central site router for each remote.

At the remote sites, Kansas State installed ADTRAN TSU 120s, or similar devices, that provide a DSX-1 voice interface to the PBX and a V.35 data interface to the router.



With an ATLAS 800 integrated access system at the host site and T1 service units at remote sites, Kansas State is able to deliver economical and reliable voice, data, and Internet services to its affiliated housing sites.

A FUTURE-PROOF SOLUTION

With the ATLAS 800 solution, Kansas State is well positioned to enjoy additional cost savings as their network grows. The modularity and flexibility of the ATLAS 800 system architecture will accommodate additional T1 ports, as well as numerous other applications.

Kansas State is currently installing ADTRAN TSU 600e™ multiplexers at six additional remote sites. These expandable, six-slot multiplexers are equipped with FXS expansion cards for voice, and a router expansion module for data. The TSU 600e router module eliminates the need for an external router, providing further cost savings.

For more information on how ADTRAN solutions can help reduce telecommunications costs, or to speak to an ADTRAN pre-sales application engineer, call 800 615-1176 today.

ADTRAN EQUIPMENT REQUIRED

Host Site			Remote Site		
MODEL	PART NUMBER	QTY	MODEL	PART NUMBER	QTY
ATLAS 800 Base Unit	1200180L1	1	TSU 120	1202129L21	1
Quad T1/PRI Module	1200185L2	2			per remote location
Nx56/64 V.35 Module	1200184L1	2			