



Indian university deploys campus-wide network infrastructure

Cisco WI-Fi solutions provide wireless coverage, enable easy access to content and facilitate regular/ distance education

EXECUTIVE SUMMARY

- ♦ **Customer Name:** GITAM University
- ♦ **Industry:** Education
- ♦ **Location:** Vishakapatnam, India
- ♦ **Number of Employees:** 1370 approximately

BUSINESS CHALLENGE:

- ♦ To build a world class scalable infrastructure and offer the best-in-class education
- ♦ Budget had to be optimized to create the right-fit deployment
- ♦ Partner support in an up-country location like Visakhapatnam was a key concern

NETWORK SOLUTION:

- ♦ Single converged IP Network to run internal applications on campus
- ♦ Wi-Fi enablement for easy access to content by the students
- ♦ Datacenter along with application hosting to facilitate distance education

BUSINESS RESULTS:

- | | |
|--|------|
| ♦ Cost saving | 80% |
| ♦ Ease of deployment of new technology | 90% |
| ♦ Knowledge /skill-set enhancement for staff | 60% |
| ♦ Competitive advantage | 90% |
| ♦ Better resource utilization | 100% |
| ♦ Improvement in user experience | 90% |

Business Challenge

For over three decades now, GITAM has been committed to excellence in higher education and forayed into diversified disciplines of learning to facilitate that.

GITAM university has three campuses at Visakhapatnam, Hyderabad and Bangalore where Visakhapatnam is the main campus. GITAM offers varied programs blending skill development and value orientation for students, to help them develop a holistic personality. The university also offers several distance learning programs and has an established placement cell in each of its institutes.

Although the university is not located in a top-tier Indian city, the management wanted to ensure that the institution is on par with the rest of the country in terms of technology adoption. In order to facilitate a world-class learning experience GITAM decided to implement a state-of-the-art network infrastructure that would enable deployment of new age technologies like video besides provision of applications developed as SaaS to other affiliated colleges and universities.

Given that the University is located in a non-metro city, normally most investments are devoted to the development of physical infrastructure like buildings and study equipment. However the management at GITAM realized the importance of IT and decided to improve their network infrastructure, deploy new-age technology and enable a better learning environment.



Network Solution

A single converged IP Network to run internal applications on campus along with Wi-Fi enablement to help students easily access content was being sought after by GITAM. A detailed evaluation process of competing platforms was undertaken

before GITAM chose the Cisco solution. Cisco provided an end-to-end solution that met all the requirements of the University. Ease of integration, a strong partner presence in India, coupled with strong support were major criteria for choosing the Cisco solution. Datasoft Comnet Pvt. Ltd. www.datasoftcomnet.com an experienced Premier Certified partner of Cisco was chosen for the deployment based on their Design and Implementation strengths.

The implementation included the setting up of a Campus-wide network with 1 Gigabit fiber on the backbone and more than 300 switches on the Network. Wi-Fi was deployed in the Campus to ease access to the network using 1142 and 1252 APs. Wi-Fi access was secured through ACS integrated with AD, capable of supporting data, voice and video.

“We have achieved considerable cost savings by deploying a Single IP Network across the entire campus. It is now much easier for us to facilitate new services like video, virtualization and cloud computing.”

G. V. Ramana, In-Charge Director, CATS Department.



A 7206 Router was deployed to handle BGP protocol and an ASA 5550 ensured that up to 1Gbps of traffic could flow at wire speed through the firewall. A 10Gbps backbone was deployed to ensure that the central library, digital library and erstwhile e-learning centre at the university worked in a non-blocking mode.

Post implementation, various departments at the University have begun using the core network for their virtualized server requirements and this has helped reduce the costs for new server purchases. It has helped to drive the University towards Cluster computing and Grid computing. Deploying an end-to-end solution also helped GITAM overcome the challenge of finding and retaining skilled manpower to manage complex technology in a remote location, because the solution helped increase dependency and trust in the network.

During the implementation wireless planning needed to be re-adjusted to the requirements of video throughput expected by students. The senior management and the technical team at GITAM worked hand-in-hand with the team from Cisco to complete the project successfully.

Business Results

The implementation has benefitted GITAM in more ways than one. The use of a Single IP Network has resulted in significant cost savings. New Services like video, on-demand learning, signage, virtualization, cloud computing etc. can be rolled out seamlessly using the same converged Network. From a people's perspective, the staff is motivated to work using state-of-art technology in a remote town like Visakhapatnam. The project has also provided GITAM with the first mover advantage to become a Smart, Digital University in India. Post implementation, GITAM can extend services for Hosting/DR and SaaS to other universities and colleges.

With the implemented solution, system availability has improved tremendously —voice, video & data are available anytime, anywhere and to everyone. User experience as well as Intra / Inter office communication has improved and the network has been recognized as an important cog in the wheel of running the University.

“The objective of GITAM is to develop the technical/professional knowledge of the student as well as their intellectual, analytical and practical skills, providing necessary academic and professional tools required for a successful career not only in the relevant field but in other professional contexts, We have achieved considerable cost savings by deploying a single IP Network across the entire campus. It is now much easier for us to facilitate new services like video, virtualization and cloud computing,” said G. V. Ramana, In-Charge Director, CATS Department, GITAM University.

PRODUCT LIST

- ◆ Cisco 6509E Switch with WiSM (wireless controller for 300 APs)
- ◆ Cisco ACS server (for Centralized authentication and authorization)
- ◆ Cisco ASA 5550 Firewall with > 1 Gbps throughput
- ◆ Cisco 7206 router with BGP links
- ◆ 10 Gigabit Switched Backbone.
- ◆ More than 300 nos. 2960 series switches

Next steps

GITAM can now offer additional services such as toll-free Inter-office voice communication, mobility, physical security, location tracking, and wireless communication and assure quality of service and bandwidth for everyday work.

For More Information

To find out more about Cisco's higher education solutions please visit: <http://www.cisco.com/go/education/>

To learn more about Cisco's wireless solutions please visit: <http://www.cisco.com/go/wireless/>

To find out more about GITAM University, please visit: www.gitam.edu



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