2000 users
5.5acres
8 Separated Buildings
1 Centralized Network

International School Dhaka Campus LAN Project

Testimonial	**Customer information:**
	ISD is part of STS Educational Group Limited
	In 1998, the STS Group decided to diversify into the supply of educational and medical services and consequently set up subsidiaries. It acquired land in Bashundhara; a site in the northeast quadrant of the city. Bashundhara is a short drive from the main residential and diplomatic areas of Baridhara and Gulshan.
	In 1998, construction of the school began on a 5.5 acres plot and was completed during the course of the 1999-2000 school year, when the first classes from Nursery to Grade 5 were admitted.

Today the school fully occupies a rich landscape with classroom space for Nursery (aged 3-4 years) to Grade 12 students. The facilities include a swimming pool, gymnasium, sports field, cafeteria, fully-equipped theatre with seating for 360, science laboratories, computer suites and a purpose-built library. |

Technology challenges:

International School of Dhaka (ISD) currently holds more than 2000 users and they have a campus of around 5.5 acres. In this campus they have 8 separated buildings which previously connected like cascading from one building to another with copper cables but not connected to central location. Also the

Achieved customer benefits:

o More than 2000 users are connected on a centralized infrastructure working seamlessly
o Dedicated application delivery from central location to all the individual buildings using separate uplinks for each of them

access switches were not manageable. So often whole network used to get chocked due to high volume of data transfer between buildings. Moreover they unmonitored and uncontrolled wifi system separately in all buildings. In central location, they had more than 20 server which were running internal and hosted applications and storage to handle contents. But these servers and storage connections were not organized and facing delays to deliver contents to user requests. So, ISD was concerned to resolve all these issues by building up a centrally monitored and controlled network.	o All user can access internal resources as well as internet o New wifi system ensured access to internet from anywhere in the campus o Multiple redundant uplink facilities lowered downtime o Students can access their study materials during class o Central monitoring system provides traffic monitoring and root cause analysis for network infrastructure which helps in minimizing overhead costs of system administration

Provided Solution:

<u>For Campus LAN</u>

- o Hierarchical Tier-2 segmented campus architecture (Core-Access)
- o 1Gbps fiber backbone around the campus
- o 1.5 km 6core fiber backbone to connect all the buildings into Data Center
- o Managed access on each building which handles other non-managed user access to switches
- o VLAN wise user segregation according to user groups
- o Managed access connections through Core switch and also connects ServerFarm for service availability
- o Dynamic ARP inspection, DHCP snooping and Broadcast storm control for LAN network security
- o Power-over-Ethernet facility on managed access switches ensure robust implementation of wireless and IP Surveillance equipment power supply
- o Managed dual internet link and provide load sharing with failover from router

<u>For Secured Wireless Mobility</u>

- o Controller based unified wireless around the campus
- o Automatic Radio Frequency and channel management through wireless controller
- o Multiple wireless VLAN with multiple SSID according to user groups
- o WPAv2 wireless access security implementation
- o Seamless wireless layer-2 mobility on multiple Access Points around the campus

<u>For Monitoring system</u>

- o Monitoring system provides view of entire network infrastructure

- Configure graph and monitor physical links along with network nodes
- Configure alert system for any critical resources failure through mail
- Provide historical data for link usage for wired and wireless user activities
- Provide device templates to configure the devices in bulk from centrally