Egyptian university embraces intelligent network management with LANmark-6A solution

Egypt's Nile University helps propel one of the world's oldest civilizations into the 21st Century thanks to Nexans solutions

Home to the world's greatest ancient engineering wonders, Egypt's newest technology institute represents a major effort to build a world-class IT presence in this region. Nexans Cabling Solutions, and distributor UBC, successfully installed the country's first Category 6_A network and Intelligent Infrastructure Management platform on its campus.

SMART VILLAGE GROWS NATION'S ECONOMY

Enter Nile University's (NU) campus located at Sheikh Zayed City, 20 minutes away from the Centre of Cairo. It is designed to provide the most appropriate scientific environment required to support a "research" university. The 127 acre campus will provide complete service facilities for students and faculties as well as new technology start-ups. The campus is currently under development and will be constructed in various phases. The first phase consists of an Educational Building, a Main Building, a Services Building and Sports Facilities.

Nile University

Nexans

The campus also hosts state of the art IT applications and infrastructure, making it an integrated Smart campus in every sense. Nile University is also proud to be the first University in Egypt to deploy several state-of-the-arts IT features:

• The first university network deployment which integrates different building utilities such as access control, unified communications, video surveillance and a fire alarm system together to maximize the customer benefit using IP based solutions, in addition to providing complete indoor and outdoor wireless coverage throughout the campus.

• The first unified workspace license in Egypt's Education Sector: The converged voice-and-data network will enable the IT department to manage resources more efficiently.

• The largest 10 Gigabits per second (10G) Ethernet network in Egypt allowing a huge amount of information flow.

• The first Internet Protocol Version 6 (IPv6) based campus network to be deployed in Egypt.

"The key to success is teamwork."
Nezar Nabil Sami,
Eng. MSc. MOT
Director, Information Systems department
Nile University

• The first IP Video Surveillance (IPVS) solution to be deployed in a university in Egypt, including cameras, video servers or digital video recorders (DVRs) , running monitoring and reporting applications, thus maximizing campus security and control.

• A complete end-to-end unified communications solution to help teaching staff and administrators streamline communications—regardless of media, platform, device, or location. Users can stay in touch and get work done wherever they are; using whichever device is most convenient.

• Video portal and digital signage are also available in all lecture rooms, in both the Educational and the Main buildings, to allow instant communications and up-to-date information to be aired at all times.

INTELLIGENTLY MANAGED COPPER & FIBRE NETWORK

During the planning phase, it was realised the new university needed a sophisticated LAN for IP-based telephony, data, security and a building automation system.

Specifications were prepared for a LAN backbone infrastructure supporting 10-gigabit speeds throughout. Building One consisted of 2,800 nodes; 1,800 for Building Two, linked by a campus-wide fibre cabling system. Intelligent Infrastructure Management (IIM) software also was deemed necessary. It also required modularity and application independence.

Challenges

- Recommend/install future-ready LAN and campus wide backbone
- Include IIM in total solution
- All solutions compatible with pre-existing intelligent patching system
- Strict compliance and oversight by Egypt's MCIT

Solutions

- LANmark-6A high speed screened copper cabling solution
- LANmark-OF single mode OS2 optical fibre cables
- LANsense Intelligent Infrastructure Management (IIM)

Benefits

- LANmark-6A supports 10G LAN — 1 to 10G to desktop
- Optical fibre supports campus-wide backbone
- Vendor-neutral LANsense, monitoring various network systems and devices
- Effective management of network parameters — MACs, security, device traceability

The Request for proposal (RFP) was won by UBC Integrated Systems, a subcontractor for the infrastructure cabling system, a Cairo-based cabling management firm and Nexans distributor. The proposal included a Nexans LANmark-6A screened copper cabling system for each building's infrastructure, LANmark-OF fibre single mode cables for the campus backbone, and LANsense IIM software.

Says Rami Bechir, Executive Manager, UBC, "Nexans had key technical advantages over the competition with its cost-effective, screened category 6A copper cabling as well as its IIM package, despite the fact there were currently no comparable installations in Egypt."

Rami Bechir added the LANsense solution offered many benefits not available in other respondents' proposals, including management and documentation of all IP devices anywhere on the network; a quick and effective moves, adds & changes (MAC) process for all IP devices; circuit traceability of network devices; security to identify unauthorised MACs or breaches, as well as a highly responsive reporting system that quickly answers specific queries.

Concludes Rami Bechir, "Thanks to our relationship with Nexans, and its ability to deal with issues right away, UBC distinguished itself with MCIT by being very proactive. We hope this will lead to other projects within the Smart Village cluster."

"Nexans has key technical advantages over the competition."
Rami Bechir,
Executive Manager
UBC Integrated Solutions, Egypt

Did you know...

- LANmark-6A adheres to 10GBase-T (IEEE802.3an) standards for 10G applications

- Screened LANmark-6A cables eliminate the need to perform expensive, on-site testing for alien crosstalk following installation

- Nile University is a pioneer in nanoelectronic integrated systems research

NU
Nile University

With energy as the basis of its development, Nexans, the worldwide leader in the cable industry, offers an extensive range of cables and cabling systems. The Group is a global player in the infrastructure, industry, building and Local Area Network markets. Nexans addresses a series of market segments from energy, transport and telecom networks to shipbuilding, oil and gas, nuclear power, automotive, electronics, aeronautics, handling and automation. With an industrial presence in 39 countries and commercial activities worldwide, Nexans employs 22,700 people and had sales in 2009 of 5 billion euros.

In the field of LAN Cabling Systems, Nexans Cabling Solutions offer a complete range of products and value added services providing improved reliability and reduced cost of ownership for Network Managers, together with faster installation times for installers.

In addition to LANmark™ brand cabling systems, Nexans also specialises in LANsense™ Intelligent Infrastructure Management (IIM) products including Environmental Monitoring and Access Control (EMAC) devices.
Nexans offers an unrivalled choice of LAN infrastructure solutions to a global customer based through an extensive network of regional offices and Key Account Management team.

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