



The power to do more

The Daily Star  
DHAKA, MONDAY, NOVEMBER 25, 2013  
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INFORMATION | GADGETS | TECHNOLOGY

# BYTES

TECH MARVEL

## Networking the largest shopping mall in South Asia A colossal project undertaken and accomplished

Jamuna Future Park- by far the largest shopping complex in this subcontinent is to house more than thousand shops, premium outlets, showrooms and food courts. This enormous shopping district required connectivity for internal operations and functionality. Moreover the incoming crowd also required access to internet. But no other engineering firm had ever undertaken such a meticulous challenge. It was 'InfoLink', a network engineering firm, who was awarded the contract to connect all parts of this gigantic shopping mall in a network to ensure that the entire network can be controlled and maintained from a single point location.

Since this was a mammoth project and no other project of this scale was ever implemented in this country hence InfoLink had a quite steep learning curve. InfoLink was to do three things: 1. Establish and install all a unified network. 2. Build and connect kiosk for visitors 3. Maintain and monitor the high volume network traffic and networking hardware.

Establishing a unified network was a multilevel work hence the crews where tasked in groups to finish the work within the deadline. There were many challenges to establish the network and install all associated hardware. Firstly the network needed to be centralized and controlled from one single point. To do so, all network hardware was specially configured. Secondly enormous space was required to be covered with fiber optic cables. And all cables required to be laid in the ceilings. Since the floor to ceiling height was 4.42

meter, special ized equip ments were require d to lay cables at such



InfoLink engineers checking the kiosk booths

a height. Thirdly, the Wi-Fi devices, through which end users could access the internet, were extremely sensitive to dust. As the network development work done in the construction phase of the shopping mall, so the devices where frequently exposed to dust resulting malfunction. Lastly, the 410,808 square feet per floor made the footwork lengthy and time consuming. To address these challenges some changes were made in the plan. The device hanging problem was solved by rearranging the total device plan. The problem of backbone route was solved by creating a tunnel from the center to Jamuna Future Park pocket gate. A special cover was used for safety of Wi-Fi devices. High ladder was used for recovering dead cables and a

special high elevation cart for installing the devices. Even after that some laid cables were not working properly. In that case, those cables had to be changed.

Kiosk/information booth was another part of the project. An electronic kiosk (or computer kiosk or interactive kiosk) houses a computer terminal that often employs custom kiosk software designed to function while preventing users from accessing system functions. Computerized kiosks may store data locally and offer the visitors data from the stored memory whereas the interactive kiosk fetched updated data from the main network storage in real time. Some kiosks provide free, informational public service, while other displayed advertisements. In total 25 kiosks



Technical crews running test on the network backbone

are already deployed throughout the shopping complex. But in long term a total of 900 units will be deployed. Each would carry advertisement that was related to Jamuna Future Park. To deploy such a large amount of foreign built kiosk was lengthy and expensive. So InfoLink came up with with a cheaper alternative. They suggested the Jamuna authority to go for locally assembled Kiosk. The kiosk outer-shell and CPU was designed and assembled locally. Only the touch-screen monitors were imported. The software for the system was created by InfoLink software development team. Thus it marked the very first commercial deployment of Bangladeshi assembled kiosk.

Maintaining and monitoring the extremely high bandwidth-ed

network was another part of the project. For this part of the project, monitoring cell/NOC (Network operations center) was put up and extra IP (Internet Protocol) was needed for covering all the merchant clients of the premises. For client billing InfoLink software team developed billing software which made total billing process accurate and secured. Besides dedicated internet and shared intranet, the networking project also involved data connectivity services for CCTV connection, Branch connectivity, ATM connection, Wi-Fi service for floating customer and connectivity for mobile users using hotspot voucher card.

The future work of this project involves Wi-Fi network for the rest of the floors, deployment of 800+ new kiosks, Public hotspot voucher

### Some facts & FIGURES

- 23,950 feet (approx.) 12 core Fiber optics used
- 13,123 feet (approx.) 4 Core Fiber Optics used
- 5,987 feet (approx.) Cat 6 Shield cable used
- Total: 44,000 feet fiber optic cables used
- Total Core Capacity – 192 core and Scalable
- Backbone Capacity - 24 Core and Scalable
- Wi-Fi Coverage area– 350,000 Sq ft (Approx) ( Only 5th floor)
- At a time user – 300 Wi-Fi User successfully tested (supports up to 1000 users).
- Coverage area by Cable – 2,870,000 Sq ft (approx.)
- Total number of Deployed Kiosk – 25
- Total Bandwidth Capacity inside Jamuna Future Park – 400 Mbps and Scalable

## Gaming Platforms PC Over Consoles

TECH DEBATE

With the impending release of the PS4 and Xbox One, many people are already decided which console they want to buy, for most people the choice is the PS4. With Sony's bold claims of their gaming system holding the future, and Xbox's inferior hardware, the choice was simpler.

Recently there has been an outrage. Developers have gotten their games to run at a better resolution than it runs on the Xbox. Battlefield 4 for example, will be 900p on the PS4 and 720p on the Xbox. Now both will run at 1080p, but that will be an upscaled or stretched 1080p, not a native 1080p, and the difference is quite visible. With 1080p being standard for the PC for a few years, we are seeing high range hardware capable of

PC, as always, had more exclusive games. The exclusion of the RTS genre from consoles has seen them miss out on Civilization, Star craft, Age of Empires and even The Sims (for the most part). However, apart from the RTS genre, the PC has offered many more quality exclusives, which more than make up for the lack of games like 'The Last of Us' and 'Red Dead Redemption'.

Another big, big reason to get a PC is the community. Specifically, the modding community. Don't bother telling PC gamers to play games 'the way they were meant to be played'. No. If they have ability to mod their games, then they should do that. Skyrim with mods is one of the most beautiful things to behold. GTA with Lamborghinis, Mercs, Bentleys, Rolls and a G-



Vs



g games at 2560x1440p quite easily and fast becoming the new standard. If you have the resources to go all out then you can play games at 4K resolution without any problems as well.

However the main reason drawing people away from PC gaming is that it breaks the bank. Nobody wants to spend \$1000-2000 on a gaming PC. What people don't realize is that it's almost 2014. PC is the fastest growing gaming platform in the world, and with good reason. A \$500 PC will outperform the consoles. That \$500 PC will be able to run games at a native 1080p, on settings ranging from high-ultra. The specifications would depend on you, and the more money you spend, the better your games look.

The money factor is a big one, especially in Bangladesh. A PS4 will launch in the US for \$400, in Bangladesh it will hit the markets at a minimum price of 40-50 thousand. People can't justify buying both consoles here, so they mostly go by which has the better exclusives. In the case of the last generation of consoles, the PS3 won that battle with their better library. But the

Corolla is a much more realistic environment. If a person wants to play through Fallout: New Vegas as Spiderman or GTA IV as Ironman, that's their business. Mods add new elements to games and installation is quite easy, if you can spare 5 minutes for hours of content.

Something I heard people say is that they prefer controllers over keyboard and mouse. So let me reveal a secret. You can use a PS3/4 and Xbox One/360 controller with a PC, among hundreds of other third party controllers. You can even use a joystick, if you're into that.

So there you go. All the reasons to GET A PC INSTEAD OF A CONSOLE. Not to mention multitasking, office work, entertainment and internet browsing. That's not to say there aren't reasons to own a console, but we'll cover that at a later time.

SAMAMA RAHMAN

### JUST IN

Fujitsu Lifebook E743 ready to hit the market

A brand new Fujitsu Lifebook was unveiled before the local market which is elegant in design and great in functionality. This Fujitsu Lifebook E743 comes with the Docking Connector, 500GB Hybrid HDD for fast data transfer and Intel Core i5-3340M processor. The Lifebook E Line models also have the security features like BIOS Lock, Hard Disk Lock, Anti-theft Lock Slot, RF Fingerprint Sensor and including a trusted platform module (TPM) chip, built-in smartcard



reader for user authentication, optional fingerprint scanner and Intel's vPro technology. It contains 4GB DDR 3 RAM which is supported up to 16GB memory card. Other features of this notebook are Light Weight of 1.9 kg only, Backup Time up to 11 hrs, Spill Resistant Keyboard. Pre-installed original Windows 8 professional is included in this silver color Lifebook.  
**Price: Tk. 135,000/-** with 12 months warranty + Free Care case



ASUS X451CA-An all-rounder Notebook

The ASUS X451CA is the perfect all-round notebook for work and play. Stylish and durable design is combined with 1.8 GHz Intel Core i3 processor, while 2-second Instant on feature gives smartphone like accessibility and SonicMaster technology gives great sound quality. The combination of an integrated Intel HD graphics and 4GB of DDR3 RAM ensures games and applications will run smoothly on this notebook. A 500GB hard drive provides plenty of storage, while the 14-inch (1,366x768 resolutions) screen ensures good visual quality with whatever program you use. The other specifications of the notebook are- gigabit LAN, Bluetooth 4.0, wireless LAN, DVD writer, webcam, HDMI port, USB 3.0 port, VGA port etc.

**Price: Tk. 36,500/-**

Samsung offers best 3G experience and amazing consumer promotions!

Now anyone who buys a Samsung Galaxy Note 3, Galaxy Note 8.0 or Galaxy Tab 3 from any Samsung smartphone café will receive attractive gifts, absolutely free. A Samsung Digital Camera (ST150F) worth Tk. 10,500 is available as a gift with the Samsung Galaxy Note 8.0. With the Samsung Galaxy Tab 3, customers will receive the smart and handy Samsung digital camera (ES 95) worth Tk. 7,700 as a gift. And with the purchase of every Samsung Galaxy Note 3, customers will receive a free flip cover.

Airtel Bangladesh signs up Mahindra Comviva for managed VAS services

Bharti Airtel, a global telecom giant with operations in 20 countries across Asia and Africa recently announced a managed VAS deal under a strategic partnership model with Mahindra Comviva to provide mobile financial and VAS solutions for its Bangladesh operations. As part of this three-year deal, Mahindra Comviva will manage Bharti Airtel's service delivery platform inclusive of Mahindra Comviva's deployed products like Messaging Service Delivery Platform (MSDP), Unstructured Supplementary Service Data (USSD), Bulk Messaging Gateway (BMG) and dBILL VAS Charging solution. Moreover, as the result of signing of this deal, Mahindra Comviva will now manage Bharti Airtel's VAS services across all operations in 20 countries in Asia and Africa. At present, Mahindra Comviva is managing over 4000 VAS nodes for Airtel Africa in 17 countries, Airtel India and Airtel Sri Lanka from various partners to meet defined service-level agreements.

TECH BITS

Dropbox for Android makes file sharing more social with new share function and notification feed



Apple finally gets all cleared for building its oval shaped futuristic campus



Fisker files for Bankruptcy, hopes selling company will restart Karma sales



NSA put spyware on over 50,000 networks worldwide

Intel gives first live demo of 64-bit Android platform running on its latest Atom processor