



Introduction To Campus Networks
BMO Training 2013

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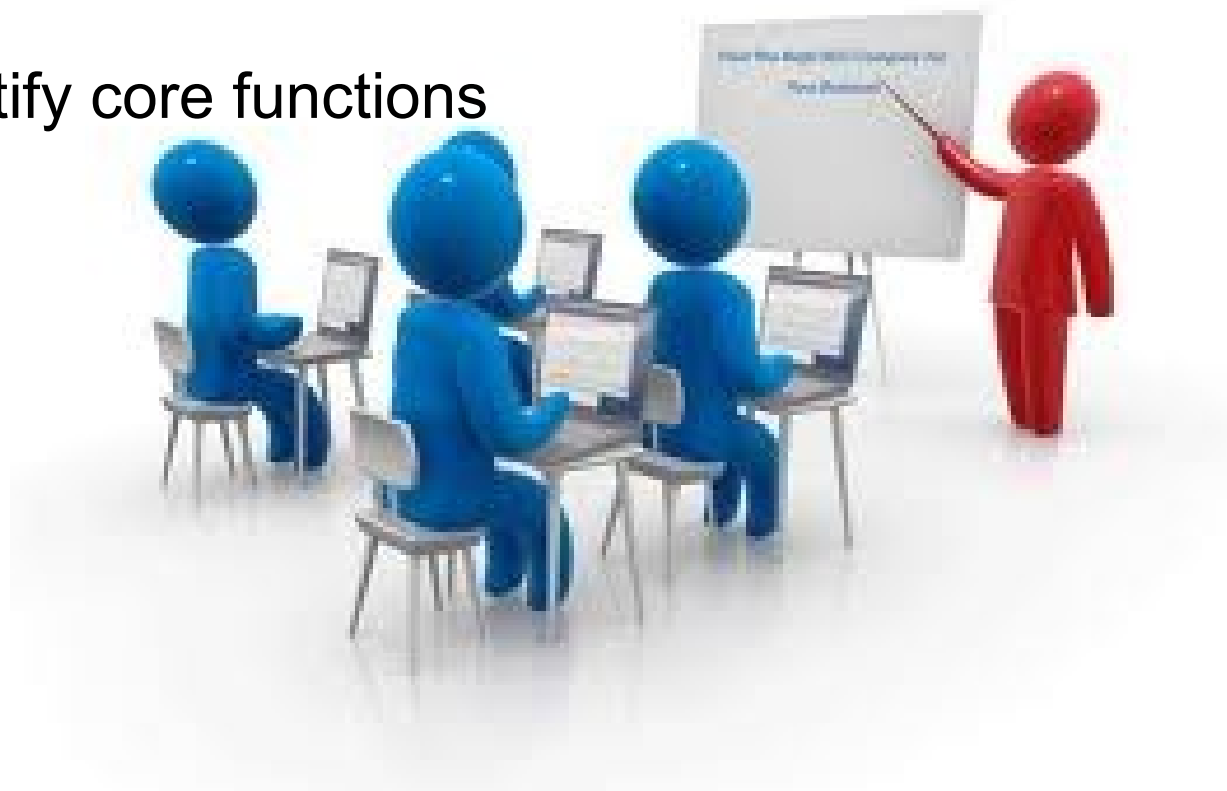
Overview

- Core Function of University
- ICT & Education
- Infrastructure Building Blocks
- Q&A



Core Functions

- What is the core function of your institution?
 - University?
 - Campus?
 - Research Institute?
- Participants to identify core functions
 - Interactive



ICT & Education

- Is ICT viewed as a helper to institution's core mandate?
 - Participant contributions
- What are the services that ICT offer as a helper?
 - Participant contributions



ICT & Education Contd...

- Services
 - Communication
 - Email, Telephony
 - Transactions
 - ERP/FMS, Help Desk, Printing, File Services
 - Identification & Management
 - SMIS, Directory Services, DNS, DHCP,
 - Research
 - Internet, File Servers, Grid Services



The Building Blocks

What are the critical areas to consider in order to effectively support university core functions using ICT?



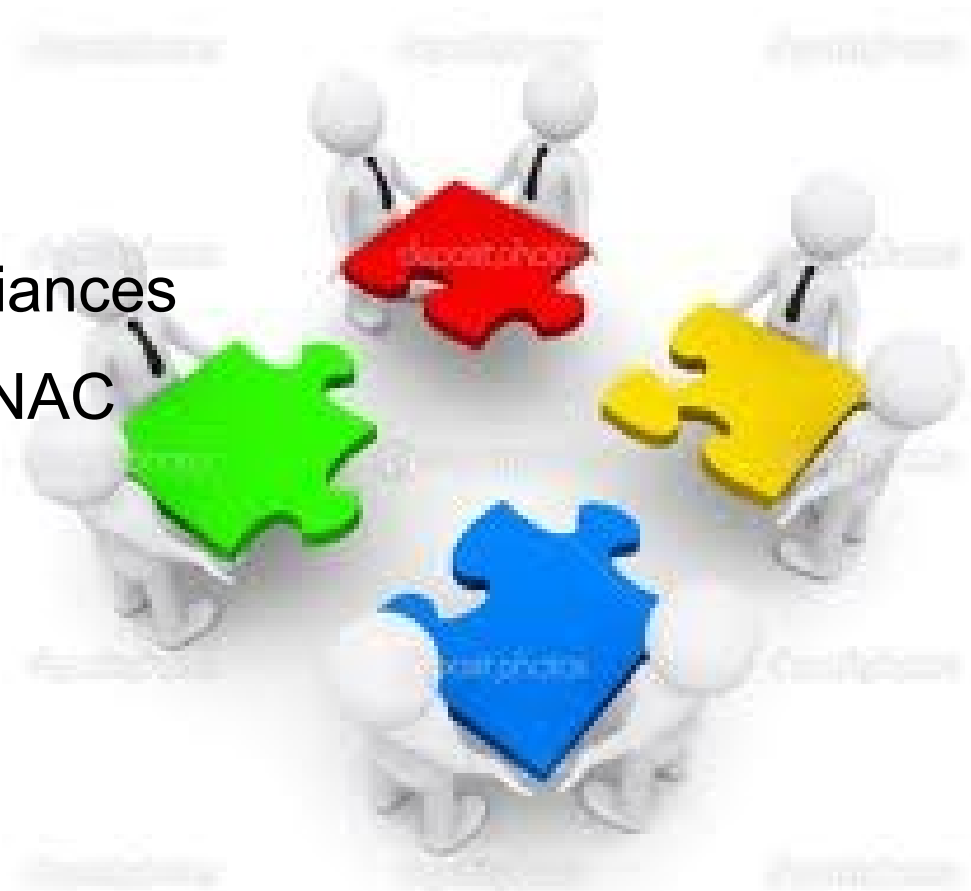
The Building Blocks Contd...

- Environment
 - Power
 - Temperature
 - Humidity
 - Security
 - Fire Fighting
- Network Medium
 - Fiber Cable
 - Copper Cable
 - Wireless



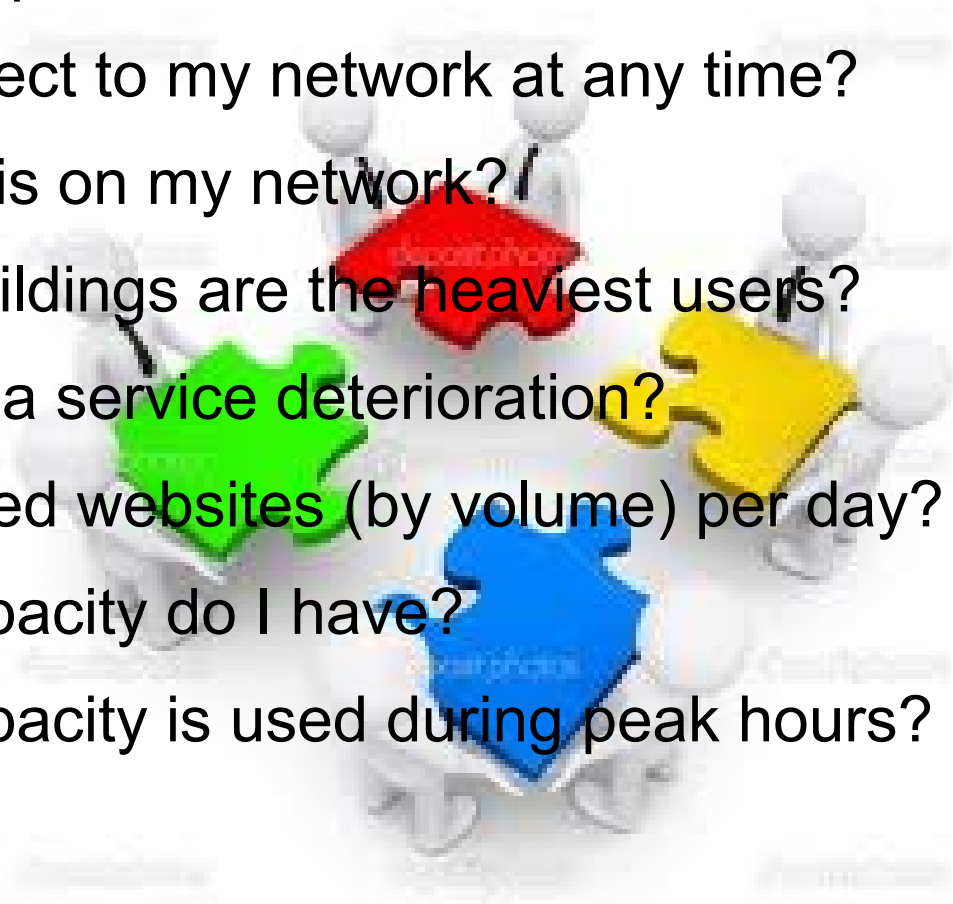
The Building Blocks Contd...

- Network Hardware
 - Network Switches
 - Network Routers
 - Network Security Appliances
 - Firewalls, IPS, IDS, NAC
 - Network Servers
 - PBX/IP PBX
 - Telephone Handsets



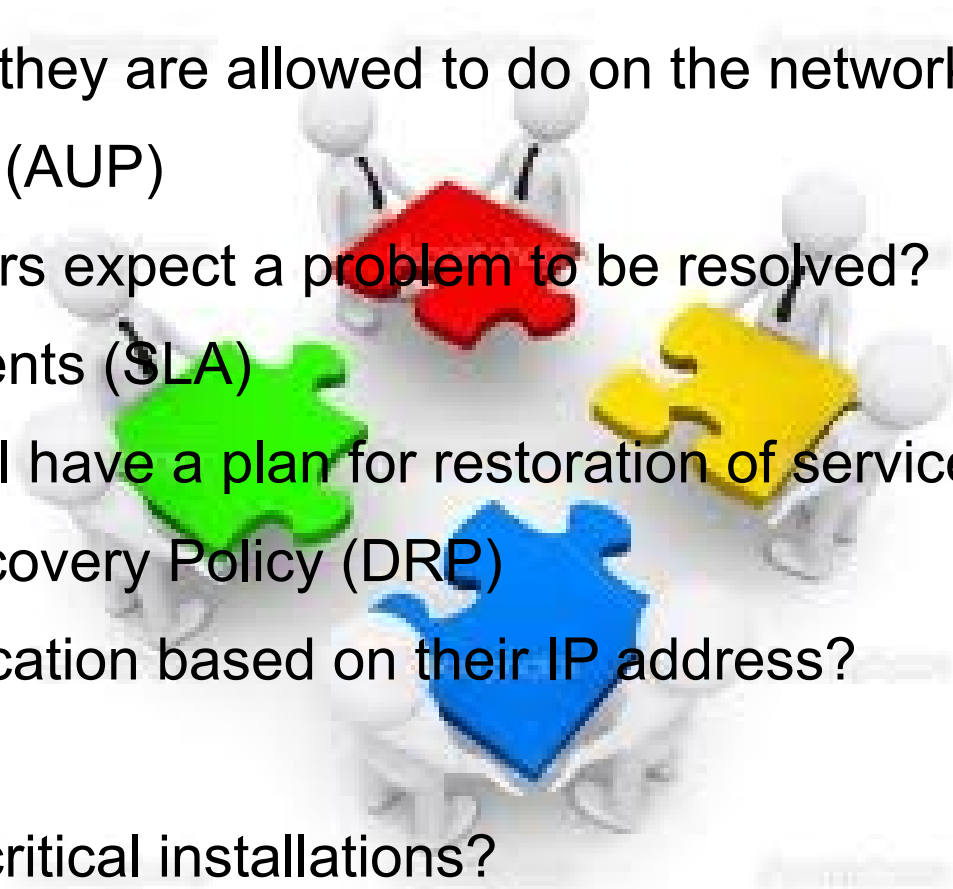
The Building Blocks Contd...

- Network Monitoring & Optimization
 - How many users connect to my network at any time?
 - How much LAN traffic is on my network?
 - Which departments/buildings are the heaviest users?
 - How fast can I identify a service deterioration?
 - Which are the top visited websites (by volume) per day?
 - How much Internet capacity do I have?
 - How much Internet capacity is used during peak hours?



The Building Blocks Contd...

- ICT Policies
 - Do my users know what they are allowed to do on the network?
 - Acceptable Use Policy (AUP)
 - How long should my users expect a problem to be resolved?
 - Service Level Agreements (SLA)
 - In case of a disaster, do I have a plan for restoration of services?
 - Backup & Disaster Recovery Policy (DRP)
 - Can I identify a user's location based on their IP address?
 - IP Addressing Policy
 - Who is allowed into my critical installations?
 - Network & Physical Security Policy



The Building Blocks Contd...

- Network Documentation
 - Do I know what is on my network?
 - Can I identify offenders in my network?
 - Do I know how many public IPs I have and percentage utilisation?
 - If I am on leave, can my colleagues manage the network without calling me?



