



Outline

- Centre de Calcul El Khawarizmi
- Where are we today?
- Where are we heading?

Centre de Calcul El-Khawarizmi



Since 1976, serving the Tunisian Higher Education and Scientific Research



Centre de Calcul El-Khawarizmi

- Created in 1976
- The first 20 years, provided computing services for the research and education communities
- Since 1997, the official Internet Service provider for the research and education communities (www.cck.rnu.tn)



CCK as an ISP

- NREN management (core and access equipments)
- Applications Service Provider
- Internet Services
- Security services
- Consulting and advisory role services
- Training
- Observatory role of technological and scientific development in IT in the academic field

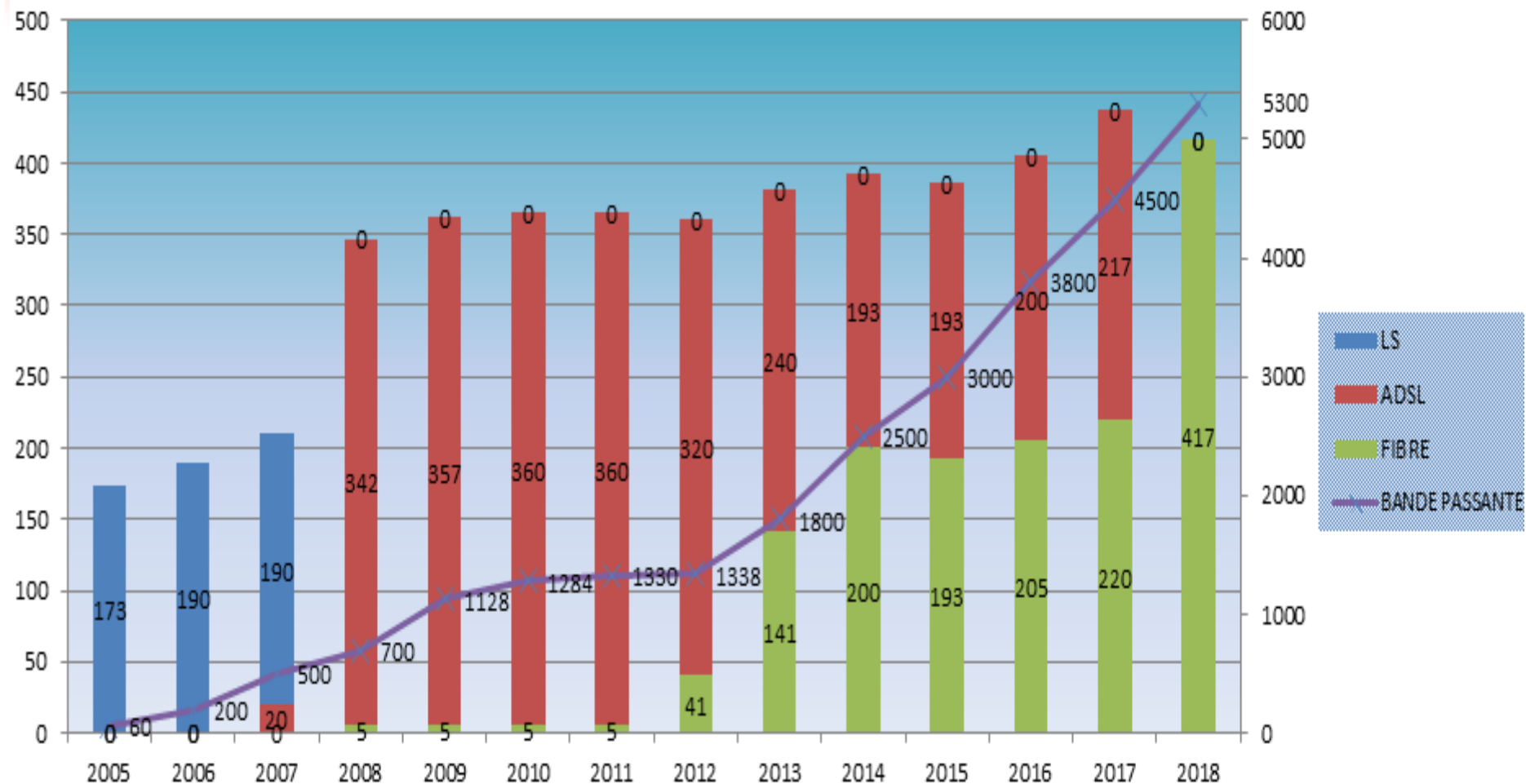


مركز الحساب الخوارزمي

Centre de Calcul El-Khawarizmi

Where are we today?

Network infrastructure and bandwidth 2005 - 2018

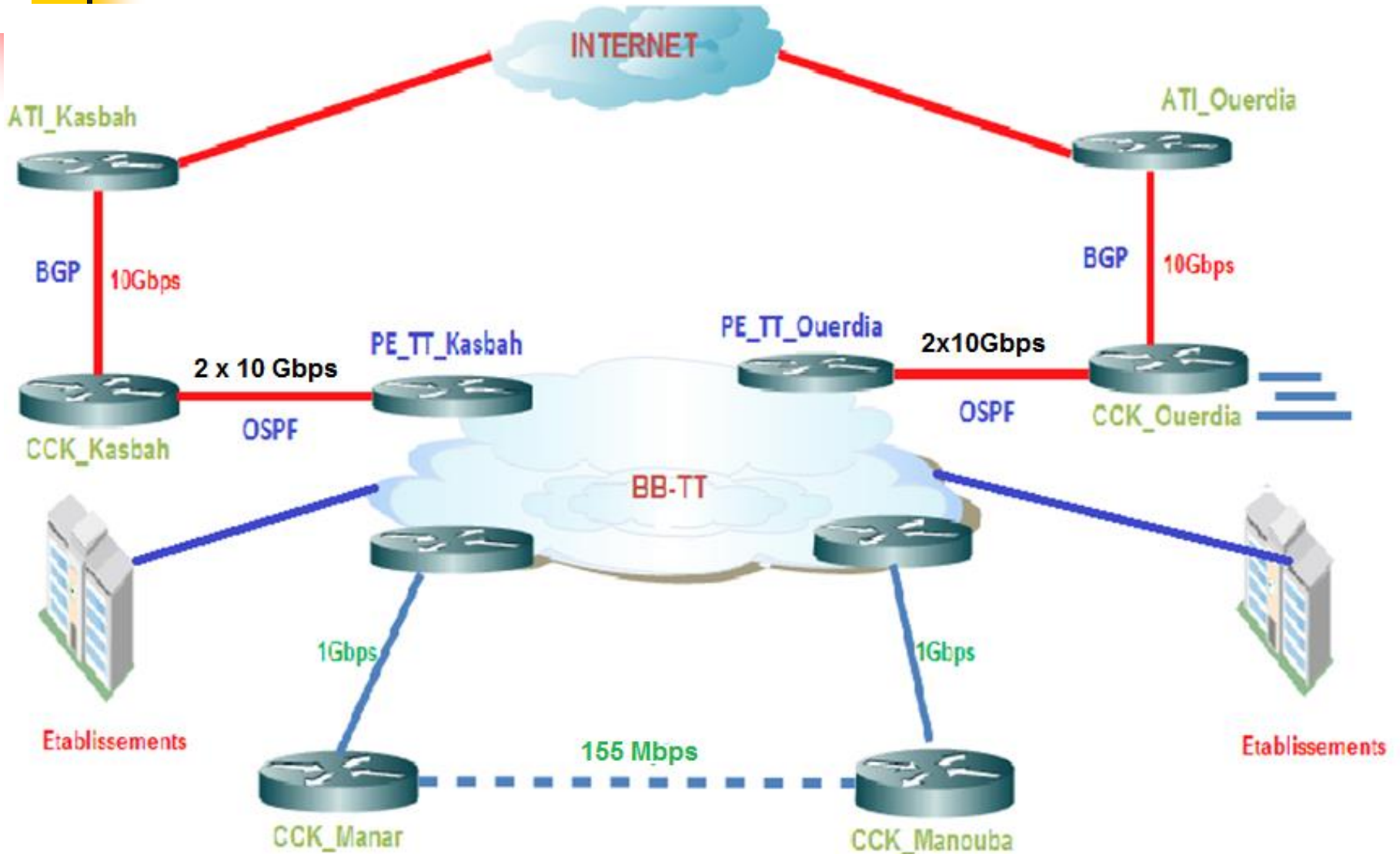




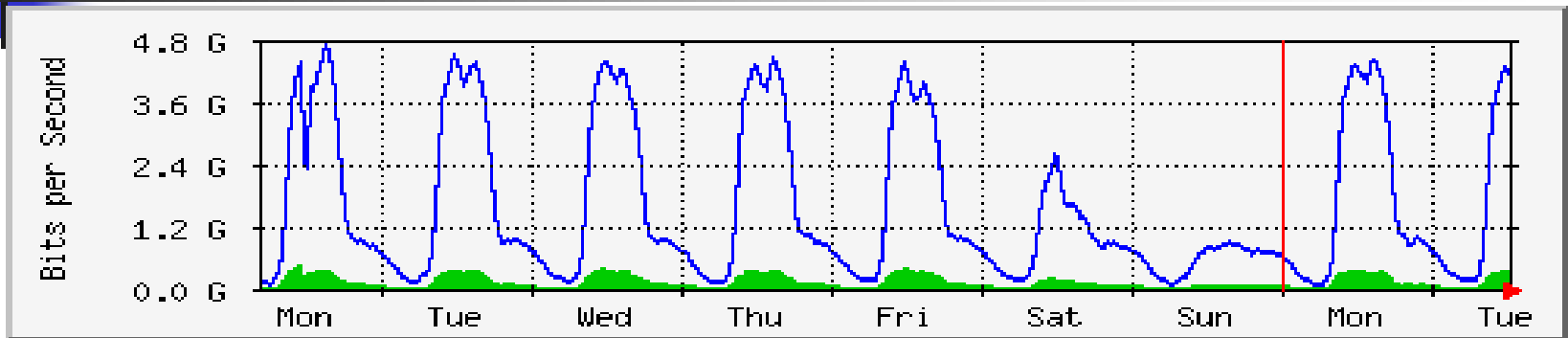
RNU: The Tunisian NREN

- 2x10 Gbps between main backbone PoPs
- All HER institutions & centers, university dorms and restaurants are connected with Fiber optic links (over 430 sites)
- Nearly 7 Gbps of total access capacities

Réseau National Universitaire



International Traffic – measured at ATI-NOC

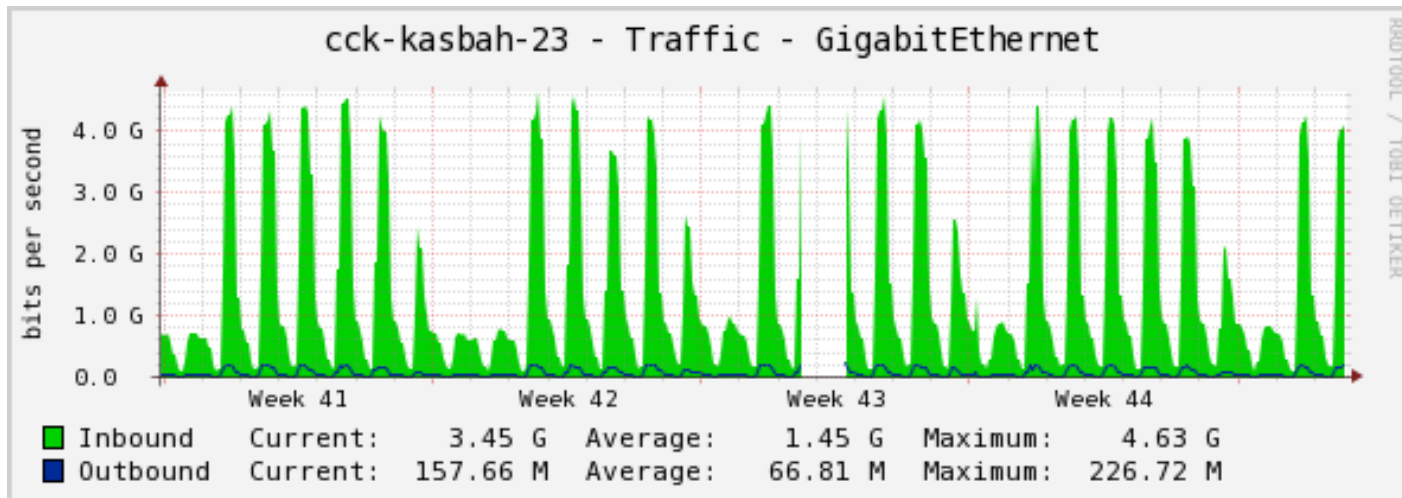
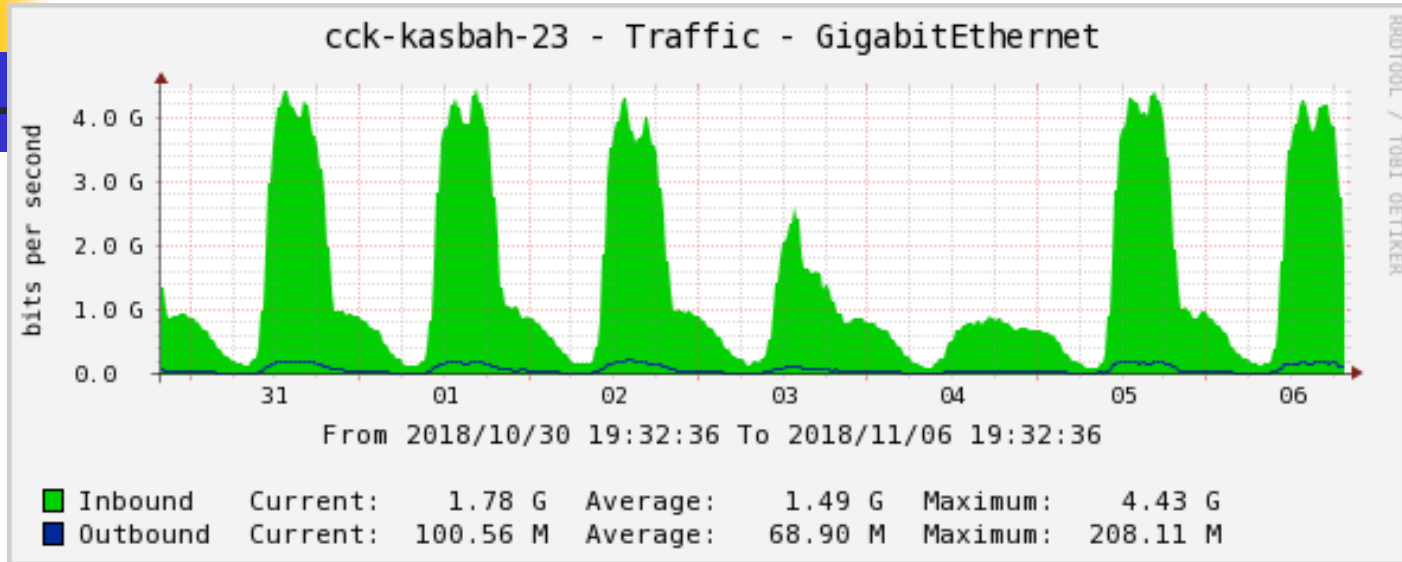


Mon 29/10/2018 – Tue 06/11/2018 : 4.8 Gbps

> 3 Gbps in November 2015

> 4 Gbps in November 2016

International Traffic - measured at CCK-NOC





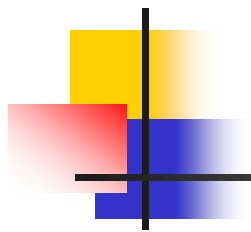
Hardware Resources (computing and storage)

- Servers:
 - Over 100 racked servers
 - (2 Quad-core proc/server)
- Storage:
 - Over 100 Tera Bytes



Services

- RNU Management
- Web hosting: several hundreds web portals
- Zimbra email and collaboration platform
- SMS services (High school graduates and students)
- Antivirus/VPN/Firewall/Access control
- User Technical Assistance
- Applications services
 - E-registration (www.inscription.tn), Orientation (www.orientation.tn), Salima (www.salima.rnu.tn), e-library (www.biruni.tn), BEST (www.best.rnu.tn),
 - Entrance to Engineering schools (www.cningénieur.rnu.tn), ONOU (www.ooun.rnu.tn; www.oouc.rnu.tn; www.oous.rnu.tn)



Where are we heading?



Vision

- Make the Tunisian NREN, a global platform providing IT services, supporting the productivity and efficiency of the academic community, facilitating collaborations and enabling increased innovation



New Datacenter

- Migrate to a new datacenter providing an Infrastructure of the 3rd platform type
 - Making use of agile technologies (virtualization, cloud)
 - Adapted to cloud provisioning, mobility, social networks, and Big Data



New Datacenter





Other projects

- Africa Connect 2 Project
 - Deployment of 1 Gbps virtual circuit to GEANT
- Regular organization of seminars and training workshops
- Progressive Deployment of IPv6
- Start establishing structured campus networks at the various university campuses with WiFi outdoor coverage
- HPC project
 - Over 100 Tera flops
 - First half of 2019



HPC Center



Questions

