Site report for KFKI RMKI

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http://www.rmki.kfki.hu/

General Information

- **Hungary** is a member state of CERN since **1992**

- **A**ctivities related to CERN are coordinated by the **Hungarian CERN Committee**

- **No HEP** coordinating body within **Hungary**

- **T**here are **Hungarian representatives** in
  - **ECFA**
  - **HTASC**
    - Network Monitoring panel
    - Security panel
  - **ICFA - NTF Monitoring WG**

General (2): Activities in Particle Physics

- **Experimental Particle Physics**
  - **LEP: L3, Opal**
  - **LHC: ALICE, CMS**
  - **SPS: Na49, Asacusa**
  - *Crystal Barrell, FNAL E665*
- **Other Activities**
  - Detector Building
  - Geant4 Project
  - Theoretical and Phenomenological Studies
    - *Heavy Ion, Elementary Particle Physics ...*

General (3): Sites involved in HEP

- **KFKI RMKI, Budapest**

  KFKI Research Institute for Particle and Nuclear Physics

- **ATOMKI, Debrecen**

  Institute of Nuclear Physics

- **MTA- ITA - LAI, Budapest**

  Laboratory Automation Department of the Foundation for Information Technology Sciences

- **ELTE** Eötvös Loránd University, **Budapest**
- **BME** Technical University, **Budapest**
- **KLTE** Kossuth Lajos University, **Debrecen**

~120 researchers - physicists, engineers, computer people

KFKI RMKI

- **The KFKI Research Institute for Particle and Nuclear Physics** is placed on **KFKI campus** together with

  - KFKI Atomic Energy Research Institute
  - Research Institute for Technical Physics and Material Sciences
  - Research Institute for Solid State Physics and Optics
  - Other organizations

KFKI Campus (1)

Satelliteshot
1:15000

KFKI Campus (2)

Research Activities at RMKI

- **Particle and Heavy Ion Physics**
- **Theoretical Physics**
- **Material Sciences**
- **Space Physics**
- **Plasma Physics**
- **Biophysics**

Staff: about 200 people,

130 researchers   (~ 40 HEP experiments)

Larger Experimental Facilities

- **EG-2 Van de Graaff type particle accelerator**

- **Heavy Ion cascade generator**

RMKI offers measuring possibilities and services for analytical purposes in different field

Computing at RMKI

- **About 280 computers**
  - 32 WS (SGI, SUN, HP, IBM, DEC alpha)
  - 250 PCs with different Operating Systems
    - Linux (~ 60 PC)
    - Windows (Win3.11, Win95/98, WinNT)
  - Desktop groups, Workgroup servers
  - Individual PCs

  Managed by the different research groups

HEP related Program systems

- **In CERN and at HOME**
  - CERNLIB
  - ASIS
  - Geant
  - Rational Rose, ObjecTime
- **Only in CERN**
  - Frame Maker
  - NICE (only MS office)

Central Supported Services (1)

- Unix/Linux based batch servers
- Networking (*Nameserver, Mailserver*)
- Dial Up service
- Information Service (Web)
- Videoconference *(Netmeeting, VRVS helpdesk)*
- Administrative Database

Central Supported Services (2)
Batch Servers

- 2 SGI farms
  - Indigo
  - Indy's
- Dual processor Pentium Pro PC farm
  - Linux

CERNLIB, Mathematica, IDL, PAW

Central Supported Services (3) Administrative Database

☐ NT server based domain model with different clients (DOS, Winx, WinNT)

☐ Applications
  – Finances
  – Human Resources
  – Inventory
  – Travel

Central Supported Services (4) MAIL Service

- **Central Mail Server with**
  - SMTP
  - IMAP
  - POP3
- **Clients**
  - Pine, Netscape (*Unix, Linux*)
  - PCPine, Netscape, Eudora, MS Mail (*Windows*)
- **Mail address at RMKI**

    Firstname.Familyname@rmki.kfki.hu
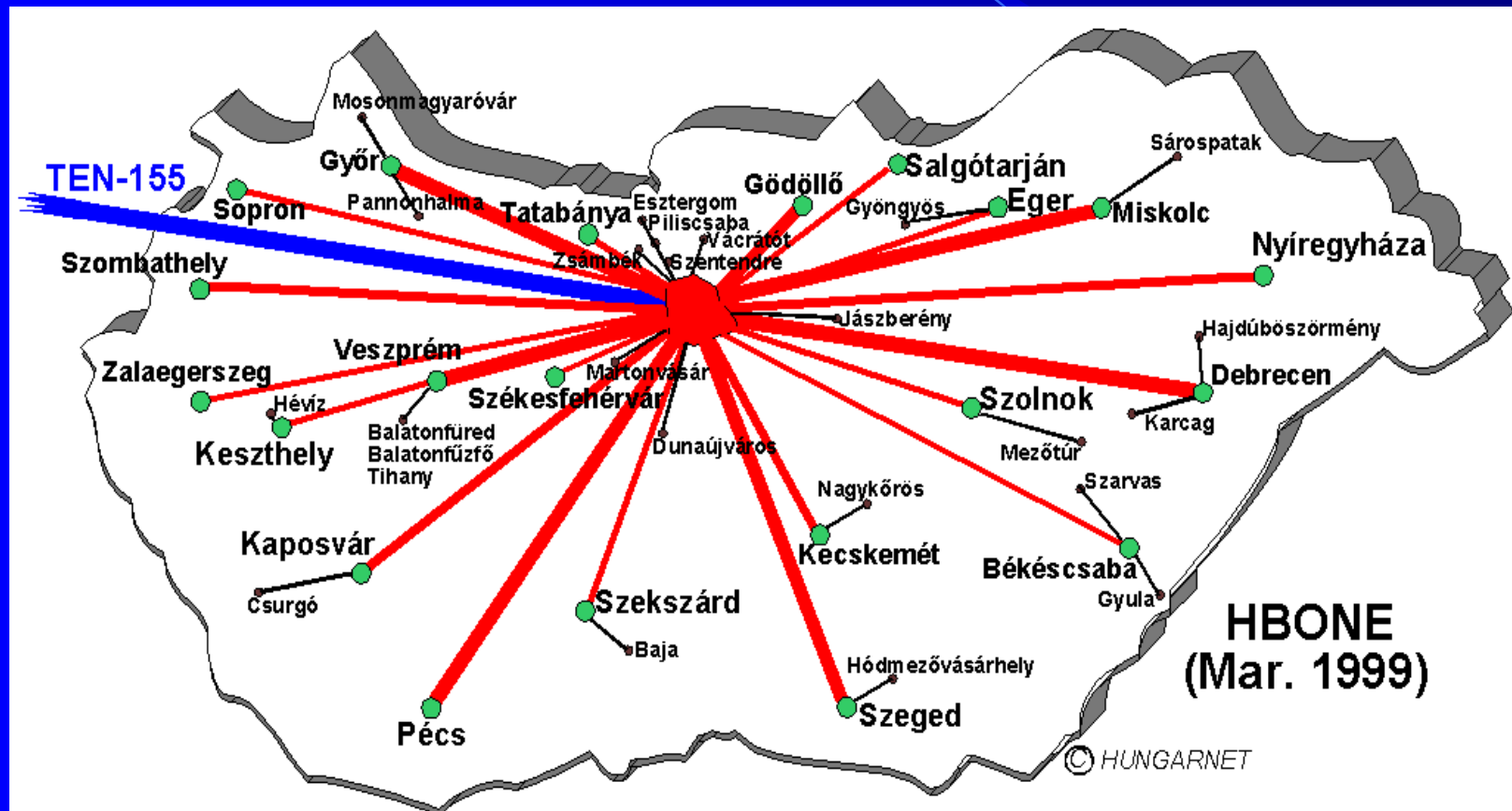
    userid@rmki.kfki.hu

KFKI RMKI

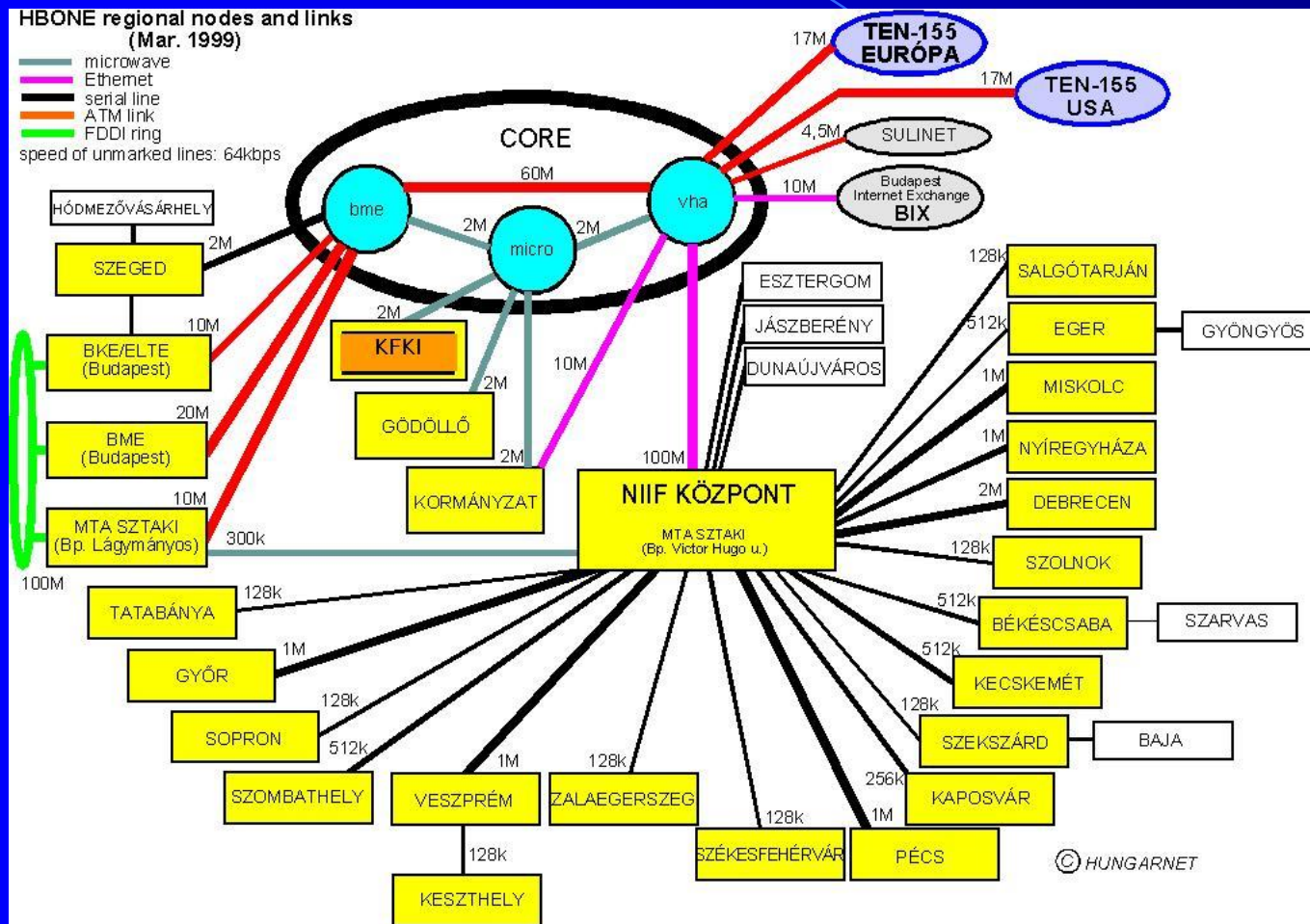# Central Supported Services (5) Networking

- **RMKI LAN: about 280 nodes**
  - 32 WS (SGI, SUN, HP, IBM, DEC alpha)
  - 250 PCs
- **100 Mbps optical backbone**
  - 35 Ethernet (10 Mbps) segments
  - 100 Mbps ports > 80 (+ 14 opto ports)
- **Wide area connection** *via the central router*

External Networking
HBONE geographical topology

HBONE
(Mar. 1999)

© HUNGARNET

HBONE regional nodes

HBONE regional nodes and links (Mar. 1999)

Campus wide Services provided by CNC

- Campus network
- External Networking
- Server Computers
- Mailing list
- Campus Library (OPAC)
- Campus wide Information Services
- User Support