

Current Status for Establishing National R&E Network in Myanmar and Connection to TEIN4

Presented by

Zaw Win Aung
Lecturer

University of Computer Studies, Yangon
Ministry of Science and Technology

November 26, 2013

Geographical Information

Total land area	- 261,228 sq miles (676,578 km ²)
Population	- Over 60 millions
Capital	- Nay Pyi Taw
International Network Connections	<ul style="list-style-type: none">- SEA-ME-WE-3 submarine fiber optic cable- Cross-border fiber links with China, India and Thailand- 2 international satellite earth stations (connected to Thai-com satellite)

ICT Education in Myanmar

- Under Ministry of Education
 - University of Computer Center (UCC) in 1971
 - Institute of Computer Science & Technology (ICST) in 1986
 - Start to offer undergraduate degree program
- Under Ministry of Science & Technology
 - University of Computer Studies, Yangon (UCSY) in 1998
Since 2000,
 - 25 University of Computer Studies
 - 36 Technological Universities

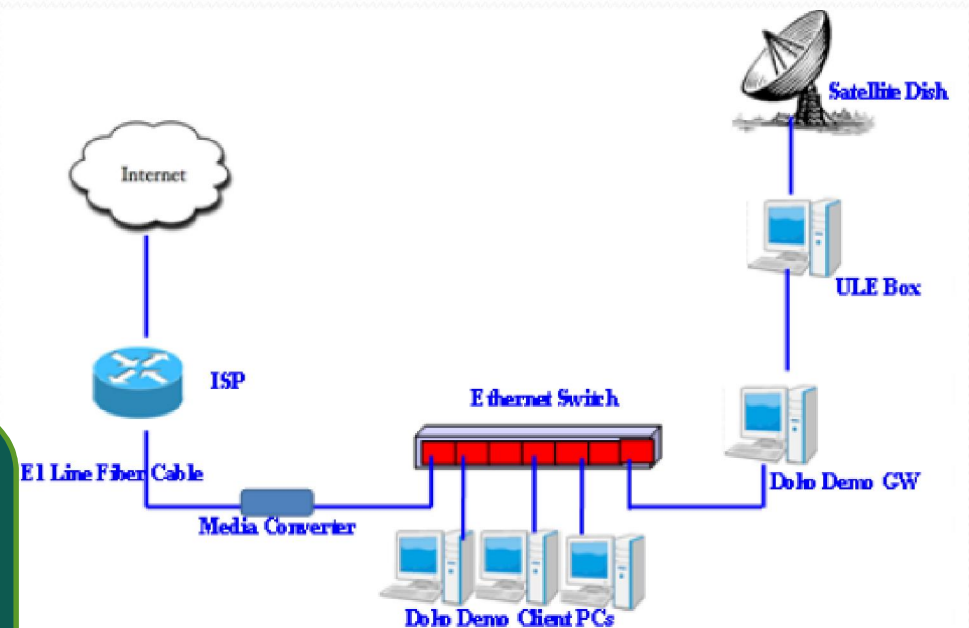
Experience

UCSY & SOI Asia

- In 2001, AI3/SOI membership in **SOI-Asia** R&D network



- Use 2Mbps Fibre Line from MPT
- Use **Streaming server** to transmit the lecture and streaming media player to receive the lecture



UCSY & SOI Asia (Cont'd)

- SOI meeting at UCSY in 2011.
- In addition, UCSY participated the project called "**One Day in Asia**" which was held on November 1, 2012 by collaborating UNESCO with School on Internet (SOI Asia), and other National Research and Education Network in Asia countries.
- SOI meeting at UCSM in 2013 October.

CONNECT-Asia Presents:



United Nations
Educational, Scientific and
Cultural Organization



ODIA Features:

- Pakistan
- Patan Durbar Square (Nepal)
- Shwedagon Pagoda (Myanmar)
- Angklung (Indonesia)
- Melaka & George Town (Malaysia)
- Kamakura (Japan)
- Uam Historical Park (South Korea)
- Sydney Opera House (Australia)

Thursday, 01 November 2012
14:00 -16:00 Jakarta Time (GMT+7)





Experience (Cont'd)

- In 2005, Set up the Internet Access in 23 Computer Universities around Myanmar using iPStar Broadband Satellite (V-SAT)
- Established e-learning system among Computer Universities
- Nowadays, e-learning system is not carried out because of slow connection



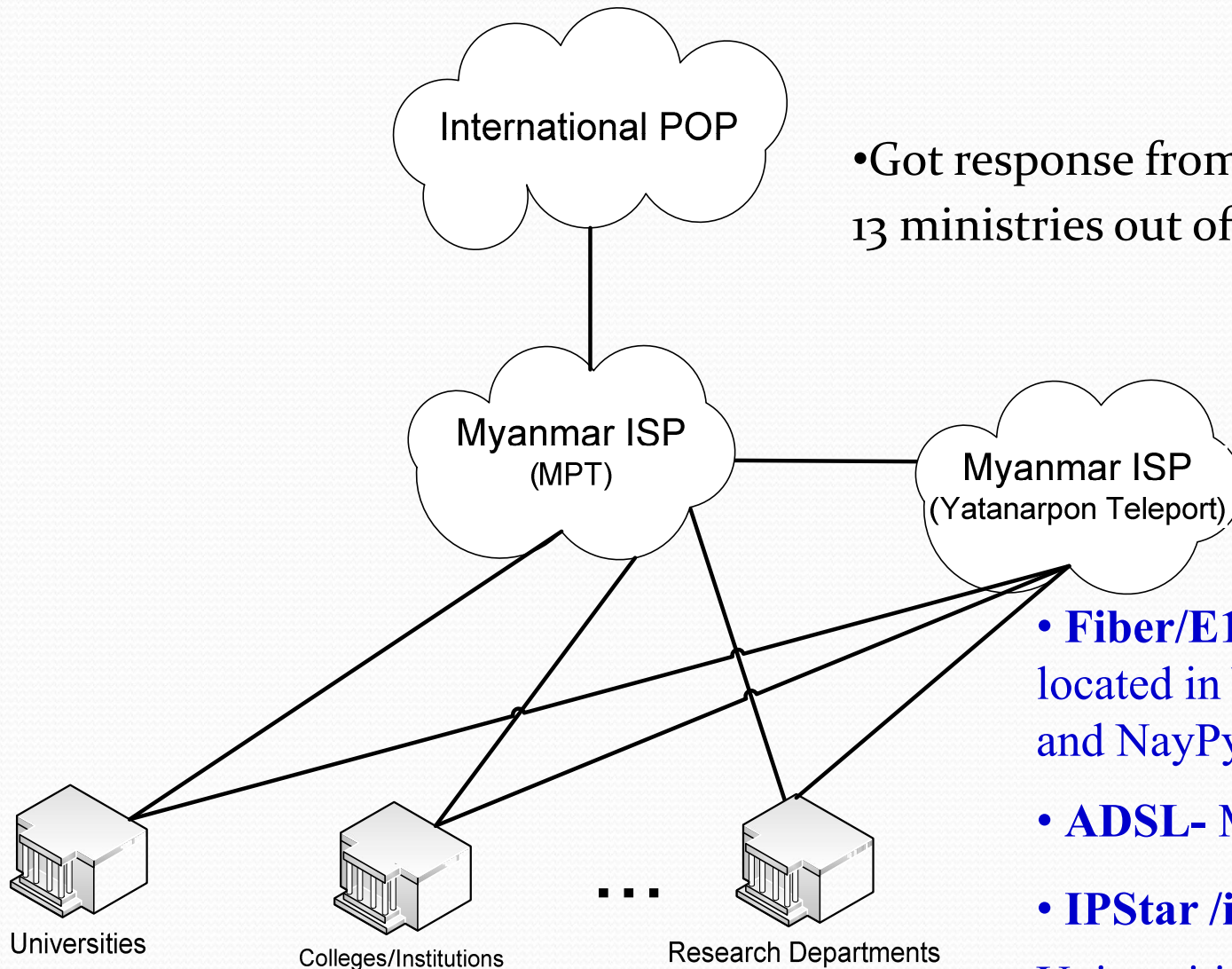
Planning REN

- 164 Universities under 17 separated ministries
- Under Ministry of Science & Technology,
 - 25 University of Computer Studies
 - 36 Technological Universities
- Most universities have LAN. But most campuses' LANs are not well designed.
- No dedicated Myanmar Research and Education Network



TEIN Connectivity from Myanmar

Analyzing National Network Infrastructure

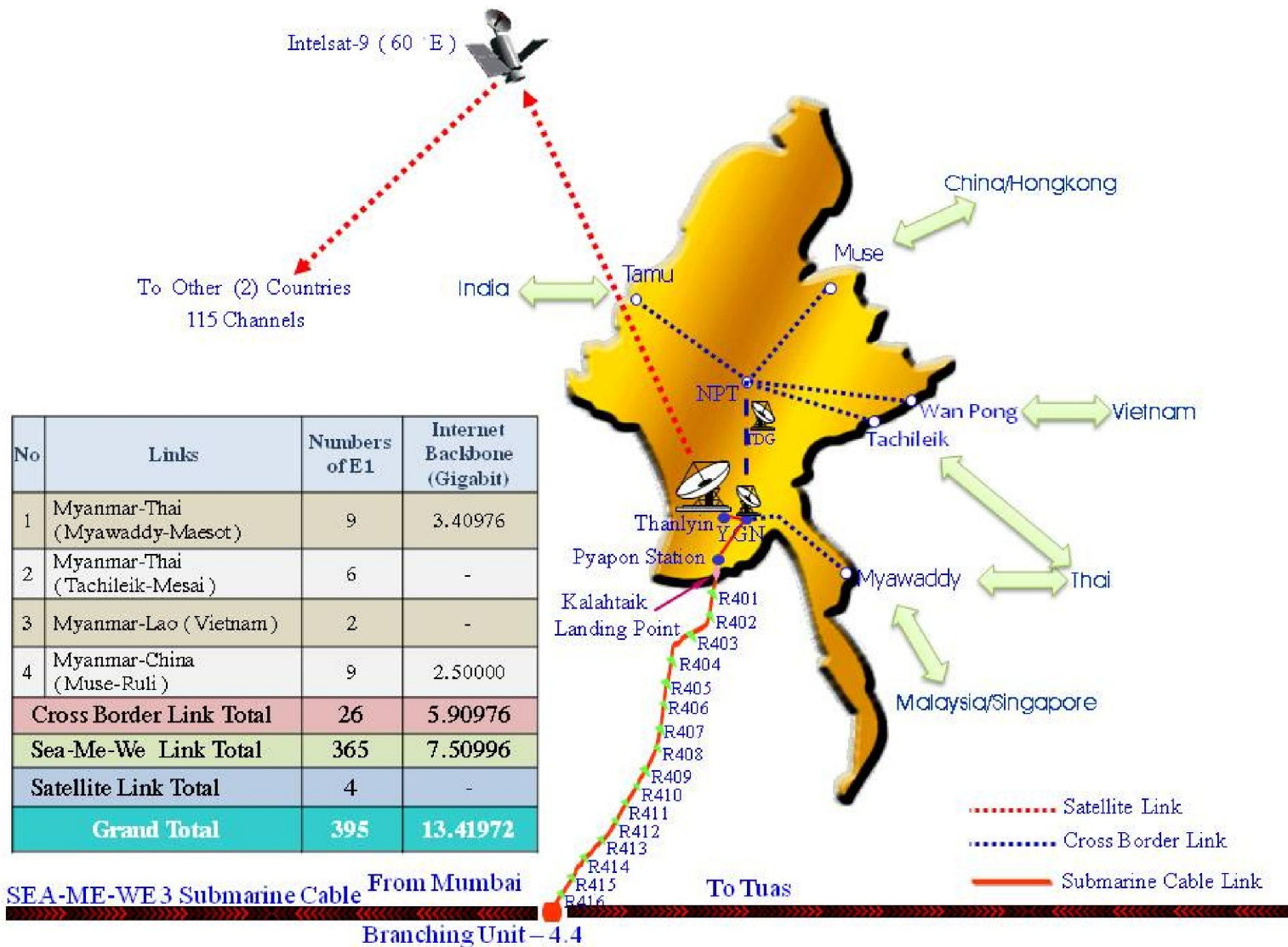


• Got response from 60 Organizations of 13 ministries out of 17

- **Fiber/E1** - Some Universities located in Yangon, Mandalay and NayPyiTaw,
- **ADSL**- Most Universities
- **IPStar /iDirect System** - Universities located in cities

Understanding International Backbone

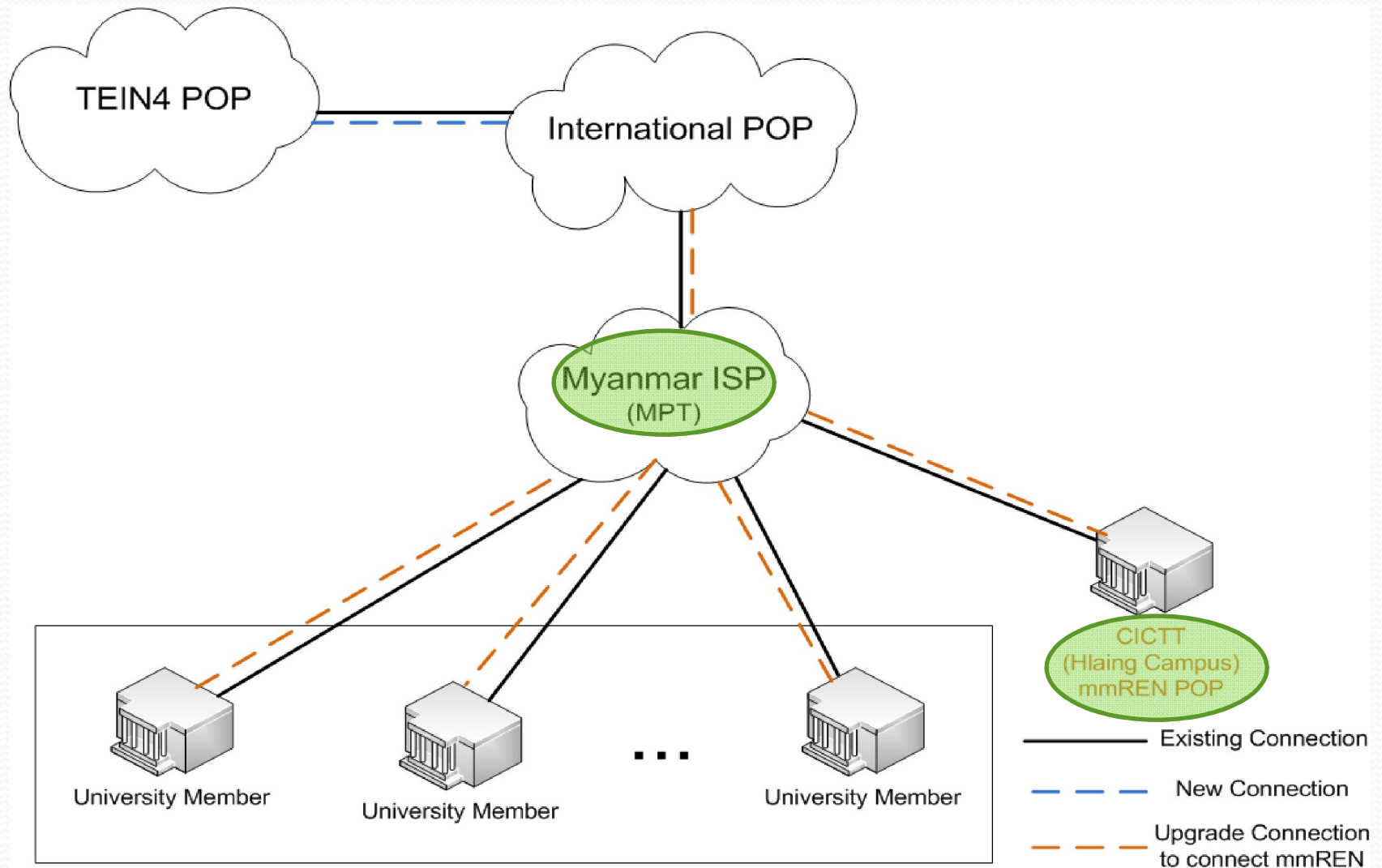
Link Diagram of International Communication System



Understanding International Backbone



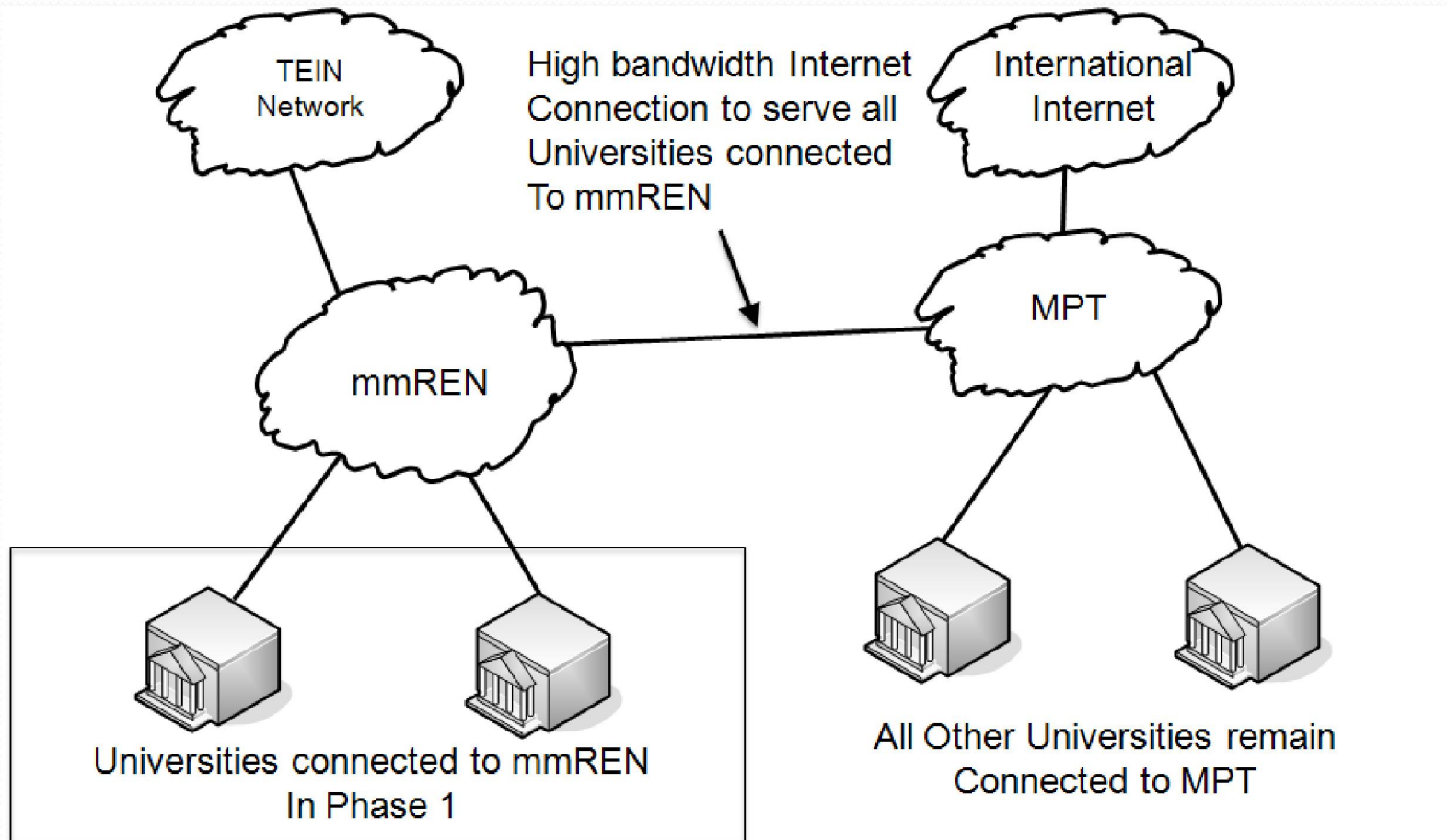
Proposed Myanmar REN to be connected TEIN4



Current Status Summary

- Have agreement for establishing Myanmar National REN between MCIT and MOST
- Possible routes connection to TEIN 4 - **TBD**
- Technical Assistance for well-designed for Myanmar National REN and connection to TEIN₄
- Cost Estimation – still negotiation with MCIT
 - Need some suggestions from consultants/experts

Network Design Overview in First Phase

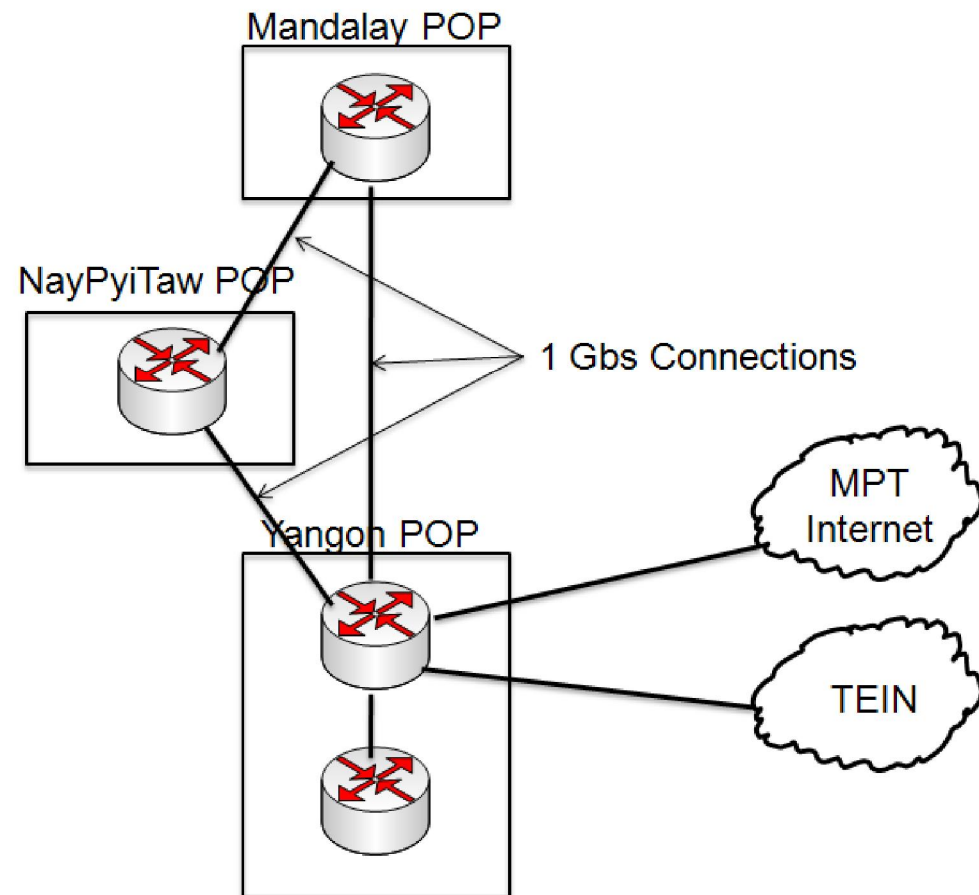


Proposed High Level Network Design

4 Universities
at Mandalay POP

3 Universities
at Naypyidaw POP

7 Universities and
1 Training Centre
at Yangon POP



Network Design by Mr. Dale Smith, International Networking Coordinator NSRC



Issues

- Technical difficulties with internal network system of each research organization and other Universities
- Cooperation between Universities, colleges and institutes from different Ministries including MCIT



Thank you for your attention!