NREN update

NREN: mmREN
Country: The Union of Myanmar
Presenter: Dr. Mie Mie Thet Thwin

The 6th Asi@Connect Project Meeting, 22 July 2019
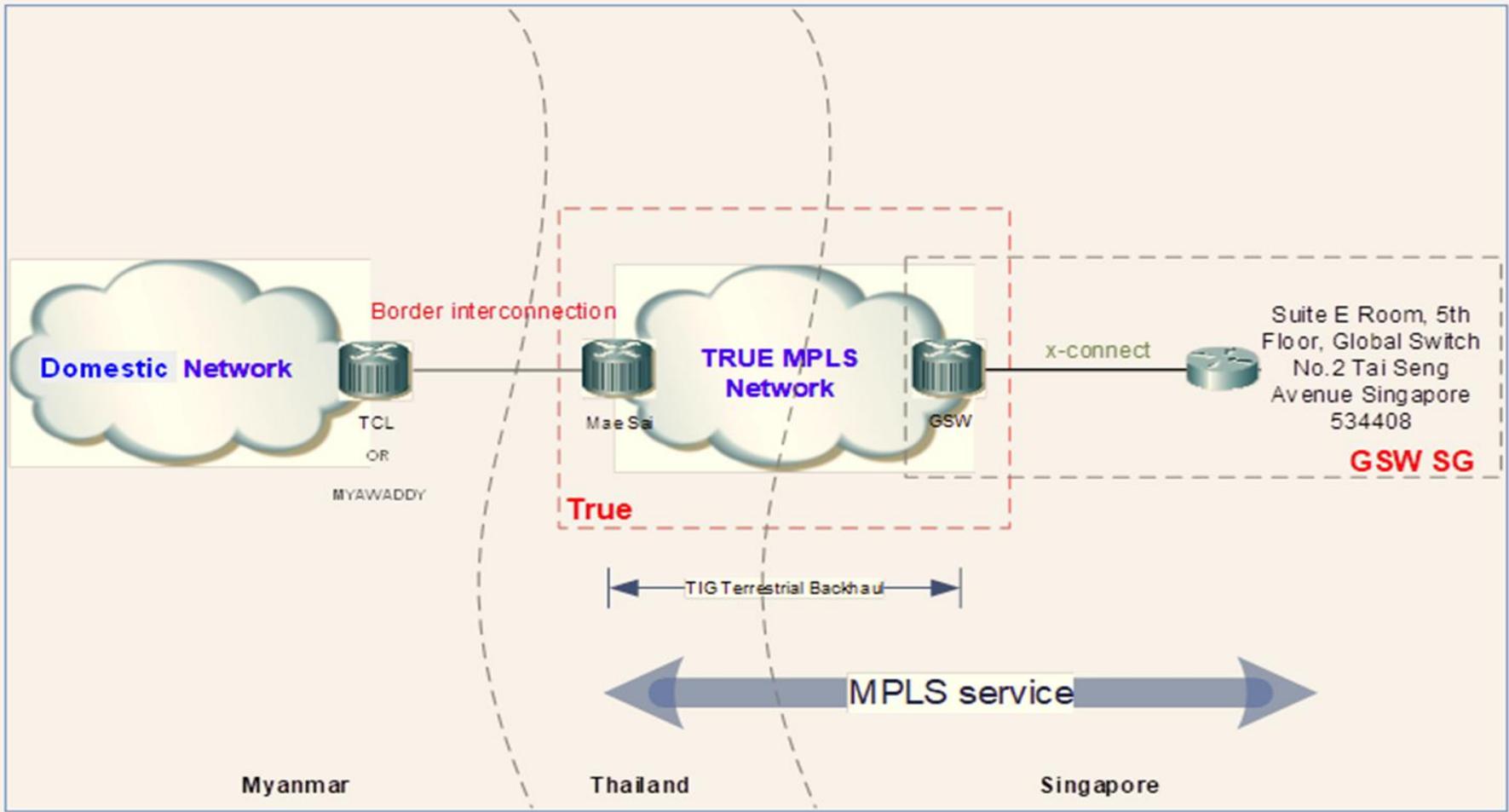White House, Universiti Putra Malaysia

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Organization

❖ NREN : Myanmar Research and Education Network (mmREN)

❖ Number of member institutions(connected to mmREN) : 4

  ❖ University of Computer Studies, Yangon

  ❖ University of Computer Studies, Mandalay

  ❖ Two campuses of University of Medicine

❖ Number of member institutions(agreed to join mmREN) : 163

❖ The mmREN has connected the TEIN in December 2018.

Network update

❖ Network connection (International) : At present the Physical Link of 45 Mbps is connected to TEIN SG PoP through IPLC connection.

❖ Updated Information: Autonomous System number and IPv4 block of addresses provided from APNIC are now applied in Border Gateway Protocol (BGP) for connection with Singapore PoP.

❖ Autonomous System Number of mmREN (ASN 138933)

❖ IPv4 Block of address of mmREN (103.137.86.1/24)
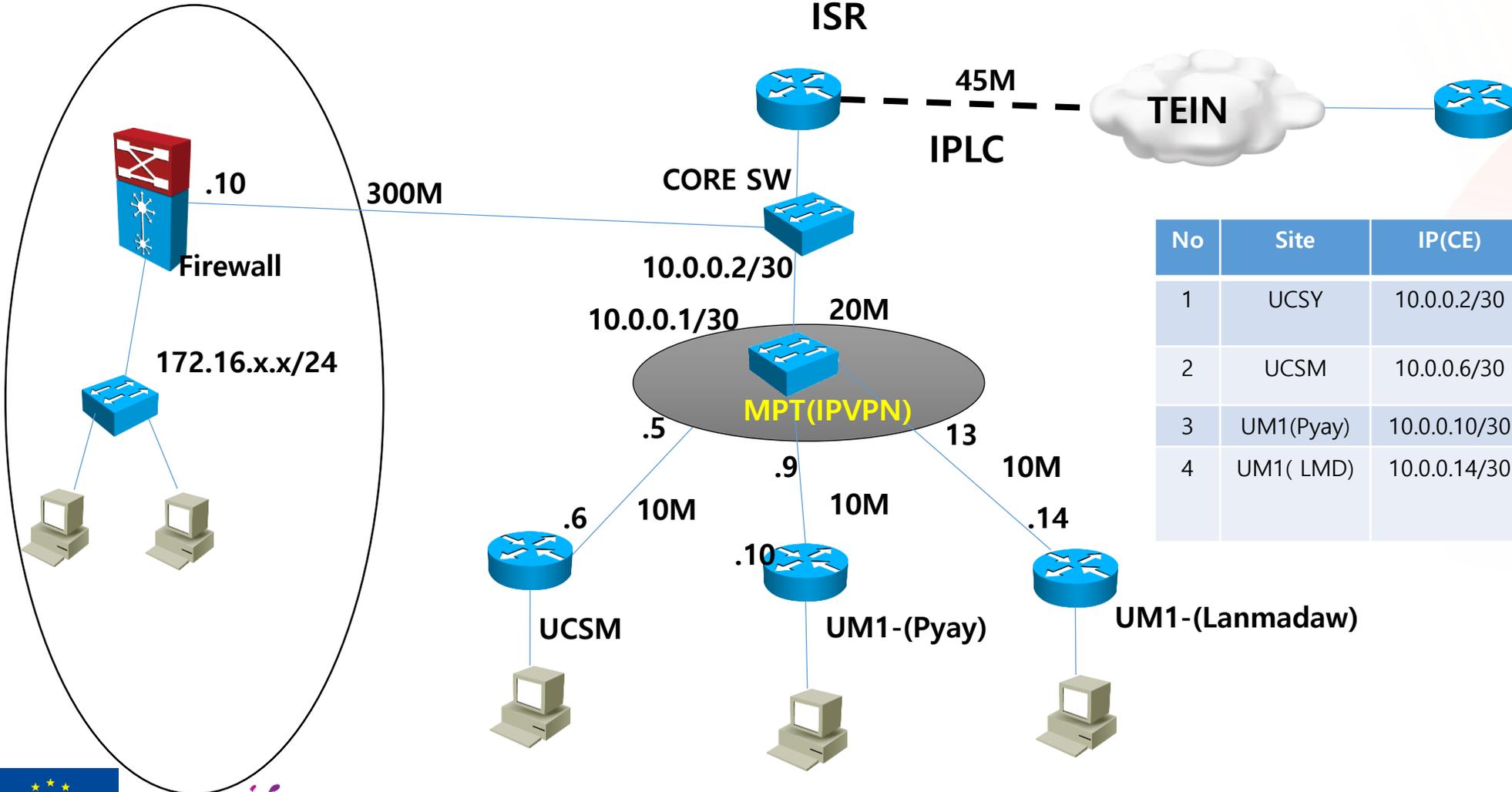
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Interconnection between mmREN & SG TEIN PoP

Network update (Cont)

❖ Network connection (National) : Universities are connected to UCSY through VPN connection provided from ISP.

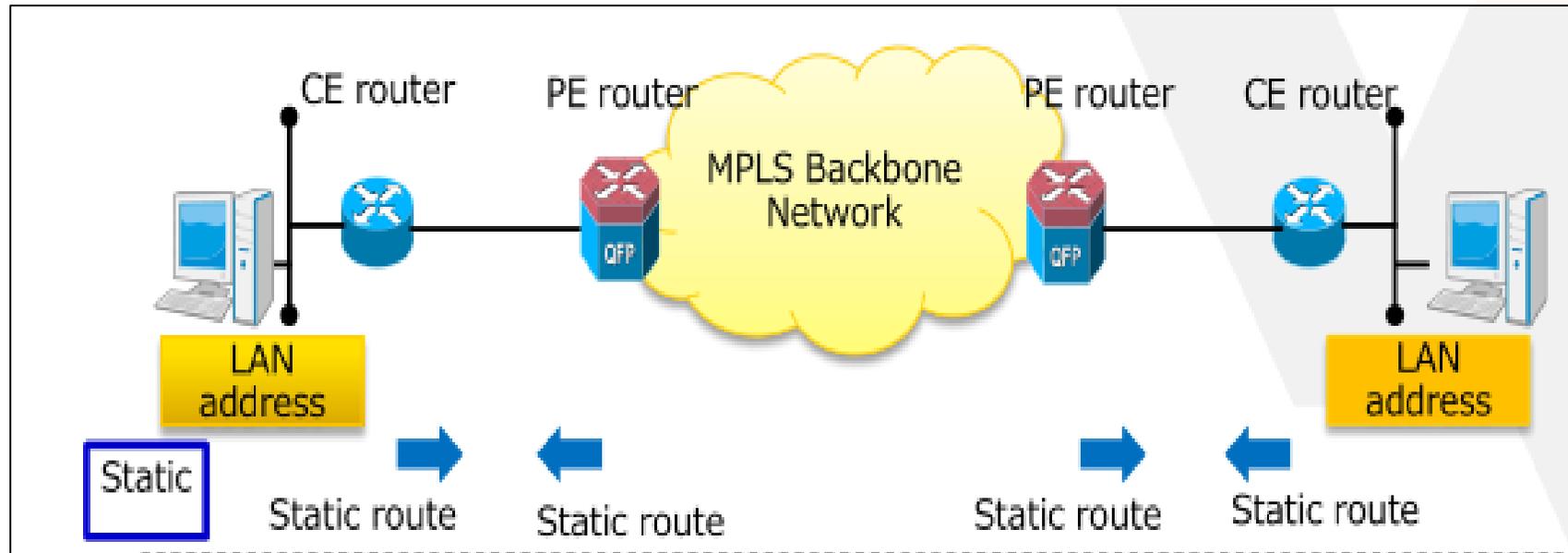❖ The BW applied for the connection is 10 Mbps for UCSM & UM and 20 Mbps for UCSY to IPVPN network.

Network update (Cont)

No	Site	IP(CE)	IP (PE)	BGP AS
1	UCSY	10.0.0.2/30	10.0.0.1/30	AS138933 103.137.86.0/24
2	UCSM	10.0.0.6/30	10.0.0.5/30	
3	UM1(Pyay)	10.0.0.10/30	10.0.0.9/30	172.16.1.1/24
4	UM1(LMD)	10.0.0.14/30	10.0.0.13/30	10.0.160.0/21 10.0.144.0/21 10.1.0.0/21

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Network update (Cont)

❖ IPVPN connection through ISP MPLS Network

Road Map of mmREN Implementation for Universities

❖ The MOE is also proposing to partner with the Ministry of Transport and Comm unication to establish national REN that will link all universities in Myanmar.

Phases	Universities	Number of Universities	When
Phase I	Computer/ IT Universities (27) Technological Universities (Yangon) (4) University of Medicine I ICT Research Centre	33	2019-2020
Phase II	Medical Universities (15) Technological Universities (31)	46	2020-2021
Phase III	Art & Science Universities (40) Universities of Economics (8) Universities of Education (27)	75	2021-2022
Phase IV	All Other Universities	8	2022-2023

Activity update

❖ **Application activities**

➢ Apply smart X box with IPv4 address block derived from APNIC to test connection with

OF@TEIN network test bed.

❖ **Sub-granted Projects**

➢ Bridging the digital divide in Myanmar

❖ **Participate in training/workshop**

➢ Broadening Asi@Connect Knowledge on Federated Identity, Roaming and E-infrastructure (BACKFIRE)

➢ CSIRT Capacity Building in Asia

➢ Workshop on IPv6 Deployment in R&E Networks

Future Plan

❖ Project Proposal:

➢ AgPractices&Domains platform - Integrative System of Information and Modeling for Reco-

mmendations Domains of Agricultural Best Management Practices and technologies

(UNIVERSITY OF SOUTHERN QUEENSLAND)

❖ Projects:

➢ A Human Resources Development Project for Filling the Gaps of Medical Standards in

Myanmar (Kyusyu University Hospital and JTEC – Universities of Medicine and Hospitals

In Myanmar)

❖ Events:

➢ Launching event

Conclusion

❖The establishment of mmREN will complement new opp-ortunities for HR development and support the growth of national ICT infrastructure in education and research.

❖mmREN will also be very significant asset for the country and a key component to support national socio-economic development.

THANK YOU VERY MUCH