

Malaysian Research & Education Network (MYREN)

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2014 Technology Exchange
Indianapolis, IN



Agenda

- Background
- Infrastructure status
- Research Community
- Challenges

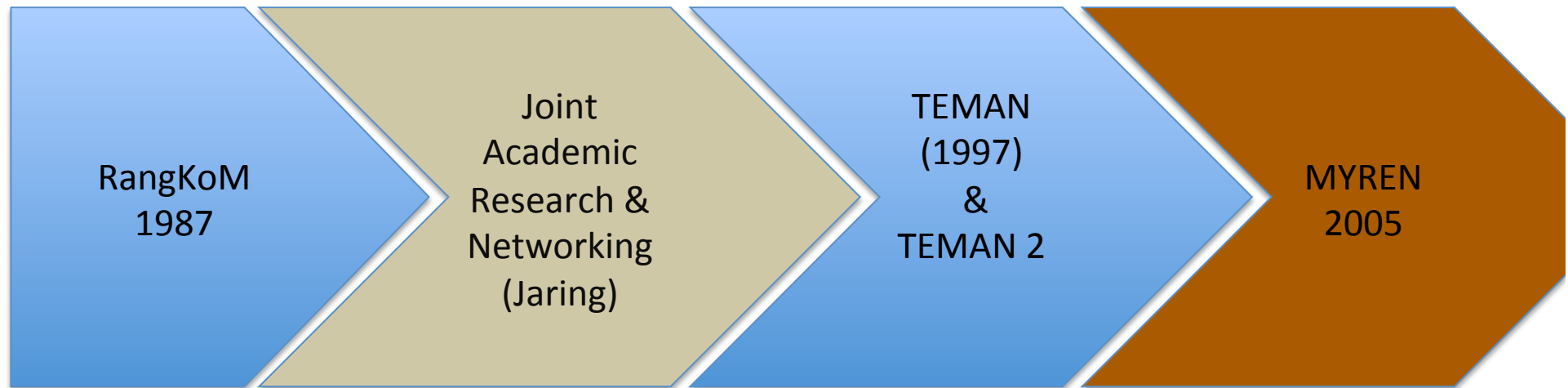
Background

MYREN is...

- officially launched in 28 March 2005
- started with 12 universities and currently have 100 universities, polytechnics, community colleges and research organisations
- provide dedicated infrastructure to research communities in the nation
- a fully funded project by government of Malaysia



Background

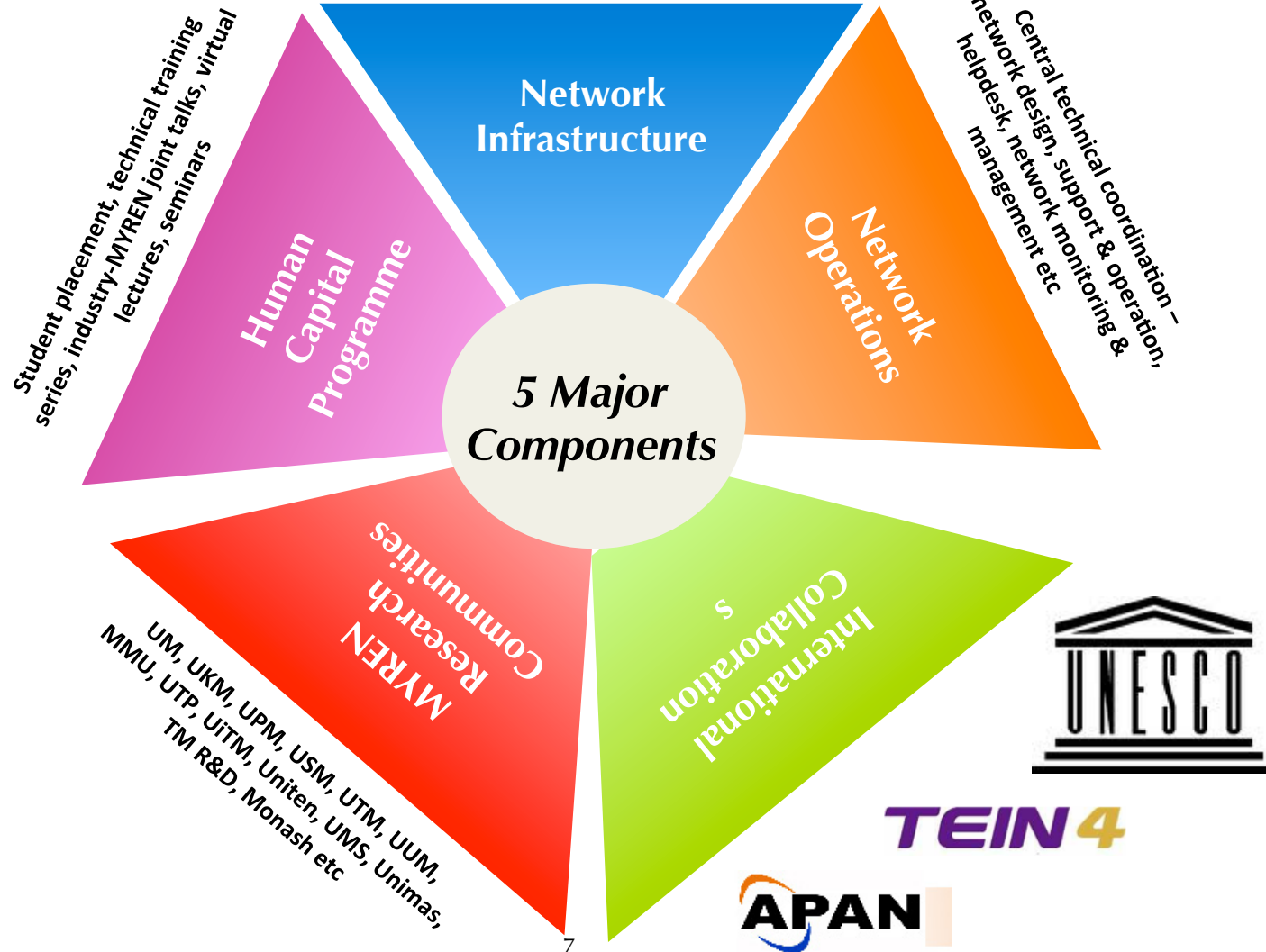


- RangKom started to enable research on VLSI design
- Later evolve as Jaring
- TEMAN connectivity using STM-1 completed in 2000
- Later TEMAN 2 evolve to become MYREN

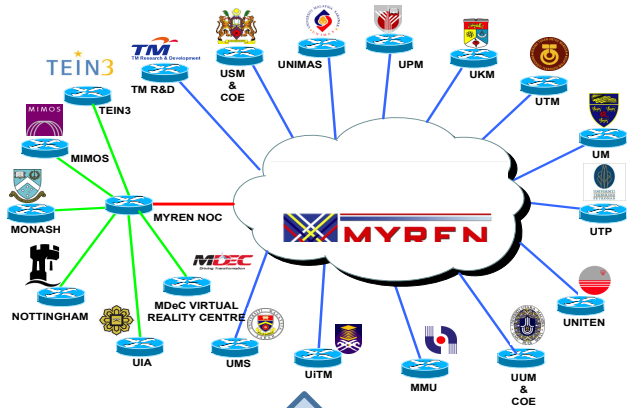
Background

Key Components

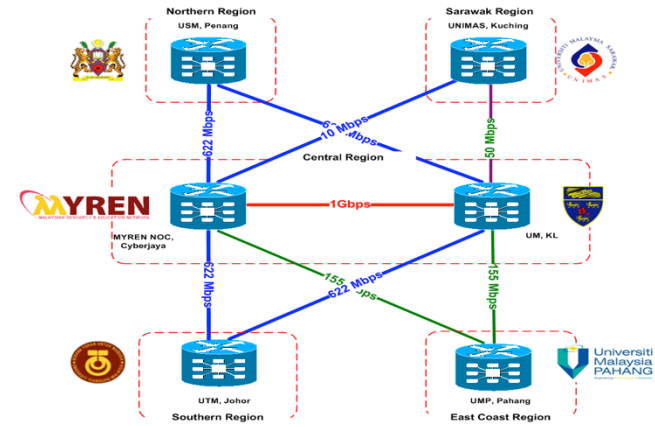
Dedicated network supporting NREN activities and collaborative research – broadband capacity, video conferencing, linkage to other NREN



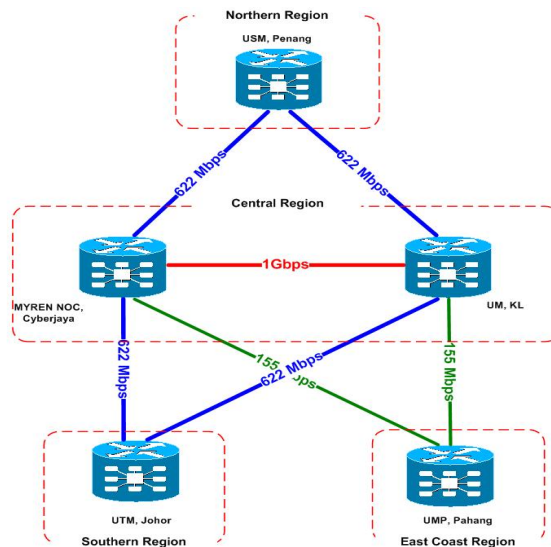
Background



- Self manage
 - 10 – 50 Mbps
 - 1 Gbps Core
 - Full IPv6
- MYREN Phase 2**
- 2009**



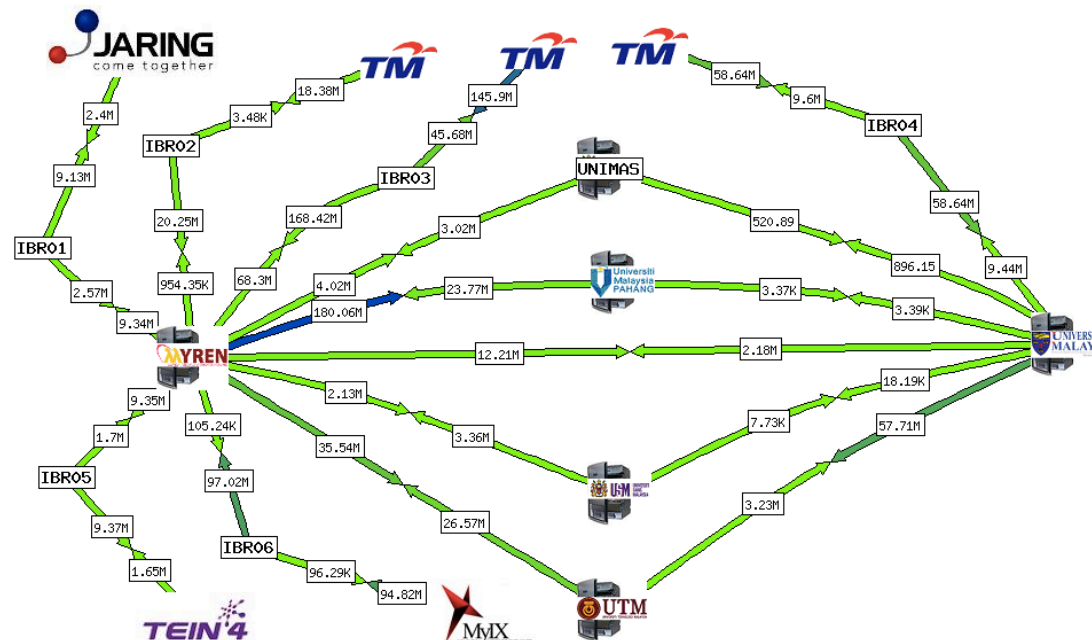
- 2005**
- MYREN Phase 1**
- Telco centric
 - 1 – 8 Mbps
 - 45 Mbps Core



- 2011**
- MYREN2**
- New PoP – Sarawak

Current Infrastructure Status

- Existing network is close to 5 years old
- STM4/ 1 Gbps combination for backbone
- Original objective was merely to cater for R&E traffic but demand for internet access is very strong
- 4 Gbps to commodity internet
- 1 Gbps to Malaysian Internet Exchange (MyIX)
- 622 Mbps for access to R&E network via TEIN4



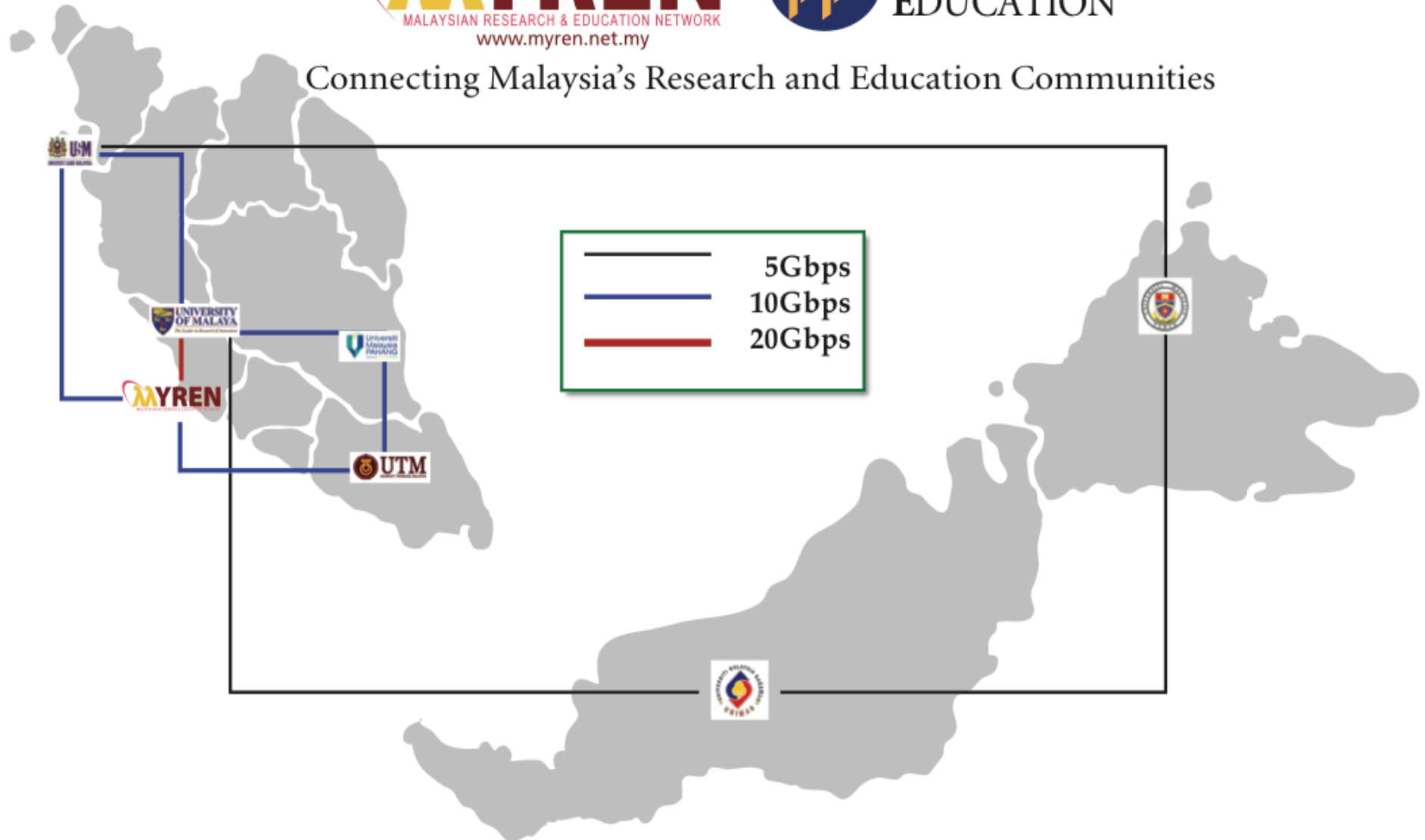
MYREN 2014 upgrade

- To expand internet service to all members
- New Teacher's Training Institute and Pre-university center are joining MYREN
- Expanding access to Borneo (East Malaysia) with new PoP at Sabah
- Bulk purchase and economy of scale via MYREN is pushing down bandwidth price (current @ USD25/Mbps/month)

2015



Connecting Malaysia's Research and Education Communities



Network Operations

Location: MYREN Operation Center, Cyberjaya



One-stop Information Centre

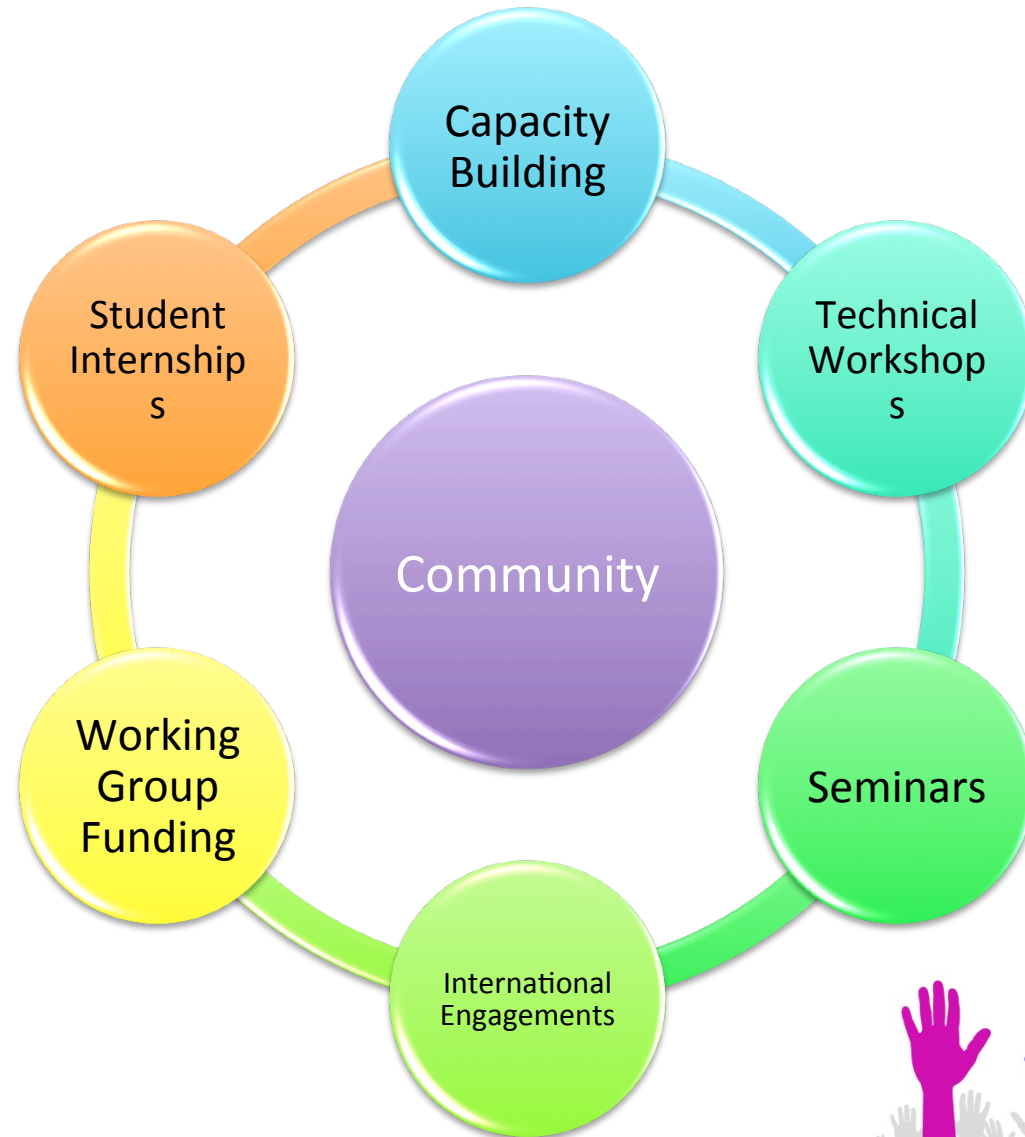
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helpdesk@myren.net.my

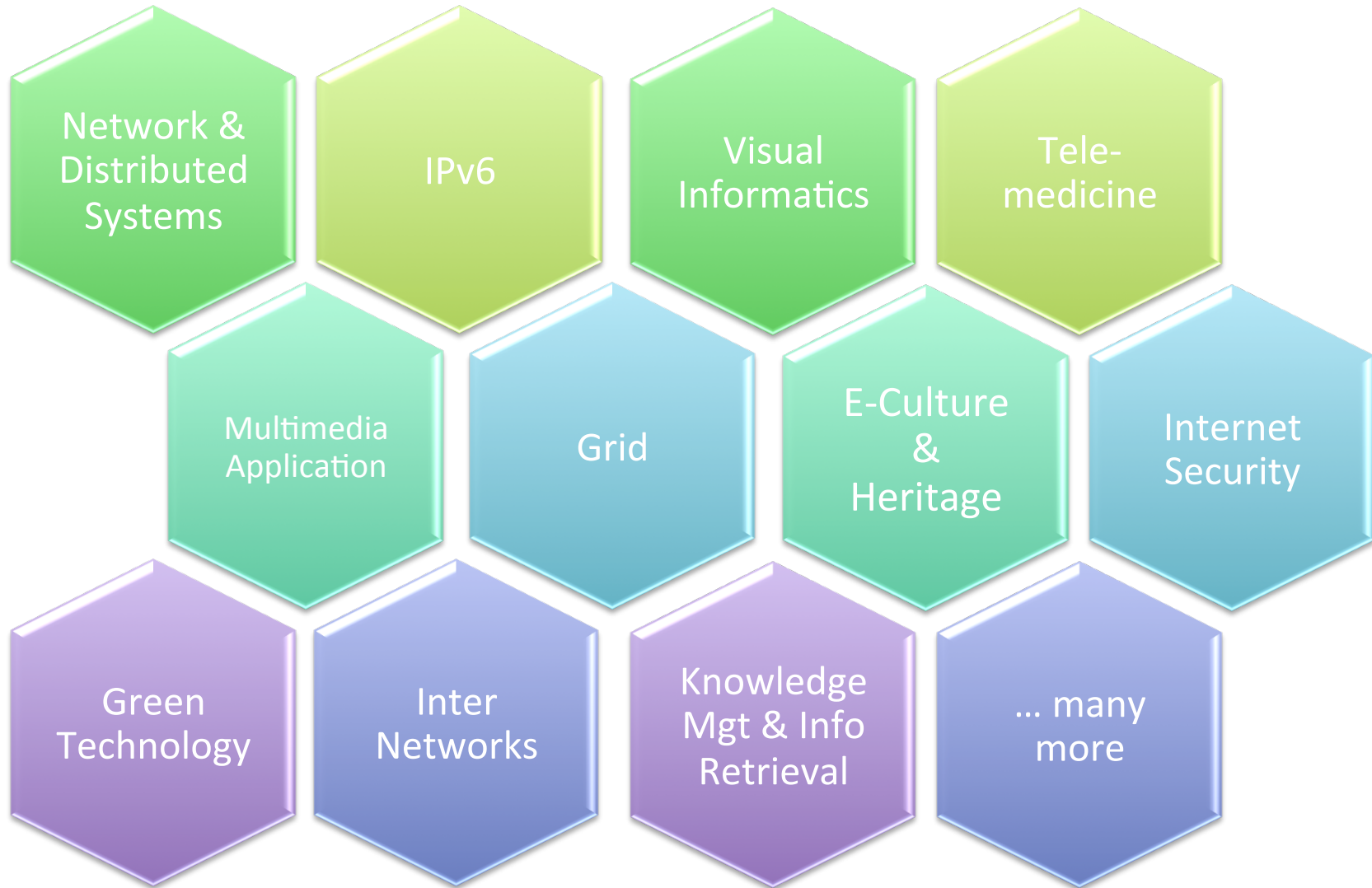
Helpdesk

- Manned during office hour and remotely available outside office hour
- 5 Full time staff
 - 3 Network Engineers
 - 1 Program Manager
 - 1 Application Engineer
- Assisted by internship student(s)

Research Community



Research Community



Challenges (Network)

- Bandwidth cost is still relatively high in Malaysia
- There is a very limited number of fiber providers and many are now reluctant to lease fiber and opt to selling bandwidth
- Managing R&E-only infra is not as critical as running infra for production, thus, improvement for NOC needed.

Thank you

