

UNIVERSITY OF SRI JAYEWARDENEPURA

Annual NOC Meeting 2018
Lanka Education And Research Network

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OVERVIEW

HISTORY & MILESTONES

- 1999 :** Internet bandwidth: 64Kbps (leased line)
- 2003:** Internet bandwidth: 192Kbps (through Suntel - LEARN)
- 2003:** Fiber Network (stage I) implementation
- 2012:** Internet bandwidth: 30 Mbps and Local bandwidth: 100Mbps
- 2013:** Internet bandwidth: 160 Mbps and Local bandwidth: 200Mbps
- 2015:** Internet bandwidth: 525 Mbps and Local bandwidth: 700Mbps
- 2016:** Virtualized Physical servers with VMware
- 2017:** Extend the Connectivity for two newly established faculties
- 2018:** Extend the wireless network to cover the all university hostels
- 2018:** Dedicated Backup link from LEARN

IPv6

Current Status

- Enabled up to the end user with Dual stack – for some time in early 2018
- Dhcpv6 is used to provide IPs to end users
- Totally based on Existing Vlan structure
- No servers are currently running on IPv6

IPv6

Plan

Main University

- /55 is allocated for each Faculty and main units (128 , /55's and 512 ,/64's for each /55) from /48 provided by LEARN

- Faculty code is included in the address

Eg:-

2401:dd00:XX:1000::/55	SCI
2401:dd00:XX:2000::/55	FHSS
.	
.	
2401:dd00:XX:F000::/55	Faculty - N

/55's in-between each faculty are ignored for now to make it simple

- Department code is also included in the address

Eg:-

2401:dd00:XX:1001::/64 for 1st department of the Science Faculty

- Totally based on existing Vlan structure – easy to remember and troubleshoot

IPv6

Plan

Faculty of Engineering - Rathmalana

- Was much easier - As the network was implemented by us from the scratch
- /52 is allocated for the Faculty and main units (16 , /52's and 4096 , /64's for each /52) from /48 provided by LEARN
- Followed the same structure of the main university
- IPv6 was enabled before the Faculty's commencement

IPv6

Limiting Factors

- Firewall is always trickier
 - We are still having troubles with checkpoint - but Pfsense works perfect at Rathmalana.
- User expectation – they want the connectivity, not IPv6
- Time – the biggest barrier

- Anyway total implementation of IPv6 is a few hours of deal with a proper plan and supported hardware and software over a manageable network

EDUROAM

eduroam Status

- Wireless is running on Aruba and Cisco Meraki and supports multiple SSIDs
- User database is running on Free Radius
- Need more time to work with existing Radius or migrate to new one
- We will start **one-way** eduroam service soon which will provide service to outsiders but USJP members will need to manual registration until Radius configuration is completed

Future Development Plans

IPv6

- Setup IPv6 DNS server
- Configure IPv6 for all the public servers

Eduroam

- Configure existing radius to support eduroam

THANK YOU



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