

Campus Network Design & Operations Workshop

Introduction & Logistics



These materials are licensed under the Creative Commons Attribution-NonCommercial 4.0 International license (<http://creativecommons.org/licenses/by-nc/4.0/>)



UNIVERSITY OF OREGON



Sponsors

- Network Startup Resource Center (NSRC)
- USA National Science Foundation (NSF)
- Google
- University of Oregon
- TEIN*CC
- BDREN

Instructor Team

Name	Organization (Country)
Hans Kuhn	NSRC (US)
Nimal Ratnayake	NSRC (LK)
Dale Smith	NSRC (US)
Philip Smith	NSRC (AU)
Md Abdul Awal	BDREN (BD)
Ariful Islam	BDREN (BD)



UNIVERSITY OF OREGON



Logistics

- Wireless Network
 - SSID for this workshop is NSRC-PFS
 - Network operates at both 2.4GHz and 5GHz
 - The key is “8888888888” – ten times the number 8
- Local Workshop Server
 - <http://www.ws.nsrc.org>
 - Or: <http://10.10.0.241/>
- Final workshop documentation
 - <https://nsrc.org/workshops/2016/nsrc-tein-bdren>

Logistics

- This is a 5 day workshop
 - Completion certificates will be given to those who attend all five days
- Please ask questions
- Please no Skype, Facebook, Twitter, WhatsApp, SnapChat, etc.
- Mobile phones OFF or on SILENT
 - If you need to receive or make calls, please do so OUTSIDE the room



Week Schedule

Day	Topic
Sunday	NRENs, Campus Network Design Principles, Fibre planning, Layer 1-2-3 refresher
Monday	IP addressing, Cisco Essentials, L2 & Spanning Tree, L2 & vLANs
Tuesday	Core Design, L3 and routing, Choosing Campus Routers & Switches
Wednesday	Static & Dynamic routing, Campus network restructuring, Campus Security & Firewalls
Thursday	Linux refresher, Monitoring & Measuring, Netflow



UNIVERSITY OF OREGON



Day Schedule

Time	Activity
09:00-10:30	Morning Session 1
10:30-11:00	Break
11:00-12:30	Morning Session 2
12:30-13:30	Lunch
13:30-15:30	Afternoon Session 1
15:30-16:00	Break
16:00-18:00	Afternoon Session 2

Switch & Routing Practice

- There are two exercise environments
 - Virtual routers/switches (dynamips)
 - Real switches & routers
- This workshop uses the virtual environment
- You will use both ssh and telnet to access these devices from your laptop
- You will be working in 6 groups



Key for Success

- Remember, this workshop is for you!
 - If you do not understand or have questions, ask for clarification
 - Please share your thoughts and experiences. They are valuable
 - Take advantage of the event to meet your colleagues and build the “human network”



UNIVERSITY OF OREGON



Questions?

This document is a result of work by the Network Startup Resource Center (NSRC at <http://www.nsrc.org>). This document may be freely copied, modified, and otherwise re-used on the condition that any re-use acknowledge the NSRC as the original source.



UNIVERSITY OF OREGON

