

Introduction to SDN

Agenda



Sessions

- Session 1: 09:00 – 10:30
- Session 2: 11:00 – 12:30
- Session 3: 14:00 – 15:30
- Session 4: 16:00 – 17:30

Agenda

- Day 1
 - Introduction to SDN
 - SDN use cases
 - Introduction to OpenFlow

Agenda

- Day 2
 - Lab
 - Using MiniNet network simulator
 - OpenDaylight Controller
 - MiniNet and OpenDaylight Controller
 - Cisco OpenFlow Manager
 - Multi Protocol Label Switching (MPLS)

Agenda

- Day 3
 - Lab
 - Base MPLS Label Distribution Protocol (LDP) configuration
 - Segment Routing
 - Lab
 - Base Segment Routing configuration
 - Using Segment ID (SID) index values
 - Traffic-engineering

Agenda

- Day 4
 - Lab
 - Base Segment Routing configuration
 - Using SID index values
 - Traffic-engineering
 - Border Gateway Protocol – Link State (BGP-LS)
 - Lab
 - Base BGP-LS configuration

Agenda

- Day 5
 - Lab
 - BGP-LS configuration
 - Path Computation Element (PCE)
 - Lab
 - Configuring Resource Reservation Protocol - Traffic Engineering Label Switch Path (RSVP-TE LSP)
 - Using Postman
 - Enable Path Computation Element Communication Protocol (PCEP) and manage Path Computation Client (PCC) created Label-Switched Path (LSP)

Resources

- Wi-Fi SSID : apnic-training-2G or apnic-training-5G
 - Password: 2406:6400::/32
- Course Material: <https://wiki.apnictraining.net/apnic48-sdn>
 - All slides
 - All lab materials
 - And a Survey Link

APNIC Academy – free to the public



<https://academy.apnic.net>

ONLINE COURSES

Routing Basics
Free

Routing Basics Course
Learn basic routing concepts, including routing protocols.

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Policy Development Process
Free

Policy Development Process Course
Learn how to get involved in Internet address policy within the Asia-Pacific region.

[VIEW COURSE OUTLINE](#)

Cyber Security
Free

Introduction to Cybersecurity Course
Develop your understanding of cybersecurity.

[VIEW COURSE OUTLINE](#)

Internet Resource Management
Free

Internet Resource Management Course
Learn how to effectively manage your Internet number resources.

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LIVE WEBINARS



Route Origin Validation (ROV) implementation

Speaker: Tashi Phuntsho

The webinar will focus on the different steps involved in deploying RPKI (from an operator's point of view) including ROA creation, deploying RPKI validators, configuring RTR sessions between BGP speaking routers and validators and much more!

Webinar starts

Wednesday 10 April 2019 at
2:00pm Australia/Brisbane

23 Days 0 Hours 13 Minutes 44 Seconds

BGP Basics
Webinar
NEW
Jessica Wei
00:59:10

BGP Basics
Learn about the routing protocol, Border Gateway Protocol (BGP), including how it is used for all inter-domain routing decisions on the Internet.

[VIEW COURSE OUTLINE](#)

IoT Security Challenges
Webinar
APCERT
00:37:53

IoT Security Challenges
Learn how Internet of Things (IoT) is challenging networks, protocols, and security professionals, as more devices connect to the Internet.

[VIEW COURSE OUTLINE](#)

OSPF Operations
Webinar
NEW
Jessica Wei
00:48:16

OSPF Operations
Learn about OSPF, including the Link State Routing Protocol, OSPF Neighbor Discovery Protocol, OSPF topology and OSPF packets.

[VIEW COURSE OUTLINE](#)

IPv6 Overview
Webinar
Sheryl Hermoso
01:04:24

IPv6 Overview
Learn the basics of IPv6, including the protocols architecture, addressing models, interface ID, global network prefix and other address formats.

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VIRTUAL LABS



Cisco SLAAC/DHCPv6 Router Lab

Learn step-by-step how to configure a Cisco router and Linux hosts for SLAAC and DHCPv6 using our interactive Lab instructions and virtual devices.

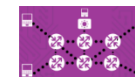
2h 00m



MikroTik Full Mesh Router (Sandbox) Lab

This full mesh virtual lab topology has been set up with 6 x MikroTik routers, 4 x Linux test machines and 1 x Windows 10 configuration host (running WinBox). You can play with BGP, OSPF, MPLS DHCPv6, QoS, OpenFlow, and much more!

2h 00m



Juniper Full Mesh Router (Sandbox) Lab

This full mesh virtual lab topology has been set up with 6 x Juniper vSRX, 4 x Linux test machines and 1 x Linux configuration host. You can play with BGP, OSPF, IS-IS, DHCP, Flexible NetFlow, SNMP, NETCONF, and much more!

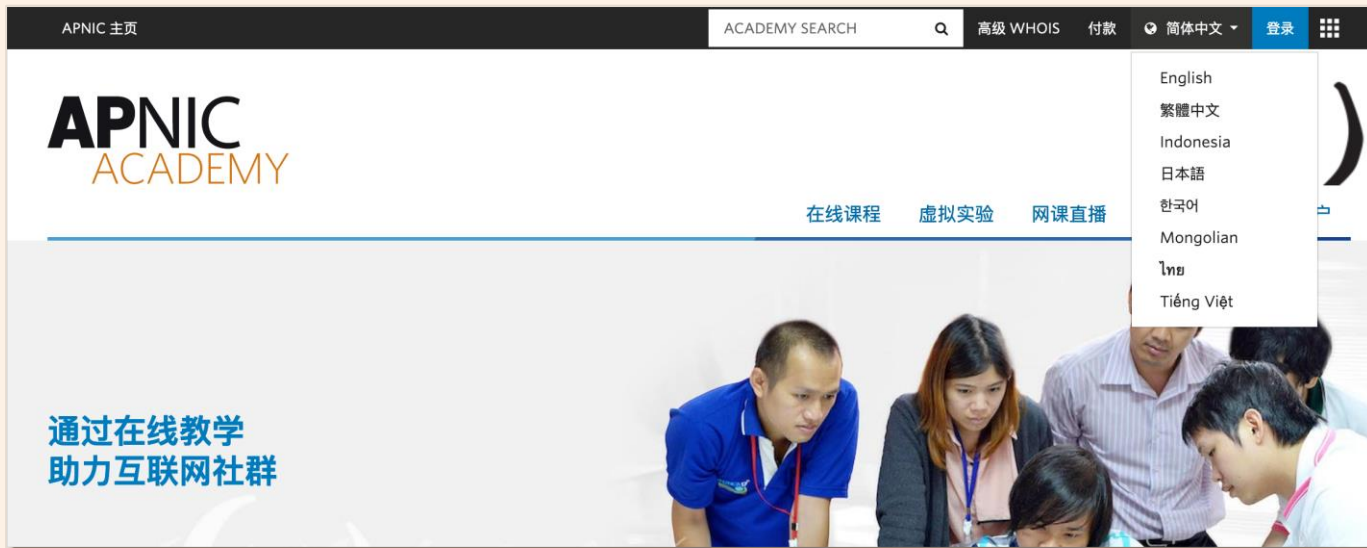
2h 00m

Stay up-to-date
<http://info.apnic.net/l/229772/2017-11-01/shgq>



APNIC Academy – launching soon

MULTILINGUAL SUPPORT x 8 LANGUAGES



COMING
SOON

NEW IPv6 FUNDAMENTALS COURSE



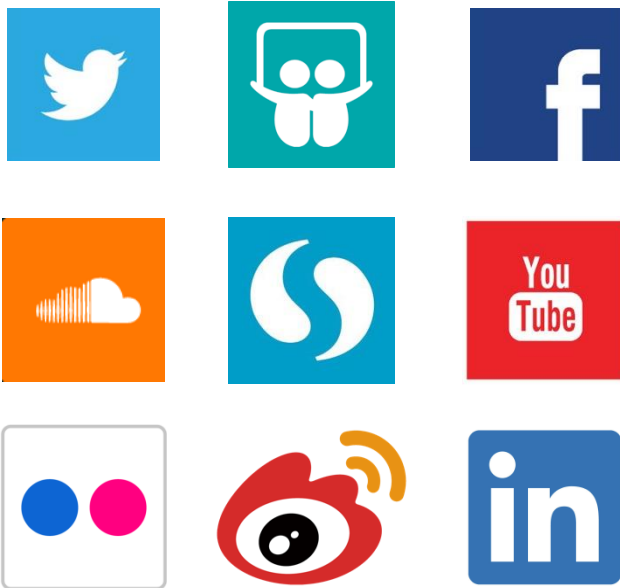
APNIC Policy Development Process

Participate in APNIC Policy



www.apnic.net/community/policy/participate

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apnic.net/social