Lab of
Routing Architectures and Protocols (LPA)

Corso di Laurea Magistrale in Informatica e Networking

Davide Adami
Course Overview

• The course provides the basic knowledge and the key concepts to understand the functional components required to design and implement intra and inter-domain routing.

• Main theoretical and practical topics:
  – design and deployment of networks with IGP (RIP/OSPF) and EGP (BGP) routing protocols.

• Traditional lectures are coupled with laboratory experiments which provides students with the possibility to work with Juniper Networks routers.

• Basic concepts concerning the configuration, management and monitoring of Juniper Networks routers are recalled.

• At the end of the course, students may obtain Juniper Certification (JNCIA-Junos exam).

• Required Skills
  – Networking fundamental
  – Understanding of destination-based, hop-by-hop IP routing in a Classless Inter-Domain Routing (CIDR) environment.
JNAA Education – Course Modules

http://joinjnaa.zohosites.com/

Modules, hours and links to Juniper Certification Program
Juniper Networks Academic Alliance Lab at UNIPI

9 J4350 Router with Gigabit Ethernet Interfaces

9 SRX-240 Router with Gigabit Ethernet and Serial Interfaces

Layer 2 switches with 24 10/100/1000 Ethernet Interfaces

4 Fiber Optic Gigabit Ethernet Interfaces
Courseware

Reference material for theoretical lectures

• Introduction to the Junos Operating System (JNAA-IJOS-12.a)
• Junos Routing Essentials (JNAA-JRE-12.a)
• Junos Intermediate Routing (JNAA-JIR-12.a)
• Slides

Reference material for labs

• Operating Juniper Network Routers in the Enterprise (Detailed lab guide and lab diagrams)

• Advanced Juniper Network Routers in the Enterprise (Detailed lab guide and lab diagrams)
Useful Links

• Timetable
  – Monday: 14-16 I-Lab, Thursday: 11-13 M-Lab

• Moodle PWD: LPA2017
  – https://elearning.di.unipi.it/moodle/

• Juniper
  – http://www.juniper.net (training)
  Manual Code: JNHA2
  Book Code: JNHA2
• For further information, please contact me:

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