Enterprise Computing Solutions - Education Services

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Juniper Networks Design Fundamentals (JNDF)

CODE:	LENGTH:	PRICE:
JUN_JNDF	24 Hours (3 dage)	kr 21,200.00

Description

Duration: 3 days
This three-day course is designed to cover introductory best practices, theory, and design principles for overall network design. Key topics include fundamental network design concepts as well as basic design concepts of data centers, enterprise WAN, wireless LAN (WLAN), software-defined WAN (SD-WAN), security, network management, and network automation.
Other key concepts included are Request for Proposal (RFP) and Request for Information (RFI) creation, Juniper product review, network migration strategies, IP fabric design, and business continuity.
Juniper Networks Design Fundamentals is an introductory level course
Related Juniper Product:
• ACX Series • EX Series • JSA Series • Juniper Apstra • Junos Space Security Director • Mist AI • NFX Series • Paragon • PTX Series • SRX Series

Objectives

• Provide an overview of network design needs and common business requirements.
• Identify key product groups related to campus, WAN, data center, and security architectures.
• Describe and interpret common RFP requirements.
• Describe a network design by gathering data and working with key stakeholders.
• List ways of processing customer data and design requests.
• Identify boundaries and scope for the design proposal.
• List some considerations when creating a design proposal.
• Provide an overview of network security design principles and common vulnerabilities.
• List high-level design considerations and best practices for securing the network.
• List the components of the campus network design.
• State best practices and design considerations for the campus.
• Describe architectural design options for the campus.
• List the components of the WAN.
• Describe best practices and design considerations for the WAN.
• Describe design options for the WAN.
• List the components of the data center design.
• Describe best practices and design considerations for the data center.
• Describe architectural design options for the data center.
• Define business continuity and its importance in a network design.
• Describe high availability design considerations and best practices.
• Provide an overview of high-availability offerings and solutions.
• Describe class-of-service design considerations.
• Provide an overview of environmental considerations in network design.
• List design considerations and best practices for managing the network.
• Provide an overview of both Juniper Networks and third-party options for network management.
• List design considerations and best practices for network automation.
• Provide an overview of automation tools.
• Explain the foundational topics that have been taught throughout the course.
• Create a network design proposal that satisfies customer requirements and business needs.
• Provide an overview of the steps involved in migrating a network.
• Describe best practices used in network migration.
• List the various campus network topographies.
• Describe sample design options for the campus.
• Explain how to design wireless LANs.
• Describe how to design IP fabrics in a data center.
• List the best practices for deploying SD-WAN.

Audience

• Individuals with a solid understanding of operation and configuration
• Individuals who are looking to enhance their skill sets by learning introductory principles of network design

Prerequisites

• Knowledge of routing and switching architectures and protocols
• Knowledge of Juniper Networks products and solutions
• Understanding of infrastructure security principles
• Basic knowledge of hypervisors and load balancers

Programme

Day 1
Course Introduction
Network Design Fundamentals
• Describe the role of a network designer or architect
• List the main steps in creating a network design
Juniper Routers and Switches
• Explain the different types of Juniper routers and how to position them
• Explain the different types of Juniper switches and how to position them
Juniper Security and Wireless Solutions
• Explain the different types of Juniper security products and how to position them
• Explain the different types of Juniper wireless products and how to position them
Juniper SDN and Network Management Solutions
• Explain Juniper's SDN solution and how to position it
• Explain Juniper's network management solutions and how to position them
Understanding Customer Requirements
• Define RFP requirements
• Evaluate the network design scope
Lab 1: Understanding Customer Requirements
Organizing the Data
• Describe ways of processing customer data and requests
• Identify boundaries and scope for the design proposal
• List some considerations when creating a design proposal
Securing the Network
• Explain the basics of network security
• Review Juniper Networks' security appliances
• Illustrate the concept of WAN security
• Describe the cloud-centered approach to securing the enterprise
• Explain Juniper Networks' Secure Access Service Edge
Campus Design
• List the components of the campus network
• Describe best practices and considerations for the campus
• Describe architectural design options for the campus
Lab 2: Designing Campus Networks
Day 2
Campus WAN Design
• Explain the components of the campus WAN
• Describe best practices and considerations for the campus WAN
• Describe design options for the campus WAN
Lab 3: Campus WAN Design
SD-WAN Design
• Describe the SD-WAN approach
• Explain how SD-WAN and intersite connectivity works
• Review the SD-WAN intent model and deployment
Lab 4: SD-WAN Design
Basic Data Center Design
• List the components of the data center
• Describe best practices and considerations
• Describe architectural design options
Lab 5: Creating the Design – Data Center
Day 3
Designing Network Automation
• Overview of automation
• Designing for network automation

Lab 6: Automation Design

Wireless LAN Design – Define
• Explain how to determine the business requirements
• Define how to gather the technical requirements
• Describe how to determine the RF requirements
Wireless LAN Design – Design, Deploy, and Diagnose
• Explain the Design phase of wireless LAN design
• Define the Deploy phase of wireless LAN design
• Describe the Diagnose phase of wireless LAN design
Lab 7: Designing a WLAN
Putting the Design into Practice
• Review the foundational topics that have been taught throughout the course
• Create a network design proposal that satisfies customer requirements and business needs
Lab 8: Putting the Network Design into Practice
SELF-STUDY MATERIALS
Self-Study: Network Migration Strategies
• Provide an overview of the steps necessary to migrate a network
• Explain approaches for network migration
• Describe example scenarios used in network migration
Self-Study: Sample RFP
• Example of a Juniper Networks RFP response
Self-Study: Designing IP Fabrics
• Explain IP fabric design options
• Describe routing in an IP fabric
• Explain how to scale an IP fabric
Self-Study: Business Continuity and Network Enhancements
• Define business continuity and its importance in a network
• Describe high availability design considerations and best practices
• Provide an overview of high-availability offerings and solutions
Self-Study: Network Management
• Design a management network

Follow on courses

Recommended Next Course: JNCIE-SP Self-Study Bundle

Test and Certification

Related Certification
JNCIA-Design

Session Dates

På anmodning. Kontakt os venligst

Yderligere Information

Denne træning er også tilgængelig som træning på stedet. Kontakt os for at finde ud af mere.