Juniper Cloud Networking Security with AWS and Azure (JCNAA)

Duration: 4 Days **Course Code: JUN_JCNAA**

Overview:

This four-day course is designed to provide students with the knowledge required to implement Juniper Networks vSRX in AWS and Azure environments.
Through demonstrations and hands-on labs, students will gain in-depth knowledge about the manual and automated methods used to deploy the vSRX in multicloud environments.
This course uses various releases of the vSRX as well as Junos Space, Security Director, Policy Enforcer and ATP Cloud.
This is an intermediate level course.
Relevant Juniper Product
• Juniper ATP Cloud • Juniper Connected Security • Junos PyEZ • Junos Space Security Director
• Policy Enforcer • SRX Series • vSRX Series

Target Audience:

Individuals who want
• A basic understanding of cloud infrastructure, operations, and terms
• To learn how to securely expand their IT operations into the cloud

Objectives:

- • Describe cloud concepts.
- • Describe how virtualization is used in the cloud.
- • Describe various security designs used in the cloud.
- • Describe the AWS architecture and explain how each component is used.
- • Access the AWS management console.
- • Launch AWS EC2 instances.
- • Navigate the AWS Marketplace and locate Juniper products.
- • Describe the operation of the vSRX in AWS.
- • Launch a vSRX instance in AWS.
- • Configure a vSRX instance to forward traffic.
- • Describe CloudFormation features.
- • List CloudFormation template formats.
- • Describe JSON and YAML fundamentals.
- • Deploy vSRX instances using a CloudFormation template.
- • Describe Microsoft Azure cloud services.
- • Describe Microsoft Azure cloud architecture.
- • Navigate the Microsoft Azure portal.
- • Describe pre-launch considerations for the vSRX in Microsoft Azure.
- • List the steps required to launch the vSRX in Microsoft Azure.
- • Describe the configuration needed for the vSRX to function in Microsoft Azure.
- • Describe the Microsoft Azure Resource Manager Features.
- • Describe the Microsoft Azure Resource Manager template format.
- • Deploy a vSRX instance using Microsoft Azure Resource Manager.
- • List different methods used to connect cloud resources.
- • Describe secure connection options.
- • Establish an IPsec tunnel between an enterprise/SRX and an AWS Virtual Private Gateway.
- • Establish an IPsec tunnel between an enterprise SRX and a vSRX instance in AWS.
- • List advanced vSRX security features that are used to protect cloud resources.
- • Describe the benefits of Terraform in multicloud environments.
- • Deploy and destroy vSRX instances in AWS and Microsoft Azure using Terraform.
- • Describe Juniper Connected Security components.
- • Configure the components used to support Juniper Connected

- • Launch Microsoft Azure virtual machine instances.
- • Navigate the Microsoft Azure Marketplace and locate Juniper products.
- • List the vSRX offerings in Microsoft Azure.

Security in the cloud.

- • Configure Security Director, Policy Enforcer, and ATP Cloud.
- • Implement Juniper Connected Security to dynamically secure AWS resources.
- • Implement an AWS Transit Gateway to secure cloud resources.
- • Deploy an AWS Elastic Load Balancer and Auto Scaling Group to provide highly available cloud security capabilities.

Prerequisites:

• Basic TCP/IP skills

• Basic understanding of the Junos operating system

• Basic understanding of the SRX Series device and its range of security features

Content:

DAY 1

Course Introduction

Cloud Overview

• Cloud Concepts

• Cloud Virtualization

• Cloud Security

Introduction to AWS

• Describe AWS architecture

• Access the AWS Management Console

• Launch AWS EC2 instances

• Explore the AWS Marketplace

Lab 1: Introduction to AWS

Implementing vSRX in AWS

• Explain the operation of an AWS vSRX instance

• Launch an AWS vSRX instance

• Configure an AWS vSRX instance

Lab 2: Implementing vSRX in AWS

DAY 2

AWS CloudFormation

• Describe AWS CloudFormation

• Describe CloudFormation templates

Lab 3: CloudFormation

Introduction to Microsoft Azure

• Describe Microsoft Azure services

• Describe Microsoft Azure architecture

• Navigate the Microsoft Azure portal

• Launch a Microsoft Azure virtual machine

• Locate Juniper Networks products in the MicrosoftAzure Marketplace

Lab 4: Introduction to Microsoft Azure

Implementing vSRX in Azure

• Describe prelaunch considerations for MicrosoftAzure vSRX instances

• Launch a Microsoft Azure vSRX instance

• Describe the required vSRX Microsoft Azureconfiguration

Lab 5: Implementing vSRX in Microsoft Azure

DAY 3

Microsoft Azure Resource Manager

• Describe Microsoft Azure Resource Managercapabilities

• Describe Microsoft Azure Resource Managertemplates

• Create Microsoft Azure Resource Managertemplates

• Deploy a vSRX instance using a Microsoft AzureResource Manager template

• Establish an IPsec tunnel between an enterpriseSRX and an AWS VPC

• Configure an IPsec tunnel between an enterpriseSRX and an AWS vSRX instance

• Use the vSRX to configure an IPsec tunnelbetween AWS VPCs

Lab 7: Cloud Connectivity

AWS Transit Gateway

• Explain AWS Transit Gateway use cases

• Deploy an AWS Transit Gateway and a vSRXinstance

Lab 8: AWS Transit Gateway

DAY 4

Load Balancing and Auto Scaling

• Describe load balancing and auto scaling•Load-balance and auto scale vSRX instances

Terraform

• Explain multicloud complexity

• Explain Terraform concepts

• Manage multicloud infrastructure usingTerraform

Lab 9: Terraform

Class of Service

• Describe Juniper Connected Security

• Configure AWS components for JuniperConnected Security

• Describe JSON and YAML fundamentals • Use CloudFormation to deploy a vSRX instance	Lab 6: Microsoft Azure Resource Manager Cloud Connectivity • List cloud connectivity options • Describe how IPsec tunnels are established	• Implement Juniper Connected Security withAdvanced Threat Prevention Lab 10: Advanced Cloud Security

Additional Information:

Delegates will receive e-kit courseware approximately 1 week prior to the start of the course.

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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