CISCO ISE MENTORED POV PLUS

Service Overview:

At Netnology, we specialize in Cisco Identity Services Engine (ISE) implementation services as part of the Cisco TrustSec security solution to help enable your compliance needs, enhance security and streamline operations. As part of the Mentored POV Plus service offer, our subject matter experts (SME) partner with your team to ensure smooth deployment of the ISE solution and provide knowledge transfer to equip your staff with the necessary skills to configure and manage the ISE environment.

Cisco ISE Solution:

Cisco ISE is designed to help organizations to gain enterprise-wide visibility into their network; allowing authentication, authorization, accounting, posture profiling gathering real-time contextual information from network, users, and devices; and making proactive governance decisions by enforcing policy across the network infrastructure. Cisco ISE performs the following functions:

- Provides context-aware identity-based network access
- Manages various deployment scenarios across enterprise infrastructure, supporting 802.1X wired, wireless, and virtual private networks (VPN)
- Provides basic authentication and authorization
- Enforces endpoint compliance by providing comprehensive client provisioning measures and accessing device posture for all endpoints that access the network, including 802.1X environments
- Provides comprehensive guest access management
- Provides support for discovery, profiling, policy-based placement and monitoring of endpoint devices on the network
- Enables consistent policy in centralized and distributed deployments that allow services to be delivered where they are needed
- Employs advanced enforcement capabilities including security group access (SGA) through the use of security group tags (SGTs) and security group access control lists (SGACLs)

Service Benefits:

Netnology has a team of world class engineers who specialize in Cisco ISE solution and are passionate about customer success. Netnology will partner with you to provide:

- Step-by-step guidance from an SME on solution deployment
- Configuration and documentation of Cisco ISE solution
- Knowledge transfer to ensure customer is ready to configure and manage the lab environment

Scope of Services:

As part of the 5-days (40 hours) engagement, Netnology will help with the following:

- ISE Architecture Design
  - Review existing network, identity infrastructure, and security policies
  - Design Cisco ISE deployment architecture
  - Define node roles (PAN, PSN, MnT)
  - Define high-availability and redundancy model
  - Define integration points with network infrastructure and identity sources

- ISE Node Installation and Setup
  - Install Cisco ISE nodes
  - Configure node roles and deployment setup
  - Apply and configure Cisco ISE licensing
  - Verify deployment health and node communication

- ISE Upgrade (if required)
  - Review current ISE version and upgrade path
  - Validate compatibility with network devices and integrations
  - Perform Cisco ISE upgrade to the recommended version
  - Validate services post-upgrade

- MAB (MAC Authentication Bypass) Implementation
  - Configure MAB authentication for non-802.1X devices
  - Create policies for IoT, printers, cameras, and legacy devices
  - Configure profiling policies for device identification
  - Validate access behavior for MAB devices

- Wired 802.1X Rollout
  - Configure wired network authentication using 802.1X
  - Configure switch AAA and RADIUS integration with ISE
  - Implement authentication policies for wired users
  - Configure fallback mechanisms such as MAB where required

- Wireless 802.1X Rollout
  - Integrate Wireless LAN Controllers with Cisco ISE
  - Configure secure wireless authentication using 802.1X
  - Configure SSID authentication policies
  - Validate user authentication workflows

- Testing and Validation
    - Validate wired authentication workflows
    - Validate wireless authentication workflows
    - Validate guest access services
    - Perform end-to-end access control testing

- Knowledge Transfer

Target Audience:

This service is designed for Security Architects, Network Security Engineers, Network Architects, Network Engineers and Administrators, configuring, deploying and managing the ISE lab environment.

Pre-requisites:

Customer needs to ensure that lab environment has similar production configured Wireless LAN Controller (WLC) and switch; as well as Active Directory access. Also, customer needs to provision Virtual Machines for ISE based on the specifications provided prior to the kick-off. Customer needs to acquire the necessary software licenses and download the latest version of Cisco ISE ISO from Cisco site.

Service Deliverables:

No	Deliverable	Service Details
1.	Project Kickoff	• Project Overview • Solution Overview
2.	ISE Architecture Design	• Work with customer to design suitable Cisco ISE architecture • Define node roles (PAN, PSN, MnT) Define redundancy and high availability
3.	ISE Node Setup	• Install and configure Cisco ISE nodes • Configure node roles and deployment • Apply and configure ISE licensing
4.	ISE Upgrade	• Review current ISE version and upgrade path • Perform upgrade to recommended Cisco ISE version • Validate services after upgrade
5.	MAB (MAC Authentication Bypass)	• Configure MAB authentication for non-802.1X devices • Create policies for printers, IoT devices, and legacy systems • Validate MAB device access behavior
6.	Wired 802.1X Rollout	• Configure wired authentication using 802.1X • Configure switch AAA and RADIUS integration • Implement authentication and authorization policies
7.	Wireless 802.1X Rollout	• Integrate Wireless LAN Controller with Cisco ISE • Configure secure wireless authentication using 802.1X • Validate wireless authentication workflows
8.	Test Customer Endpoints/users	• Test customer's computers • Test IP phones • Test printers • Test other IoT devices on customer's network • Test various access for users
9.	Knowledge Transfer	• Explain to the customer how to configure and manage the solution in the lab environment • A walkthrough of the customer's environment