



Cisco Software Defined Access (SDA) Mentored Implementation Service

Delivery Type: Mentored Installation

Why Skyline?

Skyline Advanced Technology Services (ATS) offers Professional Services for a variety of Cisco-centric solutions. From inception to realization, our senior staff of engineers is available for any size project or duration for the following services:

- Consulting Services
- Installation Services
- Network Design
- Staff Augmentation

For an in-depth discussion regarding your technical and staffing needs, our team is with you every step of the way.

Contact your Skyline-ATS representative today.

**Are you deploying a Cisco
Software Defined Access (SDA)
solution?**

Contact your Skyline Account Manager today
for more information on how we can help.

800.375.9546
info@skyline-ats.com

Description

Cisco Software Defined Access (SDA) is a central part of the Cisco Digital Network Architecture (Cisco DNA™) solution and represents an exponential and fundamental shift in how we design, build, and manage networks, enabling enterprise partners/customers to reduce Operating Expenditures (OpEx) and risk while creating an agile infrastructure that delivers consistent policies and services over wired, wireless, and hybrid networks. This SDA Mentored Implementation Service is a unique engineering enablement offering designed to assist Cisco partners/customers in deploying an SDA solution. This offering is designed for partners/customers that require assistance with the design and implementation of an SDA solution with mentoring from an SDA specialist throughout the process.

The engagement consists of an SDA Design Workshop and Network Readiness Assessment followed by engineering support during the mentored implementation. During the design phase, a Skyline-ATS SDA Solutions Architect will work with the partner/customer to complete a High Level Design (HLD), assess the readiness of the network, and provide recommendations to make the Network Ready for Use (NRFU). The mentored implementation is focused around implementation and deployment of an operational SDA solution consisting of end to end segmentation and network automation in a single network fabric. At the same time this provides the partner/customer deployment experience as well as a well-defined knowledge transfer on the SDA design, implementation and deployment. The mentored install will cover Cisco DNA Center (DNAC), Cisco Identity Services Engine (ISE) and the wired and wireless network platforms. The engagement is expected to take between one to three weeks depending on the services required. Each engagement will be scoped and a detailed Statement of Work (SOW) will be created.



Overall Objectives

1. Collaborate with key personnel to design and determine functionality goals.
2. Interactive training and design sessions geared to educate the partner/customer and finalize the design.
3. Provide interactive training to partner/customer personnel throughout the selling, designing, and deployment process focusing on those areas the partner/customer feels they need assistance with.

Partner/Customer Responsibilities

- Participate in a High Level Design Workshop via WebEx pre-installation.
- Provide proper rack and other supporting infrastructure, such as power, HVAC etc.
- System must be racked and powered prior to Skyline arriving onsite.
- Provide an application testing plan.
- Partner/Customer must provide adequate resources to perform the implementation with Skyline providing Interactive training and guidance.
- Partner/Customer will assist with all testing scenarios.

Statement of Work (SOW)

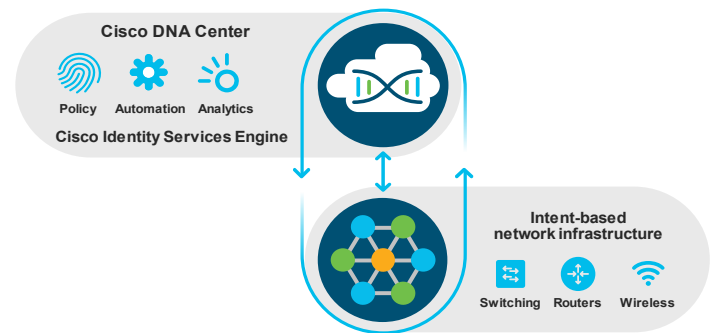
After the Skyline-ATS ISE Engineer thoroughly qualifies the partner/customers SDA requirements, a detailed SOW will be submitted for partner/customer approval prior to the implementation engagement.

Instructor Led Training (ILT)

Instructor Led Training is also available for those partners/customers that want to increase their knowledge of Cisco SDA technology beyond what is provided in this mentored implementation.

Cisco Software Defined Access (SDA) Mentored Implementation Service

This solution provides policy-based automation from the edge to the cloud with secure segmentation for users and devices enabled through a single network fabric. SD-Access provides the ability to drastically simplify operations and scaling while providing complete network visibility that delivers proactive operations and predicts performance. This is achieved via machine learning by automatically collecting device, application, and user data. Along with the ability to deliver new services quickly, SD-Access automates day-to-day tasks such as configuration, provisioning, and troubleshooting. This significantly reduces the time it takes to adapt the network, improve issue resolution, and reduce the impact of security breaches giving the user enhanced visibility, simpler operations and a lower cost.



Cisco Software Defined Access (SDA) High-Level Design (HLD) Workshop

Skyline will interview the partner/customer engineers in order to complete a High Level Design (HLD) document. Design discussions will include but are not limited to:

1. Business objectives
2. Timelines
3. Perform SDA design session with partner/customer to determine existing environment and “how to” implement SDA into a green-field or brown-field environment.
4. Gather or document network diagrams, floor layouts, and site information.



5. Endpoint grouping information (e.g., Corporate, Employee, Contractor Application Servers, etc.).
6. Existing network services information (e.g., DHCP, DNS, AAA/ISE).
7. Existing network device information (to be used in the network readiness assessment).
8. ISE details:
 - a. Gather or document existing ISE environment including AAA policies, TrustSec, etc.
9. Deployment details:
 - a. Operations
 - b. Unknowns
 - c. High availability
 - d. Migration
 - e. Application node details
 - f. Certificate options
10. Build of Materials (BOM)
11. Performance specifications

Cisco Software Defined Access (SDA) Implementation Services (Wired/Wireless)

Review High Level Design (HLD):

1. Review the high level design and proposed policies.
2. Discuss with partner/customer and make recommendations for changes if applicable.

Network Devices Update/Configuration

1. This will be based on the results of the network readiness assessment.
2. Install new network device(s) in support of SDA (if needed).
3. Update IOS (if needed).
4. Create network device configuration template (if needed).
5. Update network device configuration (e.g., SSH, Netconf, SNMP, etc.).

DNA Center Installation

Rack and Stack DNA Center appliance:

1. Setup and configure basic DNA bootstrapping.

2. Verify DNA Center basic connectivity.
3. Install upgrades & updates DNA Center services.
4. Verify upgrades & updates DNA Center services.

DNA Center - Device Inventory

1. Add network devices to the DNA Center device inventory.
2. Verify DNA Center Inventory configuration.

DNA Center - Design Configuration

1. Add site locations on the network.
2. Add Global and/or Location Servers (e.g. DHCP server(s) and DNS servers(s)).
3. Add Global and/or Location IP Address Pool(s).
4. Verify DNA Center design configuration.

Identity Services Engine (ISE) Node Implementation

1. Deploy ISE Appliances (virtual or physical).
 - a. Configure personas of Admin Node, Monitor Node and Policy Service Node (PSN) based on the high-level design discussions.
 - b. Enable ISE services - PxGrid.
2. Integrate ISE Nodes with existing Active Directory.
3. Set up ISE Management Access:
 - a. Set up administration access and policies.
 - b. Install licenses.
 - c. Discuss certificate options and install certificates.
4. Create users and groups.

Identity Services Engine (ISE) Integration

1. ISE Integration configuration in DNA Center:
 - a. DNA - Global - Add servers (e.g., ISE server(s)).
2. DNA Center integration configuration in ISE:
 - b. Approve Px Grid in ISE.
3. Verify DNA/ISE integration.



DNA Center Initial Policy Configuration

1. Verify/create Scalable Group Tags (SGT), printers, employees, contractors.
2. Create Virtual Networks (e.g., Campus).
3. Assign SGTs to Virtual Networks (VN).
4. Create custom contracts if desired.
5. Create group based access control policy.
6. Verify DNA Center/ISE policy configuration.

DNA Center Fabric Provision Configuration

1. Create Devices/Site mapping (what devices belong to what sites).
2. Configure SDA fabric (select devices and mode (e.g., FB, CP, FE)).
3. Verify DNA Center provision configuration.

DNA Center - End-Host Provisioning

1. Configure SDA fabric-host onboarding.
2. Verify end-host provisioning.

ISE Provisioning

1. Create/edit policy sets.
2. Create/edit authentication.
3. Create/edit authorization policies using Scalable Group Tags (SGT).

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4. Verify ISE provisioning.

Test/Verification

1. Test/Verify SDA is working and the traffic is flowing properly according to design.

First Day Service and Support

1. Documentation hand-off.
2. Remediation of partner/customer issues.