



Service Description: Advanced Services – Fixed Price
Cisco ONE Access – Wireless Foundation Service:
Mobile Workspace Services for Unified Access-Large (ASF-C1-UA-MOB-F-L)

This document describes Advanced Services Fixed Price: Cisco Mobile Workspace Plan and Build Services.

Related Documents: This document should be read in conjunction with the following documents also posted at www.cisco.com/go/servicedescriptions/: (1) Glossary of Terms; (2) List of Services Not Covered. All capitalized terms in this description have the meaning ascribed to them in the Glossary of Terms.

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Mobile Workspace Services for Unified Access

Service Summary

This service provides a strategy, design, testing, implementation, and knowledge transfer services for the following Cisco hardware technologies:

- (1) Identity Service Engine ("ISE")
- (1) Cisco Prime Infrastructure ("CPI")
- (1) Wireless LAN Controller ("WLC")
- (As Defined by Deployment Parameters) Access Points ("AP")
- (1) Mobility Services Engine ("MSE")

The services align to the following deployment parameters for both new and pre-existing deployments up to 5 device profiles:

| Size | SKU | AP Count | Concurrent Endpoints | End Users |
|-------|-------------------|----------|----------------------|-----------|
| Large | ASF-C1-UA-MOB-F-L | 26 – 100 | 1501 - 3000 | 1000 |

The scope of the Services are limited to one of two (2) Unified Access use cases, or equivalent as complying to deployment parameters, as described below:

- Limited Access – Corporate Only Device, on corporate premises using one (1) device type and one (1) application with (1) on-site visit.
- Basic Access – Both Corporate and Personal Device, on corporate premises using one (1) device type and one (1) application with (1) on-site visit.

The Services are comprised of the following:

- Project Management
- Strategy and Analysis
- Architectural Design
- Deployment (Includes ISE Proof-of-Concept)

Deliverables

- Project Plan
- Strategy Architecture and Roadmap Document
- Customer Requirements Document
- High-Level/Low-Level Design Document
- Deployment Documents (Configuration, Testing, and Implementation Plans)
- Knowledge Transfer

Location of Services

Services are delivered on-site and remotely to Customer.

Project Management

Cisco Responsibilities

- Provide Customer with a list of designated Cisco personnel roles and responsibilities under this service description.
- Provide a Project Management Plan (“PMP”). PMP is a baseline document from which the Cisco PM can manage deliverables, assess progress, and manage change management issues and any on-going questions.
- Work with Customer to identify and document dependencies, risks and issues associated with the successful completion of the project.
- Provide a Project Schedule highlighting deliverables, corresponding milestones, planned project events, resource(s) and timescales.
- Participate in scheduled project review meetings or conference calls, if required.
- Provide Customer with the identity of personnel requiring access to Customer premises, at least ten (10) Business Days prior to the scheduled date such personnel requires access.
- Deliver a weekly project status report to the Customer.
- Provide a handover, follow on actions, lessons learned, and exception reports (if necessary) upon project completion.

Customer Responsibilities

- Provide the Cisco PM with a list of designated Customer personnel roles and responsibilities under this service description.
- Ensure that key Customer personnel (such as architecture design and planning, network engineering, network operations personnel) are available to provide information and to participate in review sessions, workshops and other information gathering activities. The Customer PM will also ensure that Cisco is provided with all information, data and documentation as Cisco reasonably requires to provide Services and comply with Cisco’s responsibilities in this Service Description. This information includes, but is not limited to: (i) information relating to Customer’s network, design, business and other applicable requirements; (ii) functional and/or technical documentation relating to such requirements; and (iii) topology maps, configuration information and existing and proposed network infrastructure.
- Identifying primary and backup Customer authorized site contacts who shall provide necessary information, obtain access clearances and coordinate with other organizations/third parties with respect to Services at that site.
- Participate in scheduled project review meetings or conference calls, if required.

- Coordinate with any external third parties, such as in country Carrier/Telco activities, deliverables and schedules.
- Ensure that Cisco’s request for information or documentation needed for the project is provided within ten (10) Business Days of Cisco’s request, unless the parties agree to another time period for response.

Strategy and Analysis

The Strategy and Analysis activities are intended to align and correlate Customer’s enterprise mobility strategy to its network architecture strategy to address security, wireless, compliance risks, interoperability, integration, business outcomes, and user experience enhancements. The strategy process and service methodology is highly interactive bringing line-of-business and IT stakeholders together.

This service creates business and technical use cases, evaluates Mobility and Bring Your Own Device (“BYOD”) business imperatives, and develops technology requirements along with their business implications.

Cisco Responsibilities

- Conduct one (1) strategy and architecture requirements session (up to 2 days on-site).
- Capture and review business imperatives, business requirements, use cases, and IT strategy at a high level for the mobility enablement.
- Assess the current state of the network, which may include some or all of the following: a) business drivers; b) current network strategy; c) current network key capabilities; d) network governance; e) infrastructure growth plans.
- Perform strengths, weaknesses, opportunities, and threats (“SWOT”) analysis which may include some or all of the following: a) known strengths; b) weaknesses in the form of findings and recommendations; c) opportunities to strengthen current practices and business positioning; d) threats due to lack of requisite controls.
- As specific to Unified Access, capture and review the high level technical requirements: mobility and wireless, network management, and security network sub-domains in the current-state network.
- Identify business and compliance policies for use case alignment.
- Work with Customer to identify applicable use cases within scope for the project.
- Formulate a use case prioritization based on business requirements
- Provide guidance in analyzing the merits of various technology options and solutions.
- Document requirements and use case recommendations.
- Work with Customer to mutually identify one use case within scope for the subsequent areas of this project.
- Provide mapping of use cases to Products and Services.
- Create a high level future state conceptual network architecture roadmap for the identified use case which may include some or all of the following: a) future goals; b)

high level future architecture; c) strategy roadmap to transition from current state to future state.

- Draft a Customer Requirements Document (“CRD”) documenting business and technical requirements.
- Draft a Strategy & Roadmap Document (“SAR”) documenting the following:
 - Executive Summary.
 - Policy & Compliance requirements.
 - Business Use Cases.
 - Recommended future state conceptual architecture.
 - Gaps & recommendations to attain desired future state conceptual architecture.
 - Maturity/Readiness Index that indicates readiness to adopt future state architecture.
 - Strategy Roadmap to the proposed conceptual architecture.
- Conduct a meeting with Customer to present the findings of the strategy and architecture requirements session as well as the CRD and SAR to Customer key stakeholders and project sponsor

Customer Responsibilities

- Work with Cisco to schedule the strategy and architecture requirements session.
- Provide to Cisco a list of Customer project sponsor(s) and both key business and technical stakeholders (and/or decision makers) for mobility enablement.
- Designate Customer personnel responsible for providing use case analysis and feedback during the workshop.
- Participate in a conference call prior to workshop to provide information and review agenda for workshop.
- Ensure Customer key personnel participate in the workshop to include representation for each technology discipline.
- Ensure Customer key personnel are available for interviews before or after the workshop as required to develop and prioritize use cases.
- Provide necessary documentation prior to the on-site strategy & roadmap discussions, which may include some or all of the following: a) business drivers that are enabled by the network; b) network architecture diagrams; c) any “in flight” projects that might be impacted by the project.
- Identify one (1) use case within scope for the project.
- Review and approve the CRD and SAR with Cisco
- Participate in a conference call post workshop to validate/gather additional information to create the proposed conceptual architecture.
- Schedule Customer key business and technical stakeholders and project sponsor to attend the presentation of the workshop summary.

Architecture Design

Cisco will map Customer business objectives and technical requirements to develop a design for use in a production deployment. Areas in scope include the Wireless LAN, Identity Services Engine Proof of Concept, Mobility Service Engine, and augmented LAN design. The focus of this design is only

on the Unified Access use cases identified in above section even if the broader Customer design is larger.

Cisco Responsibilities

- Review the Customer Requirements Document and re-validate the requirements with Customer, as necessary.
- Provide Unified Access architecture planning to include review of the identified use case(s) a) existing and planned security infrastructure design; b) existing and planned wireless network infrastructure design; c) existing and planned LAN infrastructure design; d) existing and planned wireless network management infrastructure.
- Develop the design to include some or all of the following: a) technical objectives and requirements fulfillment; b) proposed network topology; c) network protocols and features; d) resiliency of network/system high availability; e) scalability; f) wireless client devices, interoperability, security options for wireless network infrastructure management, availability, performance, scalability; and g) integrated security throughout architecture design.
- Create and provide the Design Document including: a) Customer objectives and proposed design as related to LAN, WLAN & Security (ISE); b) identifying and documenting key risks in the proposed high design, if applicable; c) required wireless network signal strength and Signal to Noise Ratio (SNR) design targets; d) required data rates, target throughput, desired availability; and, e) capacity requirements (number of users).
- Analyze the potential effects of integrating ISE with the Customer’s existing IT infrastructure.
- Recommend an ISE software version of code to use in the targeted network.
- Identify the gaps in the Customer’s existing infrastructure that can potentially prevent the ISE system from performing optimally and develop recommendations for correcting the gaps.
- Provide high-level guidance on integration of Mobile Device Manager (“MDM”) technology with Cisco ISE.
- Create and provide configuration template for Wireless LAN Controller, Access point & Identity Services Engine.
- Review the Design Document with Customer for comment and approval before it is formally completed and released.
- Present summary of Design Document to the Customer key stakeholders and project sponsor.

Customer Responsibilities

- Designate and ensure key Customer networking contacts are available for on-going information gathering and feedback during architecture discussions.
- Review Customer Requirements Document with Cisco to re-validate business and technical requirements.
- Participate in network architecture planning by providing input and feedback to Cisco including information for some or all of the following, as requested: a) core network infrastructure design; b) wireless network infrastructure design; c) security infrastructure design; d) wireless network management infrastructure; e) wireless client

management processes; and, f) future growth requirements and network build out time frames.

- Review the high-level/low-level design recommendations with Cisco, providing comments and approval prior to the Design Document being completed and released.
- Ensure that key Customer stakeholders and project sponsors are available to attend Cisco's summary presentation of the Design Document.

Deployment Services

The Deployment Services validates the Unified Access solution design in a production environment for the 2 use case types in scope. The focus of this deployment is only on the Unified Access use cases identified above even if the broader customer design is larger.

Cisco Identity Service Engine Proof-of-Concept Deployment

Cisco will set up the Identity Services Engine and conduct testing of the ISE system for proof-of-concept deployment up to deployment size endpoints required and up to 5 device profiles.

Cisco Responsibilities

- Develop an ISE test plan including test cases and procedures for the use case in scope.
- Develop test success criteria.
- Provide configuration according to Design and CRD.
- Support the configuration and setup of the ISE to communicate with WLAN controller.
- Basic configuration and customization of the ISE guest registration portal to allow an authorized internal user to register a guest user, including authentication against an employee directory.
- Provide basic configuration of the user welcome page of the guest access gateway (WLC or Cisco Prime Infrastructure) including logo and acceptable use policy.
- Definition and configuration of necessary ISE profiles (limited to 1-device types) for Customer-specified user groups and wireless end-points for Bring-Your-Own-Device (BYOD) functionality.
- Provide system level testing and verification of the guest access solution in cooperation with the Customer.
- Perform testing of the test cases, tuning and stabilizing proof-of-concept implementation, and troubleshooting.
- Conduct session with End User to review test results and evaluate the test results against success criteria.
- Assist customer with configuring an existing Certificate Authority to integrate with ISE.
- Capture ISE Configuration, Testing, and Implementation Plans within the Unified Access Deployment Documents.
- Review Unified Access Deployment Documents documentation with Customer and provide a final version.

Customer Responsibilities

- Set up an environment where ISE, Cisco Prime Infrastructure, and other WLC will be configured. Cisco

will be granted remote access to this environment for remote testing, configuration and support.

- Provide the required endpoints (i.e., mobile devices, smartphones, tablet computers) to execute the defined test use cases.
- Assist Cisco to develop ISE test plan including test cases and test procedures. The test cases will be performed on 1 of 2 Unified Access use cases identified above.
- Assist Cisco to develop test success criteria.
- Assist Cisco in testing of the test cases, tuning and stabilizing implementation, and troubleshooting
- Participate in session to review test results and evaluate the test results against success criteria.
- Provide a functioning Certificate Authority to integrate with ISE
- Provide software licenses, as needed, for ISE, CPI, and WLC.

Cisco WLAN Controller Deployment

Configuration, testing, and verification of Cisco WLAN Controllers against Customer requirements specified in the Unified Access Design for 1 of 2 use cases identified above.

Cisco Responsibilities

- Provide a WLAN specialist for up to 2 days of on-site for Cisco wireless LAN controller implementation.
- Recommend the wireless LAN controller and access point software releases, and obtain approval to implement these recommendations.
- Configure the recommended wireless LAN controller and access point software release.
- Assign access points to the required wireless LAN controller according to the design.
- Configure security controls including IEEE 802.1x authentication to the RADIUS server and external database.
- Configure radio management settings including RF interference detection, transmit power, and channel selection.
- Configure security monitoring, including rogue AP detection, and intrusion detection.
- Configure policy provisioning fault settings.
- Provide support for the test and turn-up of wireless LAN controllers and access points.
- Capture WLAN Configuration, Testing, and Implementation Plans within the Unified Access Deployment Documents
- Review Unified Access Deployment Documents documentation with Customer and provide a final version.

Customer Responsibilities

- Provide the wireless LAN controller hardware, software, and licenses as recommended and approved.
- Rack, power, and physically install Cisco WLAN controller and access points.
- Provide IP addressing information for the CPI and wireless LAN controller.

- Provide radio and Ethernet MAC addresses and IP addresses for each access point.
- Provide read-only and read-write SNMP credentials.
- Determine the physical location of access points required to meet Customer's wireless coverage and capacity requirements.
- Ensure that the access points are properly installed on the network with access to the wireless LAN controller.
- Provide Telnet/SSH/console and/or HTTPS access to the wireless LAN controllers.
- Provide information on the required authentication, security, QoS, mobility, optimization, fault and configuration provisioning policies to be applied to each wireless LAN controller and access point.
- Ensure any wireless test clients are upgraded to current/recommended driver revisions.
- HTML customization required for the Lobby Ambassador feature.
- Review with Cisco the wireless LAN controller Configuration Record for comment and approval before it is formally completed and released.
- Provide sign-off signature on completion of the Cisco wireless LAN controller (WLC) Implementation and Testing within the Unified Access Deployment Documents.

Cisco Mobility Services Engine (MSE) Implementation

Cisco will perform activities related to configuration, testing and verification of a Cisco Mobility Service Engine.

Cisco Responsibilities

- Recommend software releases for the PI, wireless LAN controllers and access points.
- Recommend the MSE software release.
- Configure **one** Mobility Services Engine for Context Aware location including:
 - Import the Mobility Services Engine into PI
 - Import applicable buildings and floor areas
 - Enable and configure device tracking
 - Determine and configure polling intervals to optimize MSE and network resources
 - Determine and configure basic and advanced server history parameters
- Support the test and turn-up of the Mobility Services Engine.

Customer Responsibilities

- Provide Cisco Prime Infrastructure (PI) with appropriate software licenses (either Windows or Linux) which must be installed and fully operational.
- Upgrade software releases for the PI and WLAN controllers to recommended releases for MSE support.
- Provide the Cisco Mobility Services Engine.
- Rack, power, and physically install Mobility Services Engine hardware.
- Ensure that the Mobility Services Engine and PI are physically co-located with high-speed network connection.

- Ensure that the Mobility Services Engine is properly installed on the network with access to the PI.
- Provide current, high-resolution floor plans of each floor in DWG, GIF, BMP, JPG, or PNG format. Identify the location of existing APs on the floor plans.
- Provide a verified list of the following information for each access point and each wireless LAN controller:
 - IP address, subnet mask, and default gateway;
 - Hostname;
 - specific physical location description;
 - Radio and Ethernet MAC addresses;
 - SNMP community strings;
 - Username and password for Telnet (or SSH) access.

Cisco MSE Calibration for Location only

Cisco will perform calibration of a Cisco Mobility Service Engine for context aware location services.

Cisco Responsibilities

- Perform Cisco MSE calibration on site to attempt to improve location accuracy.
- If required, provide recommendations for locations of additional APs to improve location accuracy performance.
- Make other recommended configuration changes to match Cisco leading practices and the Customer environment.
- Demonstrate to Customer operations staff on how to perform location calibration.

Customer Responsibilities

- Ensure that the Mobility Services Engine is properly installed on the network with access to the PI.
- Provide a current, high-resolution floor map in either .PNG, .JPG, .JPEG, or .GIF format.
- Identify the location of existing APs on the floor plans.

Cisco Prime Infrastructure Deployment

Perform configuration, testing and verification of a Cisco Prime Infrastructure (Lifecycle and Assurance) System (CPI) against Customer's Design and Deployment specifications.

Cisco Responsibilities

- Conduct project kick off meeting, providing representation from technical and project management team
- Create As-built Document for the services
- Install one (1) instance of Cisco Prime Infrastructure (CPI) on a single Cisco recommended hardware running VMWare ESXi or as an appliance
- Perform the following configuration tasks for CPI:
 - Configure one (1) floor map
 - Up to 500 devices (including AP's for small) will be discovered.
 - Configure up to 2 NAMs as Data Collectors
 - Configure up to 2 devices for Netflow Collection

- Configure Users & Roles (up to 5 users)
- Logical Infrastructure Segmentation (up to 2 Virtual Domains, 4 Sites (Small), 10(M), 15(L), 4 Device Groups)
- Email Notifications Setup
- Data Retention Configuration
- Device Configuration Archiving
- Software Image Repository Configuration
- Incorporate the CPI As-built Documentation into the Deployment Document based on specific attributes of the system installation and configuration.
- Review As-built Documentation with Customer and provide the final version.
- Incorporate the Acceptance Test Plan (ATP) documentation into the Unified Access Deployment Documents
- Review ATP documentation with Customer and provide a final version.
- Execute acceptance testing for up to eight (8) hours, and documenting the test results in the ATP.
- Any integration with any 3rd party systems is out of scope
 - Management of any devices not supported by CPI
 - VMWare infrastructure design and implementation is not part of the scope
 - Netflow design is not part of the scope
 - NAM Design and Implementation is not in scope
 - HA/Redundancy is not in scope
 - Any customizations

Customer Responsibilities

- Participate in the project kick off meeting providing representation from applicable technical teams.
- Rack, stack, power-up, and install operating system, applying any operating system patches and connecting the server to the network.
- If CPI is installed on a virtual machine, Customer is responsible for creating the virtual machine as per the specification, installing guest operating system, applying any applicable operating system patches and connecting it to the network.
- Provide a current, high-resolution floor map in .PNG, .JPG, .JPEG, or .GIF format.
- Open applicable firewall ports to access CPI web server and PI application to connect to the devices.
- Configure the devices to allow SNMP communication from/to the CPI application.
- Review the As-built Documentation within the Unified Access Deployment Documents.
- Review the Acceptance Test Plan documentation with Cisco within Unified Access Deployment Documents.
- Participate in the execution of the Acceptance Test Plan and provide any applicable feedback.
- Schedule the necessary facilities for on-site Acceptance Testing including conference rooms, projectors, and network connectivity for Cisco resource.

Knowledge Transfer

Cisco Responsibilities

Conduct one (1) 8-hour remote knowledge transfer session to Customer network engineering and operations staff on as-built Unified Access solution, including a review of how to use the key features of CPI and ISE management including:

- Unified Access Solution and Use Case Overview
- Unified Access Architecture Design and Deployment Overview.
- Wireless LAN Infrastructure and Cisco Prime Infrastructure (CPI):
 - Configuring wireless LAN controllers and access points
 - Wireless LAN monitoring and reporting
 - CPI administration
- Security - Identity Services Engine:
 - Understanding ISE Policy fundamentals (authentication & authorization)
 - ISE administration fundamentals.
 - Common troubleshooting methods

Customer Responsibilities

- Designate Customer personnel to attend the Knowledge Transfer Workshop Session.
- Agree with Cisco on which Unified Access topics that would be of most value to the Customer for the knowledge transfer session.

General Customer Responsibilities

- Unless otherwise agreed to by both parties, Customer shall respond within two (2) business days of Cisco's request for documentation and information needed for the Services.
- All information (such as but not limited to: designs, topologies, requirements) provided by Customer is assumed to be up-to-date and valid for the Customer's current environment. Cisco Services are based upon information provided to Cisco by Customer at the time of the Services.
- Customer acknowledges that the completion of Services is dependent upon Customer meeting its responsibilities as indicated herein.
- Identify Customer's personnel and define their roles in the participation of the Services. Such personnel may include but is not limited to: architecture design and planning engineers, and network engineers.
- Ensure Customer's personnel are available to participate during the course of the Services to provide information and to participate in scheduled information gathering sessions, interviews, meetings and conference calls.
- Support services provided by Cisco comprise technical advice, assistance and guidance only.
- Customer expressly understands and agrees that the Services shall take place and complete within 150 calendar days from issuing a Purchase Order to Cisco.

- Customer to notify Cisco of any scheduling changes related to the project at least ten (10) Business Days prior of the scheduled activity.
- Customer expressly understands that the following are out of scope for the Services:
 - RF Network Design/Site Survey
 - Assessment Service for Unified Access solution
 - Configuration for any equipment other than 1 ISE, 1 WLAN controller and 1 CPI
 - Network performance validation
 - Mobile Device Management (MDM) configuration
 - Performance of Context Aware Location accuracy testing or calibration activities
 - Formal training for staff (outside of informal knowledge transfer)
 - Cabling and physical installation of any equipment
 - Design and deployment for Virtualization and Collaboration technologies
 - Design & deployment of advanced LAN / WAN infrastructure beyond the capabilities required to directly support the Unified Access solution.

- Design and deployment of Public Key Infrastructure (PKI)
- Design and Configuration for an ISE production environment

Invoicing and Completion

Invoicing

Services will be invoiced upon completion of the Services.

Completion of Services

Cisco will provide written notification upon completion of the Services to Customer. The Customer shall within five (5) Business Days of receipt of such notification provide written acknowledgement of Cisco's completion of the Services. Customer's failure to acknowledge completion of the Services or to provide reasons for rejection of the Services within the five (5) Business Day period signifies Customer's acceptance of completion of the Services in accordance with this Service Description.