



Service Description: Advanced Services – Fixed Price

Unified Computing – Virtualization Accelerator Service (ASF-ULT2-UCS-VAS)

This document describes Advanced Services Fixed Price: Unified Computing – Virtualization Accelerator Service.

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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Unified Computing – Virtualization Accelerator Service

Service Summary

Services are provided during Standard Business Hours, unless stated otherwise.

Unified Computing – Virtualization Accelerator

Cisco will guide Customer through the implementation and configuration of an optimized server virtualization environment showcasing the features and benefits of operating a virtualized environment on the Unified Computing System (UCS), with up to two (2) fabric interconnects, in a Customer environment at one (1) data center location ("Services").

Location of Services

Services are provided as Remote and/or On Site services at the Customer location as specified in the Quote for Services.

The Virtualization Accelerator Service includes no more than three (3) On Site visits over the course of the Services.

Cisco Responsibilities

Project Management

Project management will be provided in conjunction with and is limited to the management of the Services and Deliverables as described herein.

- Conduct a project kick-off meeting with Customer at the inception of the Services.
- Identify project team members.
- Define the communication flow with the project sponsor and key stakeholders and document it in the project plan ("Project Plan").
- Designate a single point of contact, the Project Manager, to whom communications in regards to the Services may be addressed and who has the authority to act on all aspects of the Services; shall be available during Standard Business Hours; and shall designate a backup contact for when the primary contact is not available.
- Review with Customer the project schedule, objectives, critical success factors and roles and responsibilities of Cisco and Customer project team members.

- Manage the project to the agreed upon Project Plan.
- Ensure completion of the Services and Deliverables as described under this service.
- Participate in regularly scheduled project review meetings or conference calls as required.
- Provide Deliverable: Project Plan.

Week One: UCS Design and Installation Validation

Use Case Workshop

An On Site Use Case Workshop, hosted for eight to ten (8-10) Customer stakeholders, will be conducted for up to one (1) Business Day. This workshop will focus on virtualization of Customer's computing infrastructure. The workshop enables Cisco and Customer teams to understand data center virtualization on the UCS platform. This workshop will include three use cases: server virtualization, infrastructure virtualization and business agility. Details of the workshop will be captured in the design guide and executive summary ("Executive Summary").

- Review the Customer's existing server resource requirements.
- Develop sizing of virtual machines in one (1) data center consisting of up to two (2) fabric interconnects, eight (8) UCS Manager-enabled B-Series blades and/or C-Series rack mounted servers.
- Provide initial mapping and layout for virtual machines to physical hosts.
- Review network and storage presentation and access requirements.
- Provide knowledge transfer on operating the Hypervisor software (VMware vSphere 4.0).
- Document the information gathered and findings derived from the workshop in the use case plan ("Use Case Plan"). Information from the Use Case Plan will be integrated into the UCS design document ("Design Document") and reported in the Executive Summary.
- Provide Deliverable: Use Case Plan.

UCS Design

The UCS Design Document, which captures the UCS architectural design and includes the mutually agreed upon applications to be implemented or migrated on the UCS platform, will be developed. The architectural design defines both physical and virtual configurations for the server, network and connectivity of storage systems, including third party systems and/or tools installed with or connected to the UCS platform. The architectural design will include planning for Customer's installation or migration for up to three (3) applications to be either installed or migrated onto the UCS platform. Cisco will document that the Hypervisor virtualization software (VMware vSphere 4.0) has been installed for up to eight (8) UCS Manager-enabled B-Series blades and/or C-Series rack mounted servers, inclusive of the chosen VM management tool ("Management Tool").

Knowledge Transfer Workshop

A Knowledge Transfer Workshop will be provided On Site for up to one (1) Business Day. This workshop will provide information to Customer on the UCS architecture, design,

product features and capabilities. This workshop will consist of presentations, whiteboard and design sessions around the UCS platform and Customer's environment.

Physical Installation Verification and Configuration of UCS Hardware and Software

- Verify Customer's physical installation (racking and cabling) of the Cisco UCS Hardware and provide configuration of the associated Cisco UCS Software in the Customer's data center.
- Configuration of the Cisco UCS Hardware includes:
 - configuring the Cisco UCS servers and installing them onto the UCS chassis;
 - configuring the internal UCS network, servers, connectivity and presentation to storage systems using the UCS system management console;
 - validating that the installation and configuration passes initial start up tests.

Week Two: UCS Virtualization Support

Virtualization Support

Support in the form of general advice and guidance for Customer's installation of the following onto the UCS platform will be provided. The installation is limited to up to two (2) fabric interconnects, eight (8) UCS Manager-enabled B-Series blades and/or C-Series rack mounted servers. Installation support includes the following activities:

- review of Hypervisor architecture and components;
- install and configure one (1) Hypervisor and one (1) Nexus1000v software per server;
- deploy virtual machines based on resource requirements and mapping as documented in the UCS Design Document;
- configure networking and presentation of storage resources required for virtual machine environment;
- prepare the environment and corresponding configurations to perform the UCS and Nexus 1000v testing for the selected Hypervisor.

System Test Plan Development

The UCS System Test Plan will be developed, documented and provided to Customer. The UCS System Test Plan is provided to Customer for its execution of the test plan and is intended to showcase the features and capabilities of a server virtualization environment operating on UCS while ensuring optimal stability. UCS System Test Plan includes:

- Standard functional test plan template for UCS for up to twenty (20) functional tests;
- Nexus 1000v, including quality of service (QoS), Security, and VN-Tag/VN-link;
- Provide Deliverable: UCS System Test Plan.

Week Three: Production Readiness

Test Plan Execution

The UCS System Test Plan will be executed with Customer for the validation of key Unified Computing System, Nexus1000v and hypervisor-specific UCS features and functionality, stability, and availability in order to validate system performance against expected results. The primary objective of the UCS system testing is to ensure that the operational

feature set of the Unified Computing System and Nexus 1000v is operational as well as to demonstrate core capabilities of the system.

Week Four: Production Operating Support

Operating Support

Support in the form of advice and guidance for Production operations readiness ("Operation Readiness") will be provided On Site and/or Remote for the UCS platform for up to one (1) Business Day for the following Customer activities:

- verify the stability and availability of system;
- support Customer's integration of third party monitoring and reporting tools;
- support Customer's execution of stress and load testing of the UCS platform with the selected Hypervisor;
- provide knowledge transfer on alerts and reporting capabilities.

Operations Run Book

An Operations Run Book will be developed and provided on completion of the service engagement. The Operations Run Book describes the operational procedures required to manage and operate the Customer's UCS platform. The Operations Run Book is a custom-developed document describing Customer's installed UCS system including the Customer's objectives for managing and operating the UCS platform.

- Provide Deliverable: Operations Run Book.

Executive Summary

An Executive Summary document will be developed and provided. The Executive Summary includes the Executive Brief, Use Case Summary, Architecture Diagram and UCS Design, and Unified Computing Synopsis.

- Provide Deliverable: Executive Summary.

Customer Responsibilities

Project Management

- Identify Customer's project sponsors and key stakeholders and define their roles in the participation of this Unified Computing System (UCS) project. Customer stakeholders may include management representatives, UCS system users, engineers and other technical personnel.
- Work with Cisco to schedule the kick-off meeting and communicate the services schedule to the Customer-identified project team members.
- Review with Cisco the project schedule, objectives, critical success factors, deliverables and roles and responsibilities of Cisco and Customer project team members.
- Participate in regularly scheduled project review meetings or conference calls.
- Ensure Customer project team members are available to participate during the course of the services to provide information and to participate in the scheduled information gathering sessions (such as

interviews, review meetings, or conference calls) per the services schedule.

Week One

- Work with Cisco to identify Customer specific objectives for its implementation of the UCS production environment.
- Ensure that all stakeholders participate in the Use Case and Knowledge Transfer Workshops.
- Work with Cisco to identify three (3) Customer-specific use cases and Customer's business objectives for UCS.
- Prior to the start of Week One services, Customer is responsible for ensuring that the Customer environment is prepared (including electrical power and space availability) and that all required tools, hardware, software, and licenses are available to Cisco in order for Cisco to perform the Services. Including, but not limited to:
 - physical installation, cabling and power-up of the UCS Hardware;
 - provide a network connection for remote (VPN) access to the UCS as well as Internet access available for software downloads;
 - provide the required software and software licenses.
- Ensure Customer project team members participate in the architecture design development activities. It is expected that Customer will work with Cisco during one (1) review session and provide written feedback within one (1) Business Day so the Deliverable may be completed and released within two (2) Business Days. Review of the UCS Design Document shall be limited to one (1) review with Cisco.
- Customer will select and provide access to third party Physical to Virtual (P2V) or Virtual to Virtual (V2V) migration software tools to perform installation and migration services during Week Two.

Week Two

- Customer is responsible for the provision and installation of the Customer-supplied applications for the UCS platform for the Installation/Migration Support services. The applications must be Cisco supported software for UCS according to the current Hardware and Software Interoperability Matrix found at the following URL: http://www.cisco.com/en/US/docs/unified_computing/ucs/interoperability/matrix/hw_sw_interop_matrix.pdf.
- Work with Cisco to define up to twenty (20) test cases for UCS system test that will be used to validate the UCS installation and readiness and documented in the UCS System Test Plan.
- Advise Cisco of the expected results/outcome of the defined tests and the definition of pass/fail criteria for the tests as defined and agreed upon in the UCS System Test Plan.
- Prior to the start of Week Three services, provide all test data and required UCS hardware and software configurations.

Week Three

- Work with Cisco to review and validate system test results.
- Integrate Customer's third party monitoring and reporting tools.
- Execute the stress and load testing of the UCS Platform with the selected Hypervisor.

General Customer Responsibilities

- 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.
- 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.
- Designate a single point of contact, to whom communications in regards to the Services may be addressed and who has the authority to act on all aspects of the Services; shall be available during Standard Business Hours; and shall designate a backup contact for when the primary contact is not available.
- Designate a single point of contact to act as the primary technical interface to the designated Cisco engineer.
- 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 ninety (90) calendar days from issuing a Purchase Order to Cisco for the Services herein.
- Customer will provide Cisco with such general assistance and access to Customer's sites and/or facilities as Cisco may require enabling Cisco to provide the Services and comply with the Cisco's responsibilities set forth herein.
Examples include but are not limited to:
 - i. Provide reasonable access to Customer site(s) and facilities including, where applicable, computer equipment, telecom equipment, facilities and workspace.
 - ii. Provide proper security clearances and/or escorts as required to access the Site.
 - iii. Schedule and provide the necessary Customer facilities (such as: conference rooms, projectors and conference bridges)

for On Site meetings as required for the provision of the Services and per the project schedule.

- Unless otherwise agreed to by the parties, Customer shall respond within two (2) Business Days of Cisco's request for any other documentation or information needed to provide the Service.
- Customer is responsible for determination of its requirements, and Customer shall retain overall responsibility for any business process impact and any process change implementations.
- For installation within EU, Customer's Site must meet at least the minimum EU-level of employee health and safety specifications.
- Customer shall ensure that Customer's Site shall be ready prior to the date scheduled for Cisco to perform the Services.
- Customer shall supply the workplace policies, conditions and environment in effect at Customer's Site.
- Installation of server operating system or Hypervisor software onto the UCS platform is limited to the Cisco supported software for UCS according to the current Hardware and Software Interoperability Matrix found at the following URL: http://www.cisco.com/en/US/docs/unified_computing/ucs/interoperability/matrix/hw_sw_interop_matrix.pdf
- Customer understands that all references to UCS System Management console implies Cisco's UCS B-series server platform or UCS-C series server.
- Customer is responsible for testing its own applications on the UCS platform, providing test tools specific to the environment being tested, as well as providing any specific applications for the testing.

Invoicing and Completion**Invoicing**

Services will be invoiced upon completion of the Services.

Completion of Services

Cisco will provided written notification upon completion of the Services to Customer. 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