



## Service Description: Advanced Services – Fixed Price

### Cisco DC Validation Service for Big Data (ASF-DCV1-G-BD-PP)

This document describes Advanced Services Fixed Price: Cisco Data Center Validation Service for Big Data.

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#### Cisco Data Center Validation Service for Big Data

### Service Summary

Cisco will provide the Cisco Data Center Validation Service for Big Data to Customer during Standard Business Hours.

#### Services Activities

- Project Kick Off Meeting
- Unified Computing System (UCS) Install Plan
- Knowledge Transfer Workshop
- Physical Install and Configuration of UCS Hardware and Software
- Deploy
- Develop Test Plan
- Execute System Test Plan
- Operations Run Book
- Executive Summary
- Ready customer for production

#### Deliverables

- Test Plan
- Executive Summary
- Operations Run Book

#### Location of Services

Services are provided remotely and onsite, as necessary.

#### Project Kick Off Meeting

#### Cisco Responsibilities

- Cisco will conduct a project kick-off meeting with Customer at the inception of the services engagement. The objective of the kick-off meeting is to review the engagement timelines and activities, review objectives and critical success factors, and discuss roles and responsibilities. The primary objective of this meeting will be to have a thorough understanding of potential applications to be deployed onto the UCS platform for this engagement.
- Facilitate the kick off meeting with the Customer.

- Present the objectives of the engagement and describe the final deliverables.
- Review engagement schedule, objectives, deliverables and Customer's responsibilities for the service.
- Define critical success factors for the deployment and operation on Cisco Unified Computing System within the Customer's environment.
- Present the roles and responsibilities for Cisco and the Customer team.
- Check the one (1) use case provided by Customer for review, validation and mutual agreement for deployment.

#### **Customer Responsibilities**

- Make appropriate personnel available to assist Cisco in the performance of responsibilities
- Provide a conference room with a white board, projector and conference phone as needed.
- Ensure all stakeholders are present and participate in the kick off meeting.
- Work with the Cisco to identify specific objectives and success criteria for UCS.
- Understand the roles and responsibilities of the Customer team during the engagement.
- Provide one (1) use case to Cisco for review, validation and mutual agreement for deployment.
- Provide the version and license detail of the Linux distribution and the desired Hadoop version.

#### **UCS Install Plan**

##### **Cisco Responsibilities**

- Cisco will develop a recommended UCS installation plan and layout for mutually agreed upon applications that will be deployed at the Customer's location. The installation plan defines physical configuration for the server, network and storage systems.
- Cisco will document the Linux operating system to the pilot architecture for up to thirty-two (32) C-240 M3 servers, two (2) Fabric Interconnects, and four (4) Nexus 2232PP modules.
- Cisco will document the pilot design of the Hadoop software installed for up to thirty-two (32) C-240 M3 servers, two (2) Fabric Interconnects, and four (4) Nexus 2232PP modules.
- Gather information on the network, server and storage infrastructure and selected applications that are addressed during the engagement.
- Incorporate Customer requirements and objectives from the Use Case review during the Project Kickoff Meeting.
- Highlight any architectural elements that are considered non-standard or do not meet Cisco UCS best practices.
- Document the Linux operating system version and the desired Hadoop version.
- Develop and document the UCS Install plan.
- Present the install plan to the customer stakeholder(s).

##### **Customer Responsibilities**

- Ensure the environment for UCS is prepared and all required tools, hardware, software and all applicable licenses are available to Cisco.
- Provide Cisco with access to all the necessary systems, information, required personal, hardware and software required to develop the plan..
- Selection and communicate the choice of Linux operating system version required for the desired Hadoop version.
- Ensure all stakeholders are active and participating in the architecture activities.
- Provide Cisco access to all areas required to develop the architecture, install the UCS hardware and software, and test the system.

#### **Knowledge Transfer Workshop**

##### **Cisco Responsibilities**

- Cisco will provide onsite UCS workshop to provide knowledge transfer on architecture, design and features.
- Provide one (1) day workshop consisting of presentation, whiteboard and design sessions around UCS and Customer environment
- Facilitate the Knowledge Transfer Workshop meeting with the Customer.
- Present the UCS materials that describe the UCS platform, including the hardware, software and systems management components.
- Collect business and technical information from the Customer for the UCS deployment.

##### **Customer Responsibilities**

- Provide a conference room with a white board, projector and conference phone as needed.
- Ensure all stakeholders are present and participate in the kick off meeting.

#### **Physical Install and Configuration of UCS Hardware and Software**

##### **Cisco Responsibilities**

- Cisco will verify Customer installation (rack, stack and cabling) of the Unified Computing System hardware and configure the associated Cisco software in the Customer's data center. Hardware installation and configuration include the following:
  - Configure Cisco UCS C-Series servers including any addition required Cisco equipment.
  - Configure the network, server, and storage systems using the UCS System Management console.
- Validate the installation and configuration passes initial startup tests.
- Install and configure UCS including the hardware, software and systems management components.
- Highlight any installation elements that are considered non-standard or do not meet Cisco UCS best practices.
- Present the completed system to the Customer.
- Prepare the C-Series servers for the operating system installation and install the operating system supplied by the Customer.

- Install a minimum of one (1) single operating system on up to thirty two (32) C240-M3 servers and configure them through the UCS System Management console.
- Prepare the C-Series servers for installing an Hadoop software supplied by the Customer.

#### **Customer Responsibilities**

- Assist Cisco in the installation of Linux operating systems, Hadoop software on UCS.
- Ensure the environment for UCS is prepared and all required tools, hardware and software is available to Cisco.
- Provide Cisco access to all the necessary systems, information, required personal, hardware and software required to develop the plan.
- Provide Cisco access to all areas required to develop the architecture, install the UCS hardware and software, and test the system.
- Ensure all stakeholders are active and participating in the activities.
- Provide all the necessary operating system or Hadoop software and licenses that will be installed on the UCS platform.

#### **Deploy**

#### **Cisco Responsibilities**

- With the assistance of the Customer's technical team, Cisco will Install and configure Hadoop on UCS to correspond to the use case presented to Cisco by the customer during the project kickoff meeting.
- Install the Hadoop software on up to thirty two (32) C240-M3 servers and configure them using the Hadoop software management console supplied by the Customer.
- Highlight any installation elements that are considered non-standard or do not meet Cisco UCS best practices.
- Assist in the installation of Customer provided Linux operating systems, Hadoop software on UCS for maximum of four (4) days of effort.

#### **Customer Responsibilities**

- Ensure the environment for UCS is prepared and all required tools, hardware and software is available to Cisco.
- Provide Cisco access to all the necessary systems, information, required personal, hardware and software required to develop the plan.
- Provide Cisco access to all areas required to deploy the architecture, install the UCS hardware and software, and test the system.
- Ensure all stakeholders are active and participating in the activities.
- Provide all the necessary operating system, Hadoop software and licenses that will be installed on the UCS platform.
- Provide all of the MapReduce jobs and scripts required for deployment of the use case.

#### **Develop Test Plan**

#### **Cisco Responsibilities**

- Cisco will develop test plan to be executed by Customer to address stability and readiness for production while providing deployment and migration support:
  - Functional Testing – Perform testing and validation of key Unified Computing System features and functionality.
  - Document up to five (5) test cases that will be executed to validate the UCS platform and Hadoop platform.
- With the assistance of the Customer's technical team, establish the pass/fail criteria for the test plan.
- With the assistance of the Customer, document and develop any required test data.
- Highlight any installation elements that are considered non-standard or do not meet Cisco UCS best practices.

#### **Customer Responsibilities**

- Work with Cisco to define up to five (5) test cases that will be used to validate the UCS installation and Hadoop platform.
- Assist in the definition of pass/fail criteria for the defined tests.
- Provide all test data and required configurations.
- Ensure the environment for UCS is prepared and all required tools, hardware and software is available to Cisco.
- Provide Cisco access to all the necessary systems, information, required personal, hardware and software required to develop the plan.
- Provide Cisco access to all areas required to develop the architecture, install the UCS hardware and software, and test the system.
- Ensure all stakeholders are active and participating in the activities.
- Provide all the necessary operating system and Hadoop software and licenses that will be installed on the UCS platform.

#### **Execute System Test Plan**

#### **Cisco Responsibilities**

- Cisco will deliver a documented test plan, including functional tests for the UCS and Hadoop platform. The functional test plan will define the activities, schedule, environment and systems required to install, configure and test the UCS and Hadoop platform. The primary objectives of the functional test plan are to confirm the operational feature set of the Unified Computing System while showcasing the benefits and providing knowledge transfer of core capabilities and Hadoop platform.
- Assist the Customer in the execution of the test plan.
- Document the pass/fail results for all tests in the test plan.
- Document any UCS defects, configuration errors or other system problems that result in failed test results.

- Highlight any installation elements that are considered non-standard or do not meet Cisco UCS best practices.

#### **Customer Responsibilities**

- Work with Cisco to execute up to five (5) test cases to validate the UCS installation.
- Validate and sign off on the system test results
- Provide all test data and required configurations.
- Ensure the environment for UCS is prepared and all required tools, hardware and software is available to Cisco.
- Provide Cisco access to all the necessary systems, information, required personal, hardware and software required to develop the plan.
- Provide Cisco access to all areas required to develop the architecture, install the UCS hardware and software, and test the system.
- Ensure all stakeholders are active and participating in the activities.
- Provide all the necessary operating system or Hadoop software and licenses that will be installed on the UCS platform.
- With the assistance of Cisco, execute the system test plan.

#### **Operations Run Book**

##### **Cisco Responsibilities**

- Cisco will deliver an Operations Run Book to the Customer on completion of the service engagement. The Operations Run Book describes the operational procedures required to manage and operate UCS and Hadoop platform.
- The Run Book is a custom document based on the installed UCS and the Customer's objectives for managing and operating the UCS. It contains following activities:
  - Document the system requirements, configurations and connection settings.
  - Document the operating system and Hadoop software installed.
  - Develop and document the final UCS Operations Run Book.
  - Highlight any installation elements that are considered non-standard or do not meet Cisco UCS best practices.

##### **Customer Responsibilities**

- Work with Cisco to document the system requirements, configurations and connection settings.
- Work with Cisco to document the operating system and Hadoop software installed.

#### **Executive Summary**

##### **Cisco Responsibilities**

- Cisco will provide an executive summary. This deliverable will provide a 1 page Executive Brief, a synopsis of the

consulting engagement and UCS benefits. This document will also include one (1) use case selected, architecture, systems design and server layout. Deliverable document will contain the following:

- Executive Brief
- Use Case Summary
- High Level Architecture Diagram
- Facilitate the Executive Summary meeting with the Customer.
- Present the Executive Summary report and results of the engagement.

##### **Customer Responsibilities**

- Provide a conference room with a white board, projector and conference phone as needed.
- Ensure all stakeholders are present and participate in the kick off meeting.
- Customer must have a complete version of the Common Platform Architecture (CPA) at the current revision.
- Customer must complete the appropriate pre-installation questionnaire.
- The Customer design will be based on the CPA validated design (current revision) and must include one (1) pair of Fabric Interconnects (current model).

##### **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.
- The Customer design will be based on the CPA validated design (current revision) and must include one (1) pair of Fabric Interconnects (current model).
- 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 ninety (90) calendar days from issuing a Purchase Order to Cisco for the Services herein
- Designate a single point of contact to act as the primary technical interface with the designated Cisco engineer.
- Designate a backup when the Customer contact is not available who has the authority to act on all aspects of the Services in the absence of the primary contact.

- Notify Cisco of any hardware and/or software upgrades or any other changes within Customer's Network at least thirty (30) business days prior to the upgrade.
- Notify Cisco of any scheduled implementation activities within ten (10) business days of the scheduled activity.
- Notify Cisco of any Installation scheduling change at least seventy-two (72) hours prior to the originally scheduled installation date.
- Supply the workplace policies, conditions and environment in effect at the site.
- Provide documented Customer requirements (business and technical) and high-level network architecture design specifications.
- 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 will create and manage an internal email alias for communication with Cisco team.
- Customer will provide the required access to the network and required port connectivity for appliances and tools; and, Customer will provide the required IP addresses to connect the devices and the necessary DNS/NIS, Windows domain/Active directory configuration details.
- Notify Cisco about changes made to the Network such as Product(s) added/deleted and changes made to Product credentials, and any changes to Syslog, DNS, proxy and gateway servers IP address.
- Customer is responsible to implement system change requests (firewall, ACL configuration, user-id creation, etc.) to facilitate data gathering within one (1) business day of the initial request.
- The one (1) use case will include:
  - One (1) structured or unstructured data source input. Data to be provided by Customer. Structured data source must have an available and supported JDBC/ODBC driver. Load the one (1) structured or unstructured dataset into the HDFS. Data loading can be compressed or uncompressed data for the HDFS. Access to the HDFS via NFS is out of scope for this installation.
  - Create one (1) Map and Reduce job for the Hadoop cluster. The Mapper job will be written in Java or Python. The Reducer job will be written in Java or Python.
- Job control for the respective Hadoop version will use the default utility (Oozie, Fair, YARN, etc.) as provided by the selected distribution. Tidal Enterprise Scheduler implementation is out of scope for this Validation service unless already utilized by the Customer.
- Data output of MapReduce job will be in the default txt format or the default browser utility that accompanies the Hadoop distribution. Output data will not be converted to an alternative format like XML, XSLT, or HTML. Output data from the HDFS will remain in flat file format.
- Data will can be exported as-is from the HDFS and imported to one relational Database target. The target DB must have a supported JDBC or ODBC driver available. Customer is responsible for correcting database formatting.

### 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.