

Service Description

Card Implementation Services

This Service Description is part of the Services Agreement (as defined in the <u>Services Guide</u>) and describes various Services that Cisco will provide to You. Capitalized terms, unless defined in this document, have the meaning in the Services Guide.

1. Summary

As part of Card Implementation Services (AS Fixed SKU: ASF-SP1-G-NGN-INC1), Cisco will provide Line Card / Route Processor / Switch Fabric Card implementation.

2. Deliverables

- Hardware & Software Analysis
- Network Implementation Plan (NIP)
- Implementation Verification Report

3. Service Scope

The Scope of Service delivery is limited per project as follows:

- 1 Line Card (LC) / Variant
- 1 Switch Fabric Card (SFC) / Variant

The activities listed below will be part of the Service:

- Hardware & Software Analysis
- Feature, configuration, scale recommendation
- Future feature check / recommendation
- Software Version and SMU [Software Maintenance Upgrade] referral
- Network Implementation Plan
- Implementation Support
- Implementation Verification Report (Health Check)

4. General Project Management

4.1 Cisco Responsibilities:

 Provide a Project Management Plan ("PMP"). The PMP is a baseline document from which the Cisco PM can manage deliverables, assess progress, and manage change management issues and any ongoing questions.

Assessment (Hardware and Software Analysis)

5.1 Cisco Responsibilities:



- Conduct a half (0.5) Business Day assessment workshop remotely to review Customer's implementation readiness, Service redundancy, high level implementation strategy and Customer's preferences for port-mapping/line card layout.
- Provide the Assessment Report for review and approval.
- Conduct a short remote executive presentation of the Assessment Report for Customer's key stakeholders.

5.2 Customer Responsibilities:

Provide any long-term feature requirements that may impact software referral.

6. Implementation Plan Development

6.1 Cisco Responsibilities:

- Provide the Network Implementation Plan (NIP), which is a guide for the implementation engineer to perform basic tests and actions carried out prior / during the implementation. The NIP provides the following:
 - o Steps to implement existing device type as per recommended guidelines.
 - o Any changes for which Customer's operation staff should be alerted; and
 - o Any switchover dependencies.
 - The NIP includes information necessary to carry out the implementation of hardware in the bill of materials identified in the NIP, as installed at the Customer location, and to verify basic operation and network is Ready for Service. "Ready for Service" means that the Customer environment, or a sub-set of it, is functioning as per the specifications documented in the NIP.
 - The NIP does not include testing of application availability beyond connectivity.
- Review configured features, scale and provide recommendation / best practices to Customers.
- Review the features that Customer is planning to implement, and provide a software referral with expertise in Cisco best practices including experience gained with other Customers that have similar profiles.
- Provide list of recommended SMU's [Software Maintenance Upgrade] to be installed by Customer based on features configured.
- Software referral does not include Customer-specific software risk analysis or a specific software recommendation.

6.2 Customer Responsibilities:

- Provide detailed procedure to reroute traffic on the device to be implemented which will be referenced in NIP. Customer must ensure that the list of all traffic to be migrated at each site is accurate and provide continuous management of those Services.
- Provide Customer's implementation requirements and provide the following information:
 - Verified interface specifications and requirements (e.g., cabling standards and specifications for interconnect of Cisco and Customer equipment);
 - information on distance and interference limitations of interface cables to be used at installation;
 and
 - Test plan and interconnect process required by any third parties including but not limited to in country carrier/telco.



- Determine Customer's implementation requirements and retain overall responsibility for any business process impact and any process change implementations resulting from the implementation Services.
- Agree with Cisco on appropriate and timely maintenance windows in advance to enable implementation activities planning at each site detailed in the Network Implementation Plan.

7. Implementation Support

7.1 Cisco Responsibilities:

- Deliver device specific Network Implementation Plan (NIP) to Customer for implementation which will include:
 - Detail steps and activities performed during implementation window including roll-back procedures.
 - o Converted configuration based on agreed port-mappings.
- Execute configuration conversion, including:
 - o deploying router configurations onto the target equipment prior to cutover.
 - preceding cutover, validating via remote location the load of new configurations on designated device.
- The Implementation Service will be provided by Cisco as remote consultative support to assist the Customer with the following:
 - o Pre-stage configuration and configuration changes.
 - o Implementation of devices in the NIP document.
 - o Cutover support.

7.2 Customer Responsibilities:

- Ensure that the software/OS required and recommended by Cisco for the implementation is installed and running on the router.
- Ensure that all required hardware is present at the site for the implementation to be carried out by either partner or Customer.
- Ensure hardware has been unpacked and ready to be implemented.
- Ensure all cables are checked, patch panels and port mappings are accurate before implementation.
- Engage Cisco TAC for RMA process in case of any hardware failures, if applicable.
- Update any related databases or Customer network tools as required.
- Perform end-user testing, Services/application testing, monitoring alarms and performance.
- Provide timely approval for key decisions to be taken during the implementation window, such as traffic-diversion, line card power-down, traffic recovery, and backout/rollback if required.
- Ensure any change management approvals required are obtained in advance, and that the
 approved change/maintenance windows are available for Cisco to perform implementation
 activities with sufficient time to perform the change as estimated by Cisco engineers for the
 particular change window.

Page 4 of 4



- Ensure that a partner or Customer be present onsite during maintenance window to take care of line card insertion/removal into chassis and also other port cabling as per steps in master MOP.
- Communicate to Customer's affected end users regarding the change window and any expected downtime.

8. Post Implementation Support

8.1 Cisco Responsibilities:

- Perform verification checks on implemented hardware using Cisco proprietary tools.
- Share activity completion report including Device Pre/Post Service status, activity logs, updated
 configurations in case of change to target device configuration & Cisco TAC SR details in case of
 any incident encountered during the installation activity.

9. Assumptions and Exclusions

- Only product families listed below will be supported under this Service:
 - o ASR 903/907
 - o ASR 1004/1006/1009/1013
 - o ASR 9006/9010
 - o ASR 9904/9906/9910/9912/9922
 - o NCS 560/540
 - o NCS 1004
 - o NCS 4009/4016 (No Support for TDM/Optical Only Support IP/IOS-XR)
 - NCS 4206/4216 (No Support for TDM/Optical Only Support IP/IOS-XE)
 - o NCS 5508/5516
 - o NCS 6008 Single Chassis
 - o Nexus 9000 Series
 - o Cisco 8808, 8812, 8818
 - o CRS X Single Chassis