

ASR9k Modernization Migration Service

This document must be read in conjunction with the [How Cisco Provides Services](#) document, which is incorporated into this document by reference.

Service Summary: ASR9k Modernization Migration Service (AS Fixed SKU: ASF-SP1-G-A9K-MIG) provides migration support and Execution to customers upgrading their generation 1 / 2 line cards with either generation 3 / 4 / 5 line cards.

Deliverables

- Assessment Report
 - Hardware & Software Analysis Report
- Migration Plan Development
 - Master Method of Procedure (Master MoP)
- Migration Execution:
 - Physical Port/Interface Mapping
 - Configuration Conversion
 - Device Specific Method of Procedure (MoP)
 - MoP Execution
 - Change Verification
 - Activity Report

Service Scope

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

- 1 Router / Chassis / Role
- Up to 2 line cards PID types/variants
- 1 Route Processor
- Up to 80 ports or 4 line cards
- 1 IOS XR Software release

General Project Management

Cisco will provide the following:

- The Project Management Service will include 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)

Cisco will provide the following:

- Conduct a single one (1) Business Day assessment workshop remotely to review Customer migration readiness, service redundancy, high level migration strategy and Customer preferences for port-mapping/chassis layout.
- The Assessment Report for upgrading devices within the scope of migration, which includes:
 - Hardware & Software Analysis Report
 - Validation of BOM
 - Chassis layout to reflect HW consolidation

- Conduct a remote executive presentation of the Assessment Report for key Customer stakeholders.

Migration Plan Development

Cisco will provide the following:

- Conduct up to four (4) hours remote workshop to review the outcomes of Cisco's Software recommendations and SVS testing, gather and agree upon the Customer's migration requirements and agree upon the Migration Development Plan.
- Provide the Master Method of Procedure (MoP), which is a guide for the migration engineer to perform basic tests and actions carried out prior to migration. The Master MoP provides the following:
 - steps to upgrade existing device type as per recommended guidelines;
 - any changes for which Customer operations staff should be alerted; and
 - any switchover dependencies.
- The Master MoP includes information necessary to carry out the migration of products identified in the bill of materials identified in the Master MOP, and 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 Master MoP.
- The Master MoP does not include testing of application availability beyond connectivity to the implemented solution and new features/architectural changes.

Additional Customer Responsibilities

- Provide detailed procedure to reroute traffic on the device to be upgraded which will be referenced in Master MoP. 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 migration 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 migration requirements and retain overall responsibility for any business process impact and any process change implementations resulting from the migration services.
- Agree with Cisco on appropriate and timely maintenance windows in advance to enable migration activities planning at each site detailed in the Migration Plan.

Migration Execution

Cisco will provide the following:

- Work with Customer to agree on Device specific port-mappings for the designated devices based on Hardware consolidation.
- Deliver device specific Migration Plan's utilizing Master MoP for migration.
- Device specific MoP will include:
 - Detail steps and activities performed during migration window including roll-back procedures.
 - Converted configuration based on agreed port-mappings.
 - Pre/Post Migration Change Verification procedure.

- Execute configuration conversion, including: a) deploying router configurations onto the target equipment prior to cutover (for software migration, source router is same as target router); b) preceding cutover, validating via remote location the load of new configurations on designated device; c) migration execution; d) software upgrade (cXR to cXR or cXR to eXR).
- The Migration Execution Services will be provided by Cisco as remote consultative support to assist the Customer with the following: a) pre-stage configuration and configuration changes; b) migration of end devices in the MoP document; c) cutover support.
- Provide network level verification based on device logs and outputs from the device under migration only.
- 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 Migration activity.

Additional Customer Responsibilities

- Ensure that the required software/OS required recommended by Cisco for the migration is available on-site to enable software upgrades.
- Ensure that all required hardware is present at the site for the migration.
- Engage Cisco TAC for RMA process in case of any hardware failures, if applicable.
- Update any related databases or Customer network tools as required and any perform end-user testing, services/application testing, monitoring alarms and performance.
- Provide Cisco with access to all designated devices required for Cisco to perform migration.
- Provide timely approval for key decisions to be taken during the migration window, such as traffic-diversion, chassis 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 migration activities with sufficient time to perform the change as estimated by Cisco engineers for the particular change window.
- Communicate to Customer's affected end users regarding the change window and any expected downtime.

Service Specific Assumptions and Exclusions

Hardware:

- **Only product families, line card generations, route processors and switch fabrics listed as follows will be supported under this Service:**
 - ASR 9000 Series & ASR 9900 Series
 - Line cards generation 1, 2, 3, 4, 5
 - All generations of Route Processor (RP), Route Switch Processor (RSP)

Migration Execution:

- It is assumed that redundant nodes and paths are available in the network to support the traffic diversion and node isolation for the device to be upgraded.
- Design/Architecture Changes and addition of new features/protocols is not in scope.