



## Service Description: Validation and Test Optimization Services

This document describes the Validation and Test Optimization Services.

**Related Documents:** This document should be read in conjunction with the following documents also posted at [www.cisco.com/go/servicedescriptions/](http://www.cisco.com/go/servicedescriptions/): (1) Glossary of Terms; (2) List of Services Not Covered; and (3) Severity and Escalation Guidelines. All capitalized terms in this description have the meaning ascribed to them in the Glossary of Terms.

**Direct Sale from Cisco.** If you have purchased these Services directly from Cisco, this document is incorporated into your Master Services Agreement (MSA), Advanced Services Agreement (ASA), or equivalent services agreement executed between you and Cisco. All capitalized terms not defined in the Supplemental Glossary of Terms for Validation and Test Optimization Services at the end of this document have the meaning ascribed in the MSA or equivalent services agreement executed between you and Cisco. If not already covered in your MSA or equivalent services agreement, this document should be read in conjunction with the Related Documents identified above. In the event of a conflict between this Service Description and your MSA or equivalent services agreement, this Service Description shall govern.

**Sale via Cisco Authorized Reseller.** If you have purchased these Services through a Cisco Authorized Reseller, this document is for description purposes only; is not a contract between you and Cisco. The contract, if any, governing the provision of this Service will be the one between you and your Cisco Authorized Reseller. Your Cisco Authorized Reseller should provide this document to you, or you can obtain a copy of this and other Cisco service descriptions at [www.cisco.com/go/servicedescriptions/](http://www.cisco.com/go/servicedescriptions/).

This Validation and Test Optimization Service is intended to supplement a current support agreement for Cisco products and is only available where all Product(s) in Customer's Network is supported through a minimum of core services such as Cisco's SMARTnet and Software Application Services, as applicable. Cisco shall provide the Validation and Test Optimization Service described below as selected and detailed on the Purchase Order for which Cisco has been paid the appropriate fee. Cisco shall provide a Quote for Services ("Quote"), identifying the various service elements with the corresponding SKU as shown in Appendix A, setting out the extent of the Services and duration that Cisco shall provide such Services. Cisco shall receive a Purchase Order that references the Quote agreed between the parties and that, additionally, acknowledges and agrees to the terms contained therein.

### Validation and Test Optimization Services

#### Services Summary

Validation and Test Service provides specific help for your network support staff in the form of Test Assessment and Plan, Setup and Test Execution, Test Results Report and Final Consultation delivery.

Validation and Test Optimization Service includes service areas of Borderless NOS, Data Center, Collaboration, Mobile Internet, Enterprise Security, Enterprise Wireless LAN, NGN, SP Video, Mobility, and SP Security Architectures. Validation and Test Optimization Services provide annual, ongoing support for Customer environment addressing the following:

#### Validation and Test Services for NGN

Validation-Test Cycle and Review - Standard  
Validation-Test Cycle and Review - Dedicated  
Validation-Test Issue Management Support  
Validation-Test Onsite Support  
Validation-Testing and Lab Strategy Review  
Validation-Test Persistent Lab Testing  
Validation-Test Project Management  
Validation-Test Staging

#### Validation and Test for Borderless NOS

Validation-Test Cycle and Review Standard  
Validation-Test Cycle and Review Dedicated  
Validation-Test Issue Management Support  
Validation-Test Onsite Support  
Validation-Testing and Lab Strategy Review  
Validation-Test Persistent Lab Testing  
Validation-Test Project Management  
Validation-Test Staging

#### Validation and Test Services for Data Center

Validation-Test Cycle and Review Standard  
Validation-Test Cycle and Review Dedicated  
Validation-Test Issue Management Support  
Validation-Test Onsite Support  
Validation-Testing and Lab Strategy Review  
Validation-Test Persistent Lab Testing  
Validation-Test Project Management  
Validation-Test Staging

#### Validation and Test Services for Collaboration

Validation-Test Cycle and Review Standard  
 Validation-Test Cycle and Review Dedicated  
 Validation-Test Issue Management Support  
 Validation-Test Onsite Support  
 Validation-Testing and Lab Strategy Review  
 Validation-Test Persistent Lab Testing  
 Validation-Test Project Management  
 Validation-Test Staging

#### **Validation and Test Services for Mobile Internet**

Validation-Test Cycle and Review Standard  
 Validation-Test Cycle and Review Dedicated  
 Validation-Test Issue Management Support  
 Validation-Test Onsite Support  
 Validation-Testing and Lab Strategy Review  
 Validation-Test Persistent Lab Testing  
 Validation-Test Project Management  
 Validation-Test Staging

#### **Validation and Test Services for Enterprise Security**

Validation-Test Cycle and Review Standard  
 Validation-Test Cycle and Review Dedicated  
 Validation-Test Issue Management Support  
 Validation-Test Onsite Support  
 Validation-Testing and Lab Strategy Review  
 Validation-Test Persistent Lab Testing  
 Validation-Test Project Management  
 Validation-Test Staging

#### **Validation and Test Services for SP Video**

Validation-Test Cycle and Review Standard  
 Validation-Test Cycle and Review Dedicated  
 Validation-Test Issue Management Support  
 Validation-Test Onsite Support  
 Validation-Testing and Lab Strategy Review  
 Validation-Test Persistent Lab Testing  
 Validation-Test Project Management  
 Validation-Test Staging

#### **Validation and Test Services for Mobility**

Validation-Test Cycle and Review Standard  
 Validation-Test Cycle and Review Dedicated  
 Validation-Test Issue Management Support  
 Validation-Test Onsite Support  
 Validation-Testing and Lab Strategy Review  
 Validation-Test Persistent Lab Testing  
 Validation-Test Project Management  
 Validation-Test Staging

#### **Validation and Test Services for Enterprise Wireless LAN**

Validation-Test Cycle and Review Standard  
 Validation-Test Cycle and Review Dedicated

Validation-Test Issue Management Support  
 Validation-Test Onsite Support  
 Validation-Testing and Lab Strategy Review  
 Validation-Test Persistent Lab Testing  
 Validation-Test Project Management  
 Validation-Test Staging

#### **Validation and Test Services for SP Security**

Validation-Test Cycle and Review - Standard  
 Validation-Test Cycle and Review Dedicated  
 Validation-Test Issue Management Support  
 Validation-Test Onsite Support  
 Validation-Testing and Lab Strategy Review  
 Validation-Test Persistent Lab Testing  
 Validation-Test Project Management  
 Validation-Test Staging

#### **Cisco Responsibilities**

Cisco shall provide services for the Customer during Standard Business Hours (unless stated otherwise). Cisco shall provide the following General Support provisions for all Services selected by Customer:

##### **General Support**

Designate an engineer ("Advanced Services Engineer") to act as the primary technical interface with Customer for their Network.

- Designate an engineer ("Validation and Test Network Consulting Engineer") to act as the primary interface with the Cisco project manager appointed for the Customer.
- Participate in regular visits to the Customer either via phone, email or in-person to review proactive deliverables and activities and to plan for next quarter. In-person visits not to exceed eight (8) days in aggregate. Additional visits will be mutually agreed at Cisco's then-current travel and labor rates.
- Designate engineer(s) to work with the Cisco project management and the primary Validation and Test Network Consulting Engineer.
- Participate in periodic conference calls (usually weekly) to review Customer's project status, planning and the Services being provided.
- Monitor a Customer-specific Cisco email alias to facilitate communication with primary Advanced Services Engineer as well as the engineers on the Cisco Services project delivery team.
- Make collaboration tools available for the purposes of (including but not limited to): hosting meetings, managing documentation, instant messaging, desktop sharing, and collaborative spaces.

The quantity of any reporting and efforts for ongoing activities described herein will vary depending on Customer requirements and what Customer and Cisco mutually agree upon when Services are purchased as identified in the Quote provided by Cisco.

Following activities are common to all technologies and architectures:

#### **Validation-Test Onsite Support**

Provide Customer-site lab test execution of an agreed upon, documented Test Plan that may include, amongst other information, the following:

- Setup of Customer lab with test tools and methods of testing for network core routing and switching solution infrastructure, configuration, integration and aggregation points for the Validation and Test deployment including protocols, security and NMS considerations.
- Conducting tests based on the Test Plan described above.
- Provide Customer site support for issues found during Customer testing phase

#### **Validation-Test Issue Management Support**

- Provide subject matter expertise to support for Customer's resolution of issues identified during testing phase for Customer's solution.
- Work with internal Cisco teams to work towards resolving issues in accordance with issue prioritization.

#### **Validation-Testing and Lab Strategy Review**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's network core routing and switching solution testing capabilities, lab strategy, practices, and business goals. A Testing and Lab Strategy Review will contain overall strategy recommendations and may include, among other information, the following:

- Review of Customer's test environment, resources, concerns, and challenges
- Analysis of Customer's current testing practices and lab strategy
- Report describing the analysis comparing Customer's current practices to Cisco's recommended best practices and Cisco's recommendations

#### **Validation-Test Persistent Lab Testing**

Provide Lab consulting services in Cisco lab that support and align with Customer's technology roadmaps and may include, among other information, the following:

- Develop test plan strategy to align with technology roadmap
- Execute Test cycles which may include:
  - Review Customer borderless network (covering routing, switching, security and wireless solution) design, if applicable;
  - Review Customer test plans, if applicable;
  - Update Customer test plans, as applicable;
  - Set up lab and test tools;
  - Execute Customer test plans
  - Recommend modifications to the Customer design during test execution, if applicable
  - Document and review test results from Test Plan execution with Customer

#### **Validation-Test Project Management**

- Designate a single point of contact ("Cisco Project Manager" or "PM") for all issues relating to the Services. Such person shall be identified in Primary Contacts and shall be available during normal business hours.
- Designate a backup when the Cisco Project Manager is not available.
- Provide Customer with a list of designated Cisco personnel roles and responsibilities under this service.
- Provide a mutually agreed upon Project Plan. Project Plan is a document that provides further details on the Services and acts as the baseline document, against which the Project Manager can manage deliverables, assess progress, address change management issues and ongoing viability questions for the Services.
- Work with Customer to identify and document dependencies, risks and issues associated with the successful completion of the service.
- Provide a project schedule approved by Customer, highlighting all deliverables and services outlining the planned events of the project, showing resource, and timescales.
- Coordinating and managing all Cisco responsibilities under this service.
- Participating in regularly scheduled project review meetings or conference calls, if required by Customer.
- Provide Customer the details of personnel requiring access to Customer, at least ten (10) business days prior to the scheduled dated Cisco requires access to Customer premises.
- Delivering a project status report to the Customer every two weeks.
- Review all pertinent Customer site information received from Customer.
- Ensure Cisco employees and any subcontractors conform to Customer's reasonable workplace policies, conditions, and safety regulations that are consistent with Cisco's obligations stated here and that are provided to Cisco in writing prior to commencement of the services. This is provided that Cisco's personnel or subcontractors shall not be required to sign individual agreements with Customer or waive any personal rights.
- Supply Cisco project team personnel with a displayable form of identification to be worn at all times during project activities at Customer site(s).
- Provide the appropriate number of qualified personnel to provide the services as required by this service.

### **Validation-Test Staging**

- Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's solution testing goals, implementation objectives and requirements, and generate a proposed Test Plan, testing acceptance criteria, and Staging timeline.
- Once agreed, Cisco will receive Customer's equipment, configure, and execute the tests documented in the Test Plan and report findings to Customer.
- After notification of completion of testing, Customer would be notified by Cisco to arrange for the shipment back to the Customer.

### **Validation and Test Services for NGN**

Cisco will provide validation and testing support for the Customer's Next Generation Network ('NGN') core routing and switching environment. Service may include Dedicated or Standard Test Cycle(s) and Review of test plans for thoroughness and effectiveness of planned testing. Test Plans will be reviewed with the Customer, prior to Test Execution. Service may also include Onsite Test support at Customer-site lab, and/or support for Issue Management activities.

### **Validation-Test Cycle and Review Standard**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's network core routing and switching solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will execute the networking tests documented in the Test Plan and report findings to Customer. Validation and Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for network core routing and switching;
- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations
- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review - Standard Support is estimated to last between 8 to 12 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

### **Validation-Test Cycle and Review Dedicated**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's network core routing and switching solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will execute the networking tests documented in the Test Plan and report findings to Customer. Validation and

Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for network core routing and switching;
- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations
- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review Dedicated Support is estimated to last between 30 to 45 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

### **Validation and Test Services for Borderless NOS**

Cisco will provide validation and testing support for the Customer's borderless network (covering routing, switching, security and wireless solution) environment. Service may include Dedicated or Standard Test Cycle(s) and Review of test plans for thoroughness and effectiveness of planned testing. Test Plans will be reviewed with the Customer, prior to Test Execution. Service may also include Onsite Test support at Customer-site lab, and/or support for Issue Management activities.

### **Validation-Test Cycle and Review Standard**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's borderless network (covering routing, switching, security and wireless solution) solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will execute the networking tests documented in the Test Plan and report findings to Customer. Validation and Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for borderless network;
- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations
- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review Standard Support is estimated to last between 8 to 12 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

### **Validation-Test Cycle and Review Dedicated**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's borderless

network (covering routing, switching, security and wireless solution) solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will execute the networking tests documented in the Test Plan and report findings to Customer. Validation and Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for borderless network;
- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations
- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review Dedicated Support is estimated to last between 30 to 45 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

#### **Validation-Test Onsite Support**

Provide Customer-site lab test execution of an agreed upon, documented Test Plan that may include, amongst other information, the following:

- Setup of Customer lab with test tools and methods of testing for borderless network (covering routing, switching, security and wireless solution) solution infrastructure, configuration, integration and aggregation points for the Validation and Test deployment including protocols, security and NMS considerations.
- Conducting tests based on the Test Plan described above.
- Provide Customer site support for issues found during Customer testing phase

#### **Validation and Test Services for Data Center**

Cisco will provide validation and testing support for the Customer's Data Center environment. Service may include Standard Test Cycle(s) and Review of test plans for thoroughness and effectiveness of planned testing. Test Plans will be reviewed with the Customer, prior to Test Execution. Service may also include Onsite Test support at Customer-site lab, and/or support for Issue Management activities.

#### **Validation-Test Cycle and Review Standard**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's Data Center solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will execute the networking tests documented in the Test Plan and report findings to Customer. Validation and Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for Data Center;
- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations

- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review Standard Support is estimated to last between 8 to 12 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

#### **Validation-Test Cycle and Review Dedicated**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's Data Center solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will execute the networking tests documented in the Test Plan and report findings to Customer. Validation and Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for borderless network;
- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations
- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review Dedicated Support is estimated to last between 30 to 45 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

#### **Validation and Test Services for Collaboration**

Cisco will provide validation and testing support for the Customer's Collaboration Solution environment. Service may include Standard Test Cycle(s) and Review of test plans for thoroughness and effectiveness of planned testing. Test Plans will be reviewed with the Customer, prior to Test Execution. Service may also include Onsite Test support at Customer-site lab, and/or support for Issue Management activities.

#### **Validation-Test Cycle and Review Standard**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's Collaboration solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will execute the networking tests documented in the Test Plan and report findings to Customer. Validation and Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for Collaboration Solution;

- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations
- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review Standard Support is estimated to last between 8 to 12 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

#### **Validation-Test Cycle and Review Dedicated**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's Collaboration solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will execute the networking tests documented in the Test Plan and report findings to Customer. Validation and Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for borderless network;
- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations
- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review Dedicated Support is estimated to last between 30 to 45 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

#### **Validation and Test Services for Mobile Internet**

Cisco will provide validation and testing support for the Customer's Mobile Internet solution environment. Service may include Dedicated or Standard Test Cycle(s) and Review of test plans for thoroughness and effectiveness of planned testing. Test Plans will be reviewed with the Customer, prior to Test Execution. Service may also include Onsite Test support at Customer-site lab, and/or support for Issue Management activities.

#### **Validation-Test Cycle and Review Standard**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's Mobile Internet solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will execute the networking tests documented in the Test Plan and report findings to Customer. Validation and Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for Mobile Internet solution;
- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations
- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review Standard Support is estimated to last between 8 to 12 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

#### **Validation-Test Cycle and Review Dedicated**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's Mobile Internet solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will execute the networking tests documented in the Test Plan and report findings to Customer. Validation and Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for Mobile Internet solution;
- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations
- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review Dedicated Support is estimated to last between 30 to 45 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

#### **Validation and Test Services for Enterprise Security**

Cisco will provide validation and testing support for the Customer's Enterprise Security solution environment. Service may include Standard Test Cycle(s) and Review of test plans for thoroughness and effectiveness of planned testing. Test Plans will be reviewed with the Customer, prior to Test Execution. Service may also include Onsite Test support at Customer-site lab, and/or support for Issue Management activities.

#### **Validation-Test Cycle and Review Standard**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's Enterprise Security solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will

execute the networking tests documented in the Test Plan and report findings to Customer. Validation and Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for Enterprise Security solution;
- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations
- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review Standard Support is estimated to last between 8 to 12 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

#### **Validation-Test Cycle and Review Dedicated**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's Enterprise security solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will execute the networking tests documented in the Test Plan and report findings to Customer. Validation and Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for borderless network;
- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations
- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review Dedicated Support is estimated to last between 30 to 45 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

#### **Validation and Test Services for Services Provider (SP) Video**

Cisco will provide validation and testing support for the Customer's Service Provider Video Solution environment. Service may include Dedicated or Standard Test Cycle(s) and Review of test plans for thoroughness and effectiveness of planned testing. Test Plans will be reviewed with the Customer, prior to Test Execution. Service may also include Onsite Test support at Customer-site lab, and/or support for Issue Management activities.

#### **Validation-Test Cycle and Review Standard**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's Service Provider Video solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will execute the networking tests documented in the Test Plan and report findings to Customer. Validation and Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for Service Provider Video solution;
- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations
- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review Standard Support is estimated to last between 8 to 12 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

#### **Validation-Test Cycle and Review Dedicated**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's Service Provider Video solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will execute the networking tests documented in the Test Plan and report findings to Customer. Validation and Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for Service Provider Video solution;
- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations
- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review Dedicated Support is estimated to last between 30 to 45 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

#### **Validation and Test Services for Mobility**

Cisco will provide validation and testing support for the Customer's Mobility solution environment. Service may include Standard Test Cycle(s) and Review of test plans for thoroughness and effectiveness of planned testing. Test Plans will be reviewed with the Customer, prior to Test Execution. Service may also include Onsite Test support at Customer-site lab, and/or support for Issue Management activities.

### **Validation-Test Cycle and Review Standard**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's Mobility solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will execute the networking tests documented in the Test Plan and report findings to Customer. Validation and Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for Mobility solution;
- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations
- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review Standard Support is estimated to last between 8 to 12 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

### **Validation-Test Cycle and Review Dedicated**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's Mobility solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will execute the networking tests documented in the Test Plan and report findings to Customer. Validation and Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for Mobility solution;
- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations
- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review Dedicated Support is estimated to last between 30 to 45 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

### **Validation and Test Services for Enterprise Wireless LAN**

Cisco will provide validation and testing support for the Customer's Enterprise Wireless LAN solution environment. Service may include Test Cycle(s) and Review of test plans for thoroughness and effectiveness of planned testing. Test Plans will be reviewed with the Customer, prior to Test Execution.

Service may also include Onsite Test support at Customer-site lab, and/or support for Issue Management activities.

### **Validation-Test Cycle and Review Standard**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's Enterprise Wireless LAN solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will execute the networking tests documented in the Test Plan and report findings to Customer. Validation and Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for Enterprise Wireless LAN solution;
- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations
- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review Standard Support is estimated to last between 8 to 12 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

### **Validation-Test Cycle and Review Dedicated**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's Enterprise wireless solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will execute the networking tests documented in the Test Plan and report findings to Customer. Validation and Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for borderless network;
- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations
- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review Dedicated Support is estimated to last between 30 to 45 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

### **Validation and Test Services for Service Provider (SP) Security**

Cisco will provide validation and testing support for the Customer's Service Provider Security solution environment.

Service may include Standard Test Cycle(s) and Review of test plans for thoroughness and effectiveness of planned testing. Test Plans will be reviewed with the Customer, prior to Test Execution. Service may also include Onsite Test support at Customer-site lab, and/or support for Issue Management activities.

#### **Validation-Test Cycle and Review Standard**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's Service Provider Security solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will execute the networking tests documented in the Test Plan and report findings to Customer. Validation and Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for Service Provider Security solution;
- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations
- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review Standard Support is estimated to last between 8 to 12 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

#### **Validation-Test Cycle and Review Dedicated**

Cisco will consult with Customer via a series of meetings to develop a thorough understanding of Customer's Service Provider Security solution-oriented testing goals and requirements, and generate a proposed Test Plan. Once agreed, Cisco will execute the networking tests documented in the Test Plan and report findings to Customer. Validation and Testing Support may include, among other information, the following:

- Review of Customer's testing goals and business objectives for borderless network;
- Analysis of requirements such as software strategy, platforms, topology, protocols, and configurations
- Test Plan development or review/refine existing test plan;
- Schedule facilities, equipment and resources;
- Test Set Up – Perform the Physical Lab Setup;
- Test Execution – Execute the Test Plan; and,
- Test Results Analysis – Document the results in a Test Report.
- Validation-Test Cycle and Review Dedicated Support is estimated to last between 30 to 45 weeks.
- Validation and Testing Support is only available to certain geographic locations and will be specified in the Quote for Services.

### **Customer Responsibilities**

#### **General Support**

- Designate at least two (2) but not more than six (6) technical representatives in each area covered under Validation and Test, who must be Customer's employees in a centralized Network support center (Customer's technical assistance center), to act as the primary technical interface to the Validation and Test Engineer(s). Customer will designate as contacts senior engineers with the authority to make any necessary changes to the Network configuration. One individual, who is a senior member of management or technical staff, will be designated as Customer's primary point of contact to manage the implementation of services selected under this Service Description (e.g., chair the weekly conference calls, assist with prioritization of projects and activities).
- Customer's technical assistance center shall maintain centralized network management for its Network supported under this Service Description, capable of providing Level 1 and Level 2 support.
- Provide reasonable electronic access to Customer's Network to allow the Validation and Test Engineer to provide support.
- If Cisco provides Data Collection Tools or scripts located at Customer's site, Customer shall ensure that such Data Collection Tools or scripts are located in a secure area, within a Network environment protected within a firewall and on a secure LAN, under lock and key and with access restricted to those Customer employee(s) or contractor(s) who have a need to access the Data Collection Tools and/or a need to know the contents of the output of Data Collection Tools. In the event Data Collection Tool provided by Cisco is Software, Customer agrees to make appropriate computers available and download Software as needed. Customer shall remain responsible for any damage to or Validation and Test or theft of the Data Collection Tools while in Customer's custody.
- Provide a Network topology map, configuration information, and information of new features being implemented as needed.
- Notify Validation and Test Engineer of any Dedicated Network changes (e.g., topology, configuration, new IOS releases.).
- In the event the Network composition is altered, after the Services selected under this Service Description have become effective, Customer is responsible to notify Cisco in writing within ten days (10) of the change. Cisco may require modifications to the fee if the Network composition has increased beyond the original pricing quote for Services.
- Create and manage an internal email alias for communication with Validation and Test Engineer.
- Retain overall responsibility for any business process impact and any process change implementations.
- Utilize communication and collaboration tool(s) provided by Cisco. If Customer uses non-Cisco provided collaboration tools for hosting meetings, managing documentation, instant messaging, desktop sharing, and collaborative spaces, provide Cisco with access.

- Customer will provide names of users who will have authorization to access these tools.
- Customer will support the implementation of software required to use tools in their environment.

### Validation and Test Support

In addition to the General Responsibilities, Customer shall provide the following:

- Provide the low level design document describing how Customer Network needs to be built and engineered to meet a specific set of technical requirements and design goals. The level of details must be sufficient to be used as input to an implementation plan.
- Ensure key detailed design stakeholders and decision-makers are available to participate during the course of the service.
- Provide or extract additional information required in the design effort (e.g., current and planned traffic characteristics).
- Information on Customer business and technical requirements for new Software releases.
- Review details of planned changes with Validation and Test Engineer.
- Information on Customer certification process and lab testing process.
- Information on Customer change control process.
- Information on any service level agreements or Network performance requirements.
- Information on critical applications supported by the Network.
- Information on which applications are mission-critical and their priority schemes.
- Information on Customer's plans for business continuance, consolidation, and virtualization.
- Information on expected Network growth and application mix changes.
- Information on any future advanced technology implementations.
- For Onsite Test Support, provide Cisco personnel with access during Standard Business Hours to appropriate Customer Lab facilities.

### Validation-Test Project Management

- Designate a single point of contact ("Customer Project Manager") for all issues relating to the Services. Such person shall be identified in Primary Contacts and shall be available during Normal Business Hours.
- Designate a backup when the Customer Project Manager is not available.
- Providing the Cisco PM with a list of designated Customer roles and responsibilities for the Deliverables.
- 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 providing services and complying with Cisco's responsibilities in this Services offer. This information includes, but is not limited to:

- (i) Information relating to Customer's infrastructure, 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.
- Identify the primary and backup Customer authorized site contacts that shall be accountable for providing necessary information, obtaining access clearances and shall interface as required with other organizations.
  - Participate in regularly scheduled project review meetings or conference calls.
  - Unless otherwise agreed to by the parties, ensure that Cisco's request for relevant information or documentation needed for the project under this service is provided to Cisco within five (5) business day of Cisco's request, or, if 5 business days is not reasonably practicable, then as soon as is reasonably practicable.
  - Notify the Cisco Project Manager of any Customer requested schedule changes at least ten (10) business days prior to the scheduled activity, or, if 10 business days is not reasonably practicable, then as soon as is reasonably practicable. Cisco will use reasonable efforts to accommodate schedule changes and/or cancellations made within this ten (10) day window.
  - Notify Cisco of any hardware and/or software upgrades or any other changes within the Customer's environment that might affect the performance of services prior to the commencement of Services.
  - Provide Cisco with such access to Customer Site(s) and facilities as required enabling Cisco to comply with its obligations, including where applicable, computers, telecom equipment, facilities, workspace and telephone for Cisco's use during the project.
  - Provide proper security clearances and/or escorts as required to access the Customer Site.
  - Provide security and Internet access to routers and/or modems for outbound access, for software and firmware downloads in accordance with Customer's access guidelines, protocols and regulations.
  - Provide VPN access to Customer environment for remote access to Customer's environment as necessary.

### Validation-Test Staging

- Customer is responsible (including any costs) for shipping staged equipment to Cisco location and from Cisco to the Customer location.
- Customer retains title and risk of loss to staged equipment while at Cisco's location/lab for the testing/validation.

## Appendix A

## Service SKUs

The following list of validation and test services SKUs and Deliverables with Tags:

Architecture	Name of Category / Module	SKU	Deliverables
NGN	Validation and Test Services for NGN	CON-AS-TEST-NGN	Validation-Test Cycle and Review Standard (OPT-VT-NGN TCR MI) Validation-Test Cycle and Review Dedicated (OPT-VT-NGN TCR MA) Validation-Test Issue Management Support (OPT-VT-NGN IM) Validation-Test Onsite Support (OPT-VT-NGN OS) Validation-Testing and Lab Strategy Review (OPT-VT-NGN TLSR) Validation-Test Persistent Lab Testing (OPT-VT-NGN TEST) Validation-Test Project Management (OPT-VT-NGN PM) Validation-Test Staging (OPT-VT-NGN ST)
Borderless NOS	Validation and Test for Borderless NOS	CON-AS-TEST-BN	Validation-Test Cycle and Review Standard (OPT-VT-BN TCR MI) Validation-Test Cycle and Review Dedicated (OPT-VT-BN TCR MA) Validation-Test Issue Management Support (OPT-VT-BN IM) Validation-Test Onsite Support (OPT-VT-BN OS) Validation-Testing and Lab Strategy Review (OPT-VT-BN TLSR) Validation-Test Persistent Lab Testing (OPT-VT-BN TEST) Validation-Test Project Management (OPT-VT-BN PM) Validation-Test Staging (OPT-VT-BN ST)
Data Center	Validation and Test Services for Data Center	CON-AS-TEST-DC	Validation-Test Cycle and Review Standard (OPT-VT-DC TCR MI) Validation-Test Cycle and Review Dedicated (OPT-VT-DC TCR MA) Validation-Test Issue Management Support (OPT-VT-DC IM) Validation-Test Onsite Support (OPT-VT-DC OS) Validation-Testing and Lab Strategy Review (OPT-VT-DC TLSR) Validation-Test Persistent Lab Testing (OPT-VT-DC TEST) Validation-Test Project Management (OPT-VT-DC PM) Validation-Test Staging (OPT-VT-DC ST)
Collaboration	Validation and Test Services for Collaboration	CON-AS-TEST-COL	Validation-Test Cycle and Review Standard (OPT-VT-COL TCR MI) Validation-Test Cycle and Review Dedicated (OPT-VT-COL TCR MA) Validation-Test Issue Management Support (OPT-VT-COL IM) Validation-Test Onsite Support (OPT-VT-COL OS) Validation-Testing and Lab Strategy Review (OPT-VT-COL TLSR) Validation-Test Persistent Lab Testing (OPT-VT-COL TEST) Validation-Test Project Management (OPT-VT-COL PM) Validation-Test Staging (OPT-VT-COL ST)
Mobile Internet	Validation and Test Services for Mobile Internet	CON-AS-TEST-MI	Validation-Test Cycle and Review Standard (OPT-VT-MI TCR) Validation-Test Cycle and Review Dedicated (OPT-VT-MI TCR MA) Validation-Test Issue Management Support (OPT-VT-MI IM) Validation-Test Onsite Support (OPT-VT-MI OS) Validation-Testing and Lab Strategy Review (OPT-VT-MI TLSR) Validation-Test Persistent Lab Testing (OPT-VT-MI TEST) Validation-Test Project Management (OPT-VT-MI PM) Validation-Test Staging (OPT-VT-MI ST)
Enterprise Security	Validation and Test Services for Enterprise Security	CON-AS-TEST-SEC	Validation-Test Cycle and Review Standard (OPT-VT-SEC TCR MI) Validation-Test Cycle and Review Dedicated (OPT-VT-SEC TCR MA) Validation-Test Issue Management Support (OPT-VT-SEC IM) Validation-Test Onsite Support (OPT-VT-SEC OS) Validation-Testing and Lab Strategy Review (OPT-VT-SEC TLSR) Validation-Test Persistent Lab Testing (OPT-VT-SEC TEST) Validation-Test Project Management (OPT-VT-SEC PM) Validation-Test Staging (OPT-VT-SEC ST)
SP Video	Validation and Test Services for SP Video	CON-AS-TEST-SPVID	Validation-Test Cycle and Review Standard (OPT-VT-SPVID TCR MI) Validation-Test Cycle and Review Dedicated (OPT-VT- SPVID TCR MA) Validation-Test Issue Management Support (OPT-VT- SPVID IM) Validation-Test Onsite Support (OPT-VT- SPVID OS) Validation-Testing and Lab Strategy Review (OPT-VT- SPVID TLSR) Validation-Test Persistent Lab Testing (OPT-VT-SPVID TEST)

Mobility	Validation and Test Services for Mobility	CON-AS-TEST-MOB	Validation-Test Project Management (OPT-VT-SPVID PM) Validation-Test Staging (OPT-VT-SPVID ST)
			Validation-Test Cycle and Review Standard (OPT-VT-MOB TCR MI) Validation-Test Cycle and Review Dedicated (OPT-VT-MOB TCR MA) Validation-Test Issue Management Support (OPT-VT-MOB IM) Validation-Test Onsite Support (OPT-VT-MOB OS) Validation-Testing and Lab Strategy Review (OPT-VT-MOB TLSR) Validation-Test Persistent Lab Testing (OPT-VT-MOB TEST) Validation-Test Project Management (OPT-VT-MOB PM) Validation-Test Staging (OPT-VT-MOB ST)
Enterprise Wireless LAN	Validation and Test Services for Enterprise Wireless LAN	CON-AS-TEST-WLAN	Validation-Test Cycle and Review Standard (OPT-VT-WLAN TCR) Validation-Test Cycle and Review Dedicated (OPT-VT-WLAN TCR MA) Validation-Test Issue Management Support (OPT-VT-WLAN IM) Validation-Test Onsite Support (OPT-VT-WLAN OS) Validation-Testing and Lab Strategy Review (OPT-VT-WLAN TLSR) Validation-Test Persistent Lab Testing (OPT-VT-WLAN TEST) Validation-Test Project Management (OPT-VT-WLAN PM) Validation-Test Staging (OPT-VT-WLAN ST)
			Validation-Test Cycle and Review Standard (OPT-VT-SPSEC TCR MI) Validation-Test Cycle and Review Dedicated (OPT-VT-SPSEC TCR MA) Validation-Test Issue Management Support (OPT-VT-SPSEC IM) Validation-Test Onsite Support (OPT-VT-SPSEC OS) Validation-Testing and Lab Strategy Review (OPT-VT-SPSEC TLSR) Validation-Test Persistent Lab Testing (OPT-VT-SPSEC TEST) Validation-Test Project Management (OPT-VT-SPSEC PM) Validation-Test Staging (OPT-VT-SPSEC ST)
SP Security	Validation and Test Services for SP Security	CON-AS-SPSEC-TEST	