...... CISCO

Service Description: Advanced Services – Fixed Price

AS-Fixed Advanced Plan and Design Review Services (ASF-SP1-G-NGN-APDR)

This document describes Advanced Services Fixed Price: AS-Fixed Advanced Plan and Design Review Services.

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.

Direct Sale from Cisco. If you have purchased these Services directly from Cisco for your own internal use, this document is incorporated into your Master Services Agreement, Advanced Services Agreement, or other services agreement covering the purchase of Advanced Servicesbased services with Cisco ("Master Agreement") If no such Master Agreement exists, then this Service Description will be governed by the terms and conditions set forth in the Terms & Conditions Agreement posted at http://www.cisco.com/web/about/doing_business/legal/terms_c onditions.html. If you have purchased these Services directly from Cisco for resale purposes, this document is incorporated into your System Integrator Agreement or other services agreement covering the resale of Advanced Services ("Master Resale Agreement"). If the Master Resale Agreement does not contain the terms for the Purchase and Resale of Cisco Advanced Services or equivalent terms and conditions, then this Service Description will be governed by the terms and conditions of the Master Resale Agreement and those terms and conditions set forth in the SOW Resale Terms & Conditions posted Agreement at. http://www.cisco.com/web/about/doing_business/legal/terms_c onditions.html. For purposes of the SOW Resale Terms and Conditions this Service Description shall be deemed as a Statement of Work ("SOW"). In the event of a conflict between this Service Description and the Master Agreement or equivalent services exhibit or 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/.

AS-Fixed Advanced Plan and Design and Review Services

Service Summary

Cisco shall provide the following Advanced Plan and Design Review Services to Customer to include Design Review and Software Referral per Platform for up to four (4) Customerspecific IP next-generation (NGN) technologies and for up to three (3) platform products, limited to the following technologies and platforms during Standard Business Hours ("Services").

Technologies

Routing: Routing design review includes review of IP Routing Architecture, Interior Gateway Protocols (IGP) such as Open Shortest Path First (OSPF), Intermediate System to Intermediate System (ISIS), and Enhanced Interior Gateway Routing Protocol (EIGRP), and Exterior Gateway Protocol such as Border Gateway Protocol (BGP). The design review focuses on optimizing the routing architecture and protocols for performance, scalability, fast convergence, high-availability, resiliency, best practices, and design recommendation for meeting Customer's critical services requirements such as video, voice, and high-speed data services.

Quality of Service (QoS): QoS is an enabling technology that provides preferential treatment for critical applications like voice, video, and critical data applications in the converged IP NGN networks. QoS design review focuses on QoS architecture and QoS tools set such as classification, marking, scheduling, policing, and link-specific features for the provision of critical network services and design recommendations to enable the network to provide guaranteed services by managing bandwidth, delay, jitter, and packet loss parameters.

Multi-Protocol Label Switching (MPLS) and Traffic MPLS design review focuses on MPLS Engineering: infrastructure protocols such as Label Distribution and RSVP -Traffic Engineering (Point to Point). The design review addresses performance, scalability, convergence, highavailability, resiliency, best practices, and design recommendation to enable MPLS as encapsulation within the Customer network.

MPLS Virtual Private Network (VPN): MPLS VPN design review enables Customer to deploy Layer 2 Any Transport Over MPLS (AToM), Layer 3 and Inter-AS VPN services. This design review provides an optimal, scalable architecture and recommendation for deploying the MPLS VPN services.

Multicast: Multicast design review focuses on multicast architecture and optimizing the multicast protocols such as Protocol Independent Multicast - Source Specific Multicast (PIM-SSM), PIM-SparseMode (SM), Multicast Source Discovery Protocol (MSDP) and Internet Group Management Protocol (IGMP) to enable services such as Video, IP/TV and multicast VPN (mVPN).

Metro Ethernet (ME): Metro Ethernet design review enables Customer to deploy Layer 2 Ethernet services such as Ethernet Line (E-LINE) (Point-to-Point) and Ethernet Local Area Network (E-LAN) (Multipoint/VPLS) as defined in Metro Ethernet Forum (MEF). This design review provides an optimal, scalable architecture and recommendation for deploying Carrier Ethernet services.

Platforms

- Cisco CRS-1
- Cisco CRS-3
- Cisco 12000
- Cisco ASR 1000
- Cisco ASR 9000
- Cisco 7600
- Cisco 6500
- Nexus Switches
- Cisco 7200 and
- Metro Ethernet Switches such as ME3400 or ME3750 or ME3800 or ME3600 (only applicable if Metro Ethernet selected as technology)

Deliverables

Cisco shall provide the following Deliverables:

- Customer Requirement Document (CRD)
- Design Review Document
- Software Referral Document (per platform)

Location of Services

The Project Kickoff (including design discovery workshop) and final delivery (presentation and design review) will be performed onsite. With these exceptions, Services are delivered remotely to Customer.

Design Review

Cisco Responsibilities

- Conduct an onsite design discovery workshop at the Customer premises to gather the design and technical requirements; understand current network design and design goals. Typical duration of the workshop is one (1) Business Day.
- Develop a customer requirement document (CRD) jointly working with the Customer based on the information gathered during the design workshop. The CRD document

will be delivered to Customer for Customer's review and approval.

- Review the customer network design from architecture and services perspective and provide design recommendations that address the Customer's requirements and design goals.
- Review configuration templates provided by the Customer for the technologies and platforms in accordance with those delineated in the Service Summary.
- Provide configuration review, including recommendations on the design configuration templates following design goals and best practices.
- Provide design review document that includes design recommendations and related configuration templates. The Design Review Document will be delivered to Customer for Customer's review and approval.
- Conduct onsite design review presentation to Customer.

Customer Responsibilities

- Ensure key stakeholders, including engineering and operation teams, are available to participate during the onsite design discovery workshop.
- Provide customer network design, topology, configuration templates, operational documentation and information that provide a detailed description of Customer's network architecture goals and requirements.
- Identify a single point of contact for requested information and approval of the customer requirements and design review documents prepared by Cisco.
- Review and approve the Customer Requirement Document.
- Ensure key stakeholders are available to participate during the onsite design review presentation.
- Review and approve the Design Review Document.

Software Referral per Platform

Cisco Responsibilities

- Provide software referral for up to two (2) platforms delineated in the Service Summary.
- 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 having similar profiles.
- Software referral does not include customer-specific software risk analysis or a specific software recommendation.

Customer Responsibilities

- Provide list of software and hardware features that customer is planning to implement.
- Provide any long-term feature requirements that may impact software referral.
- Review and approve the software referral.

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.
- 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 not exceed five (5) weeks from the start of

the Services, and shall take place and complete within ninety (90) calendar days from issuing a Purchase Order to Cisco for the Services herein.

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 Cisco's acknowledgement of 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 Service Description. this