

**PROFESSIONAL SERVICES
NETWORK ASSESSMENT - UC RELIABILITY
STATEMENT OF WORK
TO VERIZON PROFESSIONAL SERVICES SERVICE ATTACHMENT**

This Statement of Work (SOW) is entered into between the entities identified as, respectively, Verizon and Customer in the related Service Order Form (SOF).

1. **SERVICE DESCRIPTION.** Verizon will provide Customer with Network Assessment - UC Reliability services. This SOW covers two parts, a remote assessment and then evaluation and report on assessment results to include identification of any issues/concerns; each described further below. The assessment output will be evaluated to determine the reliability of the Customer's network to support a cloud-based Unified Communications Solution by monitoring the network between Customer's UC provider and additional Customer site(s) beyond what is included in the Remote UC Implementation SOW as Standard and as identified on the SOF. All services will be performed remotely.
2. **SCOPE OF WORK.** Verizon's Network Assessment - UC Reliability project will begin with a remote kick-off call. During the call, Verizon and Customer will introduce the teams, review the assessment process, determine delivery timeline and review deliverables associated with the project. After the kick off call Verizon will begin to deliver the activities identified below.
 - 2.1 **Network Assessment - UC Reliability Execution.**

Verizon will use secure, commercially-available state-of-the-art tools to access Customer's environment to test voice, video, web and collaboration ecosystems by testing outside-in, end-to-end voice, web and video testing. The results will be evaluated to ensure the Customer's current solution, or a new solution, has the required bandwidth to support the Unified Communications components in place or to be implemented.

 - 2.1.1 Verizon will meet with Customer to discuss the delivery plan, schedule and review the Customer network architecture to determine which components apply and where to apply the RTM probes.
 - 2.1.2 Verizon will remotely provide RTM software or ship (if required) RTM probes to the Customer to connect to their network as directed by Verizon.
 - 2.1.3 Verizon will validate RTM software or probes connected as required.
 - 2.1.4 Verizon will provide the Customer with the Network Assessment - UC Reliability Test Plan that will include test cases for voice, web and video.
 - 2.1.5 Verizon will, with assistance from the Customer as required and identified in the Network Assessment - UC Reliability Test Plan, execute the Network Assessment - UC Reliability Test Plan using Verizon purchased commercially licensed tools and collect/document the results.
 - 2.1.6 Project shall be deemed accepted upon Verizon delivery of the final Network Assessment - UC Reliability Findings Document with the Customer.
 - 2.2 **Network Assessment- UC Reliability Evaluation**
 - 2.2.1 Verizon will review the assessment details provided by the RTM tool and document the results of the assessment tests in the Network Assessment - UC Reliability Findings Document.
 - 2.2.2 Verizon will evaluate the assessment details against the acceptable ranges for network components that are a part of the current or future Unified Communications data/call flow and identify areas of concern as it relates to the reliability and stability of the Unified Communications solution.

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2.2.3 Verizon will rank order areas of concern and provide recommendations designed to help Customer avoid or reduce risks, and/or achieve greater reliability and stability around the Unified Communications solution.

2.2.4 Customer will review the Verizon provided Network Assessment - UC Reliability Findings Document prior to their review with Verizon and Verizon will note mutually agreed upon Customer changes/comments within the document before submitting as final to Customer.

2.2.5 Verizon will provide the Customer with RTM probe return shipping materials, if Verizon ships them to the customer, for return to Verizon.

2.3 Project Management Approach.

Verizon will designate a Project Manager who will act as the central point of contact throughout the Project. The Verizon Project Manager is also responsible for managing the change control process. Should the Project's requirements change during the course of the Project, the Project Manager will ensure that any modifications to the SOW are agreed and documented in a mutually executed change order as an amendment to the SOW in accordance with the Professional Services Service Attachment.

2.4 CUSTOMER RESPONSIBILITIES. Customer will:

2.4.1 Identify Single Point of Contact that will work with Verizon to review the UC solution and identify where the RTM probes should be placed.

2.4.2 Ensure Network Access Requirements are met.

2.4.3 Provide the remote access necessary to access the RTM probes, execute the Network Assessment - UC Reliability Test Plan and access results.

2.4.4 Place the Verizon provided RTM probes or software in the agreed upon location(s) and agrees to install any required software on designated PCs on their network.

2.4.5 Assist with execution of the Network Assessment - UC Reliability Test Plan provided by Verizon.

2.4.6 Participate in review of Network Assessment - UC Reliability Findings Document.

2.4.7 If Verizon shipped RTM probes to the Customer, return the RTM probes by Verizon using the Verizon provided return shipping materials. Verizon will bill the Customer for the RTM Probe(s) if not returned within 10 days of completion of the Reliability test.

3. VERIZON DELIVERABLES. Deliverables are intended for Customer and Verizon use only. Customer may disclose a Deliverable to a third party pursuant to the Agreement's confidentiality terms.

3.1 RTM probes or software and instructions on how to install each.

3.2 Network Assessment - UC Reliability Test Cases and testing schedule.

3.3 Verizon at a minimum will conduct the following:

3.3.1 Voice Test

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- 3.3.2 Two (2) simultaneous calls
- 3.3.3 G.711 CODEC
- 3.3.4 Loss and jitter
- 3.3.5 Latency for SIP register, invite and bye
- 3.3.6 Check for SIP ALG enabled on firewall
- 3.3.7 Speed Test
- 3.3.8 Effective line speed in MBps
- 3.3.9 Firewall Test
- 3.3.10 Ports tested for TCP or UDP protocols
- 3.3.11 Blocked ports identified
- 3.4 Network Assessment - UC Reliability Findings Document that will include:
 - 3.4.1 Executive Summary: Highlights of Customer's current state as relative to the current or future-state UC solution.
 - 3.4.2 Introduction: Describes the scope of the Project; summarizes Verizon's approach, identifies participants, locations and timeframes.
 - 3.4.3 Results: Provides assessment testing results as recorded by the tools used during the testing with interpretation of the test results and root cause issues around reliability and stability. Screen shots and log excerpts may be included.
 - 3.4.4 Recommendations (if applicable): Each finding will include a discussion of the vulnerability and the potential impact to the Unified Communications reliability and stability in priority order; as well as recommended remediation steps.
- 3.5 Return shipping materials, if Verizon shipped RTM probes to the Customer.
- 4. The following terms are defined as follows for this SOW.
 - 4.1 UC: Unified Communications.
 - 4.2 Outside-In: The capability to link a cloud-based analysis tool to software probes / applications for evaluation of network parameters impacting Unified Communications.
 - 4.3 End-to-end Voice: The monitoring and troubleshooting capability of evaluating VoIP traffic from both egress and ingress locations on the network.

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4.4 RTM: Real Time Monitoring.

5. **FINANCIAL TERMS.** Customer will pay the Charge as detailed in the SOF. Travel and expenses, if any, will be billed as provided in the PSSA, this SOW, and the SOF.