



## END USER EXPERIENCE MONITORING

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### 1. GENERAL

- 1.1 **Service Definition.** End User Experience Monitoring is a managed service allowing for end to end visibility into the performance of Customer's network and associated applications. Subject to country availability, this solution is designed to conduct synthetic testing and provide via an integrated dashboard, incident support, trouble shooting, and reporting which contains root cause analysis depending on selected management level.
- 1.2 **Standard Service Features.** End User Experience Monitoring has the following standard feature options: The management levels are also described below.
  - 1.2.1 **End User Experience Monitoring.** This feature option uses end-to-end synthetic test agents to simulate user experience targeting specific applications. End-to-end agents measure and report application performance perception scores at particular locations so that Customer and Verizon can determine how the applications are performing for users at such locations as well as what the likely causes are of any performance degradations.
    - 1.2.1.1 **Nodes.** To collect the data from Managed Devices, Customer Equipment and/or other systems on the Customer Network, End User Experience Monitoring utilizes agents to conduct synthetic tests on Customer applications (Nodes). All data collected by Nodes is fed into the Verizon Enterprise Center (VEC) platform in near real-time. The type of Nodes which may be employed with End User Experience Monitoring include:
      - **Enterprise Nodes:** Agents which are available in a variety of formats as virtual machines, containers, bare-metal which may be deployed into Customer's data centers, offices, or into Infrastructure as a Service (IaaS).
      - **Endpoint Nodes:** Agents which may be installed on a user device to gather user performance data either as real user monitoring or synthetic service, including Wi-Fi, LAN and network to the application from wherever the user is at the point in time.
      - **Cloud Nodes:** Pre-implemented and managed by provider, these agents are used to execute Customer-defined tests from locations where End User Experience Monitoring is available.
      - **Backbone Nodes:** These agents measure digital services externally from datacenter-neutral facilities on various providers.
      - **Last Mile Nodes:** These agents measure from real end user Internet Service Providers (ISPs). Last mile nodes are measured from end user ISPs and are hosted on dedicated devices in major locations.
      - **Wireless Nodes:** These agents allow synthetic tests to be run on mobile end-user devices across various cellular networks around the world.



1.3 **Managed Implementation.** For End User Experience Monitoring, Verizon offers Managed Implementation and provides support for the planning, system engineering, and overall project management of Customer’s Network. Managed Implementation is subject to a Statement of Requirements (SOR) to be agreed upon by the Parties.

1.3.1 **Impact Assessment.** For Managed Implementation, the Statement of Requirements is produced by Verizon in cooperation with Customer. The SOR (i) provides the inventory of the Customer Network, devices and/or current systems as it relates to the engagement of End User Experience Monitoring; (ii) identifies any physical/logical activities required to bring those devices, systems and Customer Network components under monitoring and/or management by Verizon, and (iii) identifies any gaps associated with facilitating the remote monitoring of the system components.

1.3.2 **Network Discovery.** End User Experience Monitoring Customer may order Network Discovery for an additional Charge. For Network Discovery, Customer will provide Verizon with accurate information about proper scope of the Network Discovery, represents that it has all necessary authority to have Verizon undertake the Network Discovery requested under these terms, and will indemnify Verizon and its employees, affiliates and agents against any liability if it does not. Verizon reserves the right to stop or withhold from performing Network Discovery, at its sole discretion. Customer’s sole remedy for any failure, inadequacy or other problem of Network Discovery is to request that Verizon re-perform it. If Customer orders Network Discovery, Verizon will electronically collect information on devices, hardware and systems that are connected to the Customer Network.

1.4 **Management Level.** The availability of the management levels for End User Experience Monitoring are listed below:

	Monitor and Notify	Full
End User Experience Monitoring	✓	✓

1.4.1 **Monitor and Notify.** Monitor and Notify provides the following:

- **Monitoring.** Verizon monitors features 24 hours a day, 7 days a week, using simple network management protocol (SNMP), internet control message protocol (ICMP – commonly referred to as a ping), and sometimes Windows Management Interface (WMI) for status and error conditions (e.g., SNMP trap messages or SNMP-based queries to operational state-of-target Managed Devices).
- **Notification.** Verizon will create a trouble ticket and attempt to notify Customer’s designated point of contact within 15 minutes of Verizon’s determination of a feature failure. Once the non-Verizon issue has been resolved by Customer, Verizon will close the ticket.
- **Reporting.** Upon Customer’s order, Verizon will work with Customer to define the reporting views it requires for the applications monitored by Verizon. Selected reporting views will be made available via the VEC. Select reporting views will be made available via the VEC. All copies of reports, recommendations documentation VEC printouts, or other materials in any media form provided to Customer by Verizon are Verizon Confidential Information. Customer Confidential Information, if embedded in the reporting, shall continue to be treated as Customer Confidential Information.
- **Verizon Enterprise Center.** Verizon will provide Customer access to the Verizon Enterprise Center (VEC), a secure, scalable, consolidated view of Customer Network information, 24 hours a day 7 days a week. The VEC provides access to project status, contact information and information about End User Experience Monitoring. The VEC can be accessed at: <https://sso.verizonenterprise.com/amserver/sso/login.go?>. Customer may have a maximum of 10 user accounts.
- For Monitor and Notify, Verizon does not create a trouble ticket for the Customer. Customer is responsible for resolving all faults.

1.4.2 **Full Management for End User Experience Monitoring.** Full Management is available for End



User Experience Monitoring and provides the following, in addition to what is provided for Monitor and Notify. When End User Experience Monitoring detects a fault, Verizon will create a trouble ticket and notify the Customer. The Verizon Network Operations Center will support the Customer in helping to work toward resolution of the fault.

## 1.5 **Customer Responsibilities**

- 1.5.1 **Change Management.** Except for Full Management, Customer will manage changes to the Customer Network and any routine maintenance of Managed Devices. Customer will also inform Verizon of any changes to the Customer Network that affect monitoring of the Customer Network including, but not limited to, removing managed components (such as a physical server, operating system, or data within an application, e.g., a database) from service.
- 1.5.2 **Provision of Managed Devices.** Verizon may require Customer to upgrade Managed Devices to meet the standards required by Verizon, if applicable. To facilitate data collection methods for monitoring, Customer will provide user authentication into its enterprise directory services, e.g., Active Directory or LDAP. In such cases, End User Experience Monitoring does not include the administration of such enterprise directory services.
- 1.5.3 **Customer Notifications.** Customer will report detected service failures and provide information to the Verizon Customer Service Center.
- 1.5.4 **Customer Responsibilities for Monitor and Notify Service.** Customer will resolve both logical and physical faults, and fault isolation and associated downstream attached components (e.g., cabling, servers, non-managed switches, firewalls, and personal computers). Customer is responsible for the management of all equipment connected to managed components that are out of the scope of End User Experience and for software licenses associated with managed components. Customer will provide to Verizon the SNMP read access community string and WMI authentication for all Managed Devices.
- 1.5.5 **Customer Responsibilities under Full Management.** For End User Experience Monitoring, Customer will facilitate the execution of a Letter of Authority (LOA) allowing Verizon to work with any third party maintenance providers.

## 2. **SUPPLEMENTAL TERMS**

### 2.1 **Country Related Limitations**

- 2.1.1 **EMEA.** Verizon may, by virtue of providing End User Experience Monitoring to Customer in the European Union, come into possession of Customer Data in connection with the provision of End User Experience Monitoring. Verizon will act as Data Processor as defined in the EU Data Protection Directive 95/46 (the Directive), on behalf of the Customer in providing End User Experience Monitoring. Verizon will act as “Data Processor,” as defined in the EU Data Protection Directive 95/46 (the Directive), on behalf of the Customer in providing End User Experience Monitoring. Verizon will implement appropriate technical and organizational measures to protect Customer Data against accidental or unlawful destruction or accidental loss, alteration, unauthorized disclosure or access and against other unlawful forms of processing. Customer warrants that in its responsibility as “Data Controller” as defined and pursuant to the provisions of the Directive, it has obtained and will obtain all legally required consents and permissions from relevant parties (including, but not limited to, Customer’s end users as applicable) for the use, processing, and transfer of Customer Data as described in this section. Customer warrants that it has obtained and will obtain all legally required consents and permissions from relevant parties (including, but not limited to, Customer’s end users as applicable) for the use, processing and transfer of Customer Data pursuant to the provision of End User Experience Monitoring.



- 2.1.2 **U.S.** If Customer chooses to use End User Experience in the U.S., Customer will be considered a Data Controller as that term is used in the Data Protection Act 1998 and the Privacy and Electronic Communications Regulation 2003, and Customer is subject to all obligations applying to a data controller under those laws and other applicable laws and regulations. Verizon, while processing any resulting data on behalf of Customer, disclaims all responsibility for the decision to activate the feature, the manner in which such data is used by Customer, and the obtaining of Customer's end users' consent. Verizon will not process such data for any purpose other than to provide End User Experience Monitoring to Customer.
- 2.2 **Customer Data.** Verizon may collect information during registration, or through communications by phone, e-mail, or otherwise from employees, contractors or other persons who use End User Experience Monitoring (Authorized Users). Verizon also collects measurement data, which includes the IP address of the applicable Managed Device and the IP address used to connect the Managed Device to networks, applications, and services. The measurement data is analyzed to provide Customer with information regarding the digital performance of its products and/or services including, but not limited to, the results generated by End User Experience Monitoring (Content). When Authorized Users access the Content, Verizon may automatically collect technical data including login information, browser type and version, time zone setting, browser plug-in types and versions, operating system and platform. All the foregoing will be included in the definition of Customer Data. Customer agrees that it will not use End User Experience Monitoring with applications that collect or store personally identifiable information or with applications that must comply with any data privacy regulations including, but not limited to, the Payment Card Industry-Data Security Standards (PCI-DSS), Gramm-Leach-Bliley Act (GLBA), the Health Insurance Portability and Accountability Act (HIPAA), CA SB1386, the Federal Information Security Management Act (FISMA) or the General Data Protection Regulation (GDPR). Customer is responsible for limiting or restricting the collection of sensitive data by End User Experience Monitoring.
- 2.3 **Authorized User Registration.** Authorized Users may complete a registration process which includes the creation of a user identifier and/or password. Authorized Users are solely responsible for ensuring that their user identifiers and passwords are kept confidential, and shall not disclose to, or allow user identifiers and/or passwords to be used by, any third party. In the event that Customer or any Authorized User has reason to believe that any user identifier and/or password is no longer secret, they will notify Verizon immediately. Customer reserves the right to disable any user identification code or password at any time without notice if an Authorized User fails to comply with the Required Terms.
- 2.4 **Disclaimer.** Verizon makes no warranties, guarantees, or representations, express, or implied that (a) End User Experience Monitoring will protect the Customer Network from intrusions, viruses, Trojan horses, worms, time bombs, cancel bots or other similar harmful or destructive programming routines; (b) any security threats and vulnerabilities will be prevented or detected; or (c) the performance by Verizon of End User Experience Monitoring will render Customer's systems invulnerable to security breaches.
3. **SERVICE LEVEL AGREEMENT.** The SLA for End User Experience Monitoring may be found by clicking on the following: [www.verizon.com/business/service\\_guide/reg/End-User-Experience-Monitoring-SLA.pdf](http://www.verizon.com/business/service_guide/reg/End-User-Experience-Monitoring-SLA.pdf).
4. **FINANCIAL TERMS.** Customer will pay the Charges for End User Experience Monitoring specified in the Order and Agreement, and at the following URL: [www.verizon.com/business/service\\_guide/reg/applicable\\_charges\\_toc.htm](http://www.verizon.com/business/service_guide/reg/applicable_charges_toc.htm).
5. **DEFINITIONS.** The following definitions apply to End User Experience Monitoring, in addition to those identified in the Master Terms and the administrative charge definitions at the following URL: [www.verizon.com/business/service\\_guide/reg/definitions\\_toc\\_2017DEC01.htm](http://www.verizon.com/business/service_guide/reg/definitions_toc_2017DEC01.htm).



Term	Definition
Customer Network	A collection of Managed Devices and the network they are connected to.
Managed Devices	Items of CPE that have been designated as supported by End User Experience Monitoring.