SCHEDULE E
CRITICAL SERVICES

Critical Service	Business Functionality	Maximum Time to Restore from Service Outage
Enterprise Internet Services Solution	The Enterprise Internet solution that provides Internet access services, including firewall, intrusion detection and prevention, and web filtering to the Commonwealth.	24 hours
Enterprise Business Partner Access Solution	The Enterprise Business Partner Access solution that provides secure connectivity access solutions to Commonwealth business partners	24 hours
Enterprise Remote Access Solution	The Enterprise Remote Access solution that provides secure access to the Commonwealth corporate network from remote locations (outside the Commonwealth network) to systems or data within the Commonwealth network.	24 hours
Enterprise Automatic Call Distributor (ACD) Solution	The Enterprise network-based solution that provides ACD functionality to Commonwealth sites.	24 hours
Commonwealth Wide Area Network (WAN) Services	The service offering/s and Multi-Protocol Label Switching (MPLS) network infrastructure that provides secure wide area network (WAN) services between Service Provider switching centers.	24 hours
Voice Communication Services	The service offering/s and) infrastructure that provides voice communications inbound/outbound calling.	24 hours
Commonwealth WAN Services to Critical Locations	The service offering and infrastructure that provides data communication services to Critical Services Locations as identified in Schedule E-1. Such services include without limitation data transport and services (i.e. circuits and managed network devices).	4 hours
Voice Communication Services to Critical Call Centers	The service offering and infrastructure that provides telephony services to Critical Service Locations as identified in Schedule E-1. Such services include without limitation voice transport and services (i.e., circuits and toll-free) as well as telephony infrastructure such as IP telephony, ACD, and IVR.	4 hours

General Definitions

"**Commonwealth Wide Area Network (WAN)**" – the services that provide WAN connectivity for the Commonwealth sites. Restoration from a Service Outage is limited to Verizon's backbone infrastructure, including, for example, Frame Relay switches, inter-office facilities, and Private IP backbone.

"**Commonwealth WAN Services to Critical Locations**"– the services that provide the WAN connectivity to Commonwealth Critical Locations. Restoration from a Service Outage will include the managed routers, access circuits, and WAN transport, provided that the services are provisioned diversely, for example, dual access circuits delivered via dual building entrances and routed through alternate serving wire centers, and terminating on redundant Verizon fully managed routers.

"**Enterprise Automatic Call Distributor (ACD)**" – the services that provide the automatic call distribution service for the Commonwealth sites. Restoration from a Service Outage is limited to the network-based Web Center services.

"Enterprise Business Partner Access" – the services that provide secure connectivity for Commonwealth business partners, and is provided by a pair of Verizon managed routers deployed at each of the two diverse data centers which house the Enterprise Internet Services. Restoration from a Service Outage is limited to the Verizon managed services, and does not include the Business Partner and Commonwealth provided services including user authentication, unique end-user VPN client software, and other components not managed by Verizon.

"Enterprise Internet Services" the services that provide the Commonwealth Internet service. The service is comprised of several different components which are deployed in a fully redundant design across two geographically diverse data centers. The Enterprise Internet Service begins at the Verizon-managed LAN switch in the data center and extends through to the diverse Gigabit Ethernet Internet Dedicated Access connections to the Internet backbone, including the Web Farm DMZ. Each data center will be configured with the following-

- A pair of redundant Ethernet switches segmented to provide the trusted (internal), DMZ (Web Farm), and untrusted (public Internet) networks

- A pair of redundant firewalls, configured as a high availability pair

- A pair of Intrusion Detection and Prevention devices, configured as a high availability pair

- A load-balanced cluster of web filtering devices

- A pair of routers providing connectivity to the Internet

- Two Gigabit Ethernet connections to the Internet, one to Verizon Business and the other to a diverse carrier

All devices will be fully managed by Verizon, and will be configured such that the Enterprise Internet Service will be available in the event of the loss of a single data center or connectivity to a single carrier's Internet backbone. Restoration from a Service Outage is limited to the devices and services described in this definition.

"Enterprise Remote Access" – the services that provide secure remote access services for authorized users. The service is provided by a pair of managed secure access devices deployed at each of the two diverse data centers which house the Enterprise Internet Services. Restoration from a Service Outage is limited to the managed secure access devices providing the service, and does not include the Commonwealth provided services including user authentication, unique end-user VPN client software, and other components not managed by Verizon.

"Service Outage" – a complete loss of a Critical Service, not to include a partial loss or degradation of service. In addition, the following exclusions apply.

- Any act or omission on the part of the Customer, its contractors or vendors, or any other entity over which the Customer exercises control or has the right to exercise control, other than acts or omissions of Verizon approved 3rd Party Network or 3rd Party Maintenance providers,

- Scheduled maintenance by Customer or entities under Customer's direction or control,

- Scheduled maintenance by Verizon within approved maintenance windows as outlined in the Process and Procedures Manual,

- Outages due to Customer Time,

- Proper power is not available to the CPE.

"Voice Communication" – the services that provide the network based inbound/outbound voice services for Commonwealth sites. Restoration from a Service Outage is limited to Verizon's backbone infrastructure, including, for example, Centrex switches and inter-office facilities.

"Voice Communication Services to Critical Call Centers" – the services that provide the voice communications services to Commonwealth Critical Locations. Restoration from a Service Outage will include the access circuits, provided that the services are provisioned diversely, for example, dual access circuits delivered via dual building entrances and routed through alternate serving wire centers. Centrex services are excluded from the Maximum Time to Restore calculation.