

## **CME Securities Clearing CA-1 – Exhibit M**

### **Exhibit Request:**

**If clearing agency functions are performed by automated facilities or systems, attach as Exhibit M a description of all backup systems or subsystems which are designed to prevent interruptions in the performance of any function as a result of technical or other malfunction. Include backups for input or output links to the system and precautions with respect to malfunctions in any areas external to the system.**

### **Response:**

#### **CMESC System Design Description**

The CMESC information technology infrastructure is currently made up of various direct and indirect systems that have multiple environments. These systems will have redundancy across multiple, geographically dispersed regions. Overall, the systems will be designed to meet regulatory requirements, including redundancy in a geographically diverse region.

#### **Operational Resilience:**

CMESC's Business Continuity Management and disaster recovery requirements and strategy are governed by CMESC's Operational Resilience Program Policy. CMESC's infrastructure and systems are built around a multi-layered approach to resilience and redundancy.

#### **Availability and Disaster Recovery**

The cloud environment will operate across multiple regions. CMEC's disaster recovery strategy utilizes a geographically disparate region for the backup solution.

- **Availability:**

To help ensure appropriate resilience we take a multi-layered approach. If for any reason one of the instances becomes unstable or unavailable, systems are architected to create a new instance. If a datacenter becomes unavailable for any reason, systems are architected to automatically redirect all instances that were operating in that datacenter to another available datacenter. These are actions that are designed to occur within the production environment and are independent of the disaster recovery instance infrastructure.

- **Disaster Recovery/System Resilience:**

CMESC's resilience strategies include having a backup solution available in a geographically disparate region. In the event the primary region is unavailable, CMESC will failover the systems to the backup region.

#### **Data Backup**

CMESC data will be backed up to the geographic region used for disaster recovery with appropriate recovery point objectives. We will employ various resilience strategies within the regionally diverse data centers. If CMESC fails over from production to DR, the geographically diverse backup data center would be utilized.