# Backup and Recovery Strategy Document

**1. Backup Strategy**

**Backup Types:**

1. **Full Back up:** Performed weekly to create a complete copy of all system and application data.
2. **Differential Backup:** Conducted daily to capture all changes since the last full backup.
3. **Transaction Log Backup:** Executed every 4 hours to record all transactions since the last transaction log backup, allowing for point-in-time recovery.
4. **Real-time Replication:** Enabled for critical systems to ensure minimal data loss in the event of a failure.

**2. Recovery Objectives**

* **Recovery Time Objective (RTO):** 2 hours — The maximum acceptable length of time that systems and applications can be unavailable.
* **Recovery Point Objective (RPO):** 15 minutes — The maximum tolerable period in which data might be lost from an IT service due to a major incident.

**3. Backup Locations**

* **Primary Data Center:** Main repository for daily and weekly backups.
* **Secondary Data Center (Geographically Dispersed):** Maintains a copy of critical backups for redundancy.
* **Cloud Backup:** Secured with military-grade encryption to ensure data confidentiality, integrity, and availability.
* **Offline Tape Backups:** Used for archiving critical data and stored in secure, fireproof facilities.

**4. Recovery Procedure**

1. **Immediate System Isolation:** Isolate affected systems to prevent further damage or data loss.
2. **Comprehensive Damage Assessment:** Determine the scope and scale of data loss or system compromise.
3. **Backup Restoration:** Restore data and applications from the most recent clean backup point.
4. **Data Integrity Verification:** Confirm the integrity and completeness of the restored data.
5. **Gradual System Restoration:** Restore systems in phases, prioritizing critical services.
6. **Post-Incident Analysis:** Conduct a thorough review to identify root causes and improve future response strategies.