

IQRA UNIVERSITY

Backup Policy

(ERP Application and Database)

1. Policy Objective

This policy ensures the integrity, availability, and confidentiality of the Iqra ERP application and its associated databases by implementing systematic and regular backup procedures for both the primary and secondary data centres, aligned with the requirements of ISO 27001.

2. Scope

This policy applies to all Iqra ERP systems and their corresponding databases deployed within the university.

3. Responsibilities

- **Data Center Team:**
 - Oversee the overall backup strategy and policy compliance.
 - Implement and monitor backup processes for application and database servers at the VM level and database level for both primary and secondary data centers.
 - Conduct periodic penetration testing of backup infrastructure for both sites.
 - Maintain detailed audit logs of all backup and restore activities for both primary and secondary data centers.
- **Iqra Development Team:**
 - Manage and maintain code backups following a separate version control system.
 - Assist with application-level backup procedures upon request from the Data Center Team.
 - Perform restoration procedures from replicated backups at the DR site.
- **Management:**
 - Review and approve this policy periodically.
 - Allocate necessary resources for backup infrastructure for both sites.

4. Backup Schedule

Primary Data Center:

- **VM Level:**
 - **Full Backups:** Weekly (Sundays at 0200 hrs)
 - **Incremental Backups:** Daily (1500 hrs and 2300 hrs)

- **Database Level:**
 - **Full Backups:** Weekly (Saturdays at 1000 hrs)
 - **Incremental Backups:** Three times a day (0800 hrs, 1300 hrs, and 1800 hrs)
 - **Transaction Log Backups:** Hourly

Secondary Data Center (DR Site):

- Database backups are replicated from the primary data center in real-time or with minimal lag.
- **DR Site Server and Services Backups:**
 - **Schedule:** Daily for critical systems, weekly for less critical systems.

5. Backup Types and Retention

Backup Type	Retention Period	Location
Primary Data Center		
Full Backups (Weekly)	6 Months	Onsite Storage
Full Backups (Monthly)	1 Year	Onsite Storage
Annual Backups	Indefinitely (or as per compliance regulations)	Onsite Storage
Incremental Backups	1 Month	Onsite Storage
Transaction Log Backups	1 Week	Onsite Storage
Secondary Data Center (DR)		
Database Backups (Replicated)	Align with Primary Data Center Retention	Onsite Storage (DR)
DR Site Server and Services Backups	Daily for Critical Systems	Primary Data Center Storage

6. Backup Locations

- **Primary Data Center:**
 - Primary backup for all university data (applications, databases, etc.)
 - Backup storage for DR Site server and services.
- **Secondary Data Center (Gulshan DC):**
 - Replicated database backups from the primary data center.
- **Third Storage:**

- A separate detachable drive can be used for additional redundancy for any critical data.

7. Backup Verification

- The Data Center Team will conduct regular verification procedures for both primary and DR sites to ensure:
 - Integrity of backup software and hardware.
 - Sufficient storage space availability.
 - Backup data integrity through test restores.
- Quarterly restore tests will be conducted at both, primary and DR sites to validate backup functionality.

8. Security Measures

- Limit access to backup data and infrastructure to authorized personnel only (applicable to both, primary and DR sites).
- Maintain comprehensive audit logs of all backup and restore activities for both sites for tracking and accountability.
- Consider encrypting backups at rest and in transit for additional security.
- Regularly review and update security measures based on industry best practices, identified vulnerabilities, and evolving ISO 27001 requirements.

9. Post-Implementation Activities (Aarsol)

- Aarsol, as the implementation partner, will provide comprehensive handover documentation detailing the Iqra ERP system and database structure.
- Aarsol will train the Iqra University development team on application functionalities and any application-level backup procedures before project handover.