STANDARD OPERATING PROCEDURE

Data Backup SOP

Document no.	SOP-IT-004
Revision	1.0
Owner	IT Infrastructure Manager
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Review cycle	Every 12 months

1. Purpose

To make sure critical business systems and data are backed up on schedule, stored securely with an offsite copy, tested regularly, and can be restored within the agreed recovery targets.

2. Scope

Applies to scheduled backups of servers, databases, file shares and cloud application data, including monitoring, retention and restore requests. End-user device backup and full disaster recovery failover are covered by separate procedures.

Definitions

Recovery point objective (RPO)	The maximum amount of data loss, measured in time, that is acceptable for a given system.
Recovery time objective (RTO)	The maximum acceptable time to restore a system after data loss.
Retention policy	The rules defining how long backup copies are kept before being purged.
Test restore	Restoring a backup to a non-production location to confirm it is usable.

3. Responsibilities

System Administrator	Configures backup jobs, sets retention, and performs periodic test restores.
Backup Operator	Monitors backup jobs daily, resolves failures, and processes restore requests.
IT Manager	Reviews backup health reports and approves changes to backup scope or retention.
Data Owner	Approves restore requests for their system's data and confirms restored data is correct.

RACI matrix

Activity	System Administrator	Backup Operator	IT Manager	Data Owner
Configure and schedule backup jobs	R/A	C	I	I
Monitor and resolve backup failures	C	R/A	I	-
Perform periodic test restores	R/A	R	I	-

Activity	System Administrator	Backup Operator	IT Manager	Data Owner
Approve and perform a data restore	C	R	I	A
Report backup health to management	R/A	C	I	-

R = Responsible, A = Accountable, C = Consulted, I = Informed

4. Materials and PPE

Materials, tools and systems

- Backup software console
- Backup schedule and system inventory
- Offsite or cloud storage target
- Backup job log
- Restore request form

5. Procedure

Step	Task	Owner	Done
5.1	**Maintain the backup inventory** The System Administrator keeps a current list of every system in scope for backup, with its assigned recovery point and recovery time objectives.	System Administrator	☐
5.2	**Configure backup jobs** The System Administrator configures a backup job for each in-scope system with a frequency that meets its recovery point objective.	System Administrator	☐
5.3	**Confirm encryption and offsite copy** The System Administrator confirms each backup job is encrypted and that at least one copy is stored offsite or in a separate region from the source system. **Checkpoint:** Every in-scope system has at least one encrypted backup copy stored outside its primary location.	System Administrator	☐
5.4	**Monitor scheduled backup jobs** The Backup Operator checks the backup console each business day to confirm scheduled jobs completed successfully.	Backup Operator	☐
5.5	**Investigate failed jobs** The Backup Operator investigates and resolves any failed backup job within one business day of the failure being noticed. **Warning:** A second consecutive failure on the same system must be escalated to the System Administrator immediately, not queued for the next check.	Backup Operator	☐
5.6	**Log backup job status** The Backup Operator records the outcome of each day's backup monitoring, including any failures and their resolution, in the backup log.	Backup Operator	☐

Step	Task	Owner	Done
5.7	**Perform periodic test restores** The System Administrator restores a sample of backed-up systems to a non-production location on a regular schedule to confirm the backups are usable. **Checkpoint:** The test restore completes within the system's recovery time objective and the restored data passes an integrity check.	System Administrator	☐
5.8	**Enforce the retention policy** The System Administrator reviews stored backups against the retention policy and purges copies that have passed their retention period.	System Administrator	☐
5.9	**Validate restore requests** The Backup Operator confirms a restore request is either submitted by the Data Owner or carries their written approval before proceeding. **Checkpoint:** No restore proceeds without the Data Owner's request or documented approval.	Backup Operator	☐
5.10	**Perform the restore** The Backup Operator restores the requested data to the location specified in the request, such as a test environment, rather than overwriting live production data. **Warning:** Never restore over live production data without explicit written sign-off from the Data Owner.	Backup Operator	☐
5.11	**Verify restored data with the requester** The Backup Operator confirms with the Data Owner that the restored data is correct and complete before closing the restore request.	Backup Operator	☐
5.12	**Report backup health monthly** The System Administrator sends the IT Manager a monthly report on backup success rates, failures and test restore results.	System Administrator	☐

6. Quality checks

- Every in-scope system has an assigned recovery point objective and recovery time objective.
- Backup failures are resolved or escalated within one business day.
- Test restores are performed on a regular schedule and documented.
- The retention policy is enforced so backups are not kept indefinitely or purged too early.

7. Records

- Backup job log
- Test restore report
- Restore request and approval record
- Monthly backup health report

8. KPIs

- Backup job success rate
- Average time to resolve a failed backup job
- Test restore success rate
- Actual restore time against the recovery time objective

9. Common mistakes

- Not testing restores until an actual emergency happens.
- Restoring over live production data without the Data Owner's approval.
- Letting a failed backup go unnoticed over a weekend.
- Keeping the only backup copy in the same location as the source system.

10. Revision history

Revision	Date	Description	Reviewed by
1.0	September 15, 2026	Initial release	Ilia Pirozhenko

Approval

Prepared by	Approved by	Date

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