IT STANDARD OPERATING PROCEDURE	DBLGROUP IT DEPARTMENT South Avenue Tower (6th Floor), House-50, Road-3, Gulshan-1, Dhaka, Bangladesh	
TITLE:	**Data Backup and Recovery**	

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1.0.10 Data Backup and Recovery

1. **PURPOSE**

   To ensure the safe and efficient backup of critical data and systems at DBL GROUP, minimizing the risk of data loss and enabling swift recovery in the event of a disaster or system failure.

2. **SCOPE**

   This SOP applies to all IT personnel responsible for managing backups at DBL GROUP

3. **ROLES AND RESPONSIBILITIES**

   3.1 IT department personnel or designee is responsible for:

   3.1.1   Proper implementation of the SOP

   3.1.2   Ensure the data backup is successfully completed as per the schedule.

   3.1.3   Fill-up the Software and data backup request form

   3.1.4   Fill-up the data backup restores form.

   3.1.5   Restore the data as and when as required.

   3.1.6   The standalone systems list will be updated when required.

   3.1.7   Ensure the data retention logbook.

   3.2 End user is responsible for:

   3.2.1   End user shall notify any abnormality of the system to IT personnel.

   3.2.2   End user shall request for Data backup if required.

   3.2.3   The end user is responsible for assuring OneDrive is installed and running on workstation.

   3.2.4   End user responsible for keeping data in file server/NAS server.

   3.3 IT Manager is responsible for:

   3.3.1   To ensure procedure is carried out as per SOP.

   3.3.2   Regular monitor the backup data, restoration procedure and related documents, and troubleshooting to ensure that the procedure is followed as per the SOP.

   3.3.3   To review the SOP

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3.4 Head of IT is responsible for:

    3.4.1   To approve the SOP

    3.4.2   To Make decision on any situation

3.5 CIO is responsible for:

    3.5.1   To Authorize the SOP

4. TRAINING REQUIREMENTS

Training is required for associated personnel related to this SOP.

5. ABBREVIATIONS

SOP -   Standard Operating Procedure

IT -   Information Technology

UPS -   Uninterruptible Power Supply

IP -   Internet Protocol

SME -   Subject Matter Expert

LAN -   Local Area Network

Layer-1 -   Standalone System

Layer-2 -   File Server

Layer-3 -   Remote Backup/Cloud

DC -   Data Center

OS -   Operating System

HDD -   Hard Disk Drive

DEFINITIONS

Data - Information derived or obtained from raw data (e.g., a reported analytical result).

Data shall meet the following ALCOA+ requirements:

    A - Attributable to the person generating the data

    L - Legible and permanent

    C - Contemporaneous

    O - Original record (or 'true copy')

    A – Accurate

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'+' refers to the additional measures ensuring that data are Complete, Consistent, Enduring, and Available.

Backup - A Backup is a copy of current data, metadata, and system configuration settings that are kept facilitating recovery, including disaster recovery.
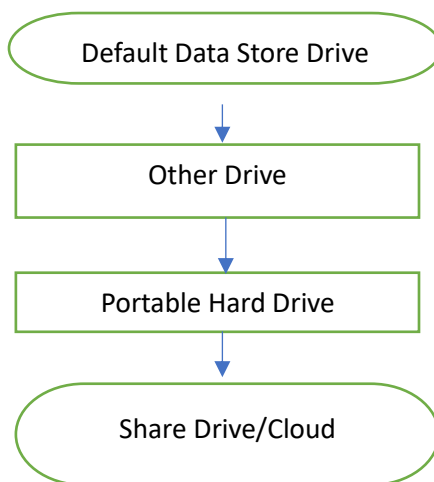
6. PRECAUTIONS

1. Depending on the type of data, either full backups or incremental backups can be considered.
2. Don't disconnect the LAN cable from the computer.
3. Keep computers in safe, dry and dust-free areas.
4. Power backup should be ensured.
5. Store the data backup media in a secure location to prevent unauthorized access.
6. End users be careful to deletion any data from the computerized system.
7. While transferring data, exercise caution to avoid disconnecting the media until the entire data transfer process is completed.
8.

7. PROCEDURE

Flow Chart for Standalone System Data Backup:

Default Data Store Drive

↓

Other Drive

↓

Portable Hard Drive

↓

Share Drive/Cloud

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Flow Chart for Standalone System Data Backup process:
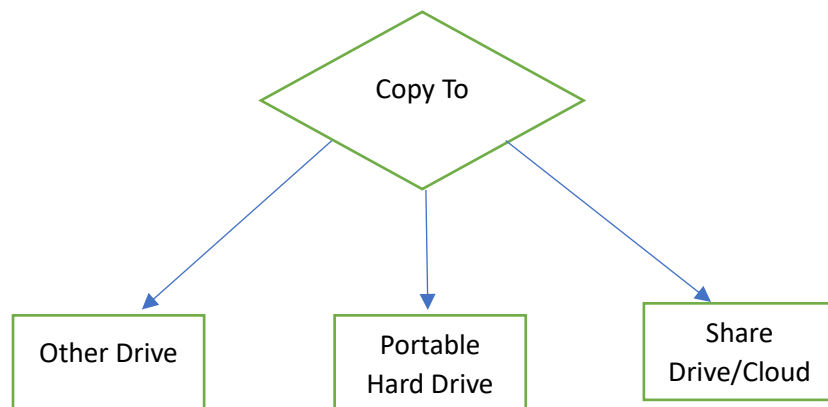
Quarter-Q1	January - April
Quarter-Q2	May - August
Quarter-Q3	Sep - Dec

Half Yearly-HY1	January - June
Half Yearly-HY2	July- December

Data backup process for Network Connected User System:

Data Backup Processor Flow Chart for System Admin:
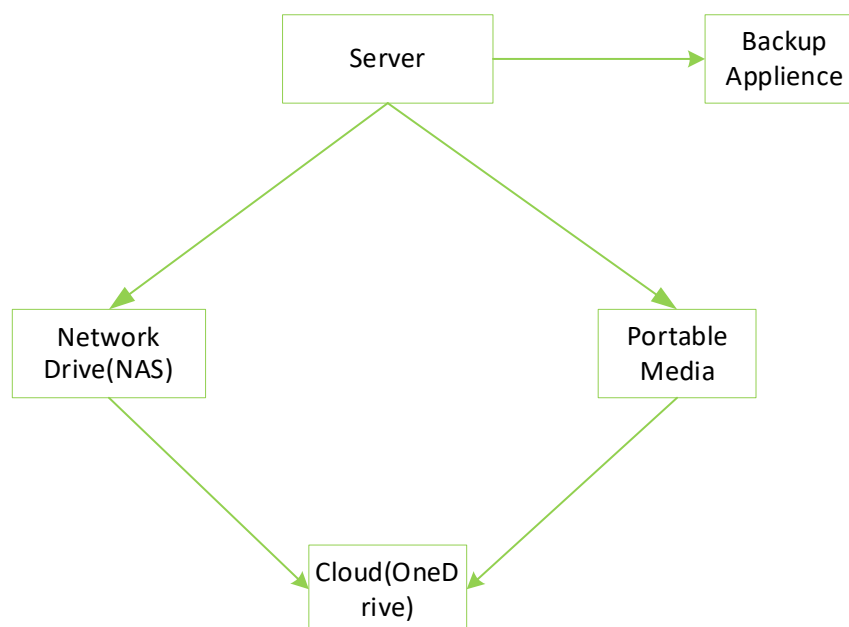
Data Backup Folder Creation Procedure

8.1.1 Create a main folder for the standalone system. The main folder format is Data Backup-Department-SystemName-year (e.g., DB-LAB-SPECTRO-2024).

8.2 **Data Backup procedure of Standalone System**

8.2.1 Perform data backup as per schedule on the predefined backup folder into the same standalone system and transfer the data to the fileserver through the external storage media or the share drive.

8.2.2 The backup of the "predefined backup folder" on the standalone system (if the backup is not taken directly standalone pc to file server) shall be taken on external storage media/device as per IT procedure.

8.2.3 Every backup data shall be taken in layer-3; Layer-1 is the same standalone system into the predefined backup folder, Layer-2 (Portable HDD) shall be retained under the same conditions at DC. Layer-3 (File

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Server) shall be retained under the same conditions under the custody of Head-IT/Designee at other locations.

8.2.4 Backup data shall be available at the site and the duplicate copy of the data shall be available at another location other at the same building/server room.

8.2.5 Carry out data back up in 3 stages quarterly, Half Yearly & Yearly.

8.3 **Quarterly Data Backup**

8.3.1 The first week of every quarter transfer data for quarterly back up

8.3.2 Create a backup for quarterly Data Backup

8.3.3 Copy all the data, open the quarterly folder & paste it in the Backup folder of the standalone computer.

8.3.4 Copy all the data, open the quarterly folder & paste in the Backup folder of the Portable media.

8.3.5 Copy all the data, open the quarterly folder & paste it in the Backup folder of the Backup Server.

8.3.6 Keep record quarterly data backup as per appendix-D

8.4 **Half Yearly Data Backup:**

8.4.1 The first week after every six months of a year half yearly data backup should be considered.

8.4.2 Create a backup for half yearly Data Backup

8.4.3 Copy all the data, open the Half Yearly folder & paste it in the Backup folder of the standalone computer.

8.4.4 Copy all the data, open the Half Yearly folder & paste in the Backup folder of the Portable media.

8.4.5 Copy all the data, open the Half Yearly folder & paste it in the Backup folder of the Backup Server.

8.4.6 Keep record half yearly data backup as per appendix-D

8.5 **Yearly Data Backup:**

8.5.1 The first week after every year data backup should be considered.

8.5.2 Create a backup for Yearly Data Backup

8.5.3 Copy all the data, open the Yearly folder & paste in the Backup folder of the standalone computer.

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     8.5.4   Copy all the data, open the Yearly folder & paste it in the Backup folder of the Portable media.

     8.5.5   Copy all the data, open the Yearly folder & paste in the Backup folder of the Backup Server

     8.5.6   Keep record yearly data backup as per appendix-D

8.6 **Other System Backup**

     8.6.1   All server system Virtual Machines backup will be performed automatically to Backup Appliance, NAS, Portable Hard Drive, Cloud or Tape media.

     8.6.2   Depending on the type of data, either full backups or incremental backups can be considered.

     8.6.3   Any user who wants data Backup of his/her Laptop/Desktop official Data should fill-up the form (**Appendix-B)**

8.7 **Data Retrieval and Restoration Procedure:**

     8.7.1   If found and data errors or data anomalies of any computerized system or any standalone system or any production equipment's, then user department raise the request for Data Restoration as per **(Appendix-C**) and take approval with Department Head or Designee.

     8.7.2   Send the data restore request form to IT department after approval from Head of department or Designee.

     8.7.3   As per the procedure IT department should follow the Data Retrieval and Restoration Procedure

     8.7.4   The data restoration procedure is manual, so ensure that it is recorded and signed.

     8.7.5   After the restoration of electronic data, checkup shall be done by user department to ensure that the restoration done properly.

8.8 **Retention Period of Backup Data**

     8.8.1   The backup data retention period is five (05) years.

     8.8.2   After retention period the data (Layer-1, Layer-2, and Layer-3) will be retrieved and destroyed as per (**Appendix-E**)

     8.8.3   Soft copy data will be removed permanently after retention period.

ABBREVIATIONS

SOP - Standard Operating Procedure

IT - Information Technology

TRAINING AND CONTINIOUS IMPROVMENT

- Provide regular training sessions for employees and IT staff on backup and Restore SOP

REVIEW AND REVISION

- This SOP will be reviewed annually or as needed to ensure relevance and effectiveness.
- Any updates or revisions will be communicated to all relevant stakeholders.

COMMUNICATION:

Clearly communicate the SOP to all relevant stakeholders. Ensure that employees are aware of their roles and responsibilities and understand the implications of not adhering to them.

ACCESSIBILITY:

Make the SOP easily accessible to all relevant personnel. This could involve storing it in a central repository, such as an intranet or document management system.

REFERENCES

9.1 FDA's 21 CFR Part 11: Electronic Records; Electronic Signatures

9.2 GAMP 5: A Risk-Based Approach to Compliant GxP Computerized Systems

9.3 In house

9.4 Industry Best Practice

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APPROVAL		
Prepared by:	**Signature**	**Date**
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Approved by:	**Signature**	**Date**
Name: Zahidul Alam		
Designation: CIO		
Authorized by:	**Signature**	**Date**
Name:		
Designation:		

Distribution:
1. **IT Department**
2. **HR**
3. **Related stakeholders (Management Employee)**

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