

BACKUP POLICY AND PROCEDURES

POLICY# OTECH-POL12017-006

GOVERNMENT OF GUAM, OFFICE OF TECHNOLOGY
211 ASPINAL AVENUE HAGATNA, GUAM 96910
Otech.guam.gov

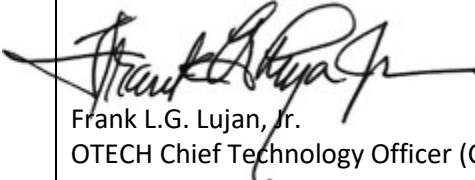


OFFICE OF TECHNOLOGY
GOVERNMENT OF GUAM

AUGUST 4, 2017

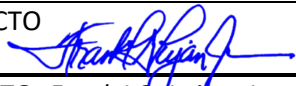


Overview

Policy Number:	OTECH-POL2017-006
Title:	Backup Policy and Procedures
Purpose:	To provide details on the stipulations of data backup and retrieval operations for critical servers.
Publication Date:	August 4, 2017
Policy Approval:	 Frank L.G. Lujan, Jr. OTECH Chief Technology Officer (CTO)
Target Audience:	The intended recipients of this policy are Government of Guam line agencies that house their information technology servers in one of the OTECH datacenters that managed and maintained by OTECH.
Contact Details:	Office of Technology 211 Aspinall Avenue Hagatna, Guam 96910 O: 671.475.1113 F: 671.472.9508 otech.guam.gov



Revision History

Date of Change	Responsible	Summary of Change
July 2017	OTECH Systems Support	Draft policy
August 2017	OTECH Data Processing Manager and CTO	Review, approve and disseminate policy
February 2024	OTECH Systems Support	(a) Update backup process and acceptable software (b) Update backup supplies section (c) Include Review and Internal Audit section
March 2024	CTO  CTO, Frank LG. Lujan, Jr. Date: <u>March 1, 2024</u>	Review approve and disseminate policy



Introduction

The unprecedented growth in data volumes has necessitated an efficient approach to data backup and recovery. This document is intended to provide details on the stipulations of data backup and retrieval operations for critical servers.

Policy

The Office of Technology recognizes that the backup and maintenance of data for servers are critical to the viability and operations of the respective departments. It is essential that certain basic standard practices be followed to ensure that data files are backed up on a regular basis.

Procedures

Each virtual datacenter environment shall have at least one (1) physical backup storage that is managed and maintained by OTECH. Backup media may vary and consist of either LTO4 tapes, LTO6 tapes, or Network Attached Storage (NAS).

Acceptable backup software used to manage backup processes shall include Symantec Backup exec 2014 and Synology Active Backup. The OTECH systems support team shall ensure all backups are successful and review and mitigate failed processes.

The backup process shall be deployed and maintained by the OTECH systems support team, unless directed otherwise by the CTO.

Backup Content

The content of data backed up varies from server-to-server. The primary data that will be backed up are: Data files designated by the respective owners of the servers and in some instances System Data (Application files for the server and other selected software installed on the server). Data to be backed up will be listed by location and specific data sources.

Because it is impractical for the OTECH systems support to backup every bit of data stored on the servers, the only data that OTECH accepts responsibility for is the critical data files identified by the respective owners of the servers. If a server's respective owner does not identify the critical data sets to backup, OTECH will use their judgement to determine the best backup deployment method. OTECH does not assume responsibility for any critical data sets that are not requested to be backed up by the respective owners.

Backup Types

With the precipitous growth of OTECH's virtual environments, it is impossible that every server will be backed up daily. The volume of the data files to be backed up and the frequency of data updates or changes will determine the type of backup to be deployed.



Full Backup

Includes all the source files. This method is a full copy of a server's entire data set, including system state. This method is deployed to critical servers at least once a week.

Differential Backup

Includes files identified by the respective owners that have changed since the last full backup or incremental backup. The difference between differential and incremental backups is that differential backups are cumulative. After a differential backup, each subsequent differential backup backs up the same files as the previous differential backup, but it also backs up any new files or changed files dating back to the last full backup or incremental backup.

Incremental Backup

Includes only the files that have changed since the last full or incremental backup. The difference between incremental and differential backups is that incremental backups are not cumulative. Each incremental backup creates a baseline. After the incremental backup, the subsequent incremental backup or differential backup backs up only any new files or changes dating back to the baseline.

Storage and Retention of Tapes

Tapes are stored in one of OTECH's secured datacenters. Tapes are retained based on a programs guidelines and statutes. If there is no mandate to maintain a program's backed up data set, then tapes may be deleted and reused at the discretion of the respective owner's request and approval.

Backup Supplies

Each department is responsible for procuring their own set of backup supplies, to include Backup Server license & support and LTO4 or LTO6 tapes and bar code labels. Agencies may contact OTECH to assist in obtaining formal quotes for backup media supplies. OTECH will not be held liable for backups that do not complete due to depleted media supplies.

Agencies shall ensure efficient funds are allocated to budget for backup hardware and software upgrades and refresh.

Review & Internal Audit

This policy shall be reviewed and updated annually, on an as needed basis, or if there is a breach in protocol and procedure. OTECH shall initiate the review process on the first day of each Fiscal Year – 1st of October, or next business day. Policy review and updates shall be documented in the policy's *Revision History* section. The review process shall be completed before the end of the Fiscal Year's first quarter and the updated policy shall be disseminated (via OTECH website, Agency Memo or email) by December 31st of each year.