

UTL-3.07 - Customer Information System (Open Vision) Backup Policy - [Printable Version](#)

CUSTOMER INFORMATION SYSTEM (OV) BACKUP POLICY

Administrative Rule Adopted by Water Bureau Pursuant to Rule Making Authority

ARB-UTL-3.07

BACKGROUND:

The Customer Information System – Open Vision (CIS-OV) is the City's water, sewer, and storm water service customer account management, billing, and collection system used by the Bureaus of Water and Environmental Services. Because of the nature and magnitude of the revenues generated by these Bureaus, it is critical to the City that this system function continuously and independent of any internal or external disruptions to other City services or computer systems.

OBJECTIVE:

This document sets forth the Recovery Goals and Availability Standard for the CIS-OV. It also sets forth the hardware, software, and database backup policies and procedures that ensure attainment of the Goals and compliance with the Standard.

RECOVERY GOALS:

No complex computing system is immune to failures, either from physical components or software applications. The goal for computing system operators is to be alert and proactive in detecting and preventing failures and be ready to reduce adverse impacts when failures do occur. This creates the need to establish recovery goals for various types of failures, which also dictate backup procedures. The following Recovery Goals provide a balance between the system Availability Standard and the cost of attaining those goals:

1. Be able to recover from lost data record or data table - within 8 hours
2. Be able to recover from a single failed data disk - within 8 hours
3. Be able to recover from a failed server - within 24 hours
4. Be able to recover from a catastrophic site failure - within 4 days

A catastrophic site failure is any event that destroys or makes inaccessible the primary CIS-OV servers.

In addition to hardware or software failures, certain user activity can also cause data inaccuracies or data corruption. Most failures of this type are readily detectable, eliminating the need to revert beyond five (5) business days. Therefore, the backup policy and related procedures are intended to allow recovery of the CIS-OV database to a specified hour within the last five (5) business days.

AVAILABILITY STANDARD:

The City will not tolerate more than three instances in a single fiscal year where the CIS-OV is non-functioning and/or unavailable for more than 24 consecutive hours during any one instance. To ensure

this does not happen, the City has developed the following policies to mitigate the impact of failures in any or all of three areas: hardware, application software, and CIS database.

HARDWARE POLICY:

The City will acquire and maintain the necessary hardware, and employ the necessary means to eliminate or significantly reduce single points of hardware failure. Such means include disk mirroring and redundant onsite and/or offsite servers. In addition, the City will enter into contracts with appropriate hardware vendors for replacement of failed hardware components in a timely manner so as to remain within the 24-hour Availability Standard.

SOFTWARE POLICY:

The City will enter into contracts with appropriate vendors for application software support and maintenance so as to remain within the 24-hour Availability Standard.

CIS-OV DATABASE (BACKUP) POLICY:

The City believes that backing up data frequently is the best way to mitigate the effects of data corruption. Therefore, the remainder of this policy and related *City Backup Procedures, Water/Sewer Customer Information System, Open Vision* applies to all City employees with responsibility for operating the CIS-OV system and/or running CIS-OV transaction batch jobs each workday and/or weekends. It is the responsibility of such employees to be thoroughly familiar with the contents of these documents and to comply with these policies, procedures, and requirements. Specifically, CIS-OV system operators must ensure that copies of the CIS-OV data are produced weekly, and retained for four (4) weeks.

Copies must be made to both magnetic media for offsite safe storage, and to standby servers to accommodate rapid recovery. The data contained in each copy must be sufficient to allow recovery to within 1 hour of the current database transaction state, and allow reversion to a specified point in time within the past five (5) business days. An example technique for accomplishing this is to create a weekly cold backup and generate regular (hourly) archive logs.

CIS-OV system operators are to also produce Fiscal Year-end copies of the data, both to magnetic media (2 copies) and to a standby server. The magnetic media shall be retained for 3 years - one copy at a designated off site storage location and the second copy at a designated on site storage location.

CIS/OV DATA (BACKUP) PROCEDURES:

The CIS System Support group of the Water Bureau has established CIS-OV Database Backup Procedures that meet this Policy's Recovery Goals and Availability Standard. These Procedures are a part of this Policy document and are incorporated herein by reference. Changes to the Procedures, whether initiated internally or due to changes to the Policy, will be subject to review and approval by the Customer Services Group Director and OV System Support and Development Manager.

See Also

[ARC-BIT-2.10 - Data Backup](#)

HISTORY

Adopted by Water Bureau. Document dated May 24, 2001

Amended document dated April 13, 2004, filed for inclusion in PPD July 1, 2004