

Portal Backup and Retention Policy

Overview

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Due to vendor licensing costs, the Production Portal is not a High Availability (HA) solution. Instead, the Geographic Information Office (GIO) within OCIO utilizes the built-in [WebGIS DR](#) (Disaster Recovery) backup and restore functions for creating a backup of the primary Production Portal in the secondary portal environment.

WebGIS DR Backup and Restore

The secondary environment, also known as “Stack 2”, is a duplicate Portal environment installed on VMs served from the Omaha data center (the normal, primary environment is served from the OCIO data center in Lincoln). The secondary environment’s intended use is backup in the event a failover is required due to issues with the primary environment, and during upgrades to allow minimal downtime as updates are implemented.

There are currently no backups taken of the DEV (development) or CAT (testing) portal environments utilizing WebGIS DR. The Partner Portal environment is a “single-machine” install, and if necessary a full VM restore can be requested from the OCIO Open Systems team via the [OCIO Backup Service](#) offering in Service Portal. There is currently no mechanism to recover Portal items from a previous date. Users must instead rely on another environment, like DEV or CAT, to store and maintain copies of production or non-production items.

WebGIS DR is implemented via several scheduled tasks running daily on VMs in both primary and secondary environments, but the general process is where a backup taken from the primary each evening is used to restore the secondary the following morning*. Portal items and GIS services (and their settings), relational data store (“hosted” data) and tile cache data stores are included in the backup. The backup files generated by the WebGIS DR backup process are over four (4) gigabytes in size, and are currently retained for ten (10) days, and are retained only for an emergency situations where a restore must occur from an earlier backup and item and data loss is inevitable and understood.

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GIO WebGIS DR restore schedule and backup retention:

- Backup taken of primary at 7:15 PM, Sunday – Saturday. The backup currently takes less than ten (10) minutes to complete.
- Restore applied to secondary at 7:30 AM, Tuesday – Saturday. The restore currently takes approximately forty (40) minutes to complete.
- Backup files are retained for ten (10) days.

Reminder: Backups of GIS data stored in Enterprise SQL geodatabases are handled by the OCIO SQL team and are entirely separate from the Portal backup and restore processes. The current retention policy of SQL databases is six (6) months for CAT (“testing”) and seven (7) days for PROD (“production”). When necessary, use the [OCIO SQL Server – Copydown Database Service](#) offering in Service Portal to request SQL database restore services.

*Backups are taken of the primary every day, but they are only used to restore the secondary Tuesday through Saturday. This is to avoid potentially introducing errors into the secondary from a corrupt or incomplete backup of the primary, and thereby significantly impacting the ability to utilize the secondary in the event a failover is necessary.

Considerations and Contingencies

The WebGIS DR process is unfortunately very susceptible to network anomalies, and may occasionally fail to execute completely. Specifically, the restore function is typically the fail point. GIO staff verify the status of the WebGIS DR functions each morning. If any part of the process fails, the GIO staff shall execute the following:

- Notify the Agency GIS Managers the WebGIS DR was unsuccessful
- Manually execute a backup and/or restore
- Notify the Agency GIS Managers of completion, noting the date/time of the backup file used

If GIO staff are unable to manually execute the backup/restore successfully, they may consult the vendor ESRI via Standard-level support case.