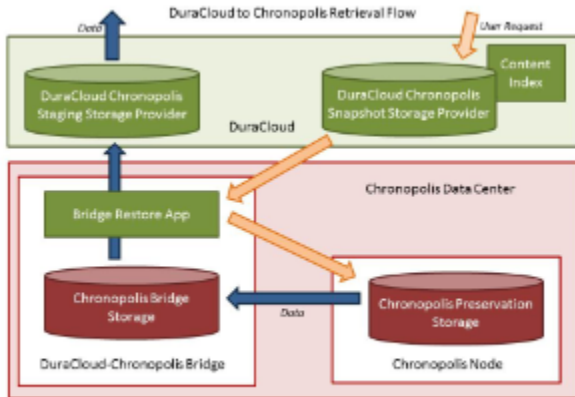# Snapshot Restore Process - Chronopolis to DuraCloud

Restore Process Steps

1. DuraCloud exposes Chronopolis Snapshot Storage Provider
   - Storage provider lists all snapshots which have been taken and the content which is included in each snapshot
2. User selects a snapshot and makes a request to have that snapshot restored
3. DuraCloud makes a call to Bridge Restore App running on Chronopolis hardware indicating that a snapshot with the given ID should be restored
4. The Bridge Restore App:
   - Creates an empty directory on the local mounted file system (bridge storage)
   - Notifies Chronopolis that a snapshot with the given ID should be restored to the given location on bridge storage
5. Chronopolis pulls content from preservation storage and unpacks it onto the given directory on bridge storage
6. Chronopolis notifies the Bridge Restore App that the restore to bridge storage is complete
7. The Bridge Restore App:
   - creates a new space on the DuraCloud Chronopolis Staging Storage Provider using the snapshot ID
   - Copies all content from bridge storage to the space in DuraCloud
   - Verifies that all content has been restored to DuraCloud
     - (db) verify properties as well?
   - Notifies the user that content is available for retrieval
   - Removes content from bridge storage
8. The snapshot space is removed from the Staging Storage Provider after some time period has passed or user has notified that they have completed their restoration

Note: Terms are defined in the Bridge Term Glossary

Process States:

1. INITIALIZED
2. WAITING_FOR_DPN
3. DPN_TRANSFER_COMPLETE
4. TRANSFERRING_TO_DURACLOUD
5. VERIFYING_TRANSERRED_CONTENT
6. RESTORATION_COMPLETE
7. DPN_TRANSFER_ERROR
8. DURACLOUD_TRANSFER_ERROR
9. VERIFICATION_ERROR