TECHNICAL GUIDE: CA ARCserve® Replication and High Availability

Assured Recovery with Snapshots

Assured Recovery lets you perform a real test of your disaster recovery server by running the application, including modifying data, without impacting your production environment or your previously replicated data. As per the Government regulations on information availability and security, crucial data required to meet the reporting regulations has to be archived for retrieval in future. It does not offer any leeway when it comes to being unable to meet your requirements due to a disaster or other data-loss event.

CA ARCserve® High Availability Assured Recovery option, combining both true CDP and VSS snapshots offers the required layers of data protection to ensure data availability even under the most extreme failures, or loss of a single layer of protection. CA ARCserve High Availability Assured Recovery enables Administrators to view a logical listing of snapshots and make them available as a drive letter for simple drag and drop, saving time and providing quick recovery. The unique advantage of Assured Recovery is that it allows the specific application running on the actual server to be tested.

OVERVIEW

Assured Recovery with Snapshot allows you to check the database integrity on the replica server before switchover, enabling you to check you replicated data any time without interrupting the production server. You do not need to resynchronize after testing.

Assured Recovery includes a VSS snapshot option and if enabled it will generate a snapshot after each successful Assured Recovery test. In case the Assured Recovery failed, then the VSS snapshot will skip until the next time Assured Recovery check is successful. Assured Recovery VSS snapshots can now be managed, **mounted**, exposed and even removed using the CA ARCserve High Availability Manager GUI **Snapshot View.**

BENEFITS

- Provides **real-time data integrity check without** interfering the production server.
- Assured Recovery used with Database application and Fileserver **in** conjunction with Microsoft VSS snapshot.
- Assured recovery option checks the replicate Data on the Replica server and generates a VSS snapshot with the check success providing extra protection for your critical data.
- Testing done entirely on stand-by server, does not disrupt the server protection, Replication to stand-by server continues during testing.

Install

You have to select Assured Recovery **option while creating a CA ARCserve Replication and High Availability Scenario** . The deployment of CA ARCserve High Availability components depends on the size of your IT enterprise network and you Disaster Recovery and High Availability needs. However, there are certain guidelines that you should follow when designing your Replication and High Availability environment and deploying CA ARCserve Replication or High Availability components on a Windows platform.

How This Feature Works

You can schedule a fixed time when the Assured Recovery test is to be performed during the scenario configuration, also at anytime by pressing the Perform Assured Recovery test button located on CA ARCserve Replication and High Availability Manager Toolbar

Following is the high-level view of the fully automated version of testing with default tests. Testing may be customized or performed interactively as well.

INITIATE ASSURED RECOVERY

Assured Recovery can be initiated manually by pressing the Assured Recovery button on the management GUI or by CA ARCserve High Availability for a schedule set when the scenario is created.

SUSPEND APPLICATION OF JOURNALS ON AR REPLICA

The first step is to suspend application of changes received by the replica server and to accumulate them in a spool file on the replica.

INITIATE REWIND AGENT ON ASSURED RECOVERY REPLICA

The CA ARCserve High Availability engine on the Assured Recovery replica sets up and runs the rewind agent, which tracks all changes made to the application data during testing to undo them at the end.

START THE APPLICATION AND TEST THE APPLICATION

The application (Exchange, SQL Server or Oracle) is started automatically. The application is verified, by default, using the same tests as are used to monitor the application in High Availability, including verifying that all services have correctly started and that all databases have been successfully mounted.

PERFORM ACTIONS-ON-SUCCESS WHILE APPLICATION IS RUNNING

If all tests have been successful, a user-defined script may be registered at this point to perform any actions desired in the event of a successful test that require that the application still be running. These might include an online backup, or generation of a report based on queries to the application.

STOP THE APPLICATION

The application is automatically stopped **on Replica**.

PERFORM ADDITIONAL ACTIONS-ON-SUCCESS WHEN APPLICATION IS DOWN

If all tests have been successful, a Microsoft VSS snapshot may be performed or a user-defined script may be registered to perform any other actions desired, including invoking other backup or snapshot technologies.

REWIND ASSURED RECOVERY REPLICA DATA AND RESUME REPLICATION

After testing, backup and any other actions registered via scripts are complete, the Assured Recovery replica is restored to precisely the same state it was in when replicated changes began to be spooled and the replication process continues normally. If the production server failed while testing was in progress and a failover was triggered, it would begin at this point.

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