[V7] FAQ: How to run a Data Integrity Check for backup data stored in backup destination?

Article ID: 5004 **Reviewed:** 2018-05-23 **Product Version:** AhsayOBM / AhsayACB: Post-7.3.0.0 **OS:** All platforms

**ATTENTION** 1st January, 2022: v7 officially End-of-Life [details]

Description

This article outlines the steps to perform a data integrity check for backup data stored in the backup destination (e.g. local destination, AhsayCBS or other cloud storage).
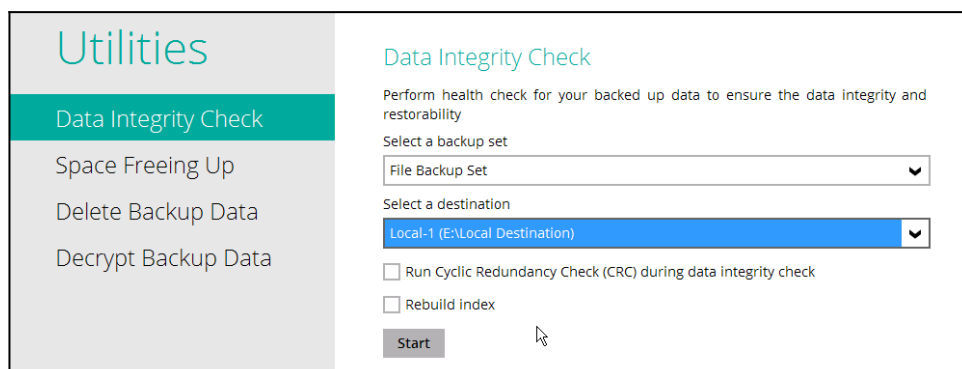
Steps

To perform a data integrity check, login to the AhsayOBM / ACB user interface:

1. Login to the AhsayOBM / ACB user interface, select the **Utilities** tile.
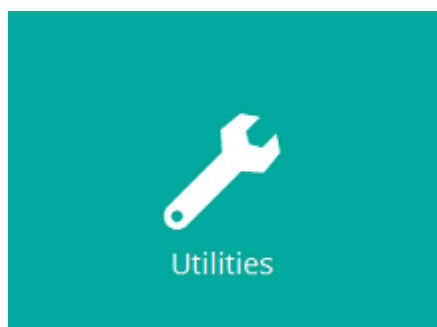
2. Select the corresponding **backup set** from the dropdown menu and then select the **backup destination** from the dropdown menu

   Note: If you select "All" all backup sets and all destinations will be checked but the will take

longer to complete depending on the number of backup sets and destinations.

3. Enable the **Run Cyclic Redundancy Check (CRC) during data integrity check** option to check on integrity of the files against the checksum file generated at the time of the backup job.

4. Enable the **Rebuild index** option to rebuild the index file of the backup set.

   Note: The **Rebuild index** option is only available for AhsayOBM version 7.15.6.0 or above.

5. Then press the **Start** button to start the data integrity check.

   Note: A data integrity check can only be started when there is no manual / scheduled backup job running (of the corresponding backup set), and vice versa. It is highly recommended to temporarily disable the backup schedule to ensure that no scheduled backup is started while the data integrity check is running.

   The following error message will be displayed to indicate that the data integrity check had skipped a backup set with active backup job

   Skipped Backup Set="Backup Set". Reason = "Backup Job "Backup Set" is still running." Finished data integrity check with error on backup set "Backup Set (Backup Set ID)

   Also, note that the time required to complete a data check depends on a number of factors, such as the number of files / folders in the backup set(s), bandwidth available on the client computer, hardware specifications of the client computer such as the disk I/O and CPU performance, and if there are other resource intensive job running.

   If the CRC (Cycle Redundancy Check) option is enabled, backup data will be streamed from the backup destination (e.g. the cloud storage location or FTP location for example), to the client computer during the CRC check.

   During a data integrity check, pay attention to the resource usage on the client computer. For user with metered Internet connection, pay close attention to the bandwidth usage during a data integrity check if CRC is enabled.

   For backup destinations on cloud storage service, such as Amazon S3, data integrity checks are expected to be performed by the cloud storage service provider.

   According to Amazon S3 FAQs (http://aws.amazon.com/s3/faqs/)

   > Q: How is Amazon S3 designed to achieve 99.999999999% durability?
   >
   > Amazon S3 redundantly stores your objects on multiple devices across multiple facilities in an Amazon S3 Region. The service is designed to sustain concurrent device failures by quickly detecting and repairing any lost redundancy. When processing a request to store data, the service will redundantly store your object across multiple facilities before returning SUCCESS. Amazon S3 also regularly verifies the integrity of your data using checksums.
   >
   > Q: What checksums does Amazon S3 employ to detect data corruption?
   >
   > Amazon S3 uses a combination of Content-MD5 checksums and cyclic redundancy checks (CRCs) to detect data

corruption. Amazon S3 performs these checksums on data at rest and repairs any corruption using redundant data. In addition, the service calculates checksums on all network traffic to detect corruption of data packets when storing or retrieving data.

Consult with your cloud service provider to ensure that CRC checks are performed regularly for your data.

Keywords

dic, user, index, rebuilding, bdb, backupset, set, perform

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