

MONITOR
ALWAYS ON
AVAILABILITY
GROUPS WITH
SQL DIAGNOSTIC
MANAGER

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Availability Groups charts

The Always On Availability Groups view includes charts that display the queue size and transfer rates of different availability groups. The Queue Size chart is a stacked bar chart for the log send queue size and redo queue size that provides users with graphical details about queues in the Always On Availability Groups feature. The Transfer Rates chart is a line chart for the log send rate and redo rate that provides users with graphical details about data transfer rates for redo and logs.

Availability Groups alerts

SQL Diagnostic Manager offers metric alerts to monitor and warn you about Always On Availability Groups. Enable alerts when the following metrics are outside their established baseline thresholds: availability group estimated data loss (sec), availability group estimated recovery time (sec), availability group log send queue size (KB), availability group preferred replica, availability group redo queue size (KB), availability group redo rate (KB/sec), availability group role change, availability group synchronization health, and availability group synchronization performance (s). Refer also to the product documentation [Metric alerts](#) and [Enable baseline thresholds](#).

Availability Group alert response bundles

Create alert response bundles for related alerts. The alert response bundle contains individual alert information for several alerts, summarized and delivered through only a single message. Alerts for availability group databases that are compatible with the alert response bundles feature are: availability group estimated data loss (sec), availability group estimated recovery time (sec), availability group log send queue size (KB), availability group preferred replica, availability group redo queue size (KB), availability group redo rate (KB/sec), availability group role change, availability group synchronization health, and availability group synchronization performance (sec). Refer also to the product documentation [Create alert response bundles](#).

The screenshot shows the 'Alert Configuration - SIDROCID01' dialog box. The 'Configuration' tab is active, showing the following details:

- Metric:** Availability Group Estimated Data Loss (Seconds)
- Category:** Databases
- Description:** The time period in seconds that data is not synchronized to the secondary replica. Value reflects the time difference of the last commit between the primary and secondary replicas.

A horizontal bar chart below the description shows the alert severity levels based on the data loss value:

- 0 to 50: OK (Green)
- 50 to 100: Informational (Blue)
- 100 to 120: Warning (Yellow)
- 120 to 300: Critical (Red)

The 'Baseline Thresholds Enabled (as percentage of baseline)' checkbox is checked and highlighted with a green box. The 'Advanced' button is also visible.

| State | Start | End |
|---|-------|-----|
| OK | 0 | 50 |
| <input checked="" type="checkbox"/> Informational | 50 | 100 |
| <input checked="" type="checkbox"/> Warning | 100 | 120 |
| <input checked="" type="checkbox"/> Critical | 120 | 300 |

DAYS SINCE LAST BACKUP ALERT FOR AVAILABILITY GROUPS

The Days Since Last Backup alerts indicate the number of days that databases (per-database or at the instance level) have not been backed up.

Here are some scenarios applied to Availability Groups:

- When monitoring the primary and any or all other secondary servers: The primary server displays the last backup date alert by checking all other secondary servers for the latest backup date of that database. If the latest backup date across that Availability Groups justifies the alert, it displays. The secondary monitored databases also display the same alert, as the latest backup date for an Availability Group across all replicas will be the same.
- When monitoring only the primary replica of a database: The alert displays after SQL Diagnostic Manager checks the latest backup date across all replicas and if that date justifies the displayed alert.
- When monitoring some secondary replica but not the primary replica: The alert displays after SQL Diagnostic Manager checks the latest backup date across all replicas and if that date justifies the displayed alert.

Refer also to the product documentation [Days since last backup alerts for availability groups](#).



HISTORY BROWSER

When users report SQL Server problems that occurred in the past, use the History Browser to go back to a point in time and view the state of the system and compare system states at different points in time. Use this information to diagnose and resolve issues to keep the issue from reoccurring. Simply select a historical snapshot collected by the standard refresh and view the collected data. The Databases > Availability Group view supports historical snapshots. Refer also to the product documentation [View past performance](#).

The screenshot displays the SQL Server Enterprise Manager interface for server SIDROCID01. The main dashboard shows several performance graphs: CPU usage, Processor Queue Length, Server Waits, and Databases. A 'History Browser Range' dialog box is open, allowing the user to select a time range for historical data. The dialog shows a scale of 1 Day, a start date of 01/31/2017 at 09:40 AM, and an end date of 01/31/2017 at 09:40 AM. The History Browser panel on the right shows a calendar for January 2017 with the 31st selected. The interface also includes a 'Servers' tree on the left and a 'Tags' section.

REPORTS

Availability Group Topology server monitor report

The Availability Group Topology report displays the current topology of the configuration of an Always On availability group. The report displays all of the availability groups on the server, replicas that participate in the group, and the databases within the group. The report lists detailed information for availability replicas and corresponding databases.

The Availability replica table provides information on availability replica roles assigned, failover and availability modes selected, and the connection mode type selected in secondaries. The Availability databases table provides information on the database failover readiness and synchronization state of the availability databases contained within the selected availability replica.

Run the report to keep track of modifications made to the current Always On availability groups and avoid any potential setbacks to your high-availability and disaster recovery strategies.

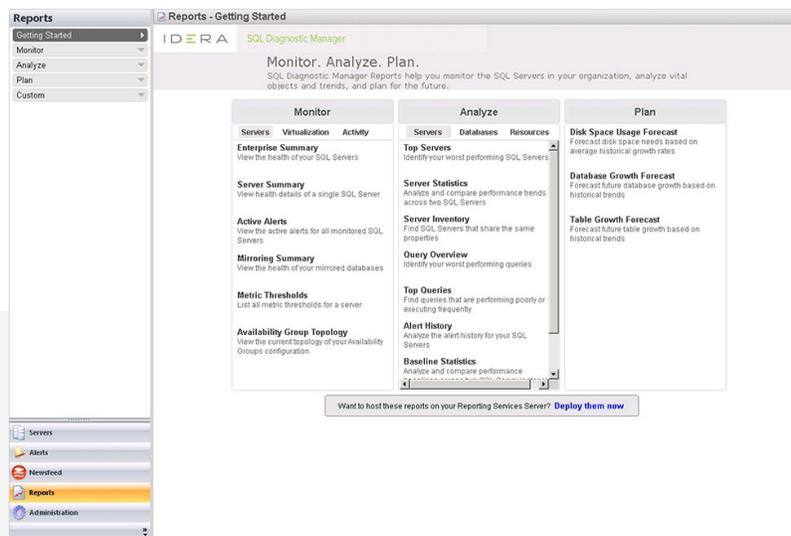
Refer also to the product documentation [Availability Group Topology](#) server monitor report.

Availability Group Statistics database analysis report

The Availability Group Statistics report displays the health of their availability groups, availability replicas, and availability databases over a specific time range. The report compiles crucial health metrics that include the redo rate (KB/s), redo queue size (KB), log send rate (KB/s), and log send queue size (KB). The report also provides database administrators with a graphical representation of a selected Server metric and a statistics table with weighted averages for relevant metrics.

Run the report to analyze the historical health of the availability groups and corresponding components. This report ensures the highest level of availability by identifying and tracking critical health metrics.

Refer also to the product documentation [Availability Group Statistics](#) database analysis report.



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