

Release Bulletin

SQL Server Monitor™ Release 11.0.1 for Digital OpenVMS Alpha

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1. Product Summary

This release bulletin pertains to the Monitor Server component of SQL Server Monitor release 11.0.1 running on Digital OpenVMS Alpha.

1.1. Architecture

SQL Server Monitor consists of four components:

- **Monitor Server.** An Open Server™ application that obtains performance statistics on a Sybase® SQL Server™ and makes those statistics available to its clients. The clients include Monitor Historical Servers, Monitor Clients, and Monitor Client Library applications. Each SQL Server being monitored must have a unique Monitor Server. These SQL Server/Monitor Server pairs must run on the same machine, since they communicate via shared memory.
- **Monitor Historical Server.** An Open Server application that records performance statistics for one or more SQL Servers via Monitor Servers. Monitor Historical Server stores these statistics in files which can be accessed later for performance problem identification or trend analysis. A Monitor Historical Server can gather statistics from one or more SQL Server/Monitor Server pairs.
- **Monitor Client.** A graphical user interface that presents performance statistics gathered by Monitor Servers and initiates the gathering of performance statistics by Historical Servers.
- **Monitor Client Library.** A programming interface that provides access to SQL Server performance data gathered by Monitor Servers. It also provides access to a subset of Historical Server functionality.

Figure 1 illustrates the interaction of these components.

Only one of the four SQL Server Monitor components, Monitor Server, runs on Digital OpenVMS Alpha. You can connect to Monitor Server using Monitor Client or applications written with Monitor Client Library running on client-supported platforms, such as Digital UNIX, Sun Solaris, or Microsoft Windows NT.

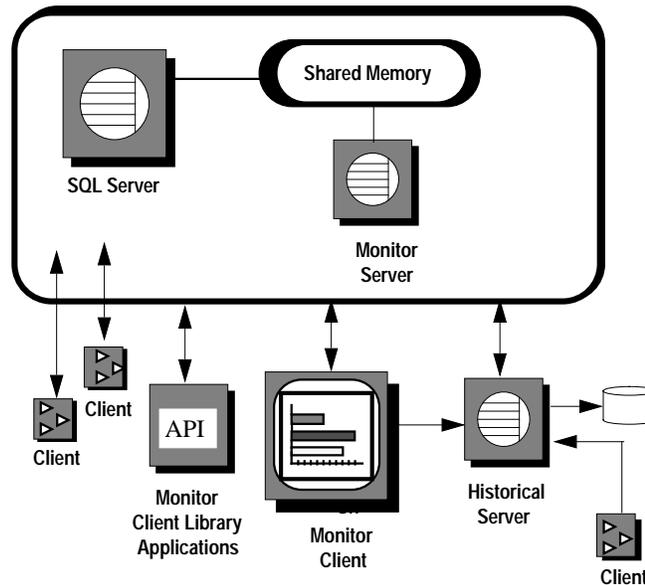


Figure 1: SQL Server Monitor architecture

2. Hardware and Software Requirements

The following hardware and software are necessary for installing and running Monitor Server release 11.0.1.

2.1. Hardware

You need 5 MB of available disk space to install Monitor Server.

A drive appropriate to the medium on which your Sybase software was delivered is required to perform the installation.

2.2. Software

Monitor Server release 11.0.1 requires Digital OpenVMS version 6.2 or higher.

2.3. Compatibility

Monitor Server release 11.0.1 running on Digital OpenVMS Alpha can monitor SQL Server release 11.0.2 on Digital OpenVMS Alpha.

The components in SQL Server Monitor release 11.0.1 are backward compatible to components in SQL Server Monitor releases 11.0 or later. For example, Monitor Server release 11.0.1 running on Digital OpenVMS Alpha can be accessed by Monitor Client release 11.0 or later from another platform. However, Sybase recommends upgrading all SQL Server Monitor components to release 11.0.1, if possible.

3. Special Installation Instructions

Follow the instructions in *Installing Sybase Products on Digital OpenVMS Alpha* to copy the Monitor Server software from the delivery media. Then follow the instructions in *SQL Server Monitor Installation Guide for Digital OpenVMS Alpha* to configure Monitor Server.

3.1. Running SQL Server Monitor in Another Environment

SQL Server Monitor release 11.0.1 runs with the hardware and software described in “Hardware and Software Requirements” on page 3. If you intend to run SQL Server Monitor in any other environment, contact Technical Support for assistance.

3.2. Ensuring Consistent Ownership and Privileges

To ensure that SQL Server Monitor files and directories are created with consistent ownership and privileges, one user should perform all of the installation, configuration, and upgrade tasks. This user is typically the System Administrator or the “sybase” user.

3.3. Where to Install Monitor Components

Install Monitor Server on the same machine as the SQL Server you want to monitor.

4. Technical Support

If you have any questions about this installation or need assistance during the installation process, please contact Sybase Technical Support or the Sybase subsidiary in your area.

Please contact the distributor from which your software was purchased if you do not know how to contact Sybase Technical Support.

5. Monitor Server

The following sections describe documentation omissions and known software problems pertaining to Monitor Server. The following topics are included.

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5.1. Documentation Updates and Clarifications

This section contains important information that is unclear or does not appear in the current version of *SQL Server Monitor Server User's Guide*.

5.1.1. Assigning SQL Server Names

If your machine is configured with a limit on the length of file names, the operating system truncates file names that exceed the limit. Monitor Server cannot run if the SQL Server shared memory file name has been truncated. If you encounter this limitation and cannot reconfigure your machine with a larger maximum file name length, you must take the shared memory file name length into consideration when assigning a SQL Server name.

When you install SQL Server, its shared memory file is created from the name of the server and the suffix *.krg*. Therefore, the maximum length of the SQL Server name is the maximum file name length configured for your machine, minus the four characters needed to append the *.krg* suffix to the shared memory file name.

5.1.2. Event Buffer Scan Interval

SQL Server Monitor uses several mechanisms to collect data. One source of data is low-level SQL Server monitoring events, which each SQL Server engine writes to its own event buffer in shared memory. Monitor Server scans the event buffers at regular intervals and summarizes the events according to client specifications.

Writing of event records by SQL Server and reading of events by Monitor Server are not directly synchronized in any way. This is essential to avoid impacting the throughput of SQL Server. Therefore, if the size of the event buffers configured is too small, or if the scan interval is too long, it is possible for event buffer overruns to occur and for events to be lost.

The frequency of event buffer scans is normally determined automatically by Monitor Server and is based on the number of events that can be stored in the event buffers configured in SQL Server. The computed interval between scans varies in direct proportion to the size of the event buffers. You can also override the Monitor Server computed scan interval by specifying the *scan_interval* parameter in the Monitor Server configuration file. In either case, the initial scan interval is dynamically reduced by Monitor Server if it finds that the event buffers are being filled too rapidly.

See *SQL Server Monitor Installation Guide for Digital OpenVMS Alpha* for information on sizing the event buffer for SQL Server release 11.0.x.

5.1.3. Heartbeat Interval

One of the Monitor Server parameters that you can configure is the heartbeat interval. This parameter is stored in the configuration file specified by the */localconfig* option when Monitor Server is booted. For example,

```
monserver /localconfig=configfile
```

where *configfile* is the name of the configuration file.

Monitor Server periodically checks whether SQL Server is running or not by examining appropriate counter values. This is called the heartbeat mechanism. By default the frequency of checking is once in every 120 seconds. You can edit the configuration file to change the `heartbeat_interval`:

```
heartbeat_interval value
```

where *value* is specified in seconds.

► **Note**

To bypass the heartbeat mechanism, use the `/trace=1` parameter when you invoke Monitor Server. Monitor Server continues to run, even if the SQL Server being monitored is down.

5.1.4. Connection Summaries

The default for the maximum number of summaries on a single connection is 15. You can change this value in the configuration file.

Many Monitor Client windows and Historical Server views cause event summaries to be created in Monitor Server. The more windows or views that are active on a given client connection, the more summaries likely to be created.

If the summary limit is reached when attempting to open a Monitor Client window or to create a view, the following message is returned:

```
Maximum number of concurrent summaries  
already enabled
```

You can raise the per-client summary limit by adding the following line to the Monitor Server configuration file:

```
max_summaries value
```

where *value* is the desired limit on per-client event summaries. You must shut down Monitor Server and restart it for this change to take effect.

The maximum number of summaries allowed is 1024.

5.1.5. Specifying Maximum Open Client Connections

In its default configuration, Monitor Server can support a maximum of five Open Client connections. An Open Client connection to Monitor Server is any of the following:

- A window in Monitor Client
- An active Historical Server recording session currently collecting data, regardless of when or how it was initiated
- A connection to Monitor Server from a Monitor Client Library application

For example, if a Monitor Client user starts a Historical Server recording session, and then displays the Performance Summary and Cache Statistics windows in Monitor Client, that user has three Open Client connections to Monitor Server. In the default configuration, two additional connections to Monitor Server are available for that user or other users.

The `-n` startup parameter overrides the default limit on active connections. The format is:

```
-n connection_limit
```

where *connection_limit* is the maximum number of Open Client connections allowed to Monitor Server. Valid values for *connection_limit* are 1 through 20. The default is 5.

5.1.6. Rebooting

If SQL Server and Monitor Server are rebooted, Monitor Client continues to work and can open new windows. However, to ensure that the correct initialization information from the rebooted SQL Server is being used, stop and restart Monitor Client.