

Servers

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IIS Servers contain the stages™ Application and host the Browser Interface used by the Operators. All IIS Servers are active. Operators can dispatch when accessing any of the IIS Servers.

SQL Servers contain the database that stores all information inside the application. Dispatch can only take place when linked to the Active SQL server. If a user logs into an inactive server, they will receive an 'inactive server message'.

The message can be edited in the [stages@ Option](#) window (Utilities > stages™ > stages™ Options).

SQL Server Configuration

The stages™ URL points to an IIS(web) server. The IIS server connects to a SQL server based on the Appengine.config file. The IIS server is set up with multiple instances or copies of stages™. An instance is set up for each individual SQL Server and an additional instance for the 'Active Server' used by operators. The 'Active Server' instance will point to the Active SQL Server according to its ServerList in the Appengine.config. Each instance will have a different URL similar to:

'http://IISservername/stagesActive/' or 'http://IISservername/stages1/'

Open the Appengine.config in a text editor such as Notepad. In the config, there will be code similar to:

On the instances for specific SQL Servers, only enter the Server information for that SQL Server. On the 'Active Server' instance, list all SQL Servers.

The IIS Server will attempt to connect to the first server in the ServerList. If this is not the active server, it will check down the list until it finds the active server and direct stages™ users to that SQL Server. stages™ Procedures check for the active SQL server. When the active server is switched (see below), stages™ reconnects the IIS server to the now active SQL server.

To log into the inactive server, use the URL for that SQL Server's instance on the IIS Server. There are no other servers on the list to check and stages™ will log into the inactive server.

Switching the Active Server in stages™

In the Servers utility, the Active SQL servers is set for the stages™ Application.

There are two flags that depict the status of the servers. The 'Active Flag' indicates which server is active. The 'This Server' flag indicates that this is the server the operator is logged into. The user can log in on a specific server by using a specific URL like [IP Address/IIS Server Name]/stagesSQL01. When logged into an inactive server, there will be a button to set 'this server' to be the active server. The Applications can have different Active SQL Servers to enhance performance. (The Dealer/Customer External Applications can be pointed to a different SQL Server than the Monitoring Application)

All stages™ processes check for the active SQL server and will switch automatically without any action required by the operators. Constant Redundancy between the SQL servers ensures that all database information is available. If desired, the Redundancy Status can be checked and issues resolved prior to switching servers.

Switching IIS Servers

Operators can log onto any IIS Server. Each IIS Server should be configured to connect to the same SQL databases in its AppEngine.config file, so there is no issue with redundancy.

When an IIS Server shuts down, the operators are using will need to change the URL. One way to deal with this is to have an icon on the desktop for the URL to each IIS server. Then the operator can close one browser and open the icon that links to the other server. Load Balancing Software can be used to provide a URL that will direct the operators to an available IIS Server and automatically switch if there is a problem with an IIS Server. When using Load Balancing, "sticky IP" or Persistence must be enabled.

If the SGS Mail Service and SGS Report Distribution Service are running on the IIS Server, they will need to be switched as well. The Services should be loaded on all IIS Servers, but only need to be running on one server. The services can be running on multiple servers, but should be checked during switchover. If an IIS server needs to be shut down, then the services should be stopped, and started on another server in the windows Services tool (Control Panel > Administrative Tools > Services).

stages™ Updates

When SGS updates your version of stages™, we will first have you switch servers so that we can assure both are running properly (i.e. 'Server 1' to 'Server 2'). Then we will install on 'Server 1'. When that update has finished, we will have you switch servers back to 'Server 1' and install on Server '2'.

**SGS recommends switching servers on a regular basis ensures functionality of all servers and makes switching servers a common occurrence so switching goes smoothly during updates or when a server fails.*

Emergency Switching

SQL Server Failure

When the SQL Server is down, access to information within the application will fail. This will result in application-based Error Messages similar to: Error Calling Detail Service, or Could Not Connect to Database Server.

To switch the server, log into the URL for the back-up SQL Server and set it as active. The operators will automatically switch over to the now active server.

In the event of a prolonged loss of a SQL Server, the database may require re-syncing.

IIS Server Failure

When the IIS Server is down, the browser will not function properly. The operators will see browser-based messages like 'Internet Explorer cannot find this page' or application-based error messages similar to: Could Not Connect to Web Server.

In this situation, the operators must switch the URL that they are running the stages™ application in. If the Mail and Report Distribution services were only running on the failed IIS server, activate them on another IIS server.