

Blaise 5 Server Configuration for Web Surveys

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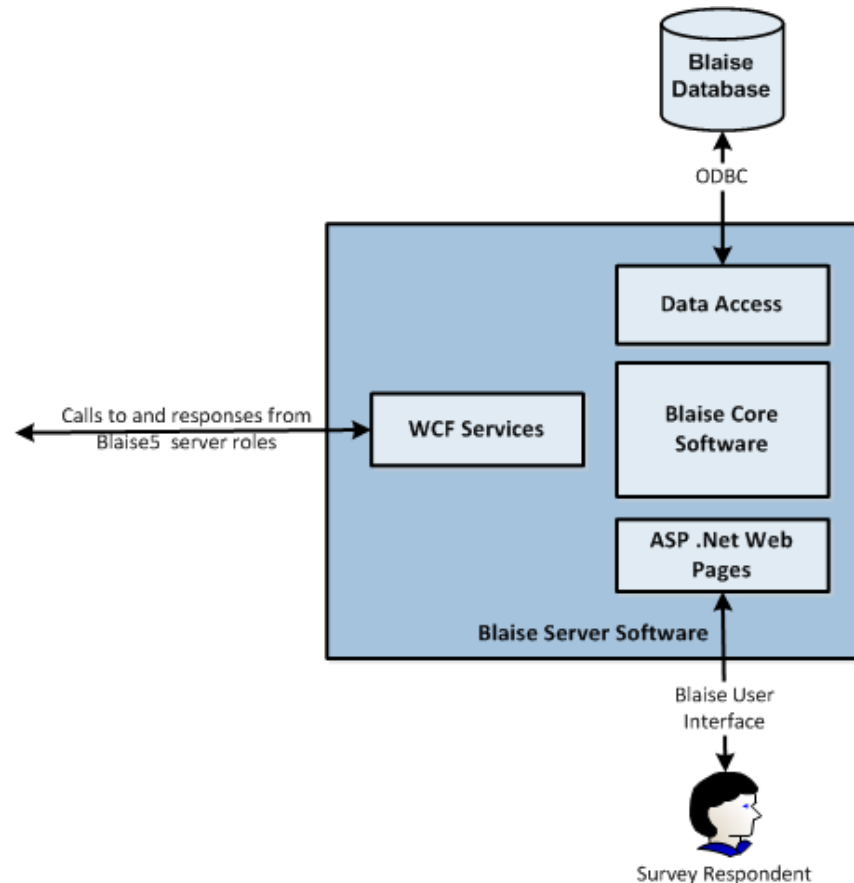
Blaise 5 Server Roles

Blaise Server Role	Description
Survey Manager	Provides administrative functions to manage the server park including defining server roles, maintaining users, creating and publishing surveys, etc.
Web server	Hosts files for Blaise internet surveys and the server role to which end-users directly connect. The Web server role processes user input and sends UI responses.
Resource server	Applies layout and formats Blaise 5 user interface output for different devices/modes.
Data Entry server	Interprets and validates input and applies the rules defined in the survey.
Data server	Reads data from and writes survey data to a Blaise 5 database.
Session Server	Manages and stores data associated with all active interview sessions.
Audit Trail Server	Maintains a log of audit records that describe all user and instrument actions.
Database Management System (DBMS)	A DBMS is also required to host the Blaise database. Blaise 5 currently supports SQL Lite (installs with Blaise 5 by default), Microsoft SQL Server, MySQL, Sybase, and Oracle.

Blaise 5 Server Software

- A configuration of Blaise 5 software used to support web surveys is referred to as a Blaise Server Park.
- Blaise 5 uses a service-oriented architecture to provide flexibility and scalability
- Blaise 5 server roles are functional designations and denotes the collection of Blaise 5 service calls the server will support within the Server Park
- Server roles do not correspond directly to the underlying servers on which the Blaise 5 software is installed
- Server Parks can consist of a single server (all server roles assigned to a single server) or multiple servers to meet configuration, security, or scale requirements
- Blaise 5 can be installed on physical servers, virtual servers, or servers hosted by IaaS cloud providers such as Amazon AWS, Microsoft Azure, etc.

Blaise Server Software Architecture

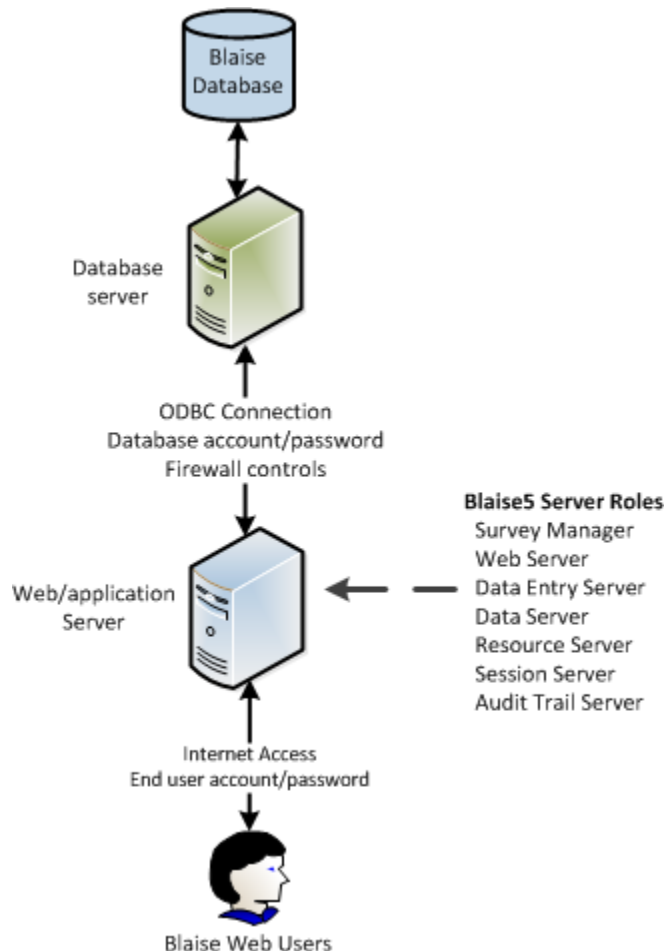


- The same installation process is followed for all servers in a Server Park
- Server roles are defined during software installation
- Blaise 5 is a .Net-based application
- Blaise 5 relies on other system components, e.g., IIS, DBMS, Windows service, etc.

Connectivity Requirements in a Blaise Server Park

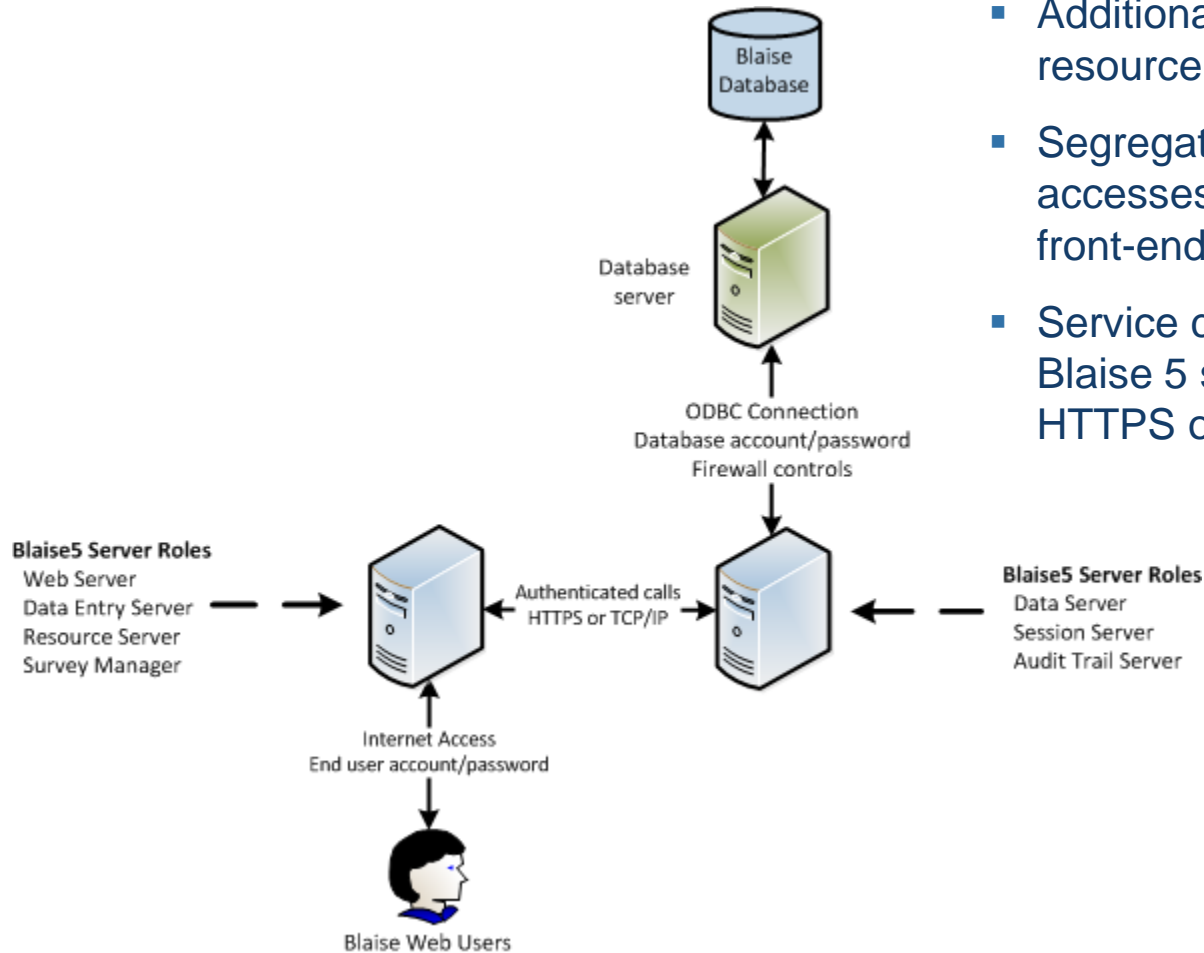
Calling Role	Web	Resource	Data Entry	Data	Server Manager	Session	Audit Trail	DBMS	Web User
Service Role									
Web	--	--	--	--	HTTP/ 8031	--	--	--	HTTP/ HTTPS 80/443
Resource	HTTP/ TCP 8033	--	--	--	HTTP/TCP 8031	--	--	--	--
Data Entry	HTTP/ TCP 8033	--	--	--	HTTP/TCP 8031	--	--	--	--
Data	--	--	HTTP/ TCP 8032	--	HTTP/TCP 8031	--	--	--	--
Server Manager	--	--	--	--	--	--	--	--	--
Session	--	--	HTTP/ TCP 8032	--	HTTP/TCP 8031	--	--	--	--
Audit Trail	HTTP/ TCP 8033	--	--	--	HTTP/TCP 8031	--	--	--	--
DBMS	--	--	--	ODBC	--	ODBC	ODBC	--	--
Web User	--	--	--	--	--	--	--	--	--

2-Server Configuration for Blaise 5



- Minimum recommended configuration for security
- Database server is separated from web server
- Single instance of SQL Server can support multiple Blaise 5 databases
- Connection string data stored in .bdix file
- Access to surveys by end users can be encrypted with HTTPS
- Good performance in testing with 200 – 300 concurrent users

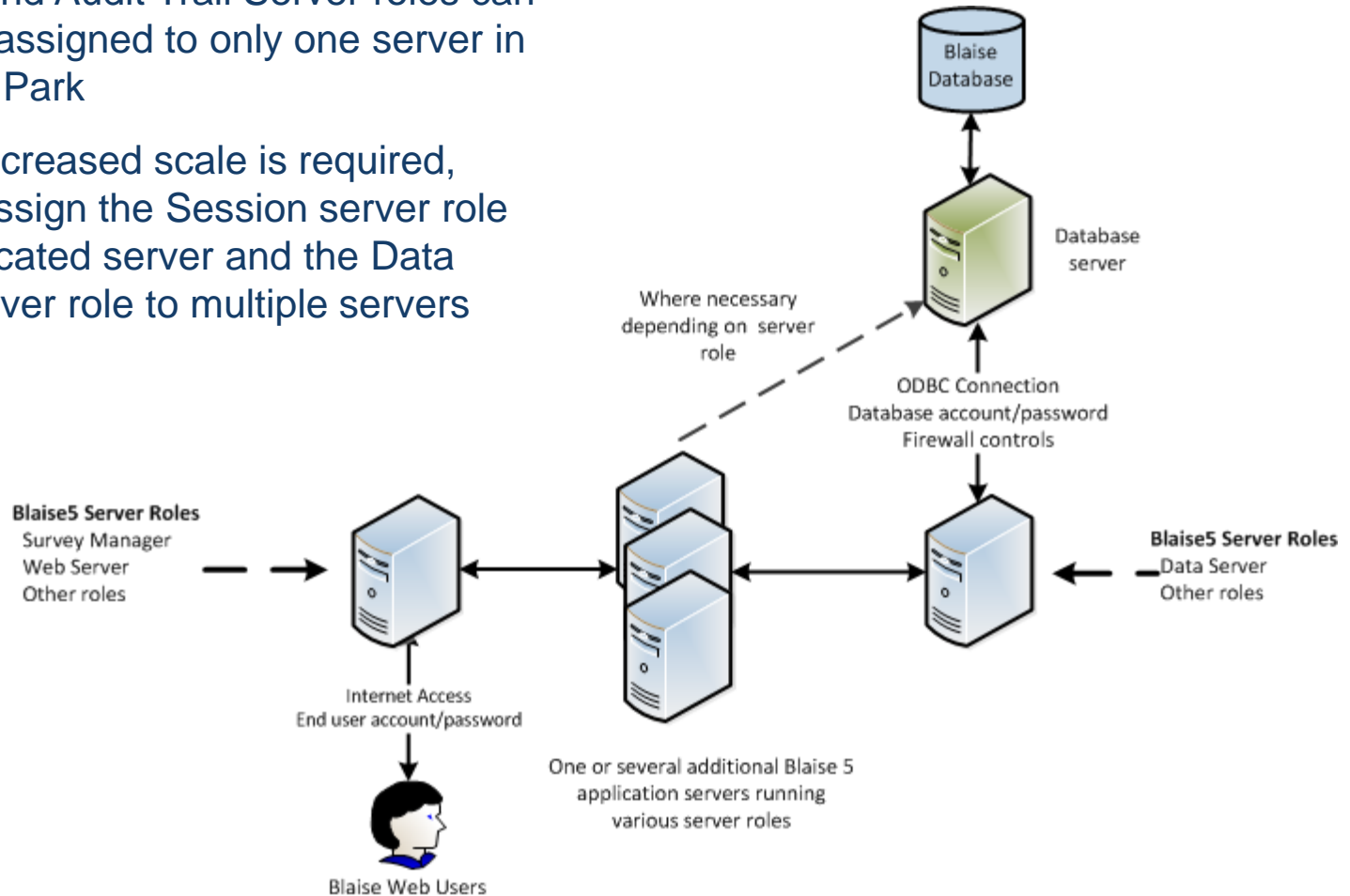
3-Server Configuration for Blaise 5



- Additional server for added resource
- Segregates server that accesses database from front-end server
- Service calls between Blaise 5 servers over HTTPS or TCP/IP

Configurations of Blaise 5 for Greater Scale

- Survey Manager, Data Server, Session Server, and Audit Trail Server roles can each be assigned to only one server in a Server Park
- Where increased scale is required, best to assign the Session server role to a dedicated server and the Data Entry server role to multiple servers



Questions?

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