

Quantum Choice: Core Architecture & Platform

The Quantum Choice application from Plexis Healthcare Systems currently uses SQL Server 2005 as its database platform for on-line transaction processing (OLTP) and is in the process of upgrading to SQL Server 2008 for all Public Sector delivery. All other components are built upon the Microsoft .NET Framework. The user-interface is a .NET Framework 3.5 Windows forms application. The processing engines are distributed services for scalability.

Quantum Choice: Rules Engine

The processing engines (adjudication, billing, and capitation) are configurable step/workflow engines that support highly-configurable rules with custom criteria to trigger the steps/rules. The processing engines are built upon the Microsoft .NET Framework. The user interface is a .NET Framework 3.5 application. Based on client needs, Plexis can deploy a Web Forms, browse-based application or a Windows Forms application with comprehensive web portal capabilities.

Quantum Choice: Service Oriented Architecture (SOA)

The processing engines are exposed as services to the client application user interface (UI) and other components. They are distributed, scaleable, and are part of our .NET service-oriented architecture (SOA).

Quantum Scale Out: Redundant Array of Inexpensive Servers (RAIS)

Quantum Choice's distributed, scalable architecture does more than improve your organization's ability to change with the market and interface with emerging applications. Distributed architecture enables healthcare organizations to inexpensively increase performance and availability by using an RAIS strategy.

Scaling out at the front end is particularly beneficial for web server implementations. This is accomplished with an array of servers that provide the same services to all clients. Incoming requests are distributed across the server array, which ensures no single point of failure. To improve performance and availability, another server is simply added to the array. If there is a failure, the load is automatically distributed across the available servers, maintaining performance and availability.

Distributed architecture's ability to scale out the middle layer offers the greatest advantages to healthcare organizations. Like the front-end, scaling out the middle layer allows organizations to incrementally increase computing power. Scaling out in the middle tier typically involves the use of 4-way or 8-way servers to accommodate the software and processing demands of middleware applications. Plexis Quantum Choice uses a .NET platform, so the middleware tools needed to configure scale-out solutions are built right into the system.

Plexis Healthcare Systems provides industry-leading benefits administration software for the commercial and government healthcare industry.

Built with the very latest Microsoft technology, Plexis software has been chosen as an industry strategic alliance partner by Microsoft Corporation to serve as a recommended claims and benefits administration system within its Connected Health and Human Services framework initiative. Customers have been reducing costs, streamlining claims operations, and enhancing customer satisfaction with Plexis solutions since 1996