EIS Comment Response Database Project

Technology Overview

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Client Side / User Interface

- The user interface is web-based for ease of access and use.

- All user interface components are non-proprietary, based on open standards, and highly portable.

- No client-side software configuration is required to support the application. This is critical for supporting a large number (100+) of users distributed across multiple locations. The application is usable on any computer with a current-version MS Internet Explorer or Netscape Navigator browser. No browser plug-ins are required.

- Cross-browser compatibility is ensured through the exclusive use of standard HTML/Javascript language elements.

- The Common Gateway Interface (CGI) is used for database access and generation of application web pages, thereby avoiding risks and limitations inherent in Java, the other non-proprietary alternative for web-enabling databases. CGI is supported by virtually all web servers.

- CGI scripts are developed using the Perl language. Perl is the language of choice and standard for CGI software development because of its power, flexibility, and facilities for rapid development. Properly written Perl scripts are easily portable across platforms due to the nature of the language (interpreted vs. compiled) and the wide support of a standard Perl implementation. Standard Perl and Oracle-Perl interface modules are freely available (source and binaries) and are supported across all common web server platforms (Unix, NT, OpenVMS, etc.)

- The application is hosted on the YMP intranet. Client access is via local or remote (SecuRemote or dial-up) connections.

Server Side

- Application data is hosted by the Oracle client/server relational DBMS. The following application characteristics make Oracle the appropriate choice for the server side:

  - The data is highly relational in nature (it contains a large number of complex one-to-many relationships).

  - The data set is large (potentially many gigabytes).

  - Concurrent access by many users must be supported.

- Oracle provides the comprehensive procedural Application Program Interface (full support of SQL, triggers and stored procedures, etc.) necessary to support development of complex queries and other data processing functions.