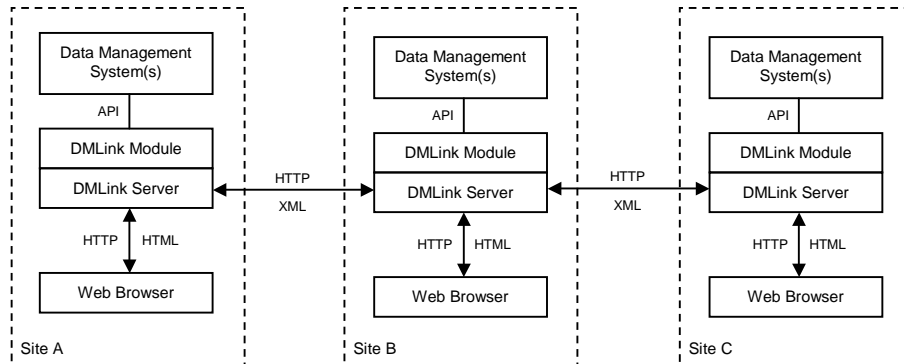


Peer to Peer Core

DMLink's peer-to-peer architecture is based on communication using the Hyper Text Transfer Protocol (HTTP) and the Extensible Markup Language (XML). Specific data management systems are accessible using their native API's, for example the SDRC IDEAS TDM is interfaced using the Open IDEAS C++ API. An end user accesses a DMLink web server using their local web browser. When information is needed from another data management system, a HTTP request is made to another DMLink server. The request obtains the information using the corresponding API and generates the appropriate XML, which is streamed back to the requesting client where it is parsed and formatted into HTML and pushed down to the end user's web browser.



DMLink Server

The DMLink server is an Apache web server built with mod_perl to optimize the performance of DMLink's peer-to-peer core, which is written using the Perl programming language. Secure versions of Apache can be used to support Secure Socket Layer (SSL) over the Internet.

Centralized Database

DMLink utilizes a centralized database (MySQL) to keep track of administrative information and also to index the contents of data management systems for quick searching. The database is installed on one DMLink server and all other DMLink servers access the central database.

Network Usage

DMLink uses multiple network ports to communicate and exchange data. All HTTP traffic from web browser to DMLink server and DMLink server to DMLink server uses port 8699 by default. Each DMLink server communicates with the centralized relational database using port 3306, which is the default port for MySQL. Either of these ports can be easily changed if desired. DMLink also uses standard network ports for the transfer of data using either FTP or HTTP, depending on how DMLink is configured.