



## Delivering real-time application data through the web

dynamicXport™ is a web-based application, consisting of a customizable web portal, development toolkit, web templates, application templates and software API (Application Program Interface). You may install dynamicXport as a stand-alone web application, or within an existing web site, to exchange information with authorized users. It facilitates web access to real-time application data, such as inventory availability, order status, customer information or reports and account balances. Additionally, information can be submitted from web-based forms to your application, for example to facilitate the processing of orders or appointment scheduling. Using the dynamicXport platform, you can provide clients with secure, browser-based, thin client, real-time access to your database.

The API provides access between a public or private web site and UniBasic, dL4 and other NT or Unix applications and databases running on an application server. Using the API, you can seamlessly integrate application data with a web site and provide customers, suppliers and employees browser-based access to information within your application database. Many additional components are built into dynamicXport to provide common needed functionality, including user name and password authentication, menu option assignment and presentation and sending e-mail.

Custom development is expedited with the RAD (Rapid Application Development) toolkit, including code samples, subroutines, templates and a debugging tool. Using HTML style sheets, a session profile and several menu templates, the look and feel of the web site is easily customizable and can be configured to different looks for different groups of users. For example, employees may have one look, vendors another and customers yet another.

DynamicXport is built upon an n-tier architecture consisting of:

- Web presentation layer, managed by the web designer
- Communications layer, using socket technology
- Web-based administrative layer, defining organizations, users and options
- Business rules layer, managed by the applications programmer using their native programming tools
- Database layer, typically managed by the applications

## Architecture

In its most basic form, dynamicXport is installed entirely on a customer's internal application server, creating or extending a corporate intranet. Using the application server's own built-in web server<sup>1</sup>, users within the organization gain access to specific applications and the corporate database by logging into the dynamicXport enabled web site. Since the users already have access to the local network, no further security is required.

Granting access to Internet users requires a different deployment model - one that prevents direct access to the local network or the application server. In this model, a separate web server is installed in the public domain, connected directly to the Internet. The application server, along with its local network, is secured behind a firewall connected to a full-time Internet connection, such as DSL, cable or T-1. In all dual-server installations, dynamicXport components are installed on both the application and web server and communication between the systems is completely managed by dynamicXport.

## Security

dynamicXport supports a variety of security configurations, based upon the needs of the customer. We can assist you in designing, configuring and installing the security solution you require for your installation. Passwords transmitted from the web server to the application server are always encrypted, to prevent unauthorized users from gaining access to the system.

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<sup>1</sup> Most systems, including SCO, Linux, NT, Windows 2000, etc., include a built-in web server, or one is easily installed.

In most applications, configuring the local network's firewall to restrict access to the application server from the web server is sufficient. The firewall protects the local network, allows internal users to access the web and provides the security to manage or encrypt each connection between your application and web server. In all cases, direct access to local resources is not provided by dynamicXport. You control which application and database components are available to each authorized user.

If the data is sensitive, transmissions may be encrypted from the user's browser to the web server. For optimum security, transmissions may be further encrypted between the web server and the application server. We have a number of inexpensive solutions to protect your local network, encrypt user sessions and provide for any method of deployment discussed below.

## Deployment

There are three typical deployment configurations for a dynamicXport installation.

- As an intranet, for internal users only, all components are installed on internal server(s). No special security, firewall or additional equipment is required.
- An outsourced shared or dedicated web server, provisioned, located, supported and managed in our Application Center, connects to your application server. We can provide, for lease on a monthly basis, space on a shared server, dynamicXport and the required software components.
- If you have a high-speed Internet connection (T-1 or greater) and a capable firewall, you can purchase dynamicXport and host your own web server, DNS, e-mail and dynamicXport application.

Most companies outsource the purchase, installation, configuration, support and management of their web server and firewall to us. We are uniquely qualified to assist you with the deployment in our new Application Center. We are connected directly to the Internet backbone of no less than 10 of the top providers, with three redundant circuits (Cox Fiber OC48, Internap fiber DS3 and UUNET T), BGP/4 routing, un-interruptible power, redundant cooling and, we offer service level guarantees along with 24x7 management of your system.

## Components

The product requires the following components to be installed on the web server:

- CGI command and socket communications library.
- A special, unlimited user, special use dL4 license (Windows or Unix) to facilitate communications, operate the cgi library and integrate dynamic web page results from the application server. To the web designer, this license is invisible. The web designer calls a standard CGI library to send and retrieve information from the application server.
- HTML images, text and java script drive dynamicXport, along with template pages which are dynamically merged with results from the application server

The following components are installed on the application server:

- dL4/CGI command and socket communications library
- Administration – A complete, web-based, administration package is included to facilitate the configuration of dynamicXport. Create and manage n-tier user access, define organizations, modify the look and feel, create and delete users and install new application functionality.
- dynamic listener – the socket listener component runs on the application server and waits for socket requests coming from the web server. The listener then launches the appropriate application, UniBasic, dL4, URL or other application, responsible for processing the incoming request.
- An unlimited user, special use dL4 license facilitates communications, operate the library and listener. Applications programmers may use the supplied dL4 to write applications, which respond to requests from the web server. dL4 can access many databases, including UniBasic, dL4, FoxPro and MS SQL server. An unlimited user, special use UniBasic license may also be installed if you prefer to implement your web interface applications in UniBasic.

Sample dL4 and UniBasic applications are provided for reference and to be used as templates for development. In addition, HTML templates and style sheets are supplied to speed deployment of your application.