Chapter XIV

Brief Overview Portal Application Platforms

Portal engines come in several implementations. We do not attempt to discuss them all in this book. We provide a high level overview of three architectures: WebSphere Portal for Multiplatforms 5, Apache Open source portal servers (Pluto and Jetspeed), and Sun Microsystems Sun ONE Portal Server.

WebSphere Portal for Multiplatforms 5

Fourth generation portals such as IBM WebSphere provide a portal framework for enterprise data and Web Services integration. We have used WebSphere Portal for Multiplatforms 5, as discussed already in the previous sections. This portal platform claims to integrate an entire range of enterprise content and applications, and it is mostly based on the J2EE programming model. The architecture supports a scalable framework and allows easy adaptation to the changing requirements of business. This platform also provides several tools for aggregating and personalizing Web-based content. WebSphere Portal for Multiplatform 5 uses the underlying platform provided by the WebSphere Applications Server. Although many libraries provided with a portal server have their historical roots associated with Apache Jetspeed and Pluto projects, WebSphere Portal for Multiplatforms 5 has provided good integration and development tools that make the coding process easier. The development environment provided by IBM Portal Toolkit V5.0 has the
capabilities to create, test, debug, and deploy individual portlets and Web content. This Portal Toolkit is implemented as a pluggable component to be used with the IBM WebSphere Studio Workbench. The Portal Toolkit provides the following:

- Portlet project development wizards, editing and debugging capabilities.
- Portal projects that allow you to publish your portlet application on your target WebSphere Portal server machine. Your portlet will be displayed on the debug page of your Portal Server. Two test environments are supported: remote and local.

WebSphere Portal 5 is intended to support business processes in B2E, B2C, and B2B collaboration. The core of the WebSphere Portal for Multiplatforms 5 architecture is composed of the presentation services, the portal information access layer, and the portal services layer. The presentation layer includes capabilities for user configuration, Web user interfaces, and transcoding. The portal information access layer provides connectors and an open interface for unique customer connectors. Portal services have been discussed throughout this book many times. They provide user management capability, administration and security, personalization, workflow support, application integration tools, document management tools, Web content management services, collaboration, and search services.

There is also the capability to create multiple portal sites on one instance of a WebSphere Portal — this is called virtual portals. Each site has its own URL, look and feel, pages, users and groups, and search index. All sites share the same WebSphere Application Server instance, installed portlets, and document libraries. Virtual portals enable enterprises to centrally manage many different portals that are targeted to different departments within or outside the organization. Each virtual portal provides assignable administrator roles to allow discrete administration of all virtual portals.

**Apache Portal Tools and Server**

At present, there are several open source portal servers. We will discuss two of them: Apache Jakarta Pluto (http://jakarta.apache.org/pluto) and Jetspeed (http://portals.apache.org/jetspeed-1/).