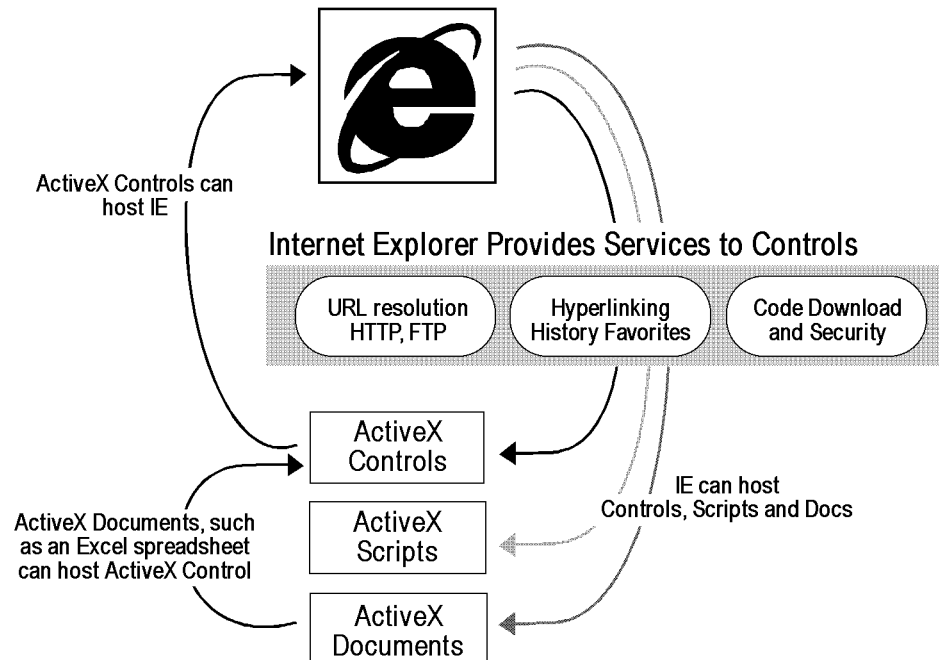# Component Architecture

The Microsoft Internet Explorer 3.0 is the cross-platform client that delivers ActiveX technologies. Embracing both Java and Microsoft's industry-standard COM technology, ActiveX preserves your investments in applications, tools, and source code while letting you create innovative Internet applications. The Internet Explorer client is built with standard Microsoft components that have been revised to communicate to and from the Internet. These components make writing Internet applications as easy as writing applications for the operating system. Plus, you can reuse these components in your current networking and stand-alone applications, making them Internet-ready.

This open component architecture enables content developers to create dynamic Internet content and applications because of its:

- **Open Component Model.** Using proven COM technology, scripts, software components-- including Java applets-- and stand-alone applications can interact with each other, creating unlimited, possibilities for enriching the Internet experience. This true component architecture enables you to run applications and software components in Internet Explorer, and run Internet Explorer as a software component in other applications and components. For example, a database access applet can interact with a script that displays a Shockwave multimedia graphic of the data in Internet Explorer.

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- **Figure 1** ActiveX Architecture:
- The preceding figure illustrates how the Internet Explorer provides services, such as navigation (URL resolution) and downloading for other software components (controls), and also functions as a host for software components. This enables other components to be small and fast, making it easy to link them together, creating more dynamic Web pages.
- As a software component, Internet Explorer can be inserted into other standalone, network, or custom intranet application, extending Internet capability to them. For custom applications, you can decide which features of Internet Explorer you would like to expose to your users.
- Internet Explorer can also host applications (ActiveX Documents), such as spreadsheets, complete with their own toolbars and menus, in the browser window. It can also host

ActiveX Scripting engines, such as VB Scripting and Java Scripting, which can then be reused in other applications.

- **Application Independent Programming Model**. Because ActiveX controls and scripts are built on top of COM, they can be embedded in any application or tool. Plus, you can write ActiveX components in any programming language using any tool, including Visual Basic, Visual C++, Microsoft Office, Lotus Notes, Macromedia Shockwave, Adobe Photoshop, Borland Delphi, tools from Sybase and Borland, and Java-enabled tools. This is in contrast to Netscape's proprietary Plug-ins architecture.

- **Extensive, Independent Scripting Support**. Microsoft Internet Explorer provides the fastest, most comprehensive, language-independent scripting capability of any browser. Through ActiveX scripting interfaces, Microsoft Internet Explorer 3.0 supports scripts written in any language and has built-in support for Visual Basic Scripting and JavaScript.

- **Open Set of Services.** No longer a limited, monolithic entity, Microsoft Internet Explorer 3.0 offers a complete set of services with open interfaces. Applications can use components of the Internet Explorer client platform to retrieve data, post data, parse incoming Internet data, render HTML, render other data types, cache data, execute scripts, and more. With ActiveX technologies, Internet capabilities are no longer restricted to the browser—your custom applications can mix internet and desktop application functionality.