Dan Benson

CTEC145 Web Server Technology

HTTP Daemon and Dependencies

4/24/16

The Hypertext Transfer Protocol Daemon (“httpd” for short) is a background program that runs on a Web Server to listen for incoming HTTP requests so that the web server software can handle it. CentOS (Community Enterprise OS) is an operating system that runs on a Linux kernel which is a free, enterprise-class, open source and community supported software. CentOS, along with any other Linux OS that requires HTTP functionality, is required to install a httpd RPM (Package Manager) distribution. As with other services and software, when an application is installed on to a computer the software requires a library in which to call functions from to complete the tasks the software is designed to solve. The software install we are presented with is a httpd distribution to run on CentOS along with its dependencies APR (Apache Portable Runtime), APR Util, APR Util LDAP, and httpd-tools. These dependencies are libraries that are required to fun this version of the httpd software. Without the proper dependencies installed with an application, the application will not work correctly as it is required to use that library of common functions to do what it needs to do, which is why it’s called a dependency. The use of the RPM ensures proper dependency downloads (if needed) when installing a particular software by attaching that information to the RPM file. It is very important that the RPM is accurate as this is what will be installed for our primary service or software to run correctly if the operating system does not support its functions. In the following paragraphs I will explain what each of the httpd dependencies does and why they are important for proper HTTP function on our Web Server.

Apache Portable Runtime (APR) is a supporting API library for an Apache web server and many of the services running on the server such as our HTTP Daemon software. APR has many functions that allow software developers to use them to create a common functionality and predictable nature to their own software. Some of the functions of APR include Dynamic Library Handling, Hash tables and arrays, network sockets and protocols, thread and process functions memory allocation and more.

The APR Util is a supporting library to the main APR library for our current httpd version. This utility addresses high-level features for the httpd service, as its functions will be more specific in nature to this process. The utility lacks the more general functions that the main APR library contains.

Much like the APR-Util, APR-Util-LDAP is another companion dependency for the httpd service. LDAP stands for Lightweight Directory Access Protocol which is an IP based indexing system for large servers. This helps users find information they search for faster by helping servers talk to software, while saving location information of certain types of information such as a company email list.

Httpd-tools dependency addresses all administration and security functionality for HTTP requests on a web server. This is a very powerful software library that includes functionality for a server administrator to setup logs, monitoring, hack detection and statistics. This is an important piece of the web server administration puzzle because it gives the administrator the power to determine what users have access to when they make HTTP requests.