Compaq ActiveAnswers

Deployment Guide

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Prepared by:
Enterprise Applications Solutions and Services
Compaq Computer Corporation

Compaq Enterprise Portal Rapid Solution Deployment Guide

Abstract: This document provides information to delivery personnel regarding configuring, installing and setting-up the hardware and software components for the Plumtree Software Corporate Portal V3.5 version of the Compaq Rapid Deployment Solution.

It is based upon experience gained during product installation and testing in the Compaq KM Engineering Labs and the Professional Services Technology group. This document provides a guide as to the process and steps required from unpacking the hardware up until having the product running successfully. Reference is made to other documentation where appropriate (e.g. product Installation Guide or Administrator's Guide) where these provide appropriate levels of well-documented detail as to procedures.

It is intended for those people who will be proposing solutions (resellers, channels, pre-sales), those who will be providing installation services or consulting, and those who may be assisting the customer with optimizing system operation.

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Compaq Enterprise Portal Rapid Solution Deployment Guide
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Overview

The major steps covered in this document are:

- Hardware BOM, installation and configuring
- NT operating system installation
- Pre-requisite software component installation
- Portal product installation (Plumtree Corporate Portal V3.5)
- Portal Setup
- Optional software installation and setup
- Ongoing administration and management

Plumtree Multi-Node Configuration

The Plumtree documentation recommends a multi-node configuration of Web servers, job servers, database servers, etc. For simplicity, a single-system configuration is described in this document. This single-system configuration should not restrict the configuration of additional systems should they be required in the future. For example, a Web server, or job server system could be added or the database could be distributed to another system.

Hardware

This hardware list comprises a single ProLiant DL380 server with two 733MHz CPUs, 1GB total memory, a single 10/100 NIC (onboard), 4 x 9.1GB Ultra2 SCSI 10K disks, plus 2 x 18.2GB Ultra2SCSI 10K disks configured in an additional internal drive cage.

Bill of Materials (BOM)

Description	Qty	Part #
1. ProLiant DL380 R01 P733-256K server	1	157829-001
2. Pentium III P733 CPU option kit	1	161083-B21
3. 512MB PC133 SDRAM DIMM kit	2	128279-B21
4. Ultra2 SCSI drive cage (2 x 1”)	1	157007-B21
5. 9.1GB Ultra2 SCSI 10K drive (1”)	4	328939-B22
6. 18.2GB Ultra2 SCSI 10K drive (1”)	2	128418-B22

Notes:

1. The DL380 R01 server ships with one (1) 733MHz CPU, 128MB memory, no disks, an onboard SmartArray disk controller, and a single onboard 10/100 NIC.
2. Adding a second CPU will provide significant performance improvement for data crawling (where more than two threads are used for a crawler, or where more than one crawler is running at one time). It will also improve interactive (i.e. Web server) performance should the customer need to run periodic data crawls during prime time.

3. The integrated SmartArray controller will support the 6 disks on a single SCSI channel and will facilitate the creation of the required multiple RAID logical volumes The additional drive cage provides the ability to configure a total of 6 x 1" disks within the server cabinet.
4. A total of 6 disks comprised of a mix of 4 x 9.1GB and 2 x 18.2GB drives, installed in the server drive bays. The total number and sizes of disks are required to satisfy the following key needs:

- Provide sufficient disks that components and data structures can be spread across multiple logical volumes (RAID sets) for performance reasons (e.g. applications, database, Index structures, web server structures, etc.)
- Provide sufficient disk space for indexing needs. Indexes typically consume about 30% of the size of the data objects being crawled/indexed. If we crawl a 30GB file system it is possible that the indexes created will occupy 10GB on the portal server. Note that the actual objects that are crawled/indexed are NOT stored on the server – just the indexes that point to their real location.
- A significant amount of "temp" storage is required during certain operations, especially crawls (each crawler copies as many as 100 files to the temp directory for indexing).

Hardware Installation and Configuration

The following are the steps required to configure all the hardware components, prior to powering up the system and installing Windows NT:

1. Open the server case by unscrewing the three finger screws on the front panel, and slide the cover off. Check the diagrams on the inside of the cover if you are unfamiliar with the system component locations. In particular, note the locations of the CPUs, power regulators, memory cards and CPU speed selection DIPswitches.
2. Remove the thermal airflow kit (black foam object covering the CPUs) to gain access to the CPU, regulator and memory area.
3. Install the additional regulator board and second CPU module. Both are provided in the Pentium III P733 CPU option kit (BOM item 2 above).
4. Verify that the CPU core clock speed DIPswitches are set for the appropriate CPU speed. For details, see the notes relating to this included with the Server documentation and 733MHz CPU option kit documentation.
5. Install the additional 2x512MB memory cards (BOM item 3) in addition to the 128MB card installed in the system as shipped (total of >1GB).
6. Replace the thermal airflow foam object (Velcro pads locate this correctly).
7. Install the ProLiant 2 x 1" Ultra2 SCSI drive cage (BOM item 4) as per instructions included with the kit. Steps 1…6 of the instructions show how to physically install the new drive cage. Pay particular attention to steps 7…9 which show how to change the SCSI cabling to connect the extra drive cage; and add the control signal cable and power connector. All 6 disks (in the 2 cages) will connect to a single SCSI channel on the internal Wide Ultra SmartArray controller. Steps 10…12 show how to replace the CD-ROM drive and floppy drive that were removed to gain access to the drive cage area.
8. Replace the server cover and tighten the three front panel screws.

9. Insert the 4 x 9.1GB disk drives into the server left hand side drive cage slots (slots 0…3).
10. Insert the 2 x 18.2GB disk drives into the new drive cage (installed above) in slots 4 & 5.
11. Connect power cable to the server.
12. Place the supplied RomPAQ floppy disk into the server floppy drive. Note that several such RomPAQ disks are supplied with the DL380 server. Ensure you use the correct one (likely marked ProLiant 1850R).
13. Power up the server. Ensure the RomPAQ disk is inserted.
14. Confirm that the server POST runs correctly, correct memory is reported, etc.
15. Once POST is complete, the RomPAQ software will be booted from the floppy disk. Follow the on-screen instructions to update the system firmware to the latest revision level. As the documentation included with the system warns, it is important to cold-boot the system to install this RomPAQ the first time, else the system may not correctly recognize the CPU type and speed.
16. Once RomPAQ installation is complete, remove the floppy and power-cycle the system. Re-check the POST reports and ensure the CPU number and speed is correct, the number and type of disks are correct, etc.

SmartStart™ and Windows NT 4.0 Installation

We strongly recommend using the supplied Compaq SmartStart™ software to help you configure the server and install the Windows NT operating system.

The following is intended as a guide to those who have not used Compaq SmartStart to configure a ProLiant system, and illustrates the steps required and example responses to questions. We suggest you read through the procedures before performing them, as some information will need to be obtained from the customer (system names, IP addresses, etc.) prior to running the SmartStart procedures.

In addition, a part of the process will require you to specify the disk and logical volume (RAID) setup to the SmartArray Configurator program. The following are our recommendations for defining these. Note that NT drive letters are also specified, although these will not be assigned until you run the NT Disk Manager at a later point to specify partitions, etc. These same drive letters will also be referenced in later sections detailing software installation, and will indicate our recommendations as to disk or logical volume locations where various software components and data structures should be installed.

Table 1. Disk Logical Volume Assignment

Logical Volume	Drive Letter	# Disks	Disk Locations
1	C, D	1	Slot 0 (9.1GB)
2	F	1	Slot 1 (9.1GB)
3	G	1	Slot 2 (9.1GB)
4	H	1	Slot 3 (9.1GB)
5	I	2	Slots 4, 5 (2x18.2GB)

Logical Volume Notes:

1. "Internal" refers to those disks in the server drive bays.
2. "External" refers to those disks in the StorageWorks rack.
3. Drive "C" is the Windows NT system disk (4GB NTFS partition recommended)
4. Drive "D" is an ~5GB partition (i.e. the remainder of the same physical disk used for Drive C), and will require later formatting and drive letter assignment via the NT Disk Manager. This is a good location for a Swapfile and the \Temp directory should be place on this partition.
5. Drive "E" is the system CD-ROM.
6. Drives F through H will require later formatting and drive letter assignment via the NT Disk Manager.
7. The purpose of F through H are: F: SQL data, G: SQL Log/Verify Backup location, H: IIS (wwwroot) and main components of Plumtree, I: Plumtree and Verity share directory.

SmartStart Notes:

1. Insert the Compaq SmartStart CD into the CD drive during the system POST. It will then be booted when the POST completes.
2. The "profile diskette" mentioned in the procedure is contained in the same documentation package as the SmartStart CD, which is included with the server.
3. Once SmartStart has booted and started, follow the process below.

SmartStart Procedure

Note that Items shown in *italics* are required responses or actions. Items shown <u>underlined</u> will be dictated by the specific customer installation needs.

Click on desired Language

Enter the date and time

Select guided mode (default)

Insert a profile diskette into the A drive

<u>Select the O/S (e.g. Microsoft, NT Enterprise V4.0)</u>

The system configuration utility will run to detect the system hardware, controllers, etc.

[<u>As a SmartArray controller is present, the Array Configuration Utility will run. Use this to specify the disk and RAID array setup for the controller as shown in Table 1, above.]</u>

System will reboot automatically

System partition will be created

System reboots

System partition is loaded

Install software from CD (default)

Insert Management CD

Re-insert SmartStart CD

Decline creating a replication profile

ASR – take defaults (i.e. click NEXT several times)

Specify the NT Boot partition (suggestion is 4000MB, NTFS)

Specify the licensing to be used

Specify Server type (default is Standalone). Other option is PDC.

SmartStart interviews are now complete

Decline using diskette builder (unless you need special Video drivers or other RomPAQ)

System will reboot and then create the boot partition. This takes several minutes.

Insert Management CD, click OK

Re-insert SmartStart CD, click OK

Insert the Windows NT kit CD #1, click OK

[Start of NT installation]

Remove diskette and CD when told to do so

Files are copied to the system disk

System reboots

NT loads and boots

[Start of NT Setup]

Enter name

Enter organization

Enter NT CD ID

Enter system name

Enter password for Administrator account

Is system on a network? Select default (YES).

Install IIS? (unclick for NO)

Click on SEARCH for network adapter, then accept it.

Select Network Protocols(s) required (i.e. TCP)

More services? NO, click next.

DHCP? NO, click next.

SNMP? (YES) Take the defaults.

Enter IP address and mask.

Click NEXT several times (to accept defaults) until NT reports Network is starting.

Specify Workgroup or Domain name. If Domain, select “create account” then enter the Administrator name/password

Answer questions regarding video adapter settings. Default setup is 800*600, High color. Follow on-screen instructions.

NT will complete copying files and configuring itself.

An error (really an INFO message) is generated. View it to ensure all is well.

System reboots and starts NT for real. Verify the CPUs and memory reported during NT startup. Also verify the number of logical volumes reported following the SmartArray 4200 information.

The system will now offer to install Windows NT SP3. Proceed as per on-screen instructions to do so.

You should now use the NT Disk Manager to create logical volume partitions and assign drive letters (refer to Table 1, above for suggested drive letter assignments). Once this is complete, you are ready to install the pre-requisite software components.

Pre-requisite Software Installation and Setup

The pre-requisite software for this product is listed below. It is possible that the customer may already have licensed copies of some of these (e.g. BackOffice components, such as Office 2000 or SQL Server V7). Notes are included below indicating the purpose or need for each item. Some software components are mandatory and must be installed before the portal can be installed. Some optional software would only be installed to support specific functionality (like access to Exchange or Domino, displaying objects in native form, etc.).

Required Software

The following are the required components and the order that they should be installed. See below for installation notes.

1. Microsoft NT Server 4.0 (Service Pack 3). Install other components. Then upgrade to SP5.
2. Microsoft NT Option Pack 4, which provides: Internet Information Server (IIS) 4.0, Microsoft Transaction Server, ASP.
3. Internet Explorer 4.01 SP2 or higher (IE 5 recommended)
4. Windows NT 4.0 SP5 (the service pack)
5. SQL Server 7.0 Database Server – Standard Edition (Service Pack 1)
   [Oracle 7.3 (or higher) can also be used, these instructions detail using Microsoft SQL Server. See the Plumtree installation manual for details of installing and setting up an Oracle database configuration]

Pre-requisite Software Installation Notes:

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1. NT Service Pack 3 should be installed during the NT Enterprise installation.
2. The NT Option Pack components to be installed are:
   - Internet Explorer 4.01 SP1 (you can upgrade to SP2 or IE 5 later)
   - Windows NT Option Pack Typical installation will install all the components needed. You will want to move the location of the IIS root off the system disk and onto one of the other data disks. After the NT Option Pack install, you will have to re-boot the server.
3. A typical SQL Server install will provide the necessary components.

Optional Software

The following are optional software components that can be installed before the Plumtree Corporate Portal software:

1. Microsoft Office 97 or higher (Office 2000 recommended)
   [Optional, only needed to view submitted documents on the server. If you are going to integrate with Microsoft Exchange, you could install Outlook at this time.]
2. Adobe Acrobat Reader 4.0
   [Optional, only needed to view submitted PDF files on the server]

Configuration-Dependent Software

The following are optional software components that can be installed after the Plumtree Corporate Portal software is installed and setup. The need for these components depends on how the Plumtree Corporate Portal will be configured. Installation and setup details of these components are discussed in separate sections later in this document.

1. Microsoft Exchange access, only needed if you plan to crawl and access Microsoft Exchange Public Folders:
   Microsoft Exchange 5.5 Administrator component
   Outlook Web Access V5.0 (SP3)
   Outlook 98 or Outlook 2000 client
2. Lotus Domino Access, only needed for access to Domino server databases
   Lotus client R4.6.2 required on the Plumtree job server. See section on installing optional software for integration with Lotus (Section **Error! Reference source not found.**, **Error! Reference source not found.**).

Pre-requisite Software Setup

Before the Plumtree Corporate Portal software can be installed a few setup steps must be accomplished.

1. Refer to the instructions in section *Building a Database with Microsoft SQL Server 7* from the *Installing and Configuring Your Plumtree Corporate Portal Server* manual to create the database and database user. In the last step of the instructions make sure to check db owner along with public as the role of the PlumDBUser account.
2. Create a local user called “Plumtree”. This user should be give “Act as part of operating system” user right (note this is an advanced user right). There is an explanation for this in the installation manual
3. Create a file directory called Plumtree and share it as Plumtree. Give the Plumtree account and the administrator’s account full control and Everyone Read access.

You are now ready to install the portal products.

Portal Product Installation

Once the pre-requisite software has been installed the Plumtree Corporate Portal software can be installed. After the Plumtree Corporate Portal software is installed, it should be configured to meet customer requirements, and optional software installed and configured (if needed). The following sections will give an overview of the installation procedures and will refer you to appropriate sections of the pertinent product documentation for details.

During the installation process you will need to enter information regarding system names, accounts, initial setup parameters, etc. These will be highlighted within the following sections as (**INPUT ➔**) to alert you that such information is required. You will likely have to get this information from the customer, and we recommend that you do so prior to beginning these installations. We also suggest you read through the *Installing and Configuring Your Plumtree Corporate Portal Server* manual to familiarize yourself with the overall process before proceeding.

Plumtree Corporate Portal V3.5 Installation

First ensure that all the pre-requisites described in Section 4.1 have been successfully installed. Before starting the product install we recommend you also perform the following:

- Ensure your server system has an Internet connection.
- Ensure you have a domain administrator account that has administrative privileges on the local server.

Log onto the server as the domain administrator with local administrator rights. Load the Plumtree Corporate Portal CD in to the CD-ROM drive and a web page will popup (if it doesn't just click on Plumtree.htm on the main directory of the CD). Click on Plumtree Server Setup to begin installation.

Before the Plumtree Corporate Portal installs, it will install several other Microsoft components. After each component re-start the Plumtree install processes.

1. The first thing the Plumtree install will do is check for and install Microsoft Data Access Components (MDAC) version 2.0 SP 2. Respond: Yes to the dialog box and do a Complete install into the default location. When this is complete re-start the Plumtree install.
2. Plumtree install will update certain Microsoft library files. Click OK to continue and re-start the install process when complete

Plumtree Corporate Portal install
Unless otherwise noted, just click next and accept the defaults

INPUT ➔ Select Install Plumtree for the first time.

INPUT ➔ Correct the destination location to contain the version number being installed (3.5)

INPUT ➔ Select Administrative Job Server

INPUT ➔ Specify the complete DNS name for the server (only the UNC name will be filled in).

Note: if the network topology contains many NT domains, the "Please Choose an NT Domain" screen may take several minutes before you can make a selection. Please be patient. Select the local server machine as the "domain" which contains the Plumtree user.

INPUT ➔ Enter the password for the Plumtree account

If you are asked about continuing without validating the password click Yes (assuming you really typed in the password correctly).

INPUT ➔ Select SQL Server

In the Set Database Login Information dialog box specify the ODBC DSN, and database login and password

INPUT ➔ ODBC DSN: PlumDBDSN, Database Login: PlumDBUser, Database Login password: <whatever you used>

Change the program folder to the version number that you are installing (3.5)

The Plumtree installation process begins copying files.

If you get messages saying that the installation process was not able to set the identity of the several MTS packages, click OK. This will be configured later.

Create the Plumtree ODBC connection. Refer to the instructions in the Installation manual.

On the “Create a New Data Source to SQL Server” screen set the server to (local)

On the next screen click “With SQL Server authentication…”. Set the Login ID to PlumDBUser and set the correct password.

On the same screen set the Client Configuration to TCP/IP.

Keep the defaults through the rest of the screens.

Re-boot the server.

Plumtree Corporate Portal Configuration

DCOM Configuration

Add the Plumtree user to the DCOM security profile. See the installation manual for instructions.

Microsoft SQL Server Setup

Follow the instructions in the Plumtree installation manual to initialize the Plumtree database tables. This includes running several scripts in the SQL Server Query Analyzer. Make sure to log in using the database account you created earlier and that the database you are connected to is the Plumtree database. The SQL scripts can be found in the directory …\Program Files\Plumtree 3.5\SQL3.5\MS SQL Server\. Run the following scripts:

- create_tables_SQL.sql
- load_seed_info_SQL.sql
- postinst.SQL

After you have run these scripts, you must grant access to these tables. Run the Plumtree supplied utility …\Program Files\Plumtree 3.5\Utility\SQLPermit.exe. Set the database to the correct database name (PlumDB).

Plumtree MTS Packages Authentication

Set the identity of the two Plumtree MTS packages. Open up the MTS management console (MMC) and navigate to Packages Installed. Find the package IIS – {Default Web Site//ROOT/portal}. Right click on it and select properties. Click the Identity tab. Make sure the “This user” radio button is selected. Change the user and password to the local Plumtree account. Do the same for the package named Plumtree.

Product installation is now complete and you should now REBOOT the server. After the server starts up, you should be able to open up a web browser and point it to http://<server_name>/portal. When the Plumtree Corporate Portal page comes up, you should be able to log in using the Administrator account and a <blank> password (you should change the Administrator account password to something else.

Portal Setup

Once the Plumtree Corporate Portal software is installed, it must be configured to the customer's needs. These instructions provide a basic setup, which will demonstrate the basic functionality of the Plumtree Corporate Portal and provide some general usefulness to a broad set of customers. The Plumtree Corporate Portal software can be configured to support a wide range of customer's specific requirements. To determine the users requirements, a detailed analysis of the customer's existing information repositories, existing information architecture and a number of other aspects of the customer's organization and business would have to be performed. Although desirable to achieve a long-term viable solution to the customer's knowledge management problems, this is beyond the scope of this document. Therefore the instructions given here are an example of a portal setup that should be generally useful to a wide variety of organizations.

Home Page Customization

The Plumtree Corporate Portal software comes out-of-the-box with a number of graphic elements that identify it as a Plumtree Software product. Each organization will want to apply their own branding to the portal site. The portal "myPage" is generated using Active Server Pages and therefore it can be modified to meet the organizations needs. For the scope of this document, the instructions given below will show how to change the banners at the top of the pages to contain the organizations logo.

To change the banner at the top of the Plumtree Corporate Portal pages perform the following steps:

1. In the directory …\Inetpub\wwwroot\portalpages\images\ rename the files bannertile.gif, bannerleft.gif and bannerright.gif to PTbannertile.gif, PTbannerleft.gif and PTbannerright.gif.
2. Create a file bannertile.gif (in the same directory) which contains a background for the banner of the page. You can replace this with a small (67 pixels height and very narrow) gif of the background color, or just a transparent gif image.
3. Create a file bannerleft.gif (in the same directory), which contains a logo for your portal site.
4. Create a file bannerright.gif (in the same directory), which contains a logo for the organization.

If you want to change the way the banner looks you can edit the file …\inetpub\wwwroot\portalpages\common\banner.asp. Here you can add other elements to the header of each page. If you want to add a footer to each page you can edit the file endpage.asp in the same directory.

Users and Groups

Plumtree V3.5 supports almost all of the administration functions through a web browser. There is also a Content Manager application that can be used to perform administration functions. The instructions below will use the web based administration functions.

Assuming you want to allow open access to the portal site for evaluation, the easiest process to use is to have the users create their own accounts. These accounts can either be Plumtree accounts, or accounts based on a users NT domain account. To create an account, just have the user open up their browser to the portal (http://<server_name>/portal) and click the Create an Account button on the Plumtree Login gadget. Then just follow the instructions and answer the questions.

If you want to add Windows NT user accounts to the portal as an administrator you must use the content manger application and first log into Windows NT using a domain account. If you don’t log Windows NT into a domain account then you will not be able to get the list of domain users to select the account to be added to the portal.

You might want to create a few accounts for people to be content managers. Perform the following steps:

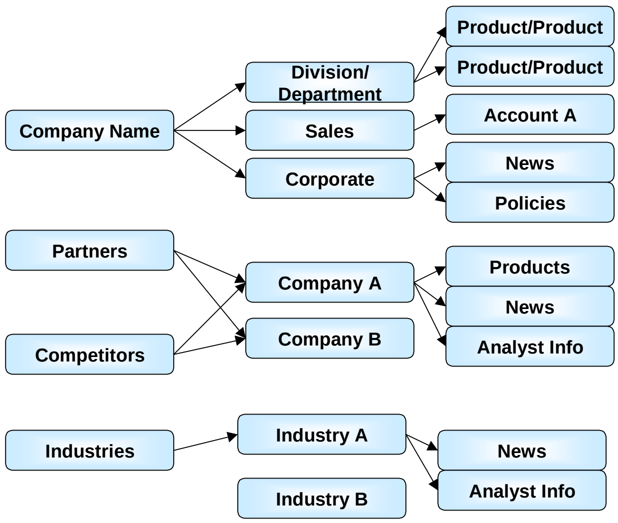
1. Create the user accounts either by each individual creating them, or the Plumtree Administrator can create them.
2. Log into the portal using the administrator account. Click the Administration tab.
3. Click Groups on the left-hand column and then click Add User Group.
4. Give the group a name and description and select Content Manager in the Group type pull down list. Click Next
5. Click on Add new User and navigate to the user you want to add. Click the radio button next to that user, and then click Finish. Repeat for each user you want to add to the Content Manager group.
6. Click Next to complete the User Settings page and click Finish to complete the creation of the group.

Define an Information Taxonomy

Defining an information taxonomy is a significant activity that should be undertaken by the organization by experienced consultants. To jump start this process, an example general taxonomy is given here that could be used to get the portal site up and running quickly. This taxonomy is only an example, and to move forward a thorough analysis of the organization’s information architecture should be performed.

In the Plumtree portal, the information taxonomy is displayed under the Directory tab on the MyPage page. In the documentation, the term catalog (as in a library card catalog) is also used for the hierarchical categorization of information organized using the Plumtree portal.

The following is a diagram of an example taxonomy.



To create the Directory structure above, follow these steps:

1. Log into the portal using the administrator account.
2. Click the Directory tab
3. Click the Edit Mode, then click Add New Folder.
4. In the Folder Info window specify the Folder name and a description. Leave the Filter for these words blank. Click Next.
5. On the Security window, click Add New Group, click User Groups, and then click the radio button next to Content Managers. Click Finish.
6. On the Security window click the "R" in the Access Level column for the Content managers group until it displays "RWA". This allows Read/Write/Approve access for the Content Manager group members.
7. Click Finish on the Security window.
8. Repeat this process to create all of the top-level directories.
9. To create a sub-directory first navigate to the parent directory and then click the Add New Folder link. The security information will be inherited from the parent directory so you should not have to add the Content Manager group to the sub-directories.

The directory structure doesn't have to be perfect to begin using the portal. The Plumtree Corporate Portal provides functions for modifying the directory structure and moving items around within it. However, the more information that is populated into the structure the more difficult it gets to move items around. Therefore before the portal is put into production use, an appropriate taxonomy design process should be performed.

Define Crawlers

Once the directory structure is defined, the content managers can begin populating it with information. One mechanism for populating the directory with information is by defining a crawler. Crawlers come in several forms based on the information store type they are crawling. At this point there are two types of crawlers a content manager can define. They are file and web. The instructions below show the steps to define each type of crawler.

File Crawler

A file crawler will scan all of the files in a directory structure and add metadata and search index data to the portal. To begin with the Portal administrator should have access to a file directory structure populated with documents that are of interest to the portal community. To define a file crawler:

1. Make sure the server system has access to the file directory via a file share. The server local Plumtree account should have access to the files. If the file share is secured with another account, this can be accommodated with additional portal functions, but that is beyond the scope of this document, see the content managers manual for more information.
2. Log into the portal using the administrator account
3. Click the Administration tab, click Crawlers, click Add Crawler
4. On the General Info window, give the crawler a name and click Next
5. On the Data Sources window, click the radio button next to File System and click Next.
6. Specify the UNC share name for the directory of files to be crawled
7. If the directory has sub-directories, you can click No next to the Limit the depth of the crawl question. If you want to create sub-directories in the portal taxonomy to mirror the file directory structure, then click the Create Plumtree folders to mirror the file system check box. WARNING: If you mirror the file directory structure, it will exactly mirror the directory structure. Therefore make sure you attach the crawl to an empty directory in the portal (otherwise the subdirectories in the portal will be removed).
8. Click Next on the Document Type Map window
9. Click Next on the Crawled Card Settings window
10. Click Next on the Crawler Card Security window
11. On the Import Settings window, click Change Folder. Navigate to the folder where you want to the file information stored (remember this is the file meta data and index information, not the actual files). Click the radio button next to it, and click Finish. Remember if you are mirroring a file directory structure to pick a portal directory that has NO sub-folders.
12. On the Import Settings window click Next
13. On the Jobs window click the radio button next to Create a job for this crawler… and click Next
14. Click Finish on the Security window
15. To run the job, click on Jobs in the left hand column of the Administration page.
16. Click the name of the job that you just created.
17. Click Schedule on the left hand column of the Job edit window

18. Click the radio button next to Run Once. You can later set this to recurring if the content of the directory changes often. Click Finish
19. In a few minutes this should trigger off a job that will crawl the file structure named in the crawler. If you don't see any activity in a few minutes, check to see that the Plumtree Job Dispatcher Service is running on the server. Use the NT Control panel Services applet to check this.
20. To check the status of the job click Jobs on the Administration page, then click the job name. In the Job Edit window, click Job History.

Web Crawler

A web crawler will start at a given URL and follow all of the hyperlinks recursively until it reaches a limit or a constraint. All of the web pages and files visited will provide metadata and search index data to the portal. To begin with the portal administrator should have access to the URL and related link structure populated with documents that are of interest to the portal community. To define a web crawler:

1. Make sure the server system has access to the web site via URL. The server local Plumtree account should have access to the files. If the web site is secured with another account, this can be accommodated but with additional portal functions, but that is beyond the scope of this document, see the content managers manual for more information.
2. Log into the portal using the administrator account
3. Click the Administration tab, click Crawlers, click Add Crawler
4. On the General Info window, give the crawler a name and click Next
5. On the Data Sources window, click the radio button next to World Wide Web and click Next.
6. On the WWW Crawl: Select First Page window, type in the starting URL. Select the number of levels (number of hyperlinks to follow from the first page). Take the defaults for the rest of the items. Click Next.
7. On the WWW Crawl: Exclude Specific Pages window, check the "Include only pages from this list" check box. Click "Add new included pages to list". Type in the host name and path of the URL you are crawling. This setup will only visit pages in the path of the URL you are crawling and prevent crawling of pages on other sites and in other paths. Crawlers don't always have to be set up this way but this can prevent the crawler from crawling the "World" in the World Wide Web. Click Next.
8. On the Document Type Map window, click Next.
9. On the Crawled Card Settings window, click Next.
10. On the Crawler Card Security window, click Next.
11. On the Import Settings window, click "Add a New Folder". On the Selecting a Folder window, navigate to the folder you want to load the crawled web pages into. Click the radio button next to the folder. Click Finish. Back on the Import Settings window, click Next.
12. On the Jobs window click "Create a job for this …" and click Next.
13. On the Security window, click Finish.
14. To schedule the job to run the crawler you just created, on the Administration page, click Jobs. Click on the crawler you just created.

15. Click Schedule on the Job Editor window.
16. On the Scheduling a Job window, click “Run Once” and then Finish.
17. In a few minutes the web crawler job should be started.
18. You can check the progress of the crawler by clicking on the job and then on Job History.

Once the crawler is done, you have to approve the documents before they will be visible to users. To approve the documents, follow these steps:

1. Log in as a content manager (or as administrator).
2. Click on the Administration tab and click Approve Documents. A list of documents to be approved should be displayed. From here you can edit the title of each document and approve the folder it is placed into (or place a document into different or additional folders).
3. To approve all documents into their designated places, click Approve All.
4. Click Apply Changes
5. You will need to repeat this for each screen of documents to be approved.

Define Publications

A publication is the results of a stored search that is executed and delivered periodically. A publication can provide a kind of periodic newsletter of information. A general use of a publication is to provide a list of “What’s New” for a catalog/folder or topic of information.

After you have populated the portal directory with information, you can then create publications. To create a publication perform these steps:

1. Log onto the portal as the administrator
2. Click on the Administration tab
3. Click Publications and then click Add Publication
4. On the Publication Info window, specify a Publication name and description.
5. On the same window click multiple issue publication, and click Next.
6. On the Content Folders window click Add a New Folder.
7. On the Selecting a Folder window navigate to a folder that you want to search for Publication documents. Click the radio button next to it and then click Finish. The folder you select would generally contain new information that would be relevant to the purpose of the Publication. You can add multiple folders if you want to. Click Next on the Content Folders window when you have selected all of the folders you want to search for the Publication.
8. On the Filter Conditions window define the criteria for selecting documents from the above folders to be included in the publication. This can be a simple text search string or a more complicated Boolean expression that references document metadata. After you have specified the filter conditions, click next.
9. On the Published Properties window take the defaults and click Next.
10. On the Jobs window click “Create a job for this publication …” and click Next.
11. On the Limit & Order window check the Limit each issue check box, and Include all Links. Click Next.

12. On the Publications Delivery Method window, click Next
13. On the Publication Security window, click Finish
14. To start the creation of the publication, on the Administration page, click Jobs. Find the job for the publication you just created and click it. Click Schedule and then click Run Once. Then click Finish.

Normally crawls and publications would be run periodically (for example every night) to gather new information. The periodic scheduling of jobs is left up to the requirements of the organization configuring the portal and therefore is not described in this document.

To view the results of the publication, log into the portal and click the News tab. On the News page look for the name of the publication you created and click on it. Click on "Add To My Page". Click on My Page and you should have a heading called My Publications with the publication listed under it. Click on the publication to see its contents.

Gadgets

Plumber gadgets provide packages of functionality that users can configure on their personalized home page. Plumtree provides a number of gadgets with the installation kit, and more are available from their gadget web site (http://gadgets.plumtree.com/). Before users can use gadgets, they have to be registered by the portal administrator.

The portal administrator can register gadgets in bulk mode, or individually. To register gadgets in bulk mode, perform the following steps:

1. Log into the portal using the administrator account. Click on the Administration tab and click Gadgets.
2. Click AutoRegister Gadgets
3. You will now see a list of the gadgets that are present on your system (from the standard installation) but have not been registered. Click on each of the gadgets you want to be available to users of the portal. You can add more later, so you don't have to add them all at this time. NOTE: the Domino and Exchange gadgets will not work at this point, because the supporting software has not been installed yet (see later in this document for more information on how to setup Domino and Exchange access).
4. When you have checked all of the gadgets you want to register, click Register Checked Gadgets.
5. After the gadgets are registered, you can then add them to the personalized home page of the account you are logged into (administrator account).
6. Users can add gadgets to their personalized home pages by clicking on either Choose Gadgets or Personalize then Choose Gadgets

NOTE: If you want to use the Excite gadgets, you will have to edit the following file to define the proxy information so the gadgets can get to the Excite site. Open up …inetpub\wwwroot\portalpages\mypage\gadgets\include\WebSettings.asp. Edit the strProxyServer line to look like this:

StrProxyServer = "http=<proxy host>:<port>;https=<secure proxy host>:<port>"

Edit the strProxyLogin and strProxyPassword lines if necessary.

Optional Software

If the portal configuration requires integration with either Microsoft Exchange or Lotus Domino, then additional software needs to be installed and configured. This section describes how to install and configure those software components.

Microsoft Exchange Integration

Integration with Microsoft Exchange allows the following additional functions:

6. The ability to crawl Microsoft Exchange public folders
7. The ability to view and interact with Exchange inbox, calendar and contacts using portal gadgets.

Microsoft Exchange Public Folder Crawling

This section describes how to install and configure the required software so that the Plumtree Corporate Portal can crawl Microsoft Exchange public folders. For additional information please read the Including Exchange Document Appendix in the *Installing and Configuring your Plumtree Corporate Portal Server* manual.

Pre-requisite Software Installation and Setup

Microsoft Outlook should be installed on the portal server system. This could have been installed with the Microsoft Office suite earlier or it can be installed now. Outlook 2000 is preferred. After Outlook is installed a MAPI profile must be created. Following these steps to configure Outlook:

1. Log in to the server using the domain and account that you will use to access Exchange. This will create a profile for that user which will be used by the Plumtree Exchange accessor later.
2. Click on the Outlook icon on the desktop.
3. For e-mail service options select Corporate or Workgroup
4. When asked for which information services to connect to check the Microsoft Exchange Service
5. On the Microsoft Exchange Server window provide the name of the Exchange server and the name of a valid mailbox
6. Take the defaults on the rest of the screens.

When the setup is complete, use Outlook to log into an Exchange mail account to check the setup.

Plumtree Corporate Portal Microsoft Exchange Accessor Installation and Setup

To install the Plumtree Microsoft Exchange Accessor follow these steps:

1. Open up the Plumtree.html file on the Plumtree CD. This should come up automatically when the CD is placed in the CD reader
2. Click on the Microsoft Exchange Accessor setup hyperlink. Make sure you click on the Microsoft exchange Accessor Setup under the Accessors for Servers section and NOT the one under Accessors for Content Manager.
3. When asked about saving or running the file, click on Run this program from its current location

4. Click Yes on the Security Warning window
5. Click Continue on the Installation Folder window and Yes if asked to create the specified folder.
6. The Plumtree install program should launch. Click Next on the Welcome window and Yes on the Software License Agreement window
7. Supply the information for the Plumtree server machine and Plumtree administrator account and password (this account should be the local system administrators account).
8. On the Please Choose an NT Domain window please be patient while the domains are located. This may take a while (10s of minutes) if the machine environment contains many domains). Select the local machine or the domain where the Plumtree account was created.
9. On the Enter Plumtree User NT Password window enter the Plumtree account password and click Next.
10. Click Next on the Check Selections window. The installation program will copy files.
11. Click Finish on the Setup Complete window. This completes the installation.
12. Open up the control panel services window and find the Plumtree Exchange Service service. Click on the service to select it.
13. Click the Startup… button
14. In the Service window change the This Account to the domain account that you set up the MAPI (Outlook) mail account to point to. Set the Password and Confirm Password fields to the correct password. Remember that the account you use must have “Log on as service” and “Log on Locally” user rights on the local machine.
15. Click OK to close the Service window.
16. Click Start to start the Plumtree Exchange Service.
17. Re-boot the server.

Microsoft Exchange Public Folder Data Source Setup

Once the Microsoft Exchange Accessor is installed, then Microsoft Exchange Public Folders can be used as data sources for crawlers. To create an Exchange Public Folder data source in Plumtree follow the instructions in the Plumtree installation guide. You should use the Plumtree Content Manager application to set up the Exchange Public Folder data source.

Microsoft Exchange Public Folder Crawler Setup

Once the Microsoft Exchange Public Folder data source is created, Exchange Public Folders can be used as data sources for crawlers. Use the Plumtree Content Manager application to set up the Exchange Public Folder Crawler (you will be able to edit the crawler properties using the web interface after it is created). To set up a crawler to access Exchange Public Folders, follow these steps.

Before you create the crawler make sure that you have a folder defined in the catalog where you want to put the contents of the crawled data source. If the folder doesn’t already exist, create it before you start the process to create the crawler. To create the folder follow these steps:

1. Log into the Plumtree portal with an administrator account
2. Click on the Directory tab and navigate to the parent folder.

3. Click the Edit Mode hyperlink on the left column, and click Add New Folder.
4. Fill in the new folder name and description and click Next
5. Click Finish on the Security window.
6. While still in Edit Mode on the Directory page, click on the pencil (Edit) button on the line of the folder you just created.
7. In the Editor window click on Filter Info in the left column.
8. In the Filters window click “all cards”. This will allow cards to be placed into this folder.
9. Click Finish at the top right of the window

Once the folder is created follow these steps to create the crawler:

1. Start the Plumtree Content Manager application and log in using the Plumtree Administrator account
2. Click on the Crawlers icon in the left panel.
3. Right click in the right panel and select New Crawler
4. In the Crawler Creation Wizard Step 1 of 11 window provide the new crawler name and click Next
5. Select Exchange Public Folders in the Step 2 of 11 window and click Next
6. After a short period of time (while the wizard communicates with Exchange) the Public Folder hierarchy is displayed. Navigate to the Public Folder you want to begin the crawl from and select it in the right hand panel. Click Next
7. On the Step 4 of 11 window, specify the depth of the crawl and if attachments should be crawled. Click Next
8. On the Edit Document Type Map: Step 5 of 11 window, click Next. Depending on the data types that are stored in your Exchange Public Folders, you might have to come back to this window and add additional data types so the crawler “sees” the contents of the public folder.
9. Click Next on the Crawled Card Refresh Settings Window.
10. On the Card Import Settings: Step 7 of 11 window, navigate to the Plumtree catalog folder where you want the crawled Exchange Public Folder content to be placed. Check the Generated cards are automatically approved box. Click Next.
11. Click Next on the Edit Crawled Card Security: Step 8 of 11 window.
12. On the Jobs: Step 9 of 11 window click the “Create a job for this operation in the selected folder” radio button and click Next.
13. On the Schedule: Step 10 of 11 window, click “Run Once”. You will probably want to go back later (after you have tested that the crawler works) and set the job to run periodically. Click Next.
14. Click Finish on the Summary: Step 11 of 11 window.

The crawler should now be created and should run in a few minutes (assuming the Plumtree Job Dispatcher Service is running). You can check the status of the crawler by following these steps:

1. Log into the Plumtree portal as an administrator using the web interface.
2. Click on the Administration tab.

3. Click on the Jobs hyperlink and then click on the Job Server Manager hyperlink.
4. You should see the Exchange crawler listed as Running or Done after a few minutes. Click on the job hyperlink to get details of the Exchange crawler job. Click the Refresh button on the page to update the job status.

If the crawler fails and you have to run it again, the second and subsequent times the crawler runs, it may reject documents because they were rejected during a previous crawl. If this happens, edit the Exchange crawler. On the Advanced window click the “Clear rejection history” button. Then run the crawler job again.

Gadget Support for Microsoft Exchange Features

This section describes how to install and configure the required software so that the Plumtree Corporate Portal can host gadgets that contain Microsoft Exchange inbox, calendar and contact information.

Pre-requisite Software Installation and Setup

First, install Outlook Web Access (OWA). OWA can be found on the Microsoft Exchange CD or in the Microsoft BackOffice CD set. Information about installation and setup of OWA can be found in the ReadMe subdirectory of the Exchange gadget directory as ReadMe.html. It seems that if you install the Exchange Administration application (even though you don’t need it) that the Service Pack installs easier. You should also read the release notes in that directory. After the Exchange OWA software is installed the latest service pack from Microsoft should be installed. Currently that is Service Pack 3. The ReadMe.html file also contains several other setup steps that must be performed. To test the installation of OWA use a browser and connect to http://<server>/exchange. You should be able to connect to a mailbox on the Exchange server from this page.

Additional notes about the OWA installation and setup:

- The PTImpersonator.dll should already be in the …\Program Files\Plumtree\Bin directory and registered
- The Exchange gadget directory should already be created and contain the Exchange gadget files

You don’t need to add the style sheet information to the .css file.

Plumtree Corporate Portal and Microsoft Exchange Gadget Setup

Before Plumtree Corporate Portal users can use the Exchange gadgets, a Plumtree administrator must register them. To register the Exchange gadgets, perform the following steps:

1. Log onto the portal using an administrator account
2. Click the Administration tab and them click Gadgets. Click AutoRegister Gadgets
3. Click Exchange Calendar, Exchange Contacts and Exchange Inbox gadgets, then click Register Checked Gadgets
4. Add the Exchange gadgets to your MyPage to test them. The Exchange gadgets appear under the heading Collaboration Services
5. Before anyone on the portal can access an Exchange mailbox, they will have to be given “Log on as a Batch Job” Rights on the Plumtree server. Log on as a Batch Job is an Advanced right given using the User Manager for Domains application.

The first time you (or any user) tries to use the Exchange gadgets, you (they) will have to provide their Windows NT Domain, user name, password, and mailbox alias.

Lotus Domino Integration

Plumtree can integrate with Lotus Domino in a similar way to Microsoft Exchange. To facilitate this integration additional software must be installed and configured. This section discusses the installation and setup of the optional software.

Lotus Domino-Related Software Installation

Install a Lotus Domino client on the Plumtree server to facilitate connections to your Domino databases such that the crawler can access it. You will likely be running a Lotus Domino R5 server, however the current version of Plumtree Corporate Portal (V3.51) does not support Lotus Domino Client R5. As the release notes state, V4.6.2 of the client is the most recent supported and will successfully connect to your R5 Domino server. You will therefore have to locate a V4.6.2 kit, or more likely an earlier released version and the appropriate patch files to bring the release level up to V4.6.2.

Our lab testing showed that the following procedure worked successfully.

First obtain a V4.6a CD installation kit (part number T13480). This was distributed at the 1998 Lotusphere symposium and the 4.6a kit is also available on the Lotus web site at http://www.lotus.com/home.nsf/welcome/downloads.

Upgrading this to V4.6.2 requires obtaining the appropriate QMRs from the Notes web site, as follows.

Go to the Notes web site at http://www.notes.net and click on “Downloads”. Click on the “More” selection under the “Latest QMRs” column. This will show a list of available maintenance release kits that are available. The two update kits that you will need are:

4.6a to 4.6.1

4.6.1 to 4.6.2 (see important note following)

You *MUST* read the “Important issues when upgrading 4.6.1 to 4.6.2” item. This will provide you access to 4 additional files that must be downloaded and copied to the Domino client folder replacing the current versions of the files. This *MUST* be done before attempting the 4.6.1 to 4.6.2 upgrade, else it will fail. For reference these 4 files are ICSCLASS.JAR, ITSCSN13.TLB, NJEMPCL.ZIP, NOTES.JAR.

Having obtained the two upgrade QMRs and the 4 additional files, you can now proceed with the three steps of the upgrade.

Apply the QMR to upgrade 4.6a to 4.6.1

Replace the 4 files with the downloaded versions. Refer to the “Important issues” instructions on the web site, mentioned above, for details.

Finally, apply the 4.6.1 to 4.6.2 QMR.

Now start the 4.6.2 client and ensure you can connect to your Domino server.

Plumtree Corporate Portal and Lotus Domino Setup

Set up the Lotus Domino client and ensure you can connect to your Domino server correctly. You can configure crawlers of the Lotus Domino information in a similar way to the Microsoft Exchange Public Folders setup.

Ongoing Administration and Management

Typical Administrator Tasks

Approve Content and Published Issues

Depending on how crawlers and publications are setup, the results may need to be approved before they become available to general users. Crawled content can be approved from the Administration page under Approve Documents and publication issues can be approved from the Administration page under Approve Issues. If you have large numbers of documents or Issues to approve, it is easier to use the Content Manager application to do the approval because you can select a large number of items and approve them all at once.

Submit a Document

Technically anyone with the appropriate permissions can submit a document. In this generic setup, general users have not been given sufficient permissions to submit documents to the portal. Therefore, submitting a document is being described here.

To submit a document to the portal, follow these steps:

1. Log onto the portal using an account that has sufficient permissions to submit a document to the folder you want to.
2. Click on the Directory tab
3. Navigate to the folder you want to submit the document to.
4. Click Submit a New Document under Actions/Browse Mode.
5. In the Select a Data Source window, click File System or World Wide Web

Depending on which data source type you pick, you will have to answer a few questions about where the document is and whether or not you want it physically copied to the server (or just indexed).

Monitor Jobs

Plumtree Corporate Portal allows the administrator to schedule a variety of jobs to gather content, create publications and perform system maintenance. The administrator should monitor periodically the status of these jobs to make sure they continue to function correctly. The system administrator can check the status of jobs by following these steps:

1. Log into the portal using the administrator account.
2. Click on the Administration tab and click on Jobs
3. Click on Job Server Manager
4. This page gives a list of all of the job runs.

5. Click on the job status to get a detail log of the job.

The System Maintenance job should be scheduled to run at least once a day. This job performs catalog maintenance.

Customize the Start Page

When the portal site is first referenced, the user is automatically logged into the Guest account. The contents of the guest account MyPage can contain information that is useful to anyone that is not logged in yet. One gadget on the Guest MyPage is the login gadget they allow the user to log in to their personal portal account. The contents of the Guest MyPage can be customized. To customize the Guest MyPage follow these steps:

1. Log into the portal using an administrator account
2. Click on the Administration tab, and lick Plumtree Utilities.
3. Click on Edit Guest Profile
4. You will now have to log into the Guest account. The password should be blank (no password).
5. Once logged into the guest account, you can use the normal customization mechanisms in the Plumtree Portal. For example you can add news gadgets to the Guest MyPage so that users see the news even before they log in.
6. When done customizing just log out of the guest account.

Set Permissions on Directory Folders

You may want to restrict access to the contents of a folder to a certain set of users (for example a project team). To configure a folder with access permissions for only a specific group of users, follow these steps:

Create a group with the specific users you want to give access to the folder.

1. Log into the portal with an administrator account
2. Click the Administration tab and click Groups
3. Click Add User Group
4. Provide the Group name and description, click Next
5. Click Add new User and select the users you want to add to the group
6. Click Next on the Permissions window and then Click Finish.

Set the permission on the folder

1. Log into the portal with an administrator account
2. Click on the Directory tab
3. Click Edit Mode
4. Navigate to the directory you want to change the permissions on
5. Check the box next to the folder name and click Edit Security
6. Toggle the permissions in the boxes until you have the desired permissions set
7. Click Apply Changes

Related Documents

Compaq NonStop™ Enterprise Portals White Paper

http://www.compaq.com/wherever

Plumtree Corporate Portal V3.5 Release Notes

Plumtree Corporate Portal Deployment Guide

Plumtree Installation Manual

Plumtree Content Manager's Guide

Building Effective Crawlers in Plumtree

Related Websites

Plumtree Software web site

http://www.plumtree.com

Plumtree Software Gadget factory

http://gadgets.plumtree.com

Plumtree Support site

http://support.plumtree.com