SHAREPOINT   SERVER   IBM I   LINUX   SQL   EVENTS

SearchDomino.com
The Web's best Lotus Notes and Domino-specific information resource for enterprise IT professionals

TechTarget Windows Media
> WEB SITES

HOME · TOPICS · ITKNOWLEDGE EXCHANGE · TIPS · ASK THE EXPERTS · MULTIMEDIA · WHITE PAPERS · DOMINO IT DOWNLOADS

SEARCH this site and the web   [   ] SEARCH Search Powered by Google   SITE INDEX

Home > Build a complete Lotus Domino 8.5 server for $400

Tutorial: ✉ EMAIL THIS

Build a complete Lotus Domino 8.5 server for $400

22 Apr 2009 | SearchDomino.com

🔲 Lotus Notes and Domino tips, tutorials and how-to articles

📰 Digg This!   🔲 StumbleUpon   ■ Del.icio.us

When developing a Lotus Notes/Domino application for a non-profit legal services company, I built the least-expensive and most high-quality Lotus Domino 8.5 server I could. The total price for the hardware, operating system and a full Domino license was only $400.

I chose Dell PowerEdge T105 hardware. The machine's base configuration was a quad-core AMD Opteron running at 2.1 GHz, with 2 GB memory, dual 250GB hard drives and a CD/DVD reader. The price without an OS was $399.

I selected Ubuntu Server 8.04 LTS, a stable OS with long-term support. The complete bootable ISO CD image is a free download. Although IBM Lotus doesn't officially support Domino on Ubuntu, many Lotus professionals use this without issue.

For Lotus software licensing, I chose Domino Express, which is charged on a per-person basis and includes the right to use the Lotus Notes client or a browser and Domino server software. The base Express license costs $102 per person and includes all standard Domino features out of the box, including email, calendar, rooms and resources, discussions and some instant messaging features.

However, because this particular legal services company uses several custom Notes applications, they required a full "collaboration" license, which costs $141 per person. Domino Express licensing has a per-person pricing structure; the server software is essentially free.

Lotus Notes Administration Solutions for Performance, Monitoring, Mailbox Management and Synchronization

👁 Installing Ubuntu Linux

1. Download the Ubuntu server software. Use the ISO image to make a bootable CD. (The image is for a CD, not a DVD.)

2. Put the CD into the server's optical drive.

3. Start the server and press **F2** to enter the hardware set up utility. Modify the boot sequence so that your machine boots from the optical drive.

4. Restart the server. It should boot to the Ubuntu installation program on the CD.

5. Accept all default options during installation, including standard guided partitioning and no additional software collections. Remember the name and password of the administrator's account you create.

6. Remove the Ubuntu installation CD and restart your server.

7. Press **F2** again to enter the hardware set up utility. Reset the boot sequence to use the hard drive. You may also want to set the power-fail restart option to *always start*. This is helpful in the event of a power outage.

8. Restart your server. Linux should start from the hard drive and proceed to the logon prompt.

👁 Installing Domino 8.5

After installing Ubuntu Linux, it's time to install Domino 8.5. To do so, follow these steps.

1. Log onto Linux using your administrator's account.

2. Create a group named *notes*, then type **sudo groupadd notes**.

3. Type **sudo useradd -gnotes -s/bin/bash -d/home/notes -m notes**. This creates a user named *notes*, sets the start-up shell, sets the user's home directory, creates the home directory and adds the user to the notes group.

4. Type **sudo passwd notes** to add a password for this user.

5. Insert the Domino 8.5 CD into your optical drive and type **sudo mount /dev/cdrom /media/cdrom**.

6. Next, type **sudo mkdir /dominoinstall** and then **cd /media/cdrom**.

7. Type **ls** to check that you can read the CD. You should see the file *Domino85Linux.tar*.

8. Type **sudo cp Domino85Linux.tar /dominoinstall**. This file is quite large and may take a while to load.

9. Type **cd /dominoinstall**.

10. Next, type **ls -l** to ensure that you copied the file correctly and that it is as large as it should be.

11. Type **tar -tvf Domino85Linux.tar** to check that this is a valid .tar file. You should see a list of all file contents.

12. Type **sudo umount /dev/cdrom**. Eject the Domino installation CD.

13. Type **sudo tar -xvf Domino85Linux.tar** to unpack the .tar file into /dominoinstall.

14. Now type **ip -s addr** to get the IP address for this machine. Be sure to write this address down. The IP address is about the eighth line down and should look something like this: 192.168.1.116.

15. Type **sudo mkdir /local**.

16. Type **sudo mkdir /local/notesdata**.

    Note: You'll need three ID files for your new Domino server:

      ○ Organization certifier
      ○ Administrator ID
      ○ Server ID without a password

    You can reuse existing IDs from your organization or create new ones using the Domino Administrator client. Put the three ID files onto a CD. (Normally, you would do this from a separate Windows computer.)

17. Put the CD containing the ID files into the optical drive of your Linux/Domino server.

18. Type **sudo mount /dev/cdrom /media/cdrom**.

19. Type **cd /media/cdrom**.

20. To ensure that you can read the three ID files that you installed on the CD, type **ls**.

21. Type **sudo cp <file.id> /local/notesdata** three times to copy each file.

22. Type **cd /local/notesdata**.

23. Type **ls -l** to check that you have three ID files, each of which should be fairly small.

24. Type **sudo umount /dev/cdrom**. Eject the ID file CD.

25. Type **cd /dominoinstall/linux/domino**.

26. Type **sudo su**.

27. Type **./install** to launch the Domino installation program.

28. You will be using *console mode*, so answer **Yes** when asked if you're using this mode. Throughout the installation process, you can accept the default settings at almost every step by pressing **Enter**.

    Note: The question about directories for partitioned servers can be confusing. For a regular (non-partitioned) server, answer **0**, which means **No**.

29. Use both *notes* as the username and group name. Change these default settings if they are different.

Note: You will see a message stating, "Domino does not support this system." In my experience, you can ignore this warning.

Near the end of the installation procedure, you will be asked to choose the set up mode. Choose **remote set up**, which is not the default setting.

At the end of installation, Domino will start in remote listening mode, which waits for a remote administration connection.

Performing a remote setup of Domino

After installing Domino 8.5, it's time to perform a remote setup. To do so, follow these steps.

1. On a Windows client, launch the Domino remote setup console. This program is an option when installing Domino Administrator, so you may have to reinstall Domino Administrator if you do not see this program after launching the console.

2. Enter the IP address of your new Linux/Domino server. The remote console program should find the Linux server and proceed with an initial server configuration.

3. At each step of the remote set up, choose the option that allows you to use the ID files that were already installed in /local/notesdata on the Linux machine.

Running Domino manually

Now, let's see the steps to run Domino manually.

1. Go back to the Linux/Domino server, restart it and log on as the administrator.

2. Type **su notes**.

3. Type **cd /local/notesdata && /opt/ibm/lotus/bin/server**.

4. After Domino starts, type **show server** to verify that the server is running correctly.

5. Connect to this Domino server from a separate Lotus Notes client. This will help to verify that the server is visible on your network.

For a production server, you'll probably want to add the feature that enables Domino to automatically start whenever Linux starts. To enable this capability, you can use a script developed by Daniel Nashed. The latest version of this script has been specifically modified to support Domino 8.5 on Ubuntu 8.04.

A final improvement that you may want to make is to use the second hard drive as a data disk so that /local/notesdata is physically separate from the boot disk. I've found that separating data from software can improve the Domino performance.

ABOUT THE AUTHOR:

Chuck Connell
Chuck Connell is president of CHC-3 Consulting, which helps organizations with all aspects of Domino and Notes.

Digg This!   StumbleUpon   Del.icio.us

TechTarget provides technology professionals with the information they need to perform their jobs - from developing strategy, to making cost-effective purchase decisions and managing their organizations' technology projects - with its network of technology-specific websites, events and online magazines.

TechTarget Corporate Web Site | Media Kits | Site Map