

## Ubuntu Desktop Tour

Show desktop – how to navigate (“Start Menu”), how to add/remove programs – thousands in repo!  
Log in with different user to show completely differently configured Gnome.

Demo Open Office, Firefox, Evolution – ask audience what software they want on their desktops.

## What is Free/Open Source Software?

Often when companies release software, they write the code, and then put it into the program file (compile it as an executable, in Windows a .exe file) that the user can run and use the software. If you look at this .exe file, it's nonsense to the user (and to programmers!), you cannot see the code used to write it.

In order to see how they did things, you need to get a copy of the raw code they wrote, the “Source”. Traditionally companies do not want to give this away because they may have spent millions of dollars on development and don't want anyone just coming along and taking all that work, changing it and selling it themselves.

This is a popular business model, much of the software industry – Microsoft Windows, Quickbooks, Photoshop, most software on the shelf hides the source code – or is “Closed Source” and “Proprietary”

The idea behind Free/Open Source Software is that you get this raw code automatically, it's part of the license. This is actually how was software development in the early days of programming, everyone shared and worked on code, often made program file/executables themselves.

Then, of course, companies realized they could make money by keeping the code hidden. Hire programmers to work on things, and just give the consumer the result of this programming.

We've come full circle, because Free/Open Source Software is becoming popular again. Simply because companies want the code.

Why would you want the code? Customize, fix bugs, security review.

But what about the money? Companies spend millions investing in code they develop, how can FOSS work at all and be competitive? Who is doing this work?

- Companies interested in development of the products for their own industry needs: Unisys working on Xen Virtualization project, Sun working on OpenOffice, LinuxForce working on Debian packages that our clients use
- Companies which benefit from supporting the software (business model for Red Hat, Canonical)
- Volunteers who either enjoy the work or are doing development to advance their career
- Hobbyists, college students

Now that I've described what it is where does Linux fit in?

Linux, the Operating System (like Windows or OSX are Operating Systems). Anyone can download the

source code for Linux and customize it.

And a lot of people have, Red Hat, Ubuntu, Debian are all versions of Linux that companies or communities have customized to meet certain industry demands.

Now, I say it's all gaining in popularity, but do you know of companies that are using it? Have you heard much about Linux?

Well, here are some examples of companies using Free/Open Source Software:

Google - Search Engine - The wildly popular Google search engine simply would not be possible without a customized version of Linux fit exactly to its needs. Their "Android" operating system that runs on cellphones from t-mobile is also all Linux.

Amazon – Store, Cloud services

Palm – PDAs and phones – the new Palm Pre phone runs on Linux.

Cisco - Worldwide Printing System - Cisco, a \$21 billion maker of routers that tie the Internet together, signed a major agreement with Microsoft regarding support for Active Directory. As part of that deal, Cisco management declared Cisco an "all Microsoft" company. Unfortunately, Cisco's IT staff couldn't get network printing services to work right through NT servers (and you can't say Cisco engineers don't understand networking, now, can you?). Cisco's worldwide printing services now run on Linux.

Panasonic - Major Electronics Manufacturer - Panasonic's popular DBS business telephone system included a voicemail system based on Windows NT, but it was a bit pricy. To be more competitive in smaller businesses, Panasonic developed a system incorporating ICTI's Linux based voice mail software. The Linux based system has been so well accepted by the customers the Windows based system is being discontinued.

U.S. Army - major military organization - The U.S. Army's Land Warrior program a battlefield information and communications system, developed on and runs Linux due to stability concerns.

Other examples: Travelocity, U.S. Postal Service, Toyota Motor Sales U.S.A., Boscov's Department Stores, Burlington Coat Factory, Raymour & Flanigan – all these big companies found a place for F/OSS.

Additionally, Apache is the most popular webserver software in the world, and it's open source – as of September 2009, 46% of the sites on the internet are using Apache, the next biggest is Microsoft's webserver which has less than half that, at 21%

## Working w/ F/OSS communities to deliver business results

Quick mention of other things that have been discussed thus far.

I wrote an article about this topic for our blog last week following a talk I did at the Central Pennsylvania Open Source Conference earlier this month. My topic at that talk was general Working with F/OSS communities, how individuals get involved, how individuals benefit. But this can be translated into what companies can do, and benefit from.

So, as I mentioned, F/OSS allows you to make changes to the software, fix bugs, add customization. But this doesn't all have to be done in-house! The culture of F/OSS is such that anyone can submit a bug report to the project, anyone can request a feature. If folks involved in the project think it's a good idea they may work on it and you get your feature included or bug report is important enough, get it fixed.

But this goes both ways. Maybe your company has a coder and found a bug and patched the Source Code to fix it for your company – you can submit this code to the project! Benefits: Altruistic, you're helping the community and making the software better for everyone. Practical, you won't need to apply your patch yourself to all software coming down the line in the future, it'll be included! It works out well for everyone.

Working with the community can help you foster development, too. There might be a software package you want to see included in the next release of Ubuntu – you can start development in-house of this software, but you can also ask the community for help! Members of the community may help get things done more quickly, decisions are made collaboratively but your voice is heard. Have a customer that really needs a certain feature? Push hard to get this feature request heard, perhaps take a lead in development, others within the community may help.

By being involved the company can offer diversity and flexibility with software to your company and clients. By being visible in the community, submitting patches and working directly with them you build up a reputation. Documenting accomplishments in articles for popular industry magazines or online may result in business leads, more people interested in working with your company.

## In the trenches: How Remote Responder delivers business results

For IT services, companies tend to have an IT department (or single IT person) on-site handling issues. For a small company employing someone full time (or even part time!) to be on-site to handle this may not make sense, which is where Remote Administration comes in – you hire a company like LinuxForce to do the administration remotely.

On Linux-based systems, all administration can be handled over text-based medium (secure shell) so large amounts of bandwidth isn't required. Even the Linux Operating System installation itself can be completed remotely – someone on-site puts in a CD, issues a couple commands we give over phone or email, and we're able to log in and do the installation.

Services on the network are monitored through two major monitoring tools: Nagios and Munin, which immediately alert the remote administrator to any problems, 24 hour a day, and track server performance over time. The remote administrator may know about and act upon a problem before the client even notices by being able to log in from their own office, no need to drive on site.