



The Gigaphone

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The Shouting Ground Newsletter

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From the cubicle of the President up north ...

Hey! Is it spring yet? Welcome to this edition of the Gigaphone. First, I'm pleased to announce that Shouting Ground has added a new technician to our staff, Mark Baldwin. Mark has extensive experience in Windows, Macintosh and UNIX operating systems. He also plays a mean guitar, so watch out. In other news, it's hard to believe, but on March 4th, 1995, a local bank foolishly gave us the seed money needed to start Shouting Ground Technologies. That was ten years ago, and much has happened since then. We had the dot-com boom, followed by the dot-com bust. Amazon, eBay, Yahoo, and Google are household names. We've gone from eight baby bells back down to two (or three, depending on how you count them). Our daily vernacular has been enhanced (and I use the term loosely) with words like "blog," "spam," and "emoticons." We've been through a lot, and we thank you for your support! We couldn't have done it without you, our valued customers.

*Bryan Holloway,
President*



Sharing Your Printer

It's not unusual to have several computers in the home or office. Two people would find it difficult to share a screen, keyboard and mouse, but it often makes sense to share a printer. Inkjet type printers are inexpensive, but they need to be used occasionally to keep running, and the expendable supplies are costly. Laser printers take a lot of space, and are noisy. Printer sharing allows anybody on your network to use the same printers, and the printers don't have to be located near a computer.

One way to share a printer is to connect it to a host computer, and use the operating system's built-in features to make the printer available to other computers on the network. Windows and Macintosh OS X can both be set up to share a directly connected printer. While this works, it's not the ideal way to implement printer sharing.

- The printer is only available if the host computer is left on.
- Printing from another computer can affect the performance of the host computer.
- The printer must be physically located near the computer.

Most lower end printers designed for home or small office use

don't have a network option available; when they do, it's usually costly. A stand-alone print server is an inexpensive way to share printers without the drawbacks of having them directly connected to computers. At costs ranging from \$30 to \$100, they are available with USB, serial, and parallel ports to accommodate many types of printers. Multiport models allow you to economically network several printers with one print server. If you're using a wireless network, you can select a Wi-Fi print server instead of one with an ethernet port. The details for setting up a network print server are specific to each manufacturer.

They're made by Netgear, Belkin, D-Link, Linksys, Zonet, and others. Generally, you need to assign the print server an address on your network -- it should be assigned statically so it doesn't depend on a DHCP server and remains constant. Attach the printers, and turn on the network protocols you want to use.

Common network protocols include:

- LPR - Most common Unix and network printing protocol.
- Windows - Easiest to use if all machines are in a Windows domain.
- AppleTalk - Macintosh networks running OS 9 and previous versions.
- IPP - Internet Printing Protocol -- new standard for all platforms.
- Novell - Novell network printing protocol.

For best flexibility, use IPP if possible. Some printer drivers may not work with all protocols. For example, you may need to turn on AppleTalk instead of IPP or LPR to use certain printers under OS X. LPR has been used for many years for network printing, and is available on most platforms. To install a printer using IPP or LPR under Windows:

First, install the IPP driver that should come with your IPP print server. LPR is already supported under Windows. If your printer came with an installer, run it to install the printer drivers and software.

Add a printer. Select "Local Printer" in the printer wizard. You will be invited to "add it manually." Add an IPP or TCP/IP port, and continue. Select the appropriate printer from the list. After adding the printer, right click and select Properties. Configure the IPP or LPR port by typing the network address. Windows uses a non-standard LPR port number by default, so check the LPR box (rather than port 9100).

To install a printer using IPP or LPR under Mac OS X:

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Sharing your printer... continued from front

Mac OS X 10.2 and later support LPR and IPP out of the box, however the Fax/Printer Control Panel doesn't have all the flexibility you need to use IPP. You will need to edit/etc/cups/printer.conf to make the necessary changes. Using LPR is very straightforward. Use the Fax/Printer Control Panel to add a printer, select LPR, and select the printer from the list. You will need to configure it with an address. The procedure for IPP is more complicated. A full implementation of IPP would allow you to select the printer from a list of visible network printers, but the OS X implementation isn't completely functional. You can add the printer by making an entry in your /etc/cups/printer.conf file similar to the following example:

```
</Printer>
```

```
<Printer netiP8500>
```

```
Info lp1 on prism.mydomain.com
```

```
Location
```

```
DeviceURI ipp://prism.mydomain.com/ipp/lp1
```

```
JobSheets none none
```

```
PageLimit 0
```

```
KLimit 0
```

```
</Printer>
```

A ppd printer definition file appropriate for your printer should be in the ppd directory. If you can't find one, install your printer by connecting it directly, and then copy the ppd file it installs. In the example above, the ppd is called netiP8500.ppd. Info is the name of the printer. The device URL includes the protocol, address of the print server, and name of the print server queue for the port the connector is attached to. This print server is at prism.mydomain.com, and the port queue name is lp1.

To run LPR protocol instead of IPP, you would substitute the DeviceURI as follows:

```
DeviceURI lpd://prism.mydomain.com/lp3
```

Once your printers are set up, adding the printer to another computer follows the same procedure. If you set up the print server with an address reachable from outside your local network, you can print from anywhere on the Internet.



*Mike Berger,
Director of Engineering*

Feed your Head

With so much information on the web constantly changing such as news stories, online auction listings, and message boards (a.k.a. web logs, or blogs if you're into the whole brevity thing) it can be a chore to make those daily visits to each of your bookmarked sites to get the content you want. Well thanks to a trendy type of XML format called RSS, or Really Simple Syndication, many of your favorite sites may already be enabled to feed your browser with their latest headlines and updates ... without the ads even.

So how do you get started? First you need an RSS news aggregator to gather and display the updated content of each of the sites you want to tune in to. While there are many aggregators to choose from, I find it handy to use the Firefox web browser (<http://www.getfirefox.com>) along with the Sage RSS reader

extension (<http://sage.mozdev.org>). This combination enables a small icon to appear within the browser when viewing RSS enabled sites, making it easy to discover and subscribe to new sites.

Other ways of finding syndications that interest you exist at search sites like Feedster.com, sort of the Google of RSS feeds. There's also a way to generate your very own eBay item search feed at <http://www.rssauction.com>, and a similar generator at Watchcow.net for any product you can buy through Amazon. As more and more sites begin to syndicate their content you will be sure to notice the small orange icons labeled with the text "RSS" or "XML." These icons signify that the site is RSS enabled and are your links to listening in.

Whether you are tracking prices on your favorite Pez dispenser on eBay, checking the latest headlines from Wired News, or just keeping up with your favorite blog, you are sure to appreciate the convenience that RSS brings to your browser. While RSS won't replace your daily newspaper, it will ensure your browser never goes hungry.

*Bill Cline
Technical Assistant*



Easter Spam

Does anyone know where you can get good medication online? Or maybe a really good deal on a mortgage? Spam is not fun, but we all get it. The good news is Shouting Ground is now running a real time blacklist spam filter on our mail server. How this works is a list of IP addresses of known spammers is created and updated multiple times during the day. This will not affect any legitimate mail you are expecting to receive, and will not produce any false positives. This is not a statistical or algorithmic anti-spam filter like SpamBayes that needs to be trained for every individual. It is a centralized database that lists addresses and networks that generate substantial amounts of spam, and prevents the mail from those networks from being delivered. For example, in a three day period, the blacklist blocked 40,000 messages coming from bogus IP addresses.

So, if you need medication, see your doctor; if you need a mortgage, go to the bank. Hopefully, you should now be seeing less of these offers in your inbox.

Also, beginning in April we will be filtering viruses and offering Secure Socket Layer (SSL) support for POP and IMAP.

*Laura White
Assistant Office Manager*



Fun Links

We all get a little bored now and then, so check out these fun links:

Help the flyguy fly. Use the arrow keys.
<http://www.trevorvanmeter.com/flyguy/>

Bunches of Paper Toys
<http://www.papertoys.com/>

An eggventure in Flash
(Needs Macromedia Flash Player)
<http://www.oceandesign.co.uk/doublevolker/flash.html>

And if you really get bored at work:

www.bored.com
(Just don't tell your boss where you got it.)

*Steve Dyson
Technical Assistant*