

Filtered Church/Public Access

AND SCHOOL CAMPUS IS ALSO FILTERED

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OVERVIEW

The church, with associated school that shares an Internet connection, wants both the school and church filtered. The school computers are using ComSifter Identification, the church computers are not.

Note: This workaround does not work with the following legacy ComSifter units: CS-1, CS-8

ISSUE DESCRIPTION

The school computers are setup properly using the ComSifter as a filtering gateway. Additionally, all school computers are using ComSifter user authentication and network administrators are able to see usernames on the ComSifter. For this feature to work properly, port 113 on each computer must be open and ComsiftService or ComsiftConnection (deprecated) must be installed on each client computer. While school computers are typically static and are seldom change, the opposite is the case for church access, where parishioners bring in laptops or other wireless devices.

The issue is the network administrator does not want to be burdened by installing Comsift-Service and opening the firewall port on every parishioner's computer.

SOLUTION

In an ideal world, the church would have its own physical connection to the Internet. If this is not possible due to cost or physical plant issues, Comsift suggests the following solution.

Pre-requisite

- Wireless Router
- Dedicated Computer running ComsiftService (computer can be of minimal specification)

Caveats

- The computers/devices connecting to the church network will all use one filter on the ComSifter.
- The computers connecting to the church network will all be identified as a single username on the ComSifter.

It is assumed that the church computers will be connecting wirelessly. This document will outline how to setup one wireless device. Your physical requirements may require more than one device. If so the setup will be the same, but the IP addresses will change.

You will need a wireless router that fulfills the requirement of your church computers. It is strongly suggested that only wireless routers supporting WPA2 Personal/AES security be used, as all other security methods are trivially hacked.

Wireless Router Setup #1

- The WAN side of the wireless router should be set to a static IP on the same network as the ComSifter. For instance, if the ComSifter were on 192.168.1.x then you would want the wireless router to be set to a static IP of 192.168.1.y (for this example the WAN IP is

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set to 192.168.1.6).

- Set the LAN side of the wireless router to a non-routable network range that is not used on your network (for example 10.0.0.1).
- Turn on DHCP Server on the wireless router and ensure that you have enough available addresses on the 10.0.0.x network.
- Set the wireless router security protocol and pass codes to your requirements.

If all is set up properly, you should now be able to connect to the wireless router and receive an IP address in the 10.0.0.x range. You should also be able to ping devices on your 192.168.1.x network. You will not be able to reach the Internet, as the ComSifter is unable to identify your computer due to the wireless router being between your client computer and the ComSifter.

Dedicated Computer Setup

- You will also need a computer that can be permanently attached and permanently powered on that will connect to the LAN side of the router. The system requirements for this computer can be minimal as it only needs to provide one service—ComsiftService (this can be an old laptop). This computer will be used to answer the identification request from the ComSifter.
- The computer will need to be configured with a username and password (for this example, lets use a username of churchcomputer).
- All sleep and hibernate functions must be disabled, and a permanent static IP assigned (for this example 10.0.0.2).

Wireless Router Setup #2

- After configuring the computer, you will need to add a port forwarding rule to the wireless router. The rule should forward all packets from port 113 on the WAN side to port 113 of the IP of the computer described above (for this example 10.0.0.2).

ComSifter Setup

- The final step is to add the username churchcomputer to the ComSifter and assign it to the filter of choice.

HOW IT WORKS

A user on computer 10.0.0.100 makes a request to google.com by way of the router at 10.0.0.1.

1. The wireless router translates the request from the LAN to the WAN.
2. The WAN side of the router is 192.168.1.6. The router forwards the request to the ComSifter at 192.168.1.1.
3. The ComSifter buffers the request coming from 192.168.1.6, and turns around a makes a request to port 113 at IP address 192.168.1.6 asking, "Who are you?" (What is the username?)
4. The port forwarding rule in the router routes the port 113 packets from the WAN side to the permanently-on computer on the LAN at 10.0.0.2.
5. The ComSiftService, running on the dedicated computer at 10.0.0.2 answers the "Who are you?" with the currently logged in username (churchcomputer).
6. The ComSifter, at 192.168.1.1, thinks the response came from the originating computer in step one above and applies the proper filtering rule for username churchcomputer.