The Ospfrouter Handbook

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Version 0.8

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This Handbook describes Ospfrouter Version 0.8

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1. Introduction

1.1 Changes

This is the first release of OSPF Router and is still in the development stage. So, use this software at your own risk(Although using it won't harm your system!).

1.2 About this Handbook

This user manual gives the user a complete overview of the OSPF Router and describes the basic software features in brief. For more information about OSPF routing protocol, we suggest reading the "rfc2328" included with OSPF Router. The design of this handbook is separated into the following parts:

- Chapter Installation, covers the system requirements, installation and setting up of the OSPF Router.
- Chapter Usage, tells you how OSPF Router can be used.
- Chapter Questions and Answers, covers questions and solutions in general.

For programming beginners and new users of this product we recommend to read yourself into this manual before starting to actually work with the OSPF Router as it covers the usage in depth. The understanding of how things are done the quickest way will save you a lot of time searching for functions and features as it will enable you to make use of this software even more simple.

2. Installation

2.1 How to obtain Ospfrouter

OSPF Router can be found either on the OSPF Router Applications page at http://how.to/ospfrouter or is also available on CD contained in the Project Report. OSPF Router is distributed as a tar file "ospfrouter−0.8.tar.gz" . copy the distribution file "ospfrouter−0.8.tar.gz" in the directory to which you want to install.A good way to report problems is to send the output you get by starting OSPF Router from the console.

2.2 Requirements

In order to successfully compile and use OSPF Router, you need the following programs and libraries which are available on most platforms as distribution packages and thereby can be installed easily.

Required:

- gcc version 2.96 (or compatible), available at http://www.gnu.org
- glibc−2.0 library http://www.gnu.org
- GNU make (or compatible), available at http://www.gnu.org
- autoconf 2.13 & automake 1.4, available at http://www.gnu.org

Operating System: Linux 2.4.x kernel.

OSPF Router was tested with PCQ Linux 7.1(based on Red Hat Linux 7.1). As far as known to the authors, PCQ Linux and Red Hat Linux contain all necessary packages, including enscript as packages or rpm's, so you should have no problem installing the required third−party software. Download the OSPF Router package and copy the source file as `root` into your directory and untar it with

```
# tar zxvf ospfrouter−0.8.tar.gz
```

2.3 Compilation and installation

In order to compile and install Ospfrouter on your system, type the following in the base directory of the Ospfrouter distribution:

```
# cd ospfrouter−0.8
```

The First step is to configure the OSPF Router for using it correctly. To configure change the directory to ospfrouter as follows

```
# cd ospfrouter
```

Change the configuration parameters in the file "conf.h" as required by your underlying network.

Get back to the base directory of OSPF Router distribution. and install the OSPF Router by giving following commands.

```
# ./configure
# make
# make install
```

Since Ospfrouter uses autoconf you should have not trouble compiling it. Should you run into problems please report them to the the author at Ashish Puri, Anurag Damani, Jignesh Patel

3. Usage

3.1 General Usage

To start OSPF Router just type `ospfrouter` from the shell.

To stop OSPF Router use `CTRL+C` key.

4. Questions and Answers

Q. What is OSPF?

A. OSPF (Open Shortest Path First) is the next generation Internet routing protocol. The "Open" in its name refers to the fact that OSPF was developed in the public domain as an open specification. The "Shortest Path First" refers to an algorithm developed by Dijkstra in 1978 for building a self−rooted shortest−path tree from which routing tables can be derived.

Q. Is "OSPF Router" a s/w or h/w router?

A. s/w

Q. How to make "OSPF Router" a daemon process?

A. Well... you don't need to make it as a daemon since it is already a daemon !. You just have to enable it by editing the "main.c" file in the directory *ospfrouter*, uncomment the line containing daemonize() in the main() function, save the file and recompile the software as described in section 2.3 above.

Q. How to configure "OSPF Router"?

A. Change the configuration parameters in the file "conf.h" as required by your underlying network and recompile the software.

Q. I am getting socket error. what should I do?

A. see whether you have superuser privilege or not, you must have superuser privilege to create RAW sockets

if you have more queries then mail your queries at ospfrouter@how.to

5. Copyright