IBM Zone Trusted Information Channel

ZTIC Proxy Operation on Linux Clients

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ZTIC Product Information

ZTIC is developed and marketed by the IBM Zurich Research Laboratory (IBM Research GmbH), 8803 Rüschlikon, Switzerland. For additional information please contact: ztic@zurich.ibm.com.

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Overview

Since the ZTIC connects to the computer as a USB mass-storage device it is supported by a large number of operating systems and a version of the ZTIC proxy for x86 Linux systems is available. The executable binary of the ZTIC proxy for Linux is either contained on the ZTIC drive or it can be obtained from the solution provider. Due to the variety of existing Linux distributions however the ZTIC proxy for Linux is not optimized for a specific distribution but is a generic version which is supposed to run on any Linux distribution. Therefore it does not take advantage of the individual graphical desktop features but is a generic command line tool which needs to be run in a terminal window.

1. Attaching the ZTIC to a Linux system

In order to be accessible by the ZTIC proxy, the ZTIC drive needs to be properly mounted by the oprating system after attaching the device. If a user is logged on the system console, the newly attached device is automatically mounted to '`/media/ZTIC`' on most Linux systems. Please note that the drive is only mounted automatically if a user is logged in at the console and that the mounted directory will get the owner permissions of that user. So the user running the ZTIC proxy must have permissions to access the mounted drive. If the drive has been mounted manually or the mount point differs from the default, the mount point needs to specified to the ZTIC proxy (see section 2.1).

2. Running the ZTIC Proxy

Once the ZTIC is attached the user can run the ZTIC proxy program in a shell in a terminal window.

```
shell> ./zticproxy --help
    usage: ./zticproxy [-mount:<path>] [-proxy:<hostname:port>]
shell>
```

The ZTIC proxy will print instructions and status messages to its standard output.

```
shell> ./zticproxy
    ZTIC Proxy started.
    ZTIC is waiting for your input.
    ZTIC Proxy ready.
    ZTIC Proxy stopped.
shell>
```

2.1 Specifying the Mount Point

The ZTIC proxy assumes the ZTIC drive to be mounted on '`/media/ZTIC`'. If the drive has been mounted to a different mount point, the mount point in use can be specified via the '`-mount:`' option. For example:

```
shell> ./zticproxy –mount:/mnt/ZTIC
```

2.2 Configuring intermediate HTTPS Proxies

In secured network environments you might not be able to connect to the internet directly but need to connect indirectly via a HTTPS proxy. The ZTIC proxy is capable of dealing with such intermediate

HTTPS proxies and supports the *BasicAuth* authentication scheme. In order to use such HTTPS proxies, the proxy server and port must be specified using the '`-proxy:`' option. For example:

```
shell> ./zticproxy -proxy:192.168.1.1:4443
```

When the HTTPS proxy requires *BasicAuth* authentication, the ZTIC proxy prompts the user for its credentials on the terminal. The user name and the password will not be echoed.

```
Please enter credentials for realm 'my secured network':
user:
pass:
```

2.3 Running the Linux Proxy off the ZTIC drive

If the binary of the ZTIC proxy is obtained directly from the ZTIC drive, special care has to be taken before running it. Since most Linux distributions mount removable media devices using the '`noexec`' mount option, the files contained on the drive are not assigned executable permission. If you use one of such distributions, you need to copy the zticproxy program to another location in the file system (e.g. your home directory) and execute it from there. Of course you need to give the file the appropriate execute permission (e.g. `chmod +x`) prior to running it.

3. Document Revision History

Version and date	Author	Description
V 1.0 May 2012	fhr, ort	Initial version.