



ZXTM

IP Transparency module for ZXTM Installation guide

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Introduction

The IP Transparency Module for ZXTM enables support for IP transparency in the software version of ZXTM.

Without IP transparency, all requests that ZXTM passes to the back-end servers appear to come from one of the ZXTM server's IP addresses. The true client IP address isn't directly available to the back end servers. For many applications, this doesn't matter, as the client IP is either of no interest, or can be read from an additional HTTP header called `X-Cluster-Client-IP` that ZXTM adds automatically to HTTP requests. However, where the client IP is required and a protocol other than HTTP is in use, or when the back end application cannot easily be modified to read the IP address from the `X-Cluster-Client-IP` header, ZXTM's IP transparency support can be enabled; this causes ZXTM to send packets to the back-end nodes from the true client-IP address.

IP transparency is available in ZXTM from version 4.0, and relies upon an external kernel module (the IP Transparency Module) that is supplied separately from the ZXTM software itself.

This document describes how to install the IP Transparency Module. It does not document the IP transparency feature itself, please refer to section 2.4 of the ZXTM User Manual for details of how to configure ZXTM to make use of IP transparency.

Requirements

Summary

Operating System	Linux
Kernel Versions	2.6.8.1 – 2.6.27
ZXTM Version	4.0 or greater

Kernel

IP transparency is only supported on Linux kernels with loadable module support enabled. Kernel versions 2.6.8.1 through 2.6.27 are supported; this version of the IP transparency module is not supported (and will not work) on later kernels.

Kernel header files

The kernel header files necessary to build new kernel modules must be installed, and be accessible from: `/lib/modules/<kernel-version>/build`

Compiler and build tools

The same version of the compiler installed as was used to build your running kernel along with GNU make, binutils and module-init-tools. The install script will warn you if any of these are missing.

Kernel capability support

The kernel must have capability support enabled (kernel option CONFIG_SECURITY_CAPABILITIES), either built in to the kernel, or available as a module. If you are using a modular kernel, the 'capability' module must be modprobed before ZXTM is started. The easiest way to ensure this is to add 'capability' to /etc/modules:

```
# echo capability >> /etc/modules
```

Installation

Unpack the IP Transparency Module tarball, and cd into the directory created:

```
# tar -xzf zxtm_ip_trans_kmod_installer-1.6.tgz
# cd zxtm_ip_trans_kmod_installer-1.6
```

As root, run the installation script "install_ztrans.pl":

```
# ./install_ztrans.pl
```

The script will attempt to build and install the IP transparency kernel module, and should give you a helpful error message if it fails. If it succeeds, restart ZXTM:

```
# $ZEUSHOME/restart-zeus
```

where \$ZEUSHOME is the ZXTM installation directory. IP transparency should then be available from your pools' connection management pages.

If the installation fails, please refer to the error message given, and to the distribution specific guidelines you will find in the README file inside the zxtm_ip_trans_kmod_installer-1.6 directory.

Kernel Upgrades

If you upgrade your kernel, you will need to re-install the IP Transparency Module after the kernel upgrade is completed. You can do so simply by re-running the install-ztrans.pl script as above.

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Our web site contains a wealth of information on our products, services and solutions, as well as customer case studies and press information. For more information, please visit <http://www.zeus.com/>.

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The ZXTM KnowledgeHub is a key resource for developers and system administrators wishing to learn about ZXTM and Zeus' Traffic Management solutions. It is located at <http://knowledgehub.zeus.com/>.