



Imhotek IXP

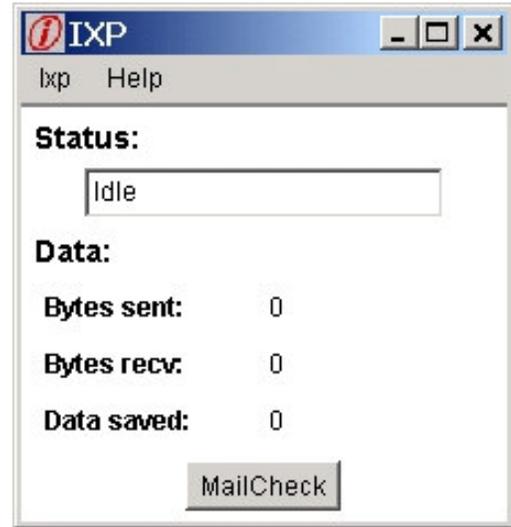
IXP (Imhotek **X**-ccelerator **P**rogram) enables mobile or wireless networks to be used more efficiently, providing a reduction in costs and a more useable system.

IXP is designed to optimise e-mail traffic between client and server. Through its flexible architecture, this can be extended to provide optimisation for almost any TCP/IP application.

IXP works by compressing and optimising the data stream between the client and server, which gives a reduction in traffic of between 20% and 90%, depending on the type of data being transmitted.

Clearly, this equates to reduction of transmission time (and therefore costs) over circuit switched networks, like PSTN, ISDN or GSM, and a reduction in data size (and therefore costs) over packet switched networks, such as GPRS or the Inmarsat MPDS and BGAN networks.

IXP differs from most other e-mail 'efficiency improvers' in that it does not require the addition of client or server *specific* add-ons. This means that it can be used with *any* e-mail server on *any* platform, and can also be used with most combinations of client applications and platforms.



IXP Features

IXP offers:

1. **Seamless** integration with existing mail clients and server platforms.
2. **Simple** configuration of IXP client, which runs on most client platforms.
3. Used on a 9.6 kbps network, IXP can give time savings of up to 38%.
4. Used on a packet data network, IXP can reduce data traffic (and therefore costs) by up to 83%

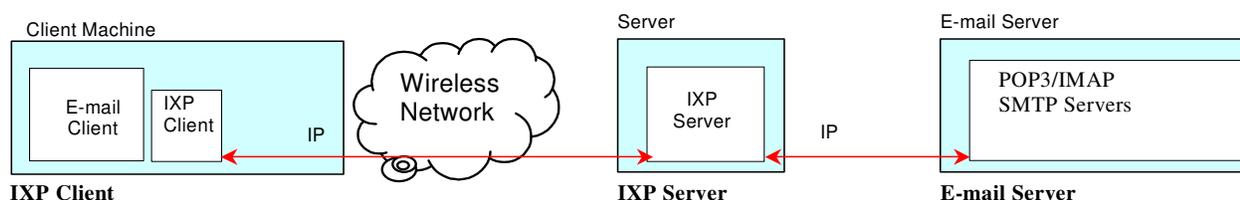
IXP Architecture

IXP consists of both client and server components. The IXP server component can run on Windows or Linux. It should be located on a network with good links to existing mail servers, or it may be located on the mail server itself.

The IXP client is installed on the users machine, alongside the e-mail client. It must be configured with the location of the IXP server, authentication details for the IXP server and the locations of the users e-mail server(s). The users e-mail client must be reconfigured to use the IXP client as a pseudo server.

When the user attempts to connect to their e-mail server, the IXP client connects to the IXP server, which in turn connects to the users e-mail server. Thus, IXP is able to intercept all traffic between client and server for compression and optimisation.

The IXP client can be configured with multiple profiles, in order to allow users to switch between different e-mail servers. It can also be run in transparent mode, allowing the user to quickly revert back to their normal configuration. Easy configuration makes the IXP client simple to deploy to a diverse workforce, who may be running different clients and different platforms.



IXP – Key Features

IXP Server

- Capable of running in two modes:
 - 'Fixed server'
 - 'Request server'
- In 'Fixed server' mode, the server accepts connections from IXP clients, and will only forward these connections to pre-configured destination servers.
- In 'Request server' mode, the client is able to request a server for each of the connections that it makes.
- Both modes require the IXP client to be authenticated with the IXP server, through a username and encrypted password.
- Compression typically gives a 55-85% reduction in effective message size

IXP Client

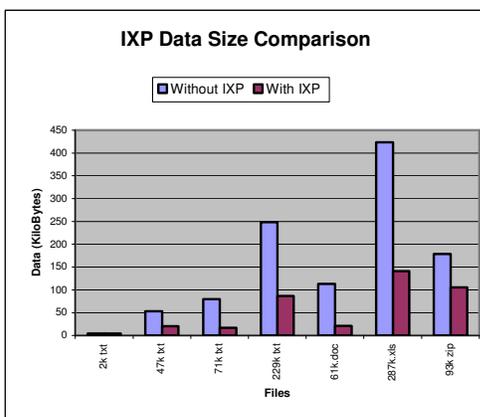
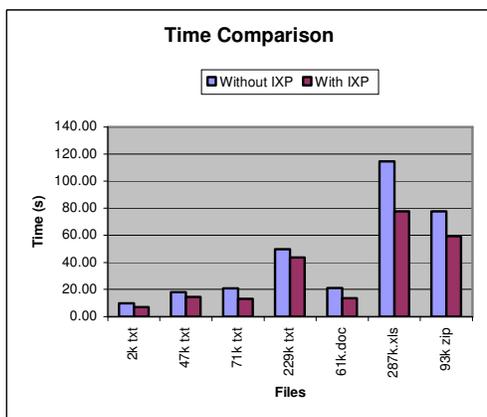
- User can be completely unaware of IXP's operations
- Set-up requires one simple change to the users existing e-mail client configuration

Tested Networks

- Cellular: GSM, GPRS
- Satellite: Inmarsat Mini-M, MPDS, Mobile ISDN, BGAN
- Internet & Intranet: ADSL, LAN, WAN connections
- Dial-up: PSTN, ISDN

Network Tests

The graphs below shows some sample test results for IXP when used with POP3 over a 28.8kbps GSM connection to an Internet mail server. A number of different attachment types have been used to illustrate the range of possible optimisation. IXP will even compress zipped attachments by 24%!



The results show an average time saving of 27% across the tests, with a maximum time saving of 37% (minimum 12%). Identical tests carried out over GPRS show that the data sent and received is reduced by an average of 59%, with a maximum data reduction of 82%.

In real terms, this could amount to a reduction in GSM bills of 27% for GSM data, or 59% for GPRS.

About Imhotek

Imhotek Limited is a privately owned company that specialises in providing Messaging and Knowledge Management consultancy, services and products. Imhotek have experts in all popular messaging systems and a long history of working with mobile data products and networks, both in satellite and cellular markets. For more information visit our web site.

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Technical Specifications

Server

- Runs on Windows NT/2000/XP
- Runs on Linux (kernel 2.4.1 or greater) e.g. RedHat 7.1 or greater
- Can run on same machine as e-mail server, or on a dedicated server machine
- IXP server is compatible with all POP3, IMAP and SMTP servers that meet Internet standards (RFC's)

Client

- IXP client will run on any platform which supports Windows, Palm/OS or can run Java code
- IXP client is compatible with all POP3 IMAP and SMTP clients that meet Internet standards (RFC's)
- Current tested platforms:
 - Windows
 - Linux
 - MAC OSX
 - Psion
 - Nokia 92x0
 - Sony Ericsson p800

Example Configurations

- Outlook or Outlook Express connected to Exchange server
- Outlook Express connected to Lotus Notes server
- Outlook Express connected to Internet POP3, IMAP, SMTP servers
- Eudora connected to Internet POP3, IMAP, SMTP servers
- Palm Pilot connected to IMAP and SMTP server
- Nokia 9210 connected to IMAP and SMTP server
- Psion palmtop connected to IMAP and SMTP server

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