



## **High Level Technical Overview:**

### **Brief Overview**

OnSpeed is a web and email accelerator that accesses data through a local client proxy. This local client proxy in turn accesses a proxy server. OnSpeed achieves performance gains by implementing protocol compression between the proxy server and the local client proxy when a browser requests new data.

OnSpeed combines patented, proprietary data compression technologies with optimisation components. OnSpeed is made up of two components: a scalable, high-performance acceleration server and a lightweight client. The OnSpeed Server retrieves data from the requested external web server using a high-speed Internet connection, then compresses and optimises the content for delivery to the users' browser or email program. OnSpeed uses some of the world's best on-line, lossless data compression algorithms.

One of the most notable advantages of OnSpeed's data compression algorithm is its ability to retain, accumulate and capitalize on very small amounts of prior intelligence. By retaining small amounts of intelligence, the OnSpeed data compression algorithm is able to consistently achieve compression ratios that are far beyond those of any other on-line data compression algorithms available. In an Internet setting, these compression ratios translate into dramatic increases in the end-users' effective bandwidth. Furthermore, these compression ratios result in large reductions in overall bandwidth usage.

### **Full HTTP Support**

OnSpeed employs data compression algorithm to dramatically speed up web browsing (HTTP) for dial-up and wireless users. On the text portion of an Internet website, the data compression algorithm is routinely able to reduce bandwidth requirement by up to 40 times.



A key HTTP performance measure known as Time-to-Text is the time required for the textual portion of the web document to become viewable. Since non-essential graphical and rich-media content does not usually comprise the essence of the web document being requested, Time-to-Text accurately represents how long the user must wait. With the OnSpeed HTTP solution, the Time-to-Text results are dramatically better due to the high text compression ratios of our data compression algorithm and network optimisations. For a standard dial-up modem Internet connection, the Time-to-Text results of the OnSpeed HTTP solution are up to 12 times better than those of dial-up alone.

### **Full Email Support**

OnSpeed also provides significant performance gains in sending and receiving email. With full support for the POP3 and SMTP protocols, OnSpeed applies its unique data compression, content and network optimisations to send and receive email messages and attachments on dial-up, wireless and LAN environments with reduced network load and increased speed.

Email acceleration is integrated transparently, eliminating the need to address any settings or configuration issues prior to using the solution. OnSpeed's email solution is compatible with all email client applications including Microsoft Outlook Express, Netscape Messenger and QUALCOMM Eudora.

OnSpeed accelerates the users email using an LSP on the clients machine, which listens to port 25 and 100 for in and outbound traffic. If OnSpeed finds an LSP already installed, OnSpeed will not install the email acceleration module of the client software.

### **User Control**

OnSpeed also uses leading lossy image quality reduction to further accelerate Internet access. The end user can lower or raise their image quality setting to



further enhance web-browsing access speeds. Of course, the image quality setting can be set to be lossless.

If there is a specific graphic that is of interest to an end user, and they wish to see it at "full quality", the user can right-click on the image and select a "Show Original Image" option. This downloads only the specific image requested by the user; no time is wasted waiting for unwanted downloads.

### **Browser Integration**

The OnSpeed client automatically adds into the web browser http proxy settings a "localhost" listening port, which redirects the users web requests to our client software. The client software then forwards the request to our compression servers. Only web browser requests that are sent to this "localhost" listening port will be sent to the OnSpeed servers. Programs that use the browser configuration to access the internet will use OnSpeed for their internet access.