Google's SPDY will speed up downloads

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(PhysOrg.com) -- As part of its effort to speed up the Web, Google is experimenting with SPDY, a new application layer protocol, that it hopes will speed up the conversation between browsers and Web servers and enable Web pages to download up to twice as fast.

According to software engineers Mike Belshe and Roberto Peon in Google's research blog SPDY (pronounced "speedy") protocol was tested in the laboratory by downloading each of the top 25 websites 10 times. The test environment simulated home network connections, and used a special web server and a Google Chrome browser prototype. The tests indicated SPDY gave page load times up to 55% faster.

SPDY does not replace HTTP, but rather creates a session between the HTTP application layer and the TCP (Transmission Control Protocol)

transport layer and basically augments HTTP. It speeds up web page downloads by using several techniques, including allowing multiple simultaneous HTTP requests per TCP session, request prioritization, and compressing the data to cut the number of packets. It does not replace HTTP headers but it overrides HTTP's data transfer formats and connection management features.

HTTP allows browsers and servers to understand each other and translate data from a Web publisher to a page displayed in a browser. It became the web standard in 1996, but Google's development team think it needs the update to make it faster.

SPDY's performance in the real world still needs to be evaluated. Web pages would not need to be changed for the SPDY protocol to work, but Web servers and browsers would. If it is to be widely used, the new protocol would therefore need to be supported by browsers other than Google's own Chrome, such as Firefox and Internet Explorer. While Mozilla may be willing to support it, convincing Microsoft to do the same may be more troublesome. Previous developments aimed at improving download speeds, such as SST (Structured Stream Transport) and SCTP (Stream Control Transmission Protocol) have not become widely used.

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