### **Welcome to SlipStream Testing Procedures**

SlipStream provides advanced compression algorithms that actually speed up the more you use them. They are based on real life user feedback. In order to test SlipStream Data we need to know a little about Web pages and slow speed connection (dial-up).

- 1. Netscape and Internet Explorer will cache (store) a web page on your computer once you have been to it. Going back to that page should be near instantaneous as you pull it off your computer and not from the internet.
- 2. Some pages have dynamic content (changing a couple of time per day) and will not allow caching of that data on your computer. Going back to that page will always make you go to the original server for that data. It is not always the whole page that can't be cached but in most cases it is the majority of the content.
- 3. Often pages are full of ads that pop up randomly, they have very large (file size) graphic files that can take several minutes on a Dial up connection.

#### The Problem:

When people use the internet from home and a dialup connection they have a number of applications they run. Web – Always reverts to their favorite site; Mail – They want to download all those great messages from friends and family- often sending and receiving attachments. And finally they download video or music – Using real-player or some other software package that speaks directly to a particular server.

With all of his data coming down to the desktop, its no wonder that a slower speed connection like dial-up will typically run so slowly that using the home dialup account can sometimes lead to damaged furniture or broken toes. In fact the further your house is from the main telephone company will even determine if there are any pricier connection services available (ISDN, Cable, DSL).

### The Solution:

Slipstream Data has produced a technology that runs between an internet server and a copy of client software on users desktop. SlipStream's technology is based on "lossless" data compression and network optimization research done by University of Waterloo professors En-hui Yang and Ajit Singh. With earlier applications with the one of the largest satellite makers, we have brought our solution to you.

Between the two pieces of software run advanced compression algorithms that not only compress the data, but keeps intelligence about the connections a dialup user makes. Yes Slipstream actually learns how to go faster. This advance in compression technology even evoked a comment from Jacob Ziv one of the founders of LZ77 (in 1976) compression. Perhaps you heard of some of them (popular versions include LZB, drivespace (DOS 6.22), ARJ, PKZip, LHArc, ZOO, Winzip and Gzip). Jacob Ziv, a cofounder of that landmark code, describes Yang's work as an "elegant and efficient" innovation that has the potential to "significantly outperform" his own famous algorithm. "This is indeed a very significant result," says Ziv.

So now that we know that the dial-up world can be sped up with something a little more recent than 25 year old solutions it becomes important for us to test it out.

## **Testing Method:**

This is a four day test. Why? Answer: going to a site twice, once without SlipStream and once with will have marginal results. In fact you haven't used more than 30% of the products capabilities.

So if you're serious about testing to see what your users will see lets get going. In this test, were going to go to the New York Times web site. Do you know a larger page with more changing content? One that actually has some content on it?

#### Day 1

- 1) Do not install the software for the first part of this test.
  - a. Go to the NewYork Times Web site first thing in the morning.
  - b. Time the length of time (in seconds) it takes from entering in the URL and the page is fully loaded by looking at the progress bar ant the bottom of the browser screen.
  - c. Repeat the above.
- 2) The very same day go to the New York Times Web Site after 4:00pm. Time the amount of time it takes for the page to load completely.
- Finally open up the modem icon on the desktop and record the connection speed in kbs, for example, 28.8kb, 33.6kb, or 52.6kb, etc.

#### Day 2

- 1) First thing in the morning, Load the SlipStream Demo software on your desktop. Login following the instructions provided to you.
  - a. Time the length of time (in seconds) it takes from entering in the URL and the page is fully loaded by looking at the progress bar and the bottom of the browser screen.
- 2) Repeat the above.
- The very same day go to the New York Times Web Site after 4:00pm. Time the amount of time it takes for the page to load completely.
- 4) Finally open up the modem icon on the desktop and record the connection speed in kbs 28.8kb, 33.6kb, or 52.6kb, etc.

## Day 3

- 1) First thing in the morning, Load the SlipStream Demo software on your desktop. Login following the instructions provided to you.
  - a. Time the length of time (in seconds) it takes from entering in the URL and the page is fully loaded by looking at the progress bar ant the bottom of
    - i. the browser screen.
- 2) Repeat the above.
- 3) The very same day go to the New York Times Web Site after 4:00pm. Time the amount of time it takes for the page to load completely.

4) Finally open up the modem icon on the desktop and record the connection speed in kb. 28.8kb, 33.6kb, 52.6kb

# Day 4

- 1) First thing in the morning, Load the SlipStream Demo software on your desktop. Login following the instructions provided to you.
  - a. Time the length of time (in seconds) it takes from entering in the URL and the page is fully loaded by looking at the progress bar ant the bottom of
    - i. the browser screen.
- 2) Repeat the above.
- 3) The very same day go to the New York Times Web Site after 4:00pm. Time the amount of time it takes for the page to load completely.
- 4) Finally open up the modem icon on the desktop and record the connection speed in kb. 28.8kb, 33.6kb, 52.6kb

At the end of the week tabulate your data and will see as so many others have, how SlipStream actually makes their internet connections from 200-600%.