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US Robotics' Total Control Performance Evaluation Press Release

Competitive Bulletin

On April 16, 1997, USR announced that the "Total Control Enterprise Network Hub Out-Performs the Competition" in third party testing. This PR splash is aimed squarely at the MAX™ 4004. The press release claims that testing demonstrated degradation in the MAX 4004's upload performance after the sixth call, and download performance after the tenth call. Of course, it claims the USR Total Control's performance remained constant as the test scaled to 46 calls.

The testing was conducted in January-February by XXCAL, a lesser known lab compared to the Tolly Group and Bradner Labs. The methodology and results have been posted on the USR web site. It should be noted that this is a USR-sponsored test.

Ascend's Response

The XXCAL/USR results contradict the performance results for the MAX and the USR Total Control Hub as reported by the Tolly Group in January 1997. (Refer to the Tolly Group test summary entitled "Ascend Communications, Inc, MAX 4000 Remote Access Concentrator Performance".)

The Tolly Group's tests show that USR Total Control's performance peaked at 16 users, while the MAX scaled very nearly approximating the theoretical limit. For further authentication, the Tolly Group test results were verified by one of USR's own VARs.

The XXCAL/USR tests: Key Observations

The XXCAL/USR test bed used 46 workstations to dial-up a USR Courier modem rack; from the modem rack, two T1s were run through a Teleos Model 60 "telco simulator" which converted the signals to PRI. These PRIs were, in turn, connected to the access concentrator. It is rather mysterious that the XXCAL test has the dial-in calls going through their modem rack instead of placing the calls directly into the concentrator. In the real world, it is hard to imagine any user designing their access networks in this fashion.

There are obviously some problems with the test methodology and the data shown in the report. A closer look at the data indicates that even the USR box is showing severe performance degradation on downloads with more than 20 concurrent sessions. This is not consistent with what USR has claimed in its own press release!

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Problems with the XXCAL/USR test:

- The evaluators used a Teleos simulator, rather than just using a real world set up via a PBX or a telco PRI line. This is not a typical scenario.
- Compression was not enabled in any of the devices including modems, whereas in the real world, this capability would be used.
- The traffic was generated using "selected" Electronic Industries Association (EIA) files rather than a real world traffic mix.
- A RADIUS server was NOT used for authentication.
- The published results do not disclose how (with what device) performance was measured and whether the traffic was bi-directional or not.

Addressing USR's Press Release in the field:

- USR's results can be directly refuted using performance results gathered by the Tolly Group in which the Total Control's performance degradation even using a single PRI was verified by USR's own VAR. Note: Tolly Group's test set-up and methodology closely replicates how it is being used by customers.
- USR used a lesser known Lab, the XXCAL, rather than the industry-accepted Tolly Group or Bradner Labs.
- The reader has no way of knowing how the test results were measured.

It should be noted that the most recent MAX version was not used in these tests. Moreover, the test set-up and methodology used by XXCAL labs is far from simulating a real world environment. These tests do not reflect the performance of the MAX as being used by customers in their networks.

Note: Please watch for the complete USR Total Control Hub Competitive Evaluation Report to be released in upcoming weeks.

Worldwide and North American Headquarters
One Ascend Plaza
1701 Harbor Bay Parkway
Alameda, CA 94502, United States
Tel: 510.769.6001
Fax: 510.747.2300
North American E-mail:
info@ascend.com
International E-mail:
air-info@ascend.com
Toll Free: 800.621.9578
Fax Server: 415.688.4343
Web Site: http://www.ascend.com

European Headquarters
Rosemount House
Rosemount Avenue
West Byfleet
Surrey KT14 6NP, United Kingdom
Tel: +44 (0) 1932.350.115
Fax: +44 (0) 1932.350.199

Japan Headquarters
Level 19 Shinjuku Daiichi-Seimei Bldg.
2-7-1 Nishi-Shinjuku
Shinjuku-ku, Tokyo 163-07, Japan
Tel: +81.3.5325.7397
Fax: +81.3.5325.7399
Web Site: http://www.ascend.co.jp

Asia-Pacific Headquarters
Suite 1419, Central Building
1 Pedder Street
Central, Hong Kong
Tel: +852.2844.7600
Fax: +852.2810.0298

Latin, South America and the Caribbean Headquarters
One Ascend Plaza
1701 Harbor Bay Parkway
Alameda, CA 94502, United States
Tel: 510.769.6001
Fax: 510.747.2669

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