Outsource RAS
Preliminary Test Results

August 16, 2006
Test Requirements

- Using Level3’s RAS service is no different than using NCAR’s RAS. Once a user calls in and authenticates, they will be able to surf the web, however, a VPN client is required to access NCAR resources.

- Dial-up client details
  - Phone number 303-872-8000
  - Set client to use PAP (password authentication protocol) only (i.e. make sure that PAP is the only selected authentication method).
  - Use your UCAS userid/password for the dialup client userid/password.
  - Networking protocol is PPP.

- Users were asked to test over a week long period.
## User Testing Summary

### 7/28 – 8/15

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</table>
Preliminary Test Results

- Connectivity – No user reports of abnormal or frequently dropped calls.
- Quality/Speed – No user reports of poor connections or excessively slow speeds. I was able to achieve 28 to 38 Kbps on a regular basis.
- Authentication – Several users have had issues configuring PAP.
  - MAC pppd
  - Apple Airport extreme

Bottom Line:

Level3’s managed modem connectivity and quality are as good or better than NCAR. All problems experienced during testing were NCAR/user issues.
Additional Testing

- Research Airplanes require static IP for LDM data
  - Level3 does not support static IP. Possible solutions:
    - Dynamic DNS
    - Use VPN client
    - L2TP
  - CHAP / PAP issues?
- Other OS or dialup clients?
  - Tested Window XP, MAC OS X 10.4.7, (I need to verify user’s test setups)
Open Issues

- PAP vs. CHAP
  - MAC issues, others.
- Research Airplanes
  - single UCAS account for satellite phone dialup.
  - Static IP
Selected User Comments

- I setup the Level3 RAS (and VPN) on my Dell Latitude x300 laptop and tested it out from my analog line at work and my landline at home. I've downloaded Symantec and Windows updates, upgraded my VPN, used Meeting Maker Admin, connected to unix servers with SSH2, etc. I left it on overnight and was not disconnected. I have not measured the speed, from what I've noticed it certainly isn't any slower than our own RAS and may be faster. I'm entirely satisfied with its performance. *Heather Harris*

- I used it almost every day of the test, sometimes both mornings and evenings. I experienced no problems or odd behavior dialing up or accessing anything once I was connected. *Karon Kelly*

- So far I do not notice any differences at all. I have dialed up three times. The last time was the evening of 2 August 2006. I was connected 24/7 until some time last night or early this morning. That's nearly one week of continuous service -- about the same length of time as I was getting from NCAR's RAS. I don't know why it disconnects after a time. With NCAR's RAS, connect time varies anywhere from a day or two up to about three weeks. I expect that this new dialup service will be about the same. The connect speed for Level3 RAS was 48.0 kbps -- again, the same as NCAR's. *Andrew Mai*
Next Steps

- Complete testing
- Resolve open issues
- Check references
- Finalize pricing