Ascend

COMPETITIVE FLASH

# 3Com's Announcement of SuperStack II Remote Access 3000 Family

# Summary of Announcement

On December 2, 3Com announced the SuperStack II Remote Access 3000 family, which integrates its HiPer DSP technology (originally developed for 3Com/USR's Total Control Hub) into the existing 3Com SuperStack II platform. The products are expected to be available in January 1998.

3Com is positioning this product as a low-cost solution targeted at small ISPs and enterprise customers.

3Com/USR claims that the SuperStack II will support up to six Access Concentrator 3000s per "stack" – or a maximum of 144 calls (180 in E1 version). The SuperStack also uses the USR HiPer multi-modem DSPs and two other USR-designed modules – the Access Router module and the EdgeServer Pro module. The four WAN modules available in the SuperStack II system are as follows:

- Access Concentrator 3000: one to six modules per SuperStack
  - Based on 3Com's HiPer DSP technology
  - Each module terminates a T-1/E-1/ PRI connection
- Access Router 3000: required module
  - Uses the USR HiPer Access Router card and routing software
- Redundant Power Module 3000 (RPM 3000): required module
  - Contains four independent power supplies
- EdgeServer Pro 3000: optional
  - USR's Windows NT server module

3Com's announcement indicates that the modules can be configured and managed as an integrated system using its Transcend Remote Access Manager application (part of 3Com's Transcend Enterprise Manager network management suite).

The announcement also promises that the SuperStack II will be upgradeable to support virtual private networking and telephony applications, although there is no indication of when, or how, this functionality will be delivered.

3Com has announced the 3000 family will have a starting list price of $250 per port and about $350 per port on a fully configured basis (with HiPer Access routing cards, etc.)

### Ascend Response

Since the SuperStack II product uses the USR's HiPer Access multi-modem chipset and T1/E1/PRI card, as well as the HiPer Access Routing card, it is subject to the same problems and shortcomings as the HiPer Access system:

- Poor delivery record for the HiPer modem modules. The HiPer modem modules for the Total Control hub was announced in May '97, but did not begin shipping until November '97.
- HiPer Access routing cards for the Total Control system are still not shipping
- New, untested routing code: The HiPer technology does not use the original Total Control code, which was licensed from Livingston. The newly developed 3Com/USR code is untested and not proven in the field.
- No date has been set for the release of the E1/E1-PRI version.
- No VPN or voice over IP capability at this time. These are being promised as "futures".
- Proprietary x2 technology and associated performance problems

Compared to the Ascend MAX™ line, the SuperStack II Access System has:

- No field-tested access routing software
- No comprehensive WAN protocol support
- Limited security support (No extended RADIUS, TACACS/TACACS+, encryption, etc.)
- No VPN support
- No Voice over IP support
- No multi-vendor network management capability like NavisAccess™
- No multi-chassis support or load balancing across modems

The SuperStack system has limited scalability

- The SuperStack system is limited to six units (144 modems/stack). The MAXStack capability allows many more number of units to be stacked.

### Selling against the 3Com SuperStack II Remote Access 3000 Family

- **Ascend's MAX line with K56flex technology has a better performance record:** As documented by the Tolly Group, the MAX 4048 w/K56flex has higher throughput for file transfers than the 3Com/USR systems w/X2 modems. In addition, X2 has issues in the field related to V.34 functionality. Recently, 3Com/USR's X2 modems suffered a field setback in terms of maintaining V.34 connection. The problem has been attributed to the implementation of V.42 protocol suite, which provides error correction and compression. [Note: When the V.42 protocol does not function properly it may cause the modems to drop sync]. This problem occurs when connecting with other V.34 modems and not between USR X2 modems. Reportedly, 3Com/USR has admitted to the problem and has a short-term fix which involves disabling V.42 altogether. This fix however greatly reduces the performance and allows for errors to corrupt the data stream. Coupling this performance issue with their proprietary stance, X2 technology poses a great deal of uncertainty.
- **The MAX line has a proven track record and investment protection:** Ascend has the largest installed base of integrated access switches, with over 3.5 million access concentrator ports shipped and over 2.5 million digital modems shipped, and has been shipping high density access concentrators for over three years. Customers can be assured of investment protection because of Ascend's proven commitment to developing scaleable, compatible, high performance platform solutions.
- **Ascend's MAX has the most comprehensive set of security features** including fully-integrated, dynamic firewall capability, VPN, encryption, and extended RADIUS dictionary (over 120 enhancements).
- **Ascend's MAX line supports E1 and E1–PRI for international customers TODAY.**
- **Ascend's NavisAccess provides end-to-end network management -** Ascend's network management is a multi-level, multi-vendor solution that provides total network management that is designed specifically for ISPs, carriers and corporations to support a variety of network access services and devices. NavisAccess provides discovery and mapping, configuration management, performance measurement, and fault monitoring functionality to provide a customized view of the network as a whole, or device by device.
- **Ascend's MAX line is highly scalable and flexible:** Ascend is the leader in providing scalable and flexible access concentrator solutions. The MAX product line provides scalable and flexible configurations from eight to 672 modems, up to four T1/E1s/ PRIs, T3, and Frame Relay connections – covering a wide array of customer needs.
- **The MAX line has guaranteed interoperability** with a wide number of modem manufacturers and carrier networks including carriers in over 36 countries.
- **Ascend has clearly established itself as the only remote access vendor that provides comprehensive bandwidth management features.** Multilink Protocol Plus™ (MP+) and Multichassis MP/MP+ enables a single incoming MP call that requests greater bandwidth to receive additional unused channels anywhere in the stack. MAX Stack reduces the complexity and increases the simplicity of provisioning access to multiple central site WAN access switches.
- **The MAX provides VPN support TODAY**

**The Bottom Line**

- The SuperStack II Remote Access 3000 has a very low value proposition compared to the Ascend MAX product line.
- Ascend has the market-tested features, functionality and scalability that customers need today.

***Please refer to the following competitive marketing documents for additional information:***

1) Competitive Bulletin — 3Com/USR Announces the TotalControl HiPer Access System, July 1997
2) Competitive Bulletin — Ascend MAX TNT vs. USR TotalControl HiPer Access System/Hub, September 1997
3) The Tolly Group Report — Ascend MAX 4048 Remote Access Concentrator Performance, July 1997

These documents are available on the Intranet in the Competitive Marketing section.

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