Does Size Matter?

Clive Longbottom,
Service Director, Quocirca Ltd

The WAN Conundrum

- LAN speeds continue to be at least an order of magnitude better than mainstream WAN
- More workers are working away from the central base
- More centralised control is sought for application management
- More applications are served through web interfaces

- Yet the WAN is slow

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Is it just Bandwidth?

- Many companies have moved from ISDN and leased line to broadband and dedicated IP connections
- "Bandwidth is cheap" has been the mantra since copper and fibre over provisioning at the turn of the century
- Users still find WAN application response poor

- The size of the pipe seems to be only one part of the problem

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What else matters?

- Data latency – just how long does it take for information to go from one place to another?
- Compression – information can be compressed to enable more down the same line
- IP "Chatter" – IP is a noisy technology: cutting down on the chatter will mean that more can be carried in the same bandwidth
- Caching – static or semi-static data can be stored closer to the user so that information is more immediately available
- Packet sizing – standard IP packets are relatively small, and need to be broken and built dynamically. Packet resizing can give better performance

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Anything Else?

- Data prioritisation – ensuring that real-time data gets priority over standard data.
- Application specific issues – Many applications suffer from poor design/engineering at the data transport level
- Technology specific issues – Areas such as tunnelling/VPN can provide problems for WAN acceleration technologies

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