- Actual Performance
  - Network easily meets availability goal 99%
  - No performance problems on switched network caused by lack of network bandwidth, a small number (< 5 /year) problems with mismatch between switched and legacy networks.

Scalability Improvements

Bandwidth upgradable at all levels of bandwidth hierarchy

Table 1:

Location in bandwidth hierarchy	Upgrade path
Desktop to shared 10 Mbps hub	Reduce number of devices/hub; evntually 1 collision domain/device
Desktop to 10 Mbps switch port	10 Mbps switch port upgraded to 100 Mbps shared hub or to dedicated 100 Mbps switch port
Switch to core switch	Upgrade 100 Mbps trunk to 400 Mbps trunk (bonding), plus traffic partitioning via multiple trunks
Switch to router	Upgrade 10 Mbps or 100 Mbps trunks to 400 Mbps trunks (bonding), with further upgrade in 1998 or beyond to 1 Gbps
Switch backplane	Upgrade 1.2Gbps switch backplane (Catalyst 5000) to 3.6 Gbps (Catalays 5500)

Reliability Improvements

- Segmentation into multiple collision domains and automatic partitioning on shared hubs reduces the likelihood of catastrophic failures.
- Redundant power supplies improve reliability of core switches.
- Remote switches connected by redundant trunks to redundant core switches.
- Each core switch has connections to its own router.
- Add UPS support to critical devices.

Switched Network/Structured Wiring - 1997

- Structured Wiring
  - Most major buildings complete: the remainder are more sparsely occupied, older or less used.
  - Reliability of cable plant (switching hub to desktop improved dramatically) - as seen by the decline in problem reports.
  - Moves/changes/installations much easier to provide.

- Switched Network
  - About 65% of devices on the LAN are provisioned by switching hubs.
  - 10 Mbps is still standard to desktop.
  - 100Mbps available and can be provided at reasonable cost: higher density 100Mbps boards becoming available for switches
  - Interswitch trunks run at 100Mbps Full Duplex - with 400Mbps full duplex will available in Fall

SLAC Switched Network - Spring 1997