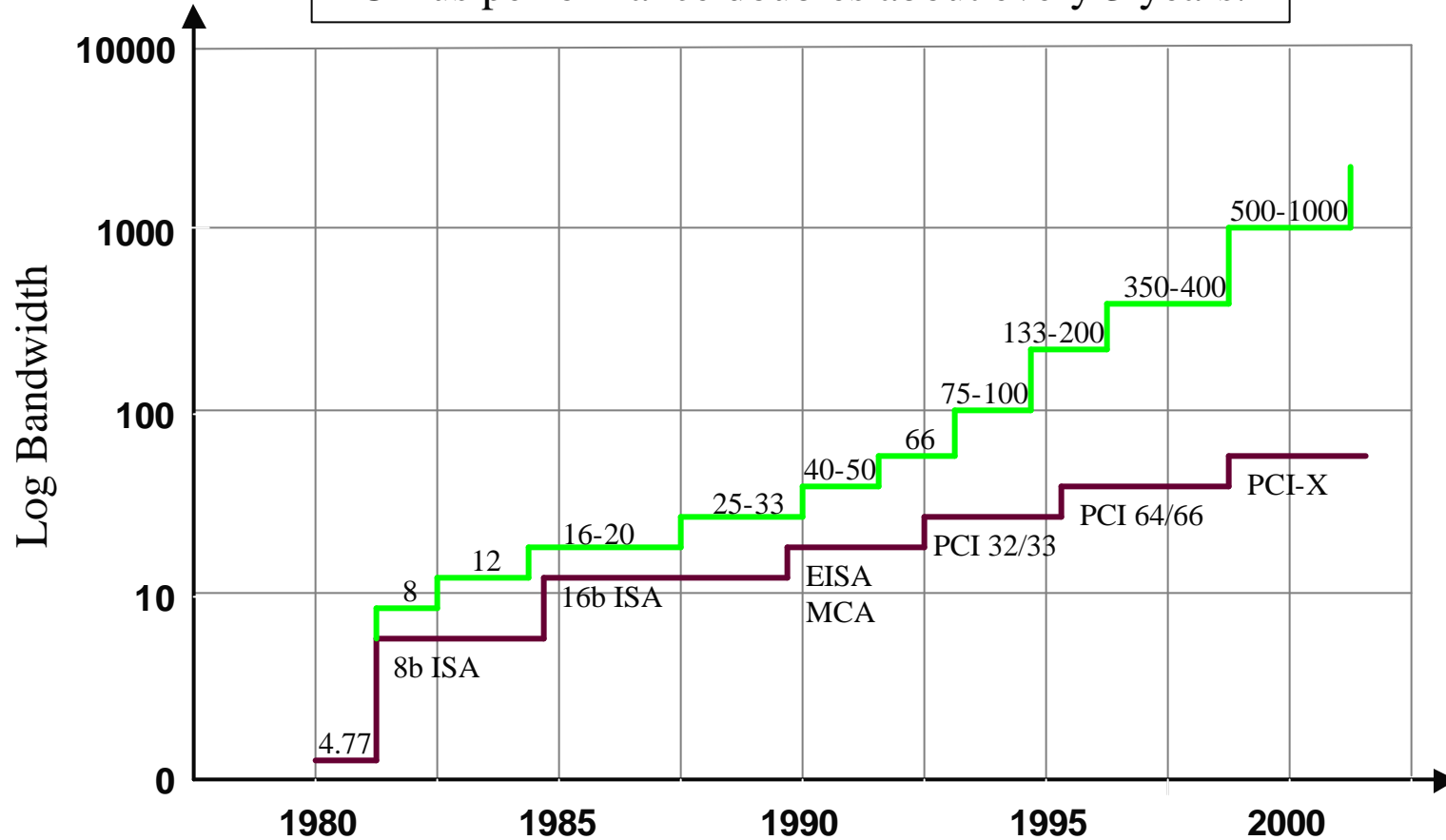
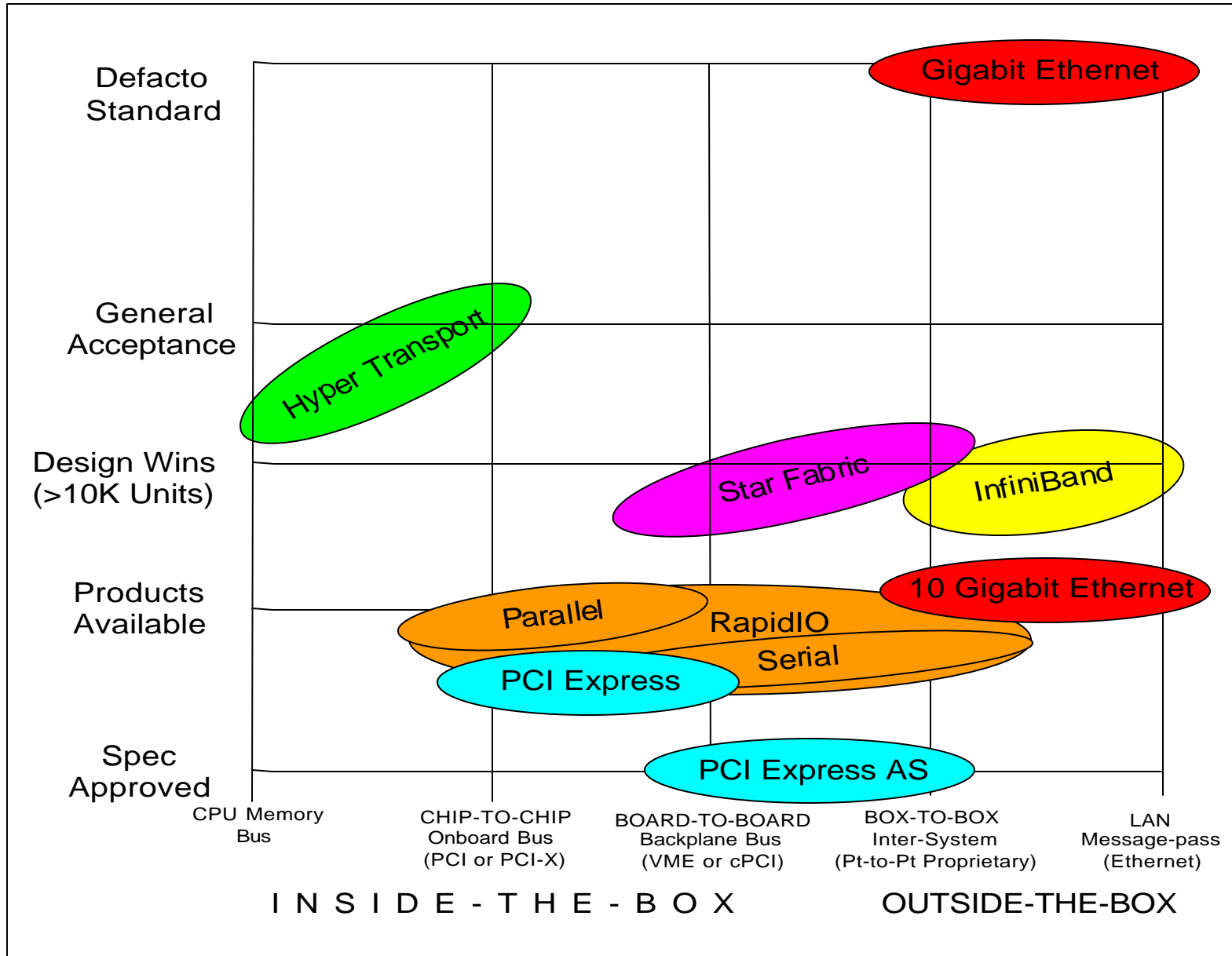


Motivation

CPU performance doubles about every 18 months.
PC Bus performance doubles about every 3 years.





Serial Switched Fabric Technologies

Common characteristics of Technologies ...

- Unidirectional (duplex pair)
- LVDS (Low Voltage Differential Signaling)
- GHz raw link speed (10Gbps by bonding links)
- Open market standards
- Most are VXS (VITA 41) enabled

Differences between Technologies...

- InfiniBand is shipping in quantity, but limited market penetration
- StarFabric is viable, but link speed limited to one-fourth of others
- HyperTransport has achieved acceptance, but constrained to In-the-Box
- RapidIO has both Serial and Parallel, but lacks silicon (some parallel)
- PCI Express has PCI lineage/momentum, but no products until 2004.
- PCI Express Advanced Switching (AS) is not specified.
- Gigabit Ethernet is TCP/IP leader, but stack is CPU intensive (Need TOE)
- 10 Gigabit Ethernet products are now emerging.