

Networking Update

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Agenda

- **UNICOS & UNICOS/mk**
 - New Features
 - Futures
- **IRIX**
 - 6.5 New Features
 - Obsolete Software
 - Futures

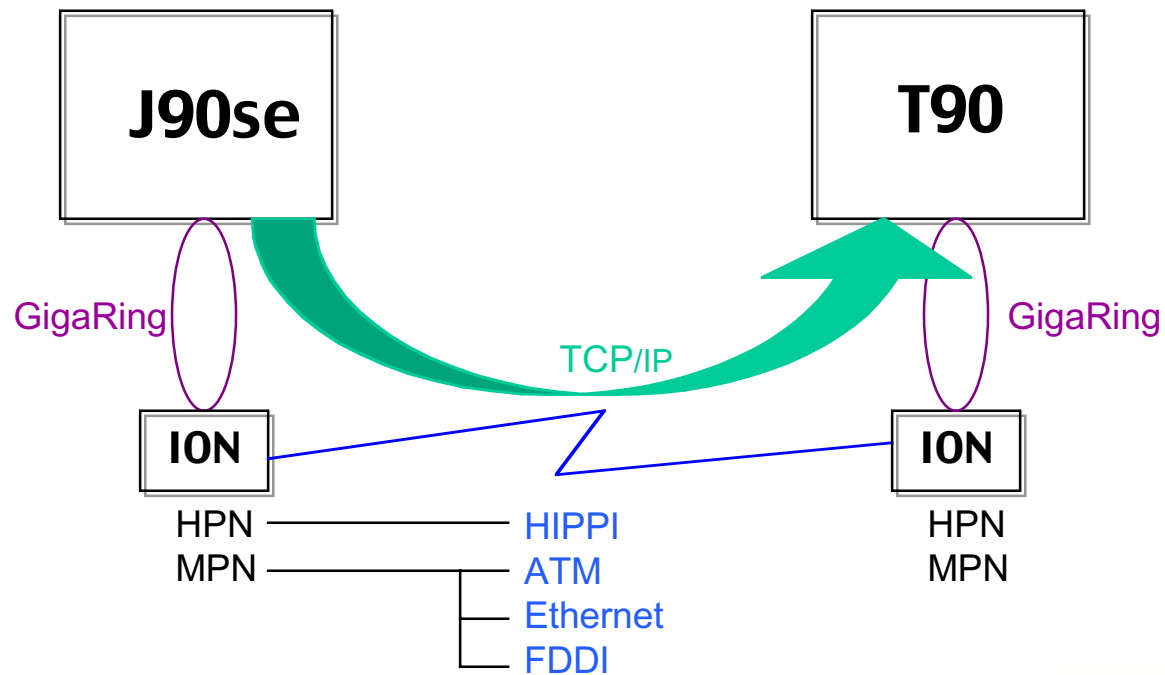
UNICOS and UNICOS/mk

New Features

- **Host-to-Host TCP/IP**
- **Bulk Data Service (BDS)**
- **Socket Server Assistant (ska)**
- **Multiple Netdev Support**
- **HIPPI Enhancements**

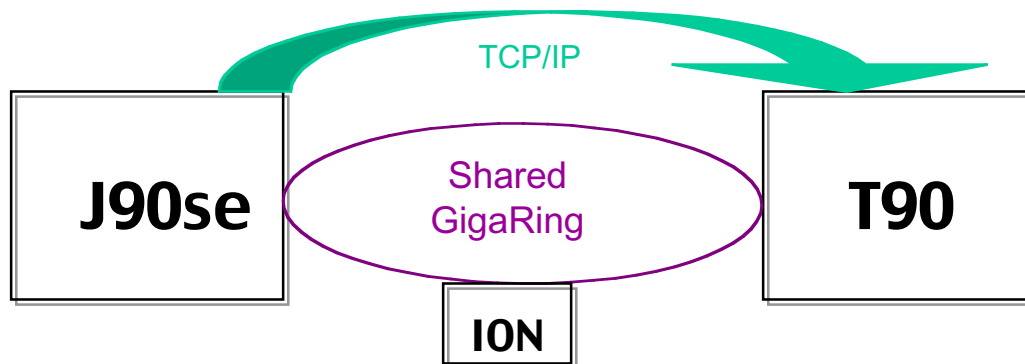
Host-to-Host TCP/IP

HIPPI



Host-to-Host TCP/IP(cont)

GigaRing



Host-to-Host TCP/IP (cont)

Performance

| | |
|-----------------------|-----------------------|
| T90-to-T90 | 191 Mbytes/Sec |
| T90-to-J90 | 60 Mbytes/Sec |
| T90-to-T3E | 60 Mbytes/Sec |
| J90-to-T3E | 50 Mbytes/Sec |
| J90se-to-J90se | 48 Mbytes/Sec |

Nettest -p tcp -b 512k <hostname> 10000 65k

Host-to-Host TCP/IP (cont)

J90se-to-J90se

| Connection | Latency (ping) | Single Stream | Two Stream |
|------------------------|-------------------|----------------|----------------|
| Shared GigaRing | 2.5 - 3 ms | 48 MB/s | 61 MB/s |
| HIPPI | 5.1 ms | 30 MB/s | 49 MB/s |

Nettest -p tcp -b 512k <hostname> 10000 65k

Host-to-Host TCP/IP (cont)

- **UNICOS 10.0.0.2** **5/98**
 - T90-T90 testing not planned, contact Software Product Support if needed.
 - All other UNICOS-UNICOS combinations supported.
- **UNICOS/mk**
 - UNICOS-to-UNICOS/mk supported in 2.0.3. **5/98**
 - T3E-T3E will be supported in 2.0.4 **11/98**
- **SWS-ION 3.9** **6/98**

Bulk Data Service (BDS)

- **Significant Performance improvement over NFS.**
 - Configuration and loading patterns determine performance.
 - J90se-Origin 24MB/s
- **Requires High Speed Network running IP protocol**
- **Supporting Releases**
 - UNICOS 9.3
 - UNICOS/mk 2.0.3



HIPPI

- **Network Disk**
- **HPN-1 Mixed Mode**
 - HPN-1 supports 2 100MB/s channels.
 - Mixed Mode allows one channel to be used for network traffic while the other is being used for disk I/O.
- **Both features are supported in SWS-ION 3.9.**

Multiple Netdev Support

- **Single Socket Server and netdev were required to be on same OS PE.**
- **Creates a networking bottleneck and overloads single OS PE.**
- **UNICOS/mk 2.0.3 supports multiple netdevs, one per GigaRing interface.**
- **Distributes netdev load to multiple PEs.**
- **Allows for netdev to be closer to GigaRing interface for better performance.**

Socket Server Assistant (ska)

- **Single Socket Server on OS PE is a networking bottle neck.**
- **ska distributes much of the Socket Server load to CMD PEs.**
 - socket server read/write processing is performed by ska.
- **Two simultaneous streams are ~25% faster with ska.**
- **Supported in UNICOS/mk 2.0.3**

UNICOS and UNICOS/mk Futures

- **Port BDS 2.1 to UNICOS**
- **Introduce DFS on UNICOS/mk**
- **Investigate OC-12 solution**
- **Investigate GigaBit Ethernet solution**
- **Investigate Performance Improvements**



IRIX 6.5 New Features

- **Simple Network Management Protocol (SNMP) v2**
- **HP-UX MIB/SNMP provides network manageability in enterprise environments (Origin systems only)**
- **Unified Name Service now supports yp services**
- **NIS+**

IRIX 6.5 Obsolete Software

- EISA Token Ring
- GIO Token Ring
- VME Token Ring
- GIO Sync Serial
- ISA Sync Serial
- IRIS 3270
- IRIS 5080
- OSI
- SNAserver