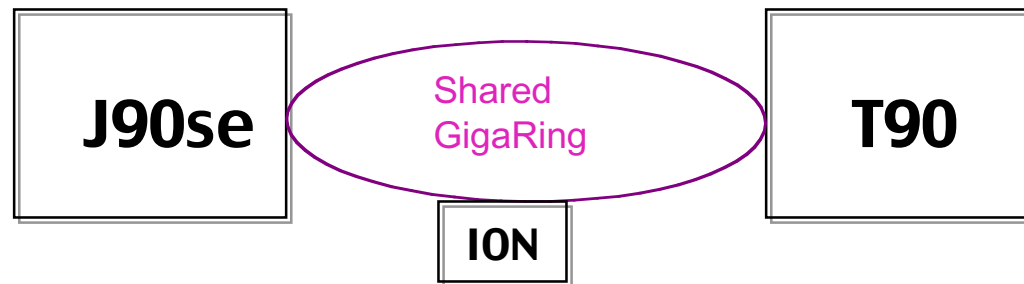




Shared GigaRing Environments

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GigaRings



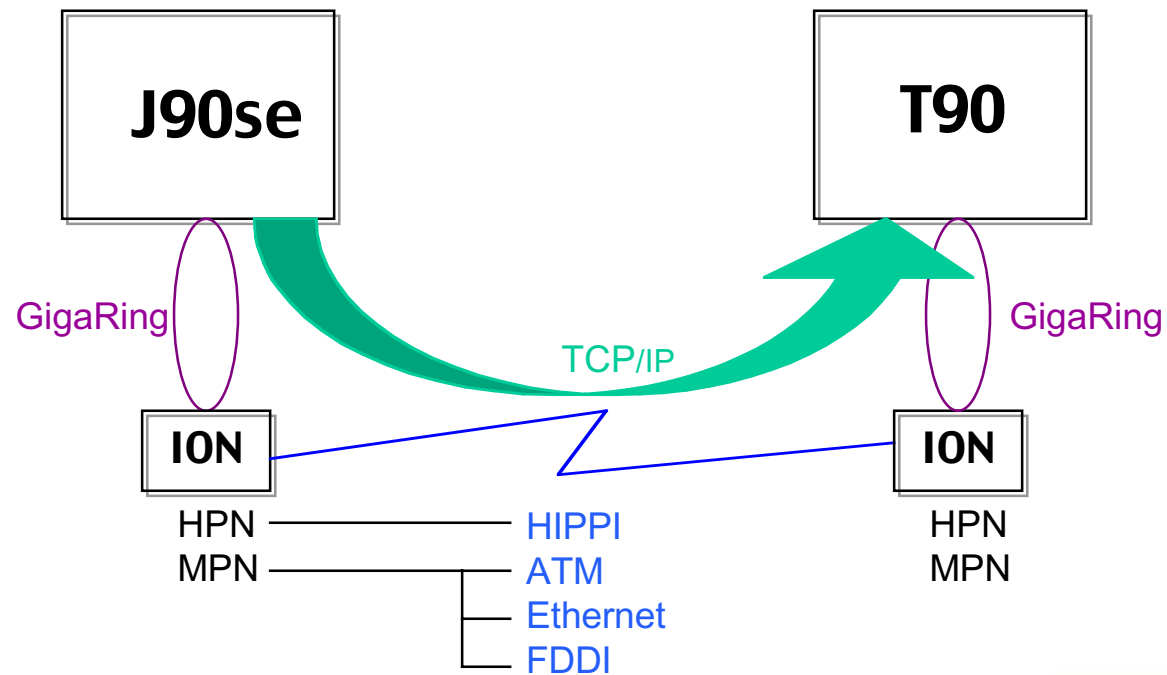


Agenda

- **Host-to-Host TCP/IP**
- **Shared GigaRing Topology**
- **SWS Considerations**

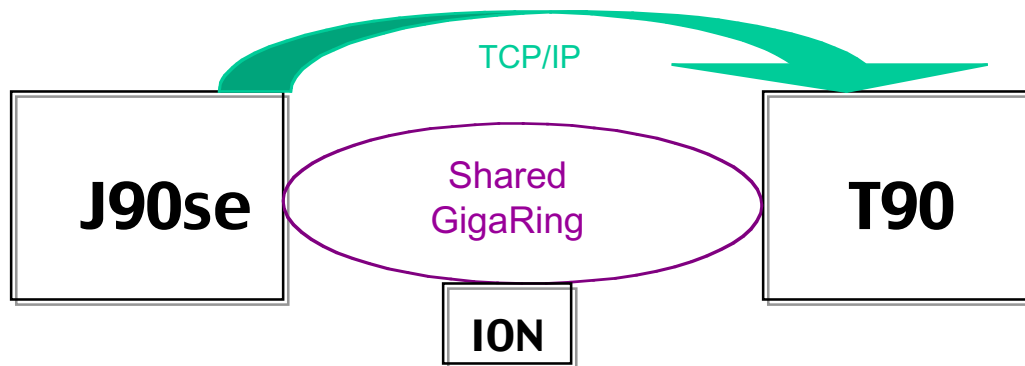
Host-to-Host TCP/IP

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 <j90se-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 <j90se-hostname> 10000 65k
```

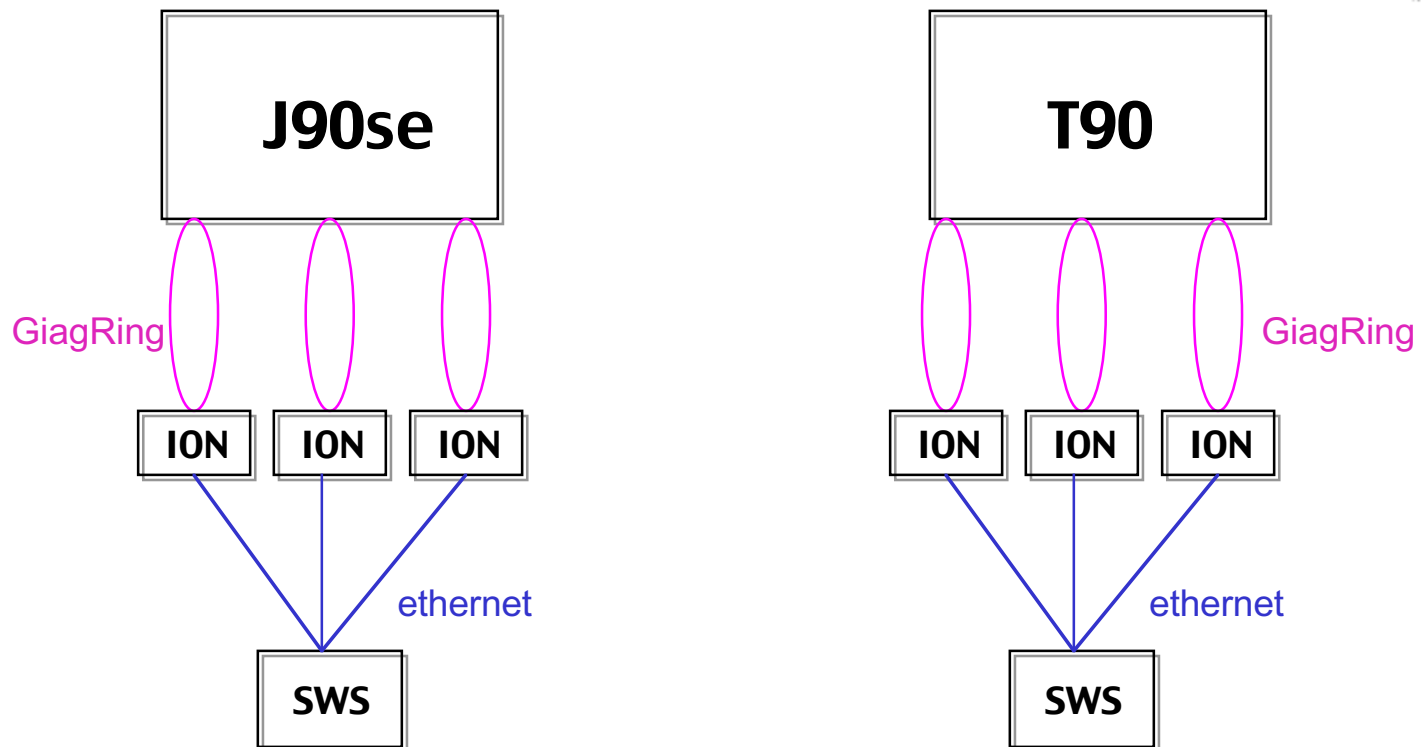
Host-to-Host TCP/IP (cont)

- **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**

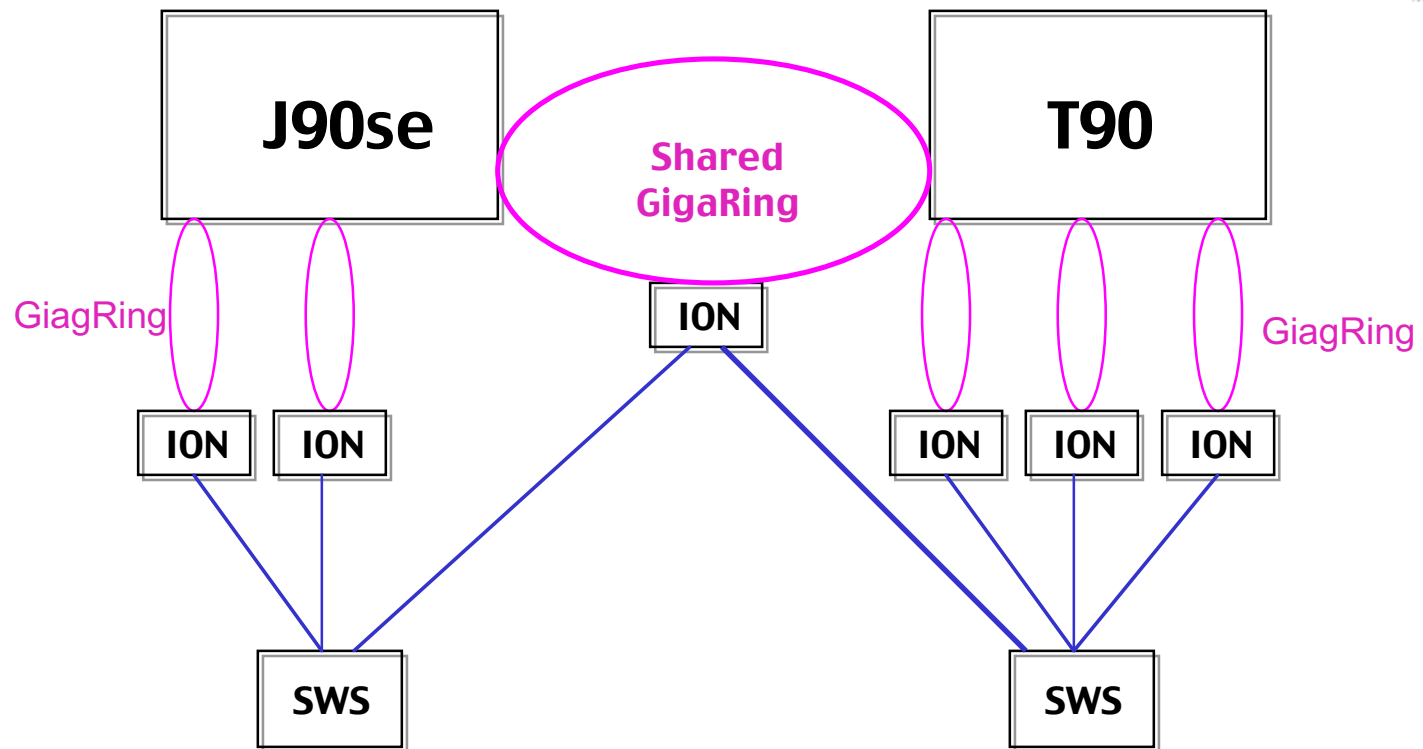
Shared GigaRing Topology

- **A quick Shared GigaRing example.**
- **Topology Consideration**
- **Real Customer example.**

Basic Existing Environment



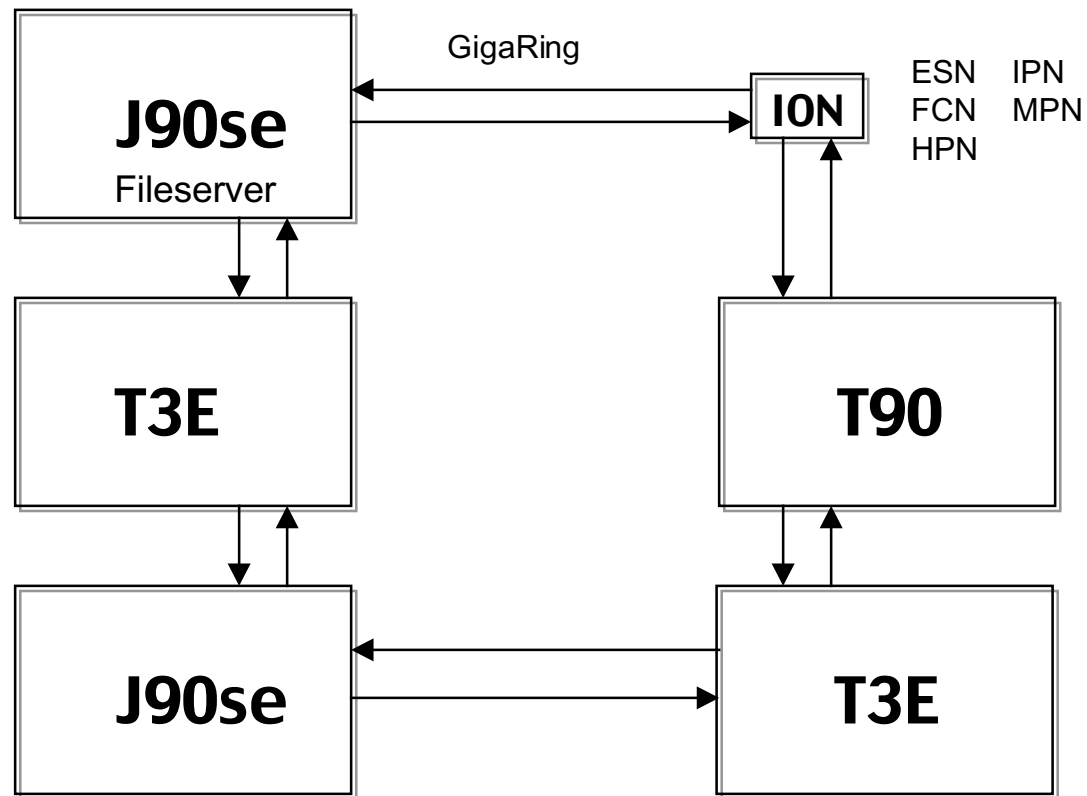
Shared GigaRing



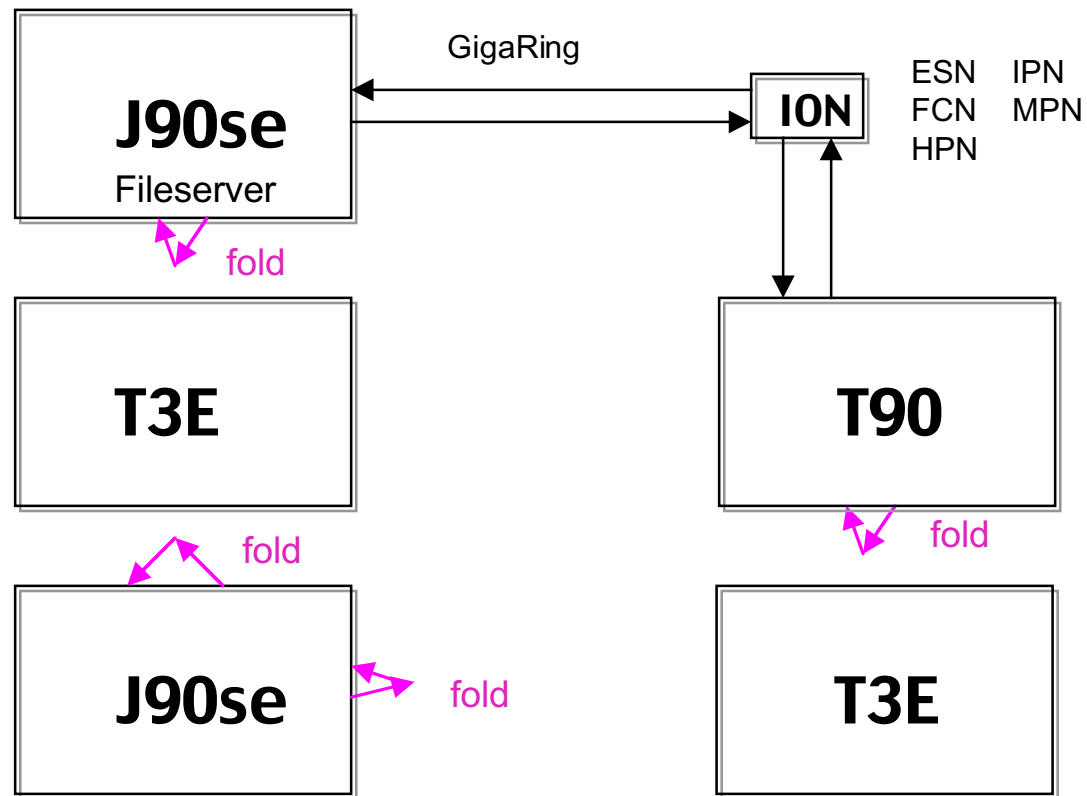
Topology Considerations

- **There are many topology issues to consider when configuring a Shared GigaRing. A couple considerations:**
 - Use a GigaRing node on one of the mainframes that is not in use.
 - Nodes on a GigaRing need to be folded out before powering off if the GigaRing is to remain functional.
 - Consider maintenance activities.
- **Please read the Shared GigaRing CUG paper for more details.**
- **Contact SPS for additional assistance.**

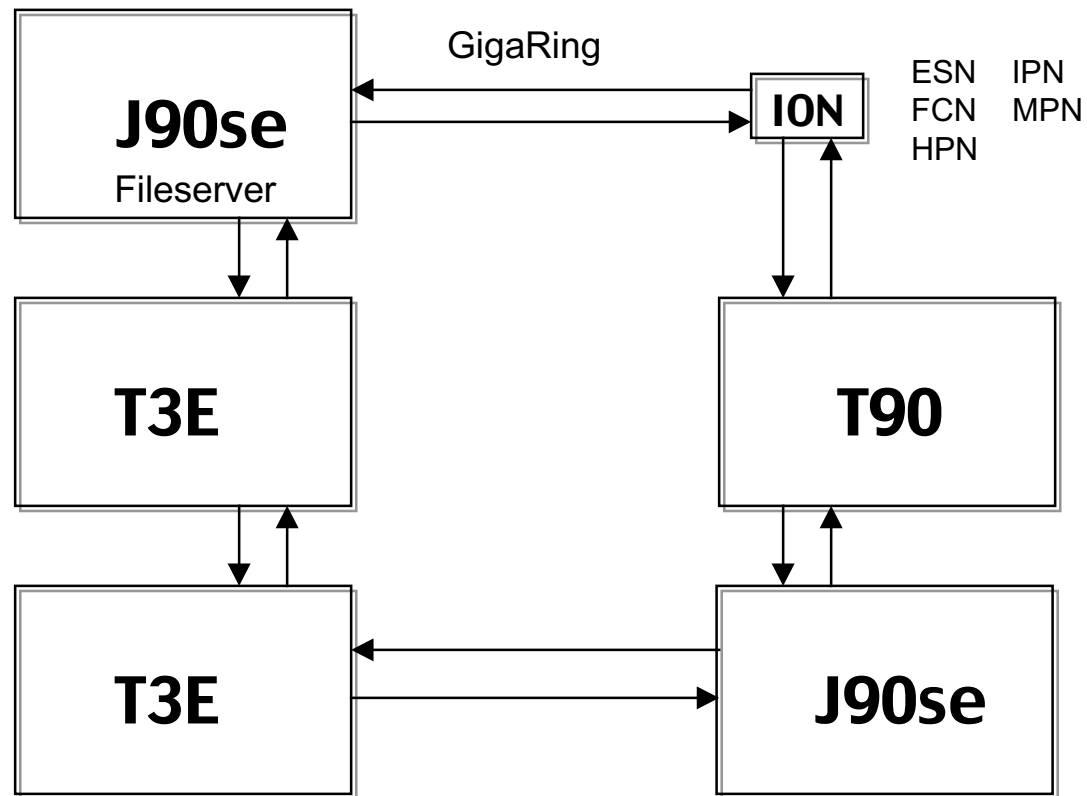
Host-to-Host TCP/IP



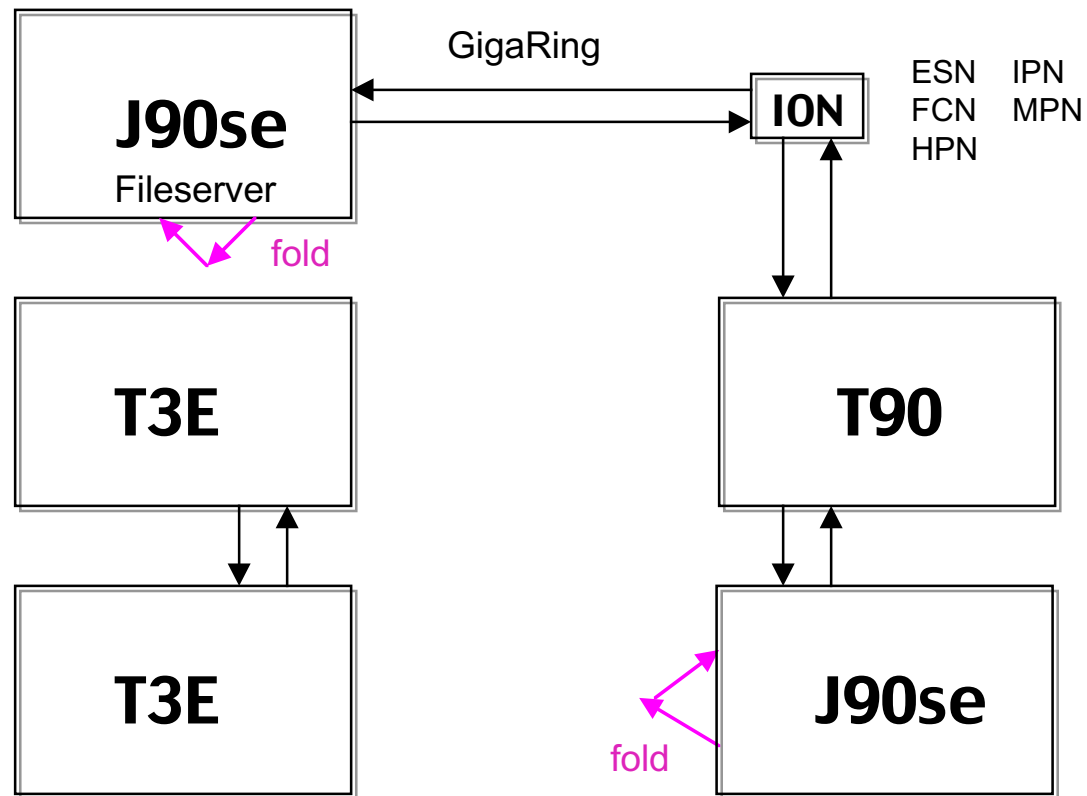
Disjoint GigaRings



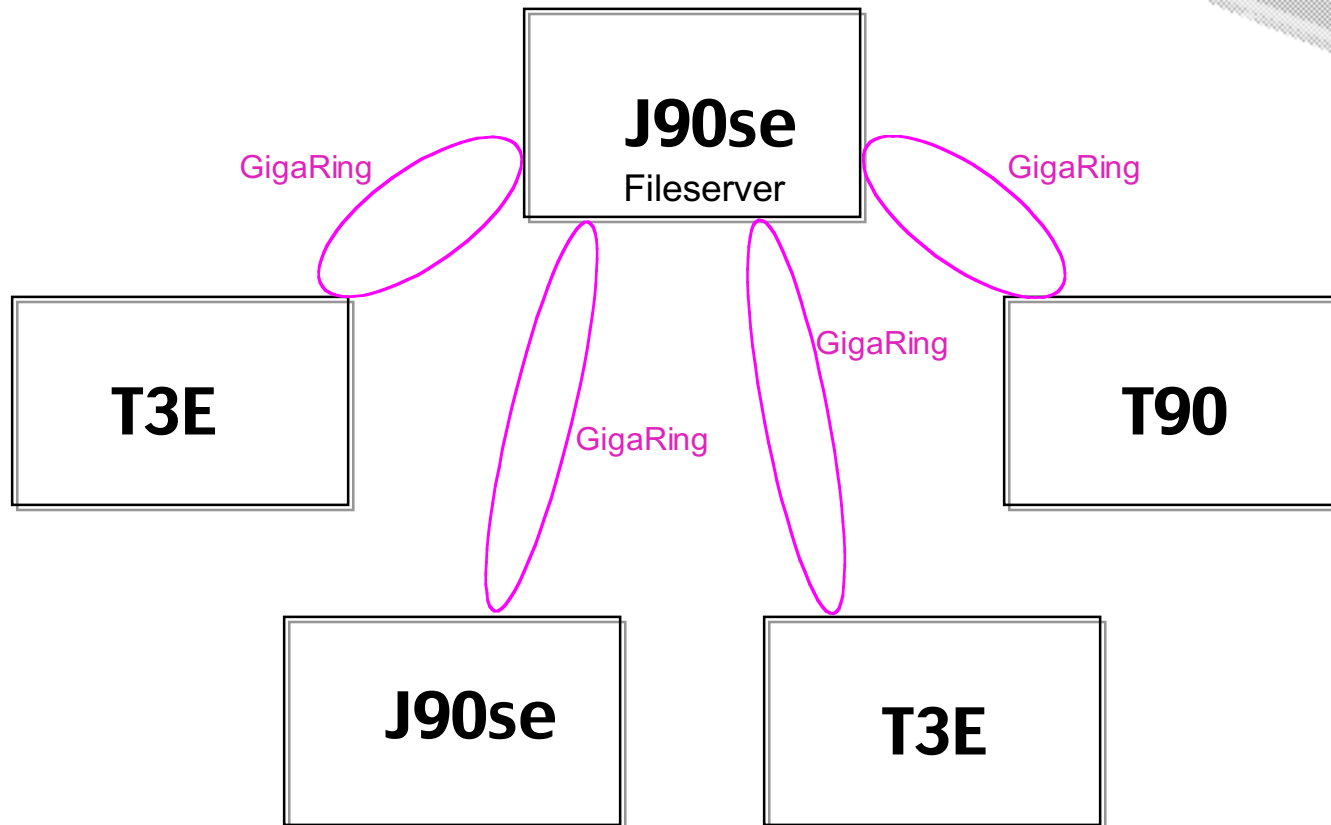
Another Approach



Maintenance Result



Yet another approach





SWS Considerations

- **Multiple Mainframe Support**
- **Topology File**
- **Operational Commands**

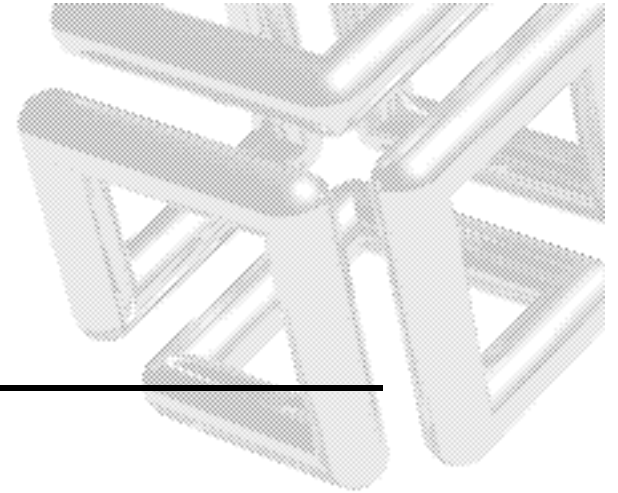
SWS Multiple Mainframe

- **SWS currently supports multiple mainframes.**
- **Issue is the load placed on the SWS.**
- **Do not share a T90 SWS with other mainframes.**
- **Single SWS running 6 J90se systems in house.**

SWS Commands

- **bootsys (with no options)**
 - Parse topology file
 - Boot system components in the following order
 - Halt all mainframes
 - Boot all IONs
 - Initializes all GigaRings
 - For each mainframe
 - Boot mainframe
 - Initialize all the mainframe GigaRing Nodes.

Topology File



- **Recommend single topology file**
 - Does not require duplication of information.
 - Multiple files require abstract keyword requirements.
- **Duplicate the topology file on all SWSs.**
- **Define Regions in the topology file.**
 - Region for each mainframes non shared GigaRings.
 - Region for shared GigaRings.
- **Operation command impact.**

SWS Considerations

- **Bootsys by default boots the complete system**
 - May want to only boot one of the systems.
 - How will the shared GigaRing and IONs be used.
- **Recommend writing scripts to boot portions of the system.**
 - Bootsys hostname list-ions list-rings
- **Investigating easier operational options.**

Summary

- **Shared GigaRings are currently supported.**
- **Host-to-Host TCP/IP is supported on most platforms**
- **SWS currently supports multiple mainframes.**
- **There are many issues to take into consideration when changing a topology to use Shared GigaRings.**
- **Recommend reading the CUG paper and working with SPS.**