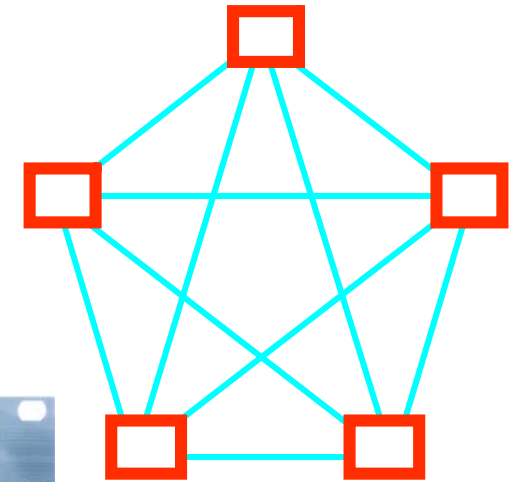


4Links



New capabilities
in 4Links' Gbit Ethernet based family of
modular test and simulation equipment for

SpaceWire

Presented by Kazuto Matsui, Prominent Network

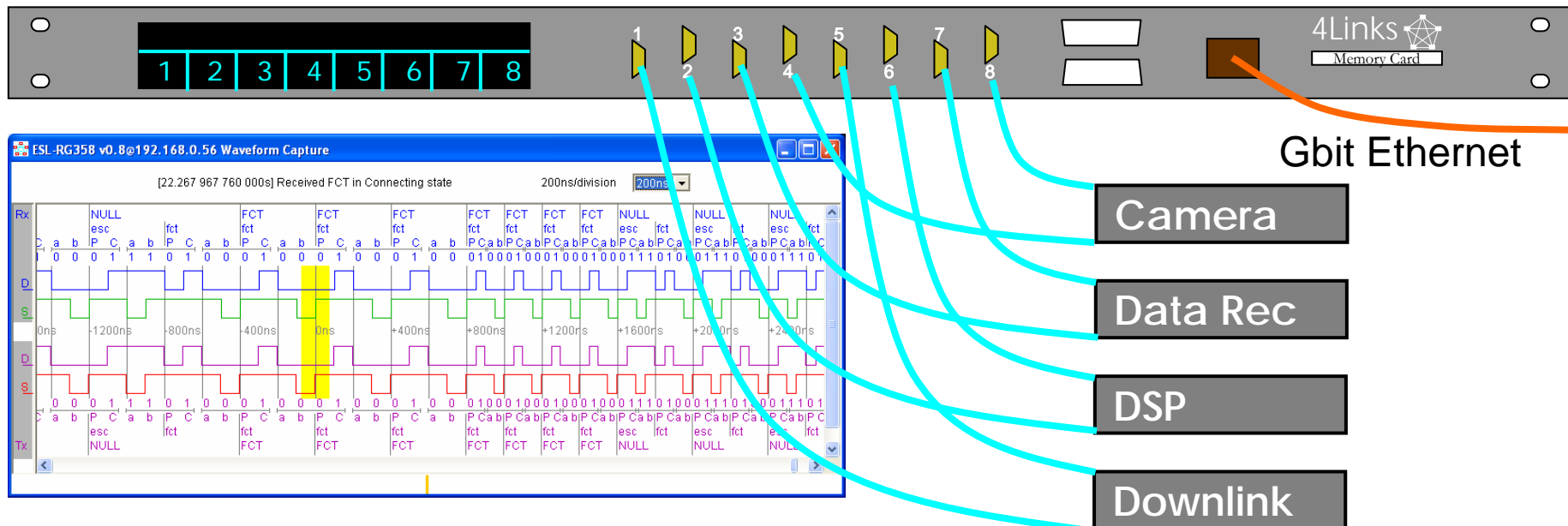
Develop & debug

SpaceWire chips, boards & instruments

Ease of use & test coverage for detecting bugs quickly.

Point-of-failure diagnostics help to fix bugs

& keep to schedule

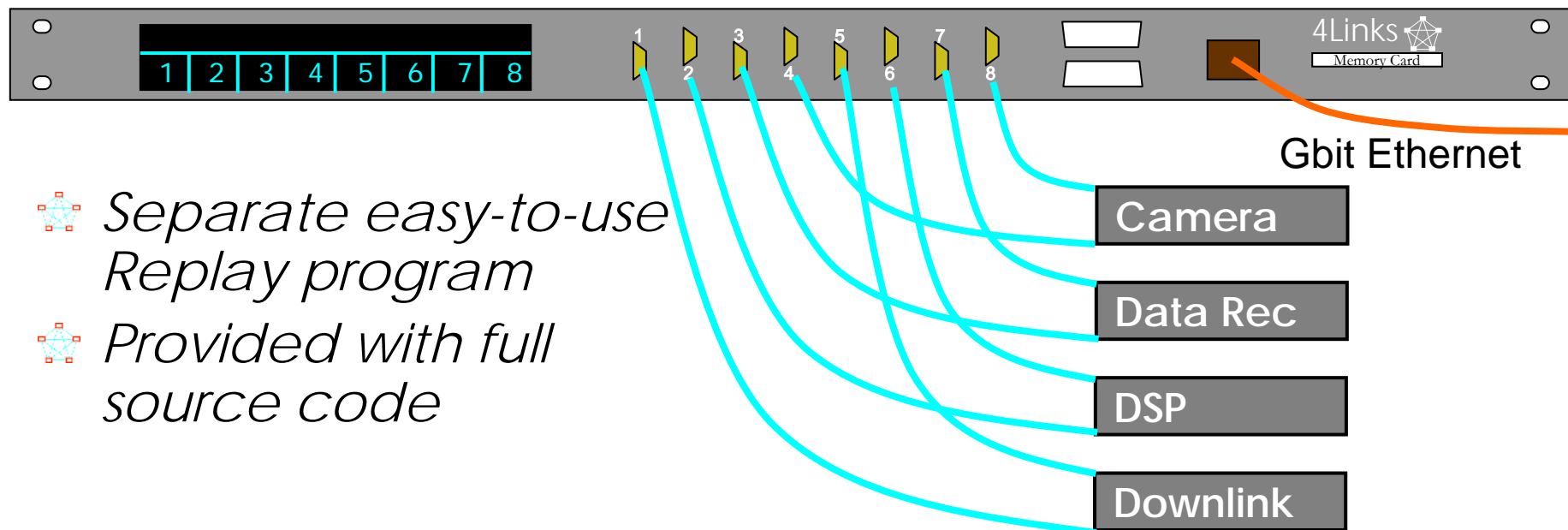




 *Real-time, time-accurate waveform*

Record and replay

Black-box *SpaceWire* traffic

*Record traffic to disc,
replay straight or directions reversed
to enable simulation of either end of the link*

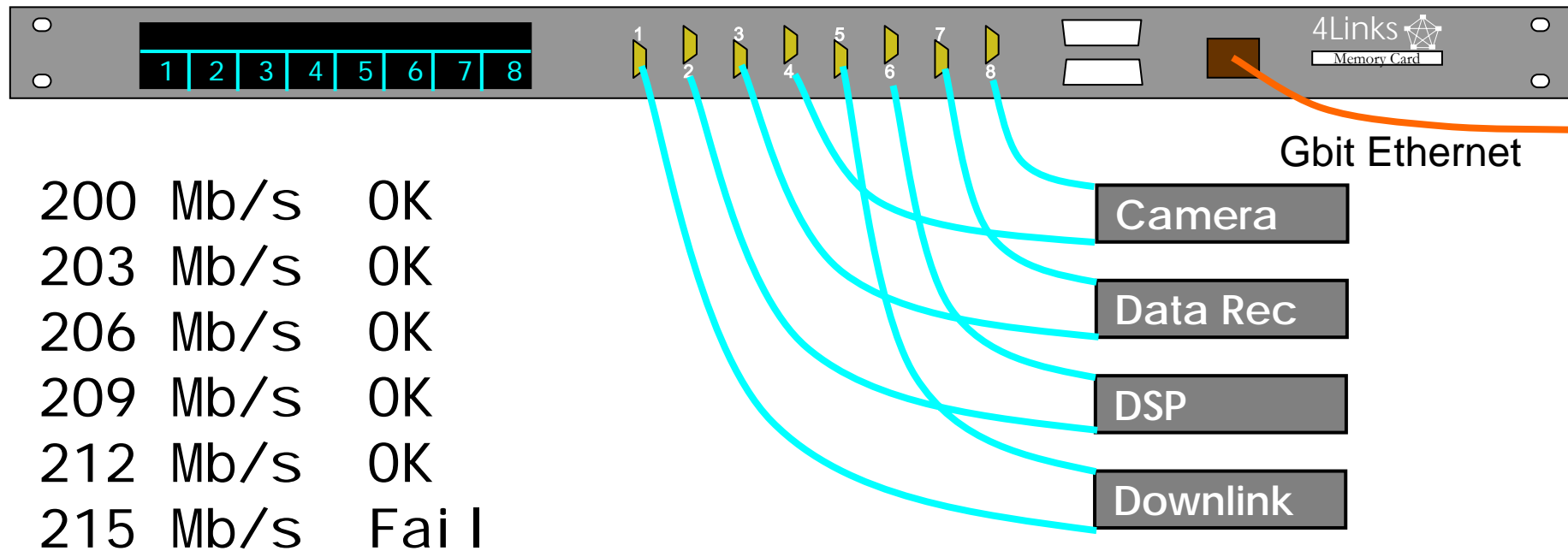


-  *Separate easy-to-use Replay program*
-  *Provided with full source code*

Measure and characterize

SpaceWire links

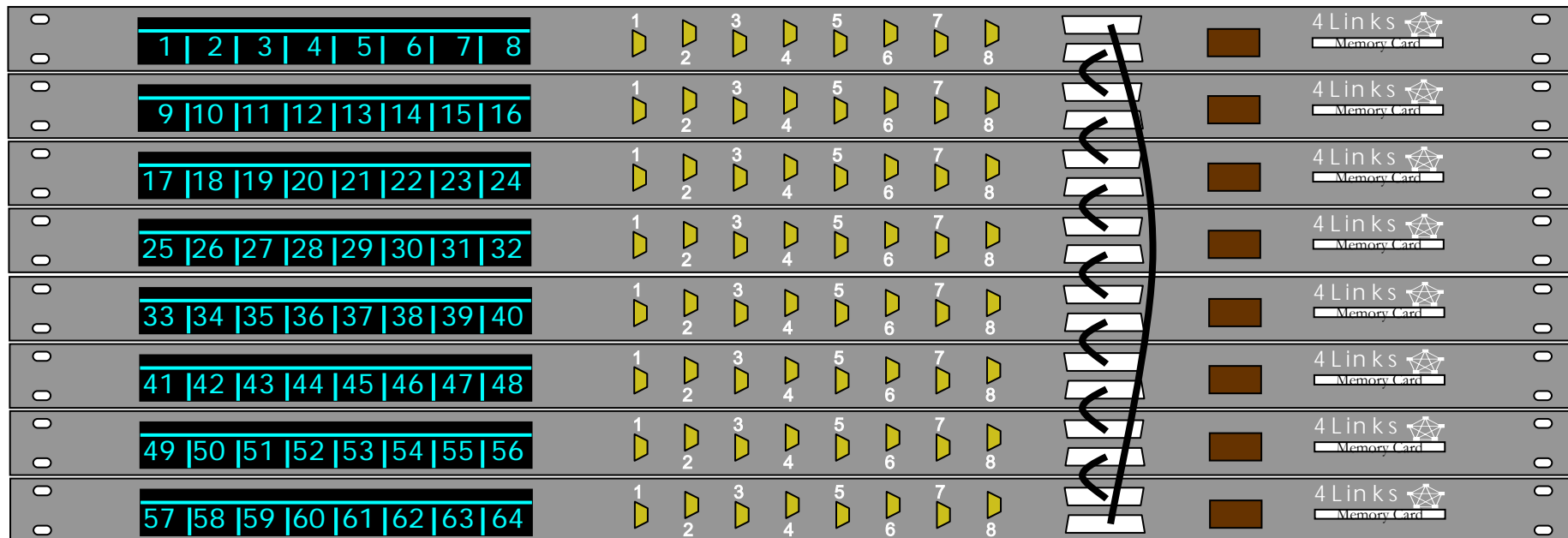
*Measure transmit speed, timeout delays, AND
Characterize receivable data rate of EUT (EXPAND)*



Validate & integrate

SpaceWire instruments and routers

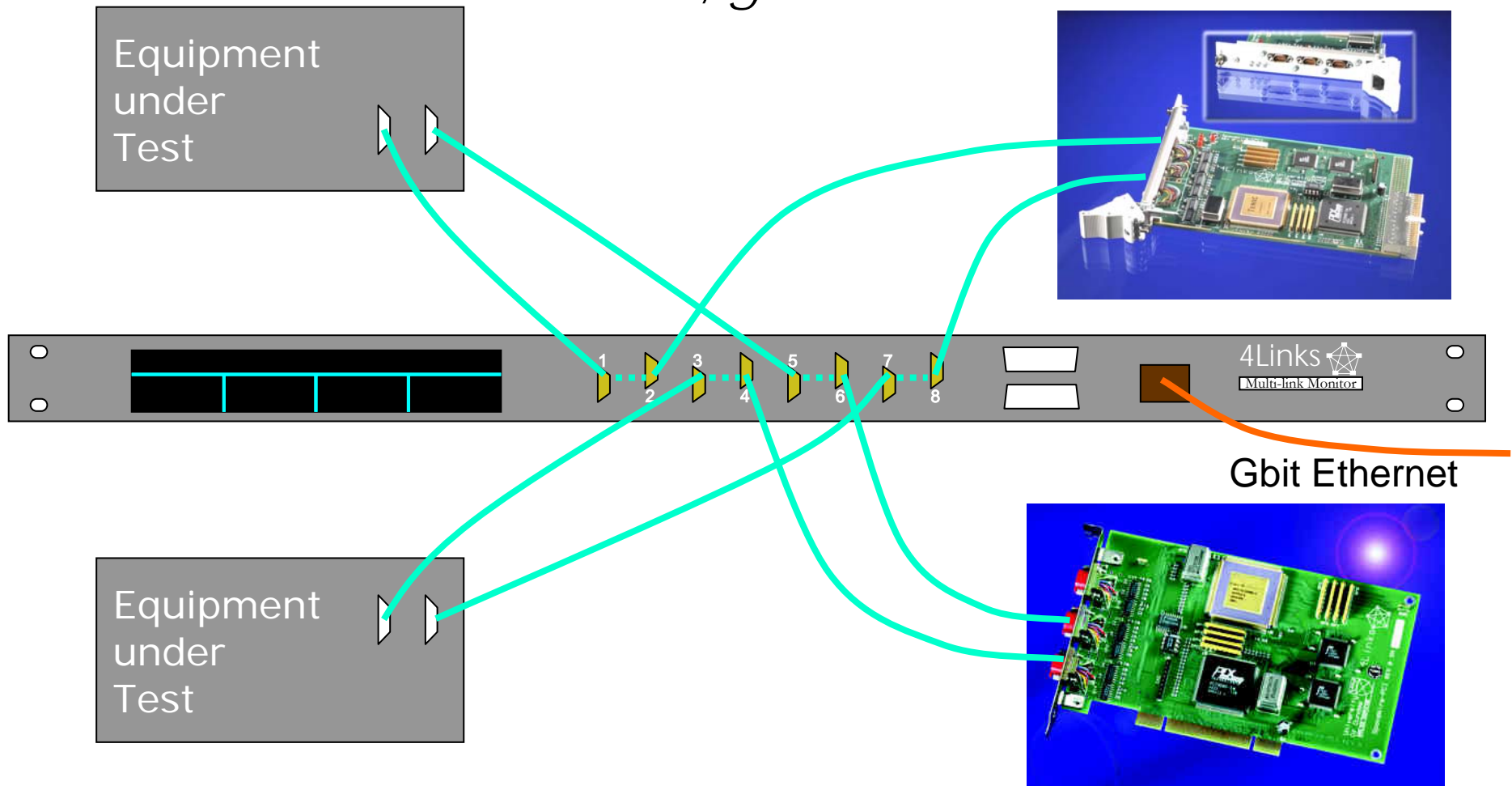
*Galvanic isolation protects flight equipment,
Scalable EGSE can test & validate
the whole network*



Monitor & analyze

SpaceWire systems, P2P or with routers

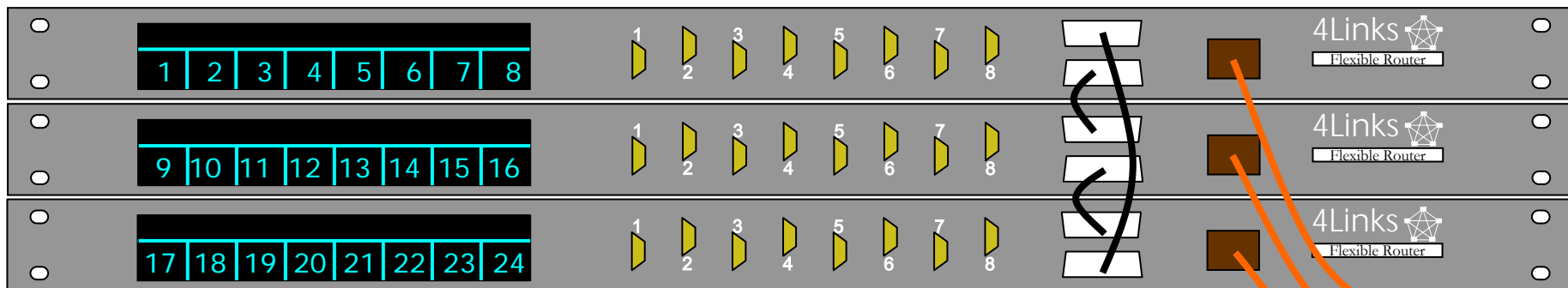
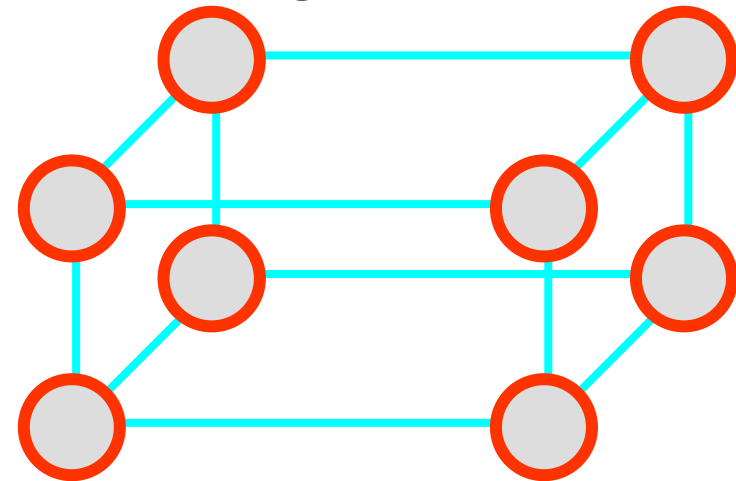
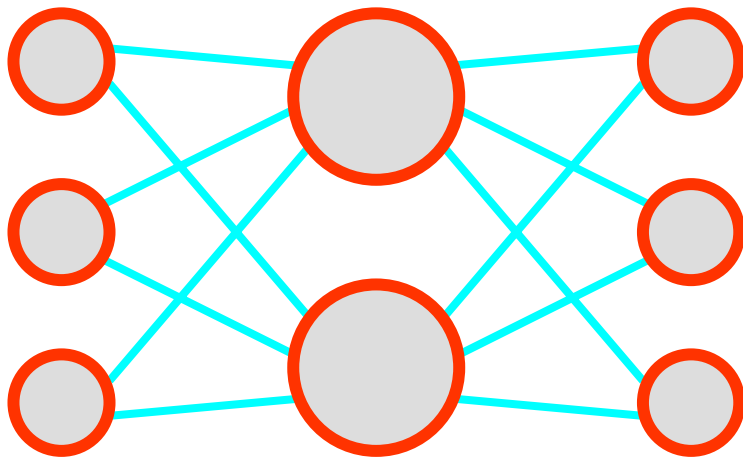
*Time tag data, capture error waveforms,
record data, gather statistics*



Simulate & evaluate

SpaceWire nodes & networks

*Simulate separate nodes and/or routing switches.
Evaluate different network topologies.*

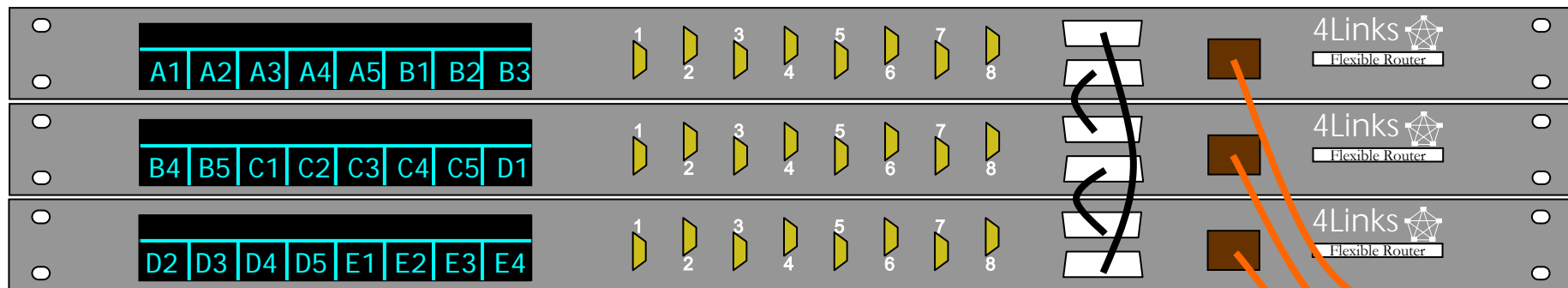
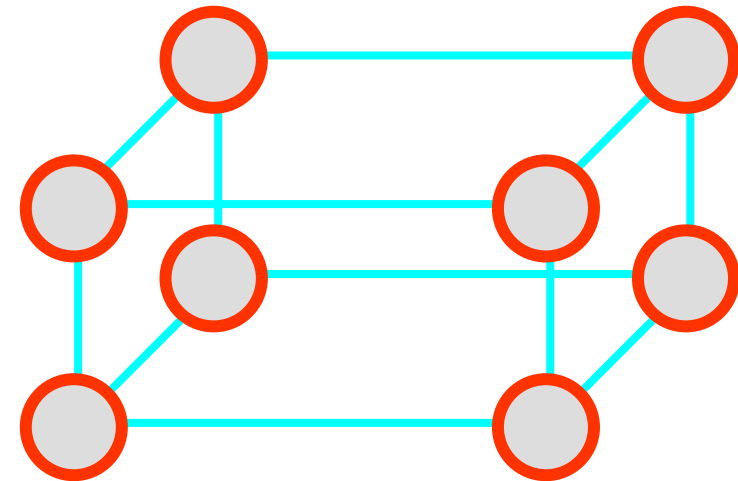
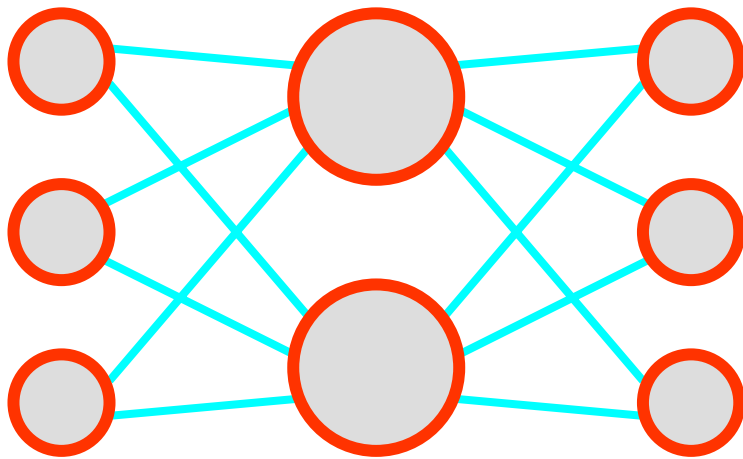


Gbit Ethernet

Experiment and optimize

with *SpaceWire* routing switches

Any number of ports per switch, multiple switches in one box

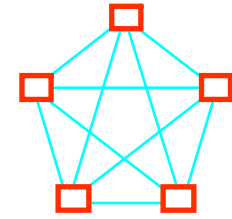









8

Gbit Ethernet

Any Capability ... ,
Any Where, Any Year

4Links



-  Modular \Rightarrow Any system Shape
-  Scalable \Rightarrow Any system Size
-  Reconfigurable \Rightarrow Any test Function
-  Protected,
galvanic isolation \Rightarrow Any Stage of life-
cycle, incl. flight
-  Ethernet \Rightarrow Any Computer
-  Internet Protocol \Rightarrow Any OS
- \Rightarrow Any Where
-  Any computer, OS \Rightarrow Any Year

