LAN, WAN, SAN,
and now
DAN

Data Access Network

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What's a DAN?

Out-of-Band Monitoring Network

Includes Passive Tools like:

Sensors,
Probes,
Monitors,
Recorders,
Analyzers,

and Access Switching

What's a DAN?

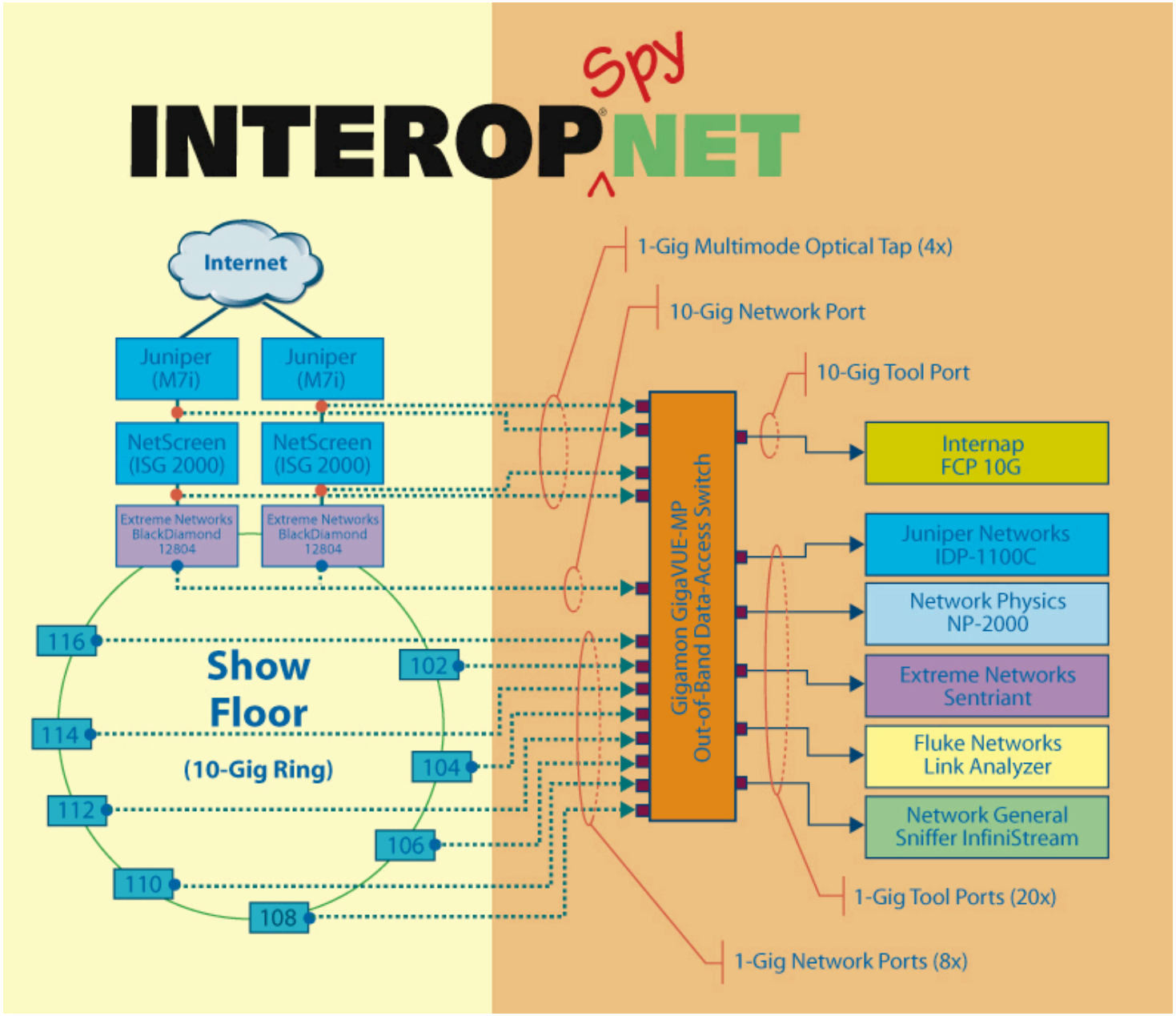
A new "Best Practice"

- Part of the network infrastructure
- Facilitates instrumentation of a network
- Enterprise or Telco

What's new is how data is fed to the tools

- By a Data Access Switch or Aggregator
- Unobtrusive to the primary network

Example of a DAN



Why are DANs Needed Now?

Things Have Changed

9/11 spawned new security and lawful intercept requirements

Enron spawned new auditing and monitoring laws

New tools optimize E-commerce and internet applications

VoIP and media convergence make the network more strategic

Network is more valuable; Downtime is unacceptable

Proliferation of Tools

New SOX compliance transaction monitors

Keep your boss out of jail!

IDS Sensors detect external hacker attacks

NAC Appliance protects networks from inside

From your own people!

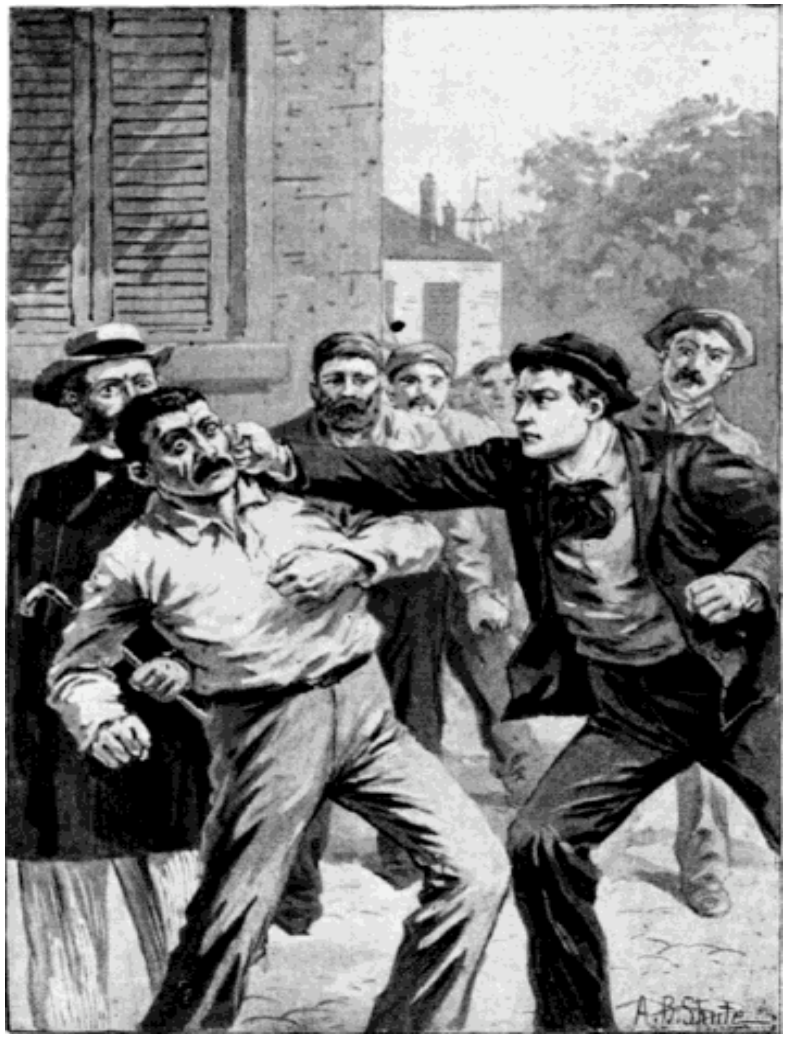
Forensic recorders capture events

and how the network being used!

Configuration monitoring tools watch over network resources

Application and Network troubleshooting

Proliferation Causes Contention for Span Ports



Security and IT Engineers seen here "Negotiating" Over a SPAN Port

What Other Problems do DANs solve?

Consolidate tools and sensors

Save money on capital and operational budgets

Aggregate flows from parallel links - etherchannel

Give tools the “big pipe” network wide view

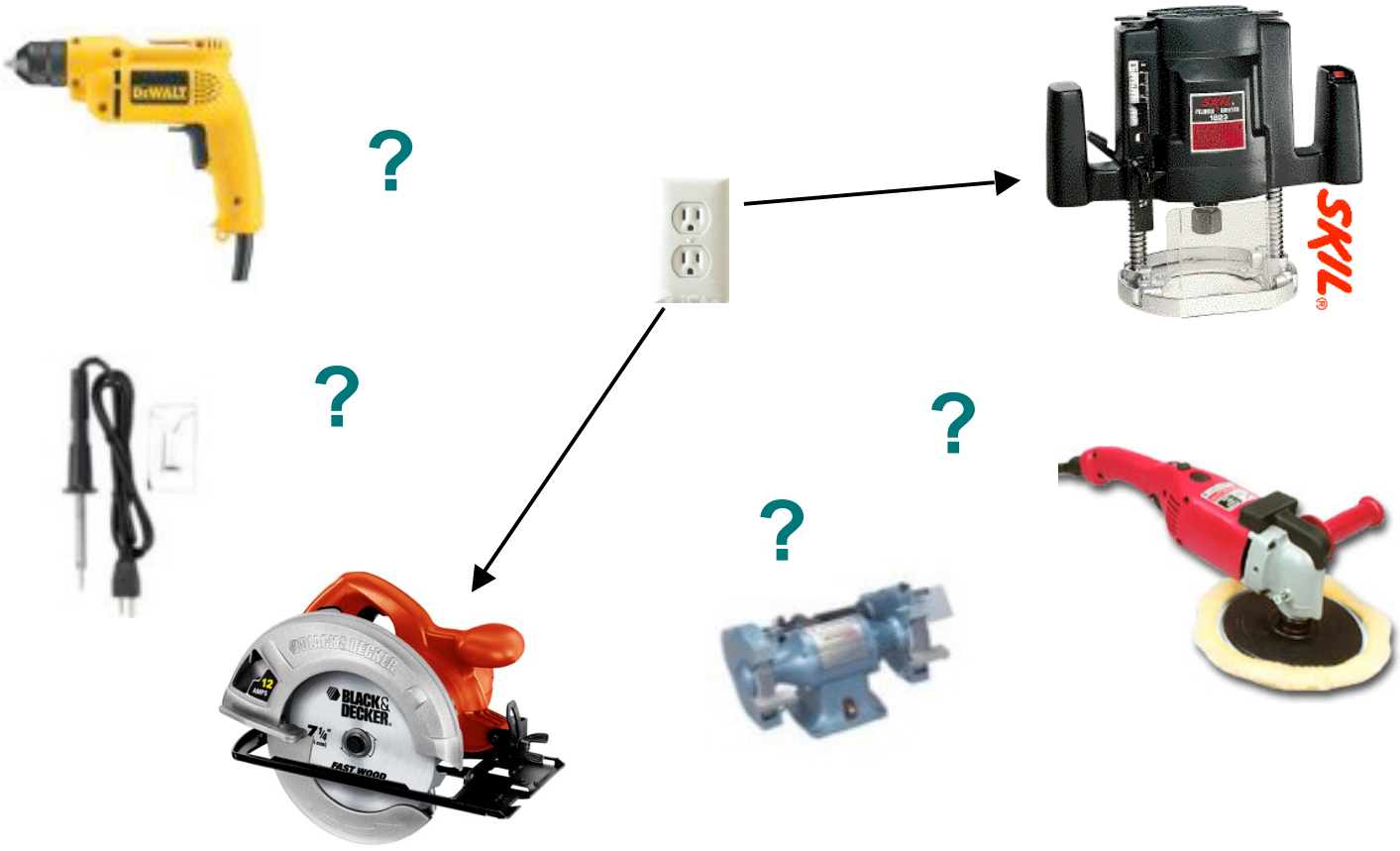
Filter and divide high bandwidth traffic

Reduce and balance load to match tool capacity

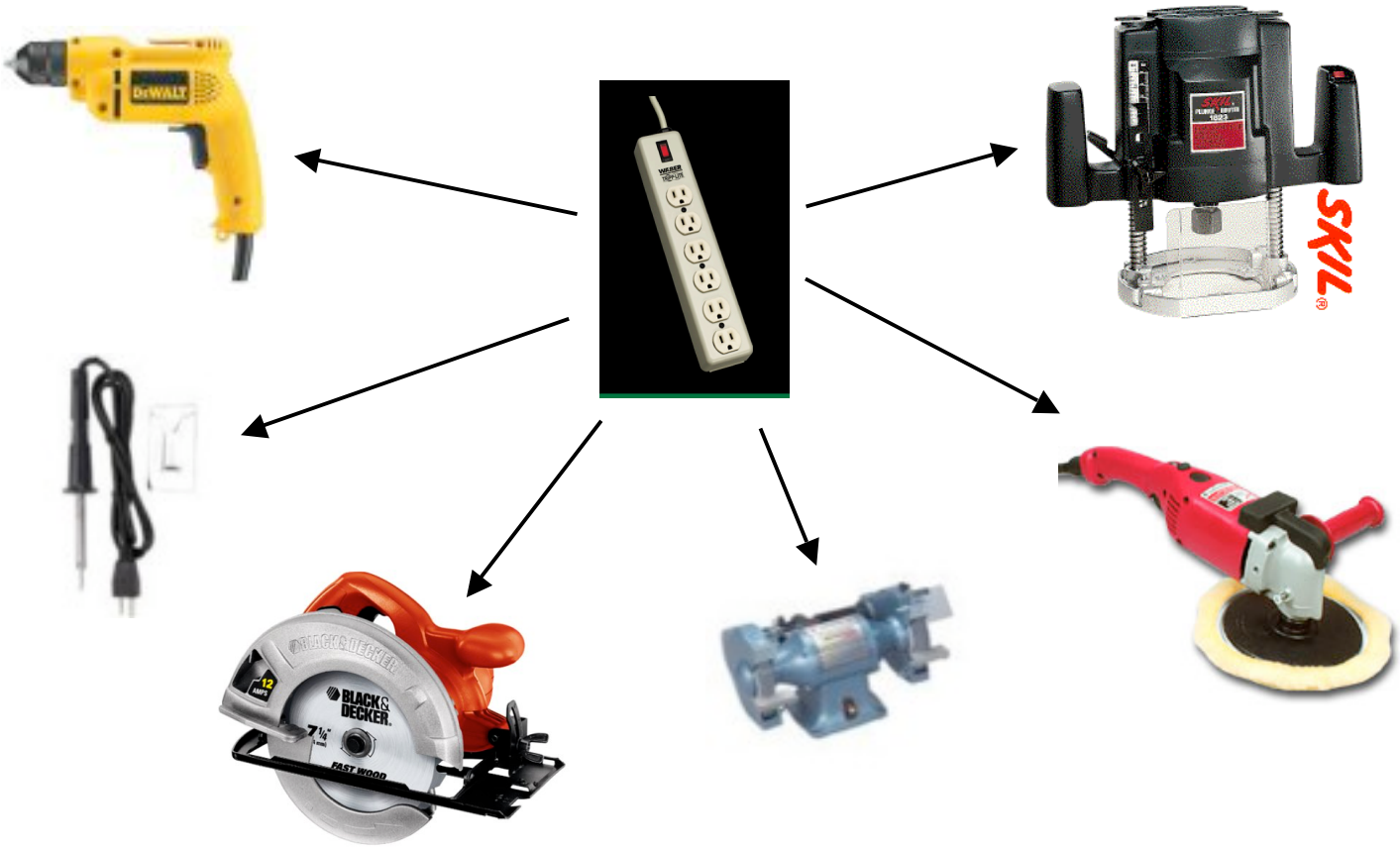
Overcome the tyranny of Configuration Management Policies

Deploy tools and make changes on your own schedule

Too Many Power Tools?
Not Enough Sockets?



For Power Tools, use a Power Strip



Too Many Monitoring Tools?
Not Enough *Span Ports*?

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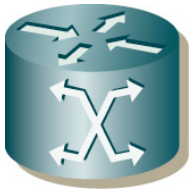

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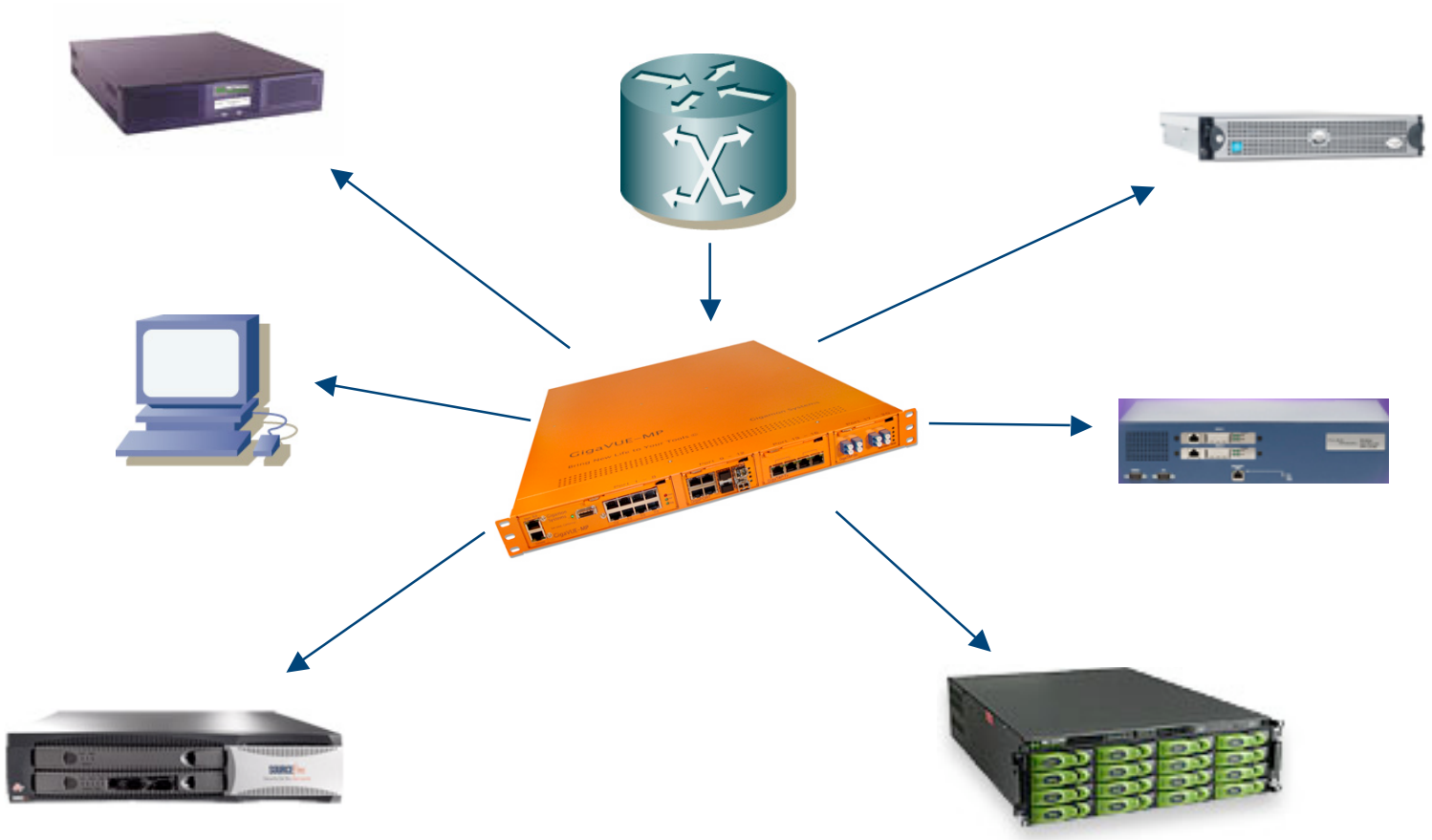
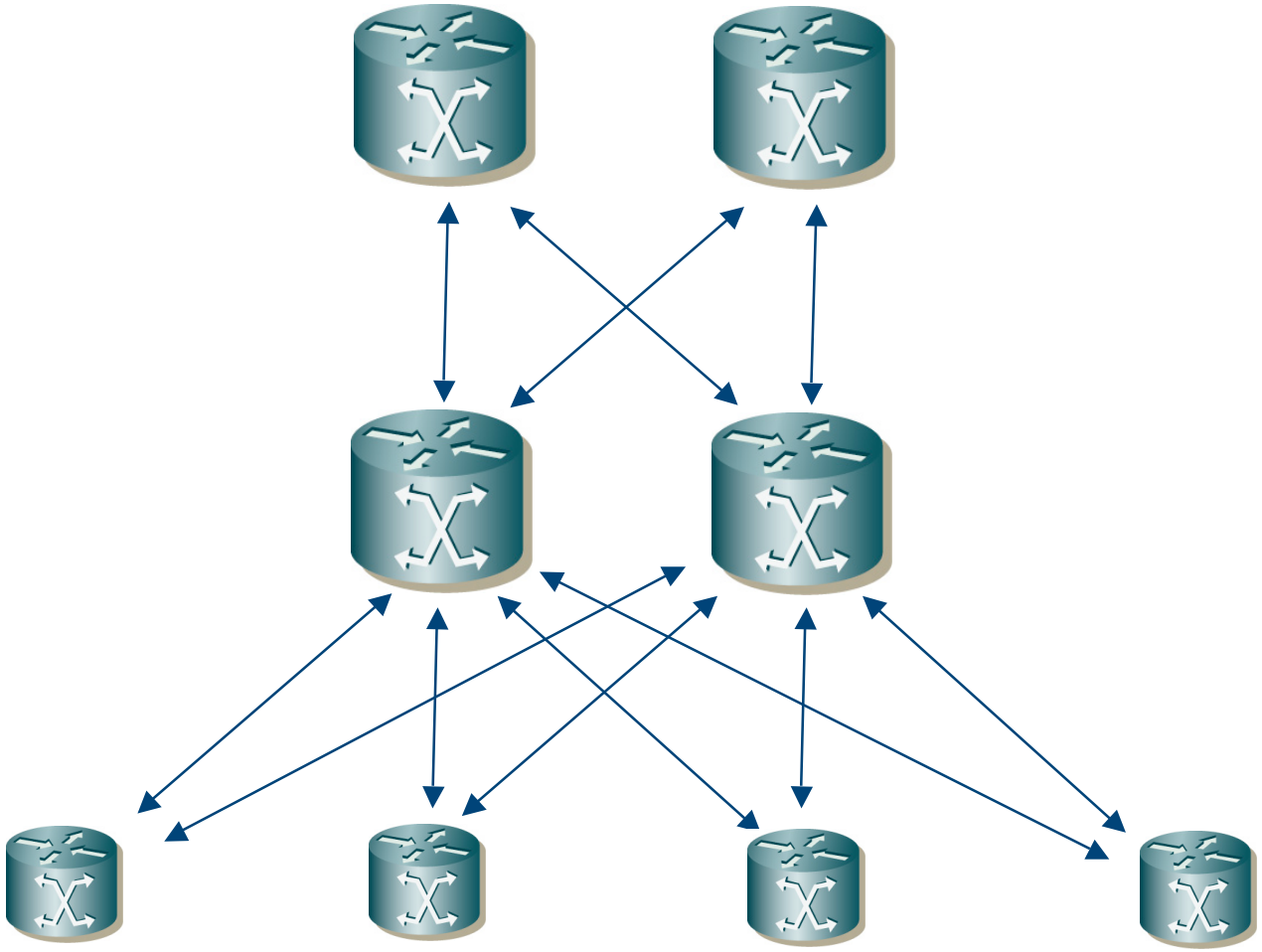
For Sensors/Monitors/Analyzers, Use a Data Access Switch

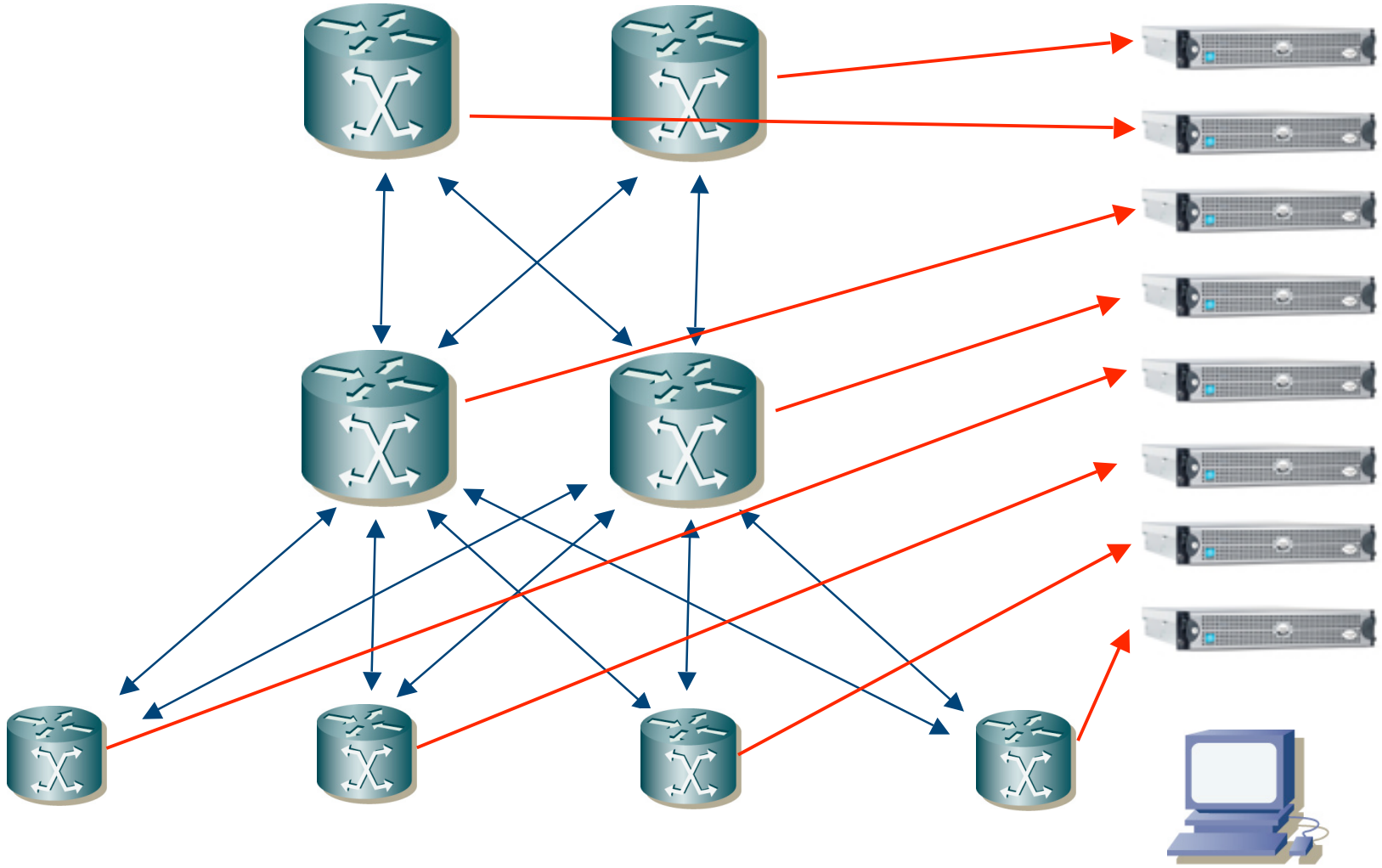


One Span port serves Many tools

Monitoring a Mesh Network?

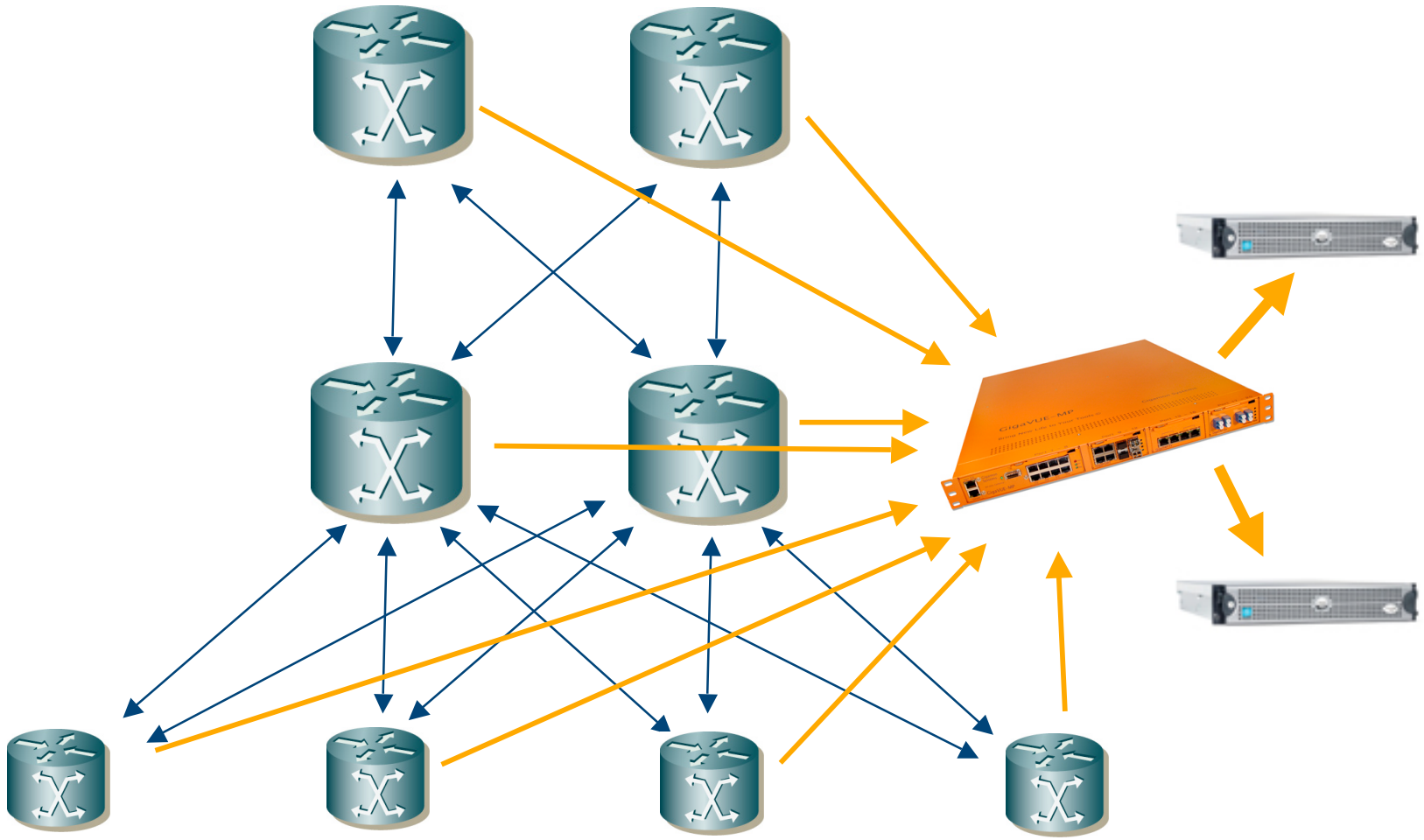


Could Distribute Tools, Deploy one tool per span port/switch



Lots of hardware…very expensive!

Better to Distribute Connections with a DAN

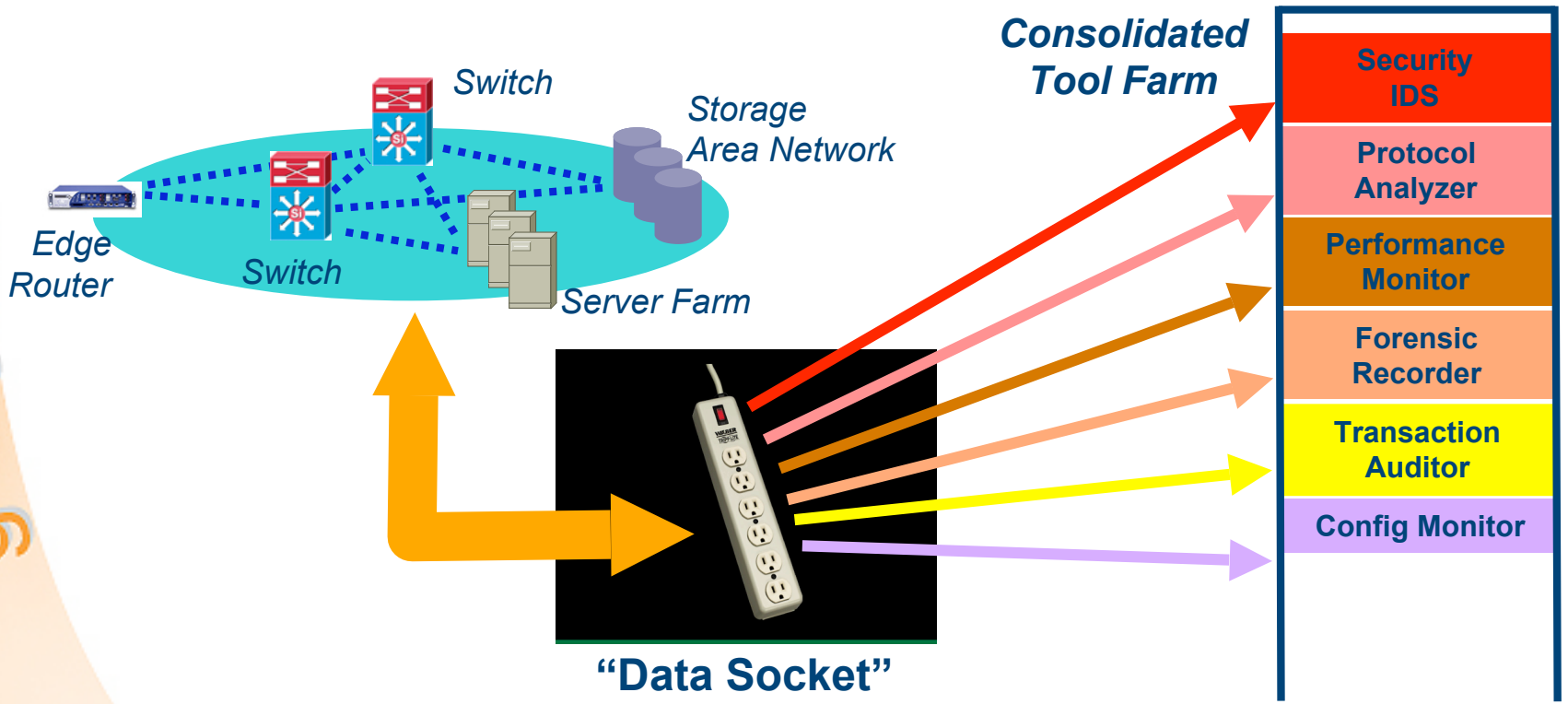


Aggregate and balance flows to Consolidated Tools

DAN is out-of-band "Data Socket"

Part of the Reliable Network Infrastructure

- Plug-in multiple out-of-band tools – any tool to any data
- Unobtrusive tool changes – never touch the network
- Do moves, adds, changes at any convenient time



DAN Solves Access Problems By

- **Aggregating** many links to any tool
  - **Multicasting** any link to many tools
    - **Filtering** data to map packets to tools

**Saving $$** Cap Ex and Op Ex budget$