



Navy SATCOM User's Workshop

Satellite Applications to Support the Mobile
Warfighter

San Diego, CA, June 12, 2008

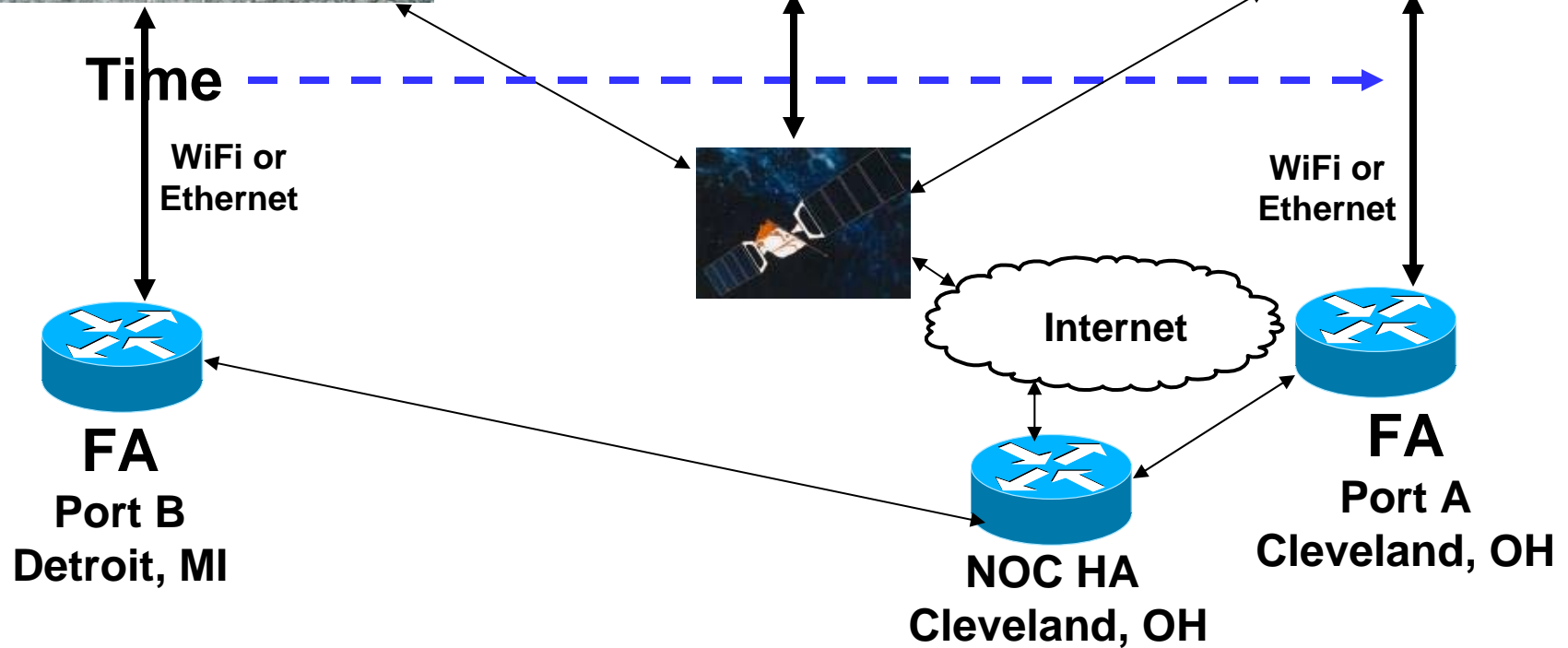
Will Ivancic – william.d.ivancic@nasa.gov

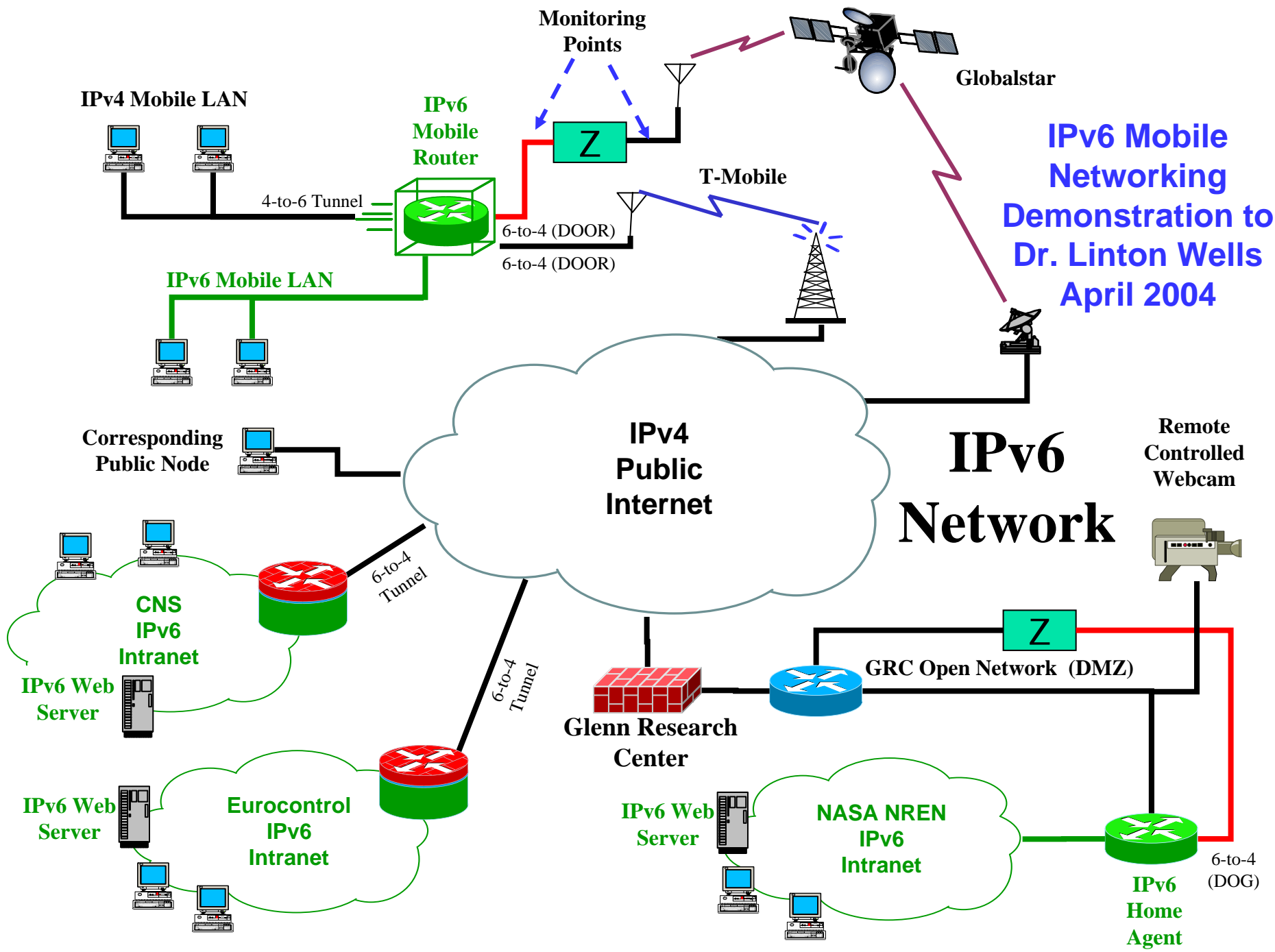


Secure Mobile Networking

- Ability to securely share network infrastructure without injecting routes into others networks
- Demonstrations / Experiments
 - IPv4 Mobile Networking via US Coast Guard Neah Bay – November 2002
 - IPv6 Mobile Networking – April 2004
 - Cisco router in Low Earth Orbit (CLEO)
 - Mobile Networking IPv4 – June 2004
 - IPv6 and IPv4 IPsec – 2007
 - Delay/Disruption Tolerant Networking (DTN) from space using the United Kingdom Disaster Monitoring Satellite – January 2008

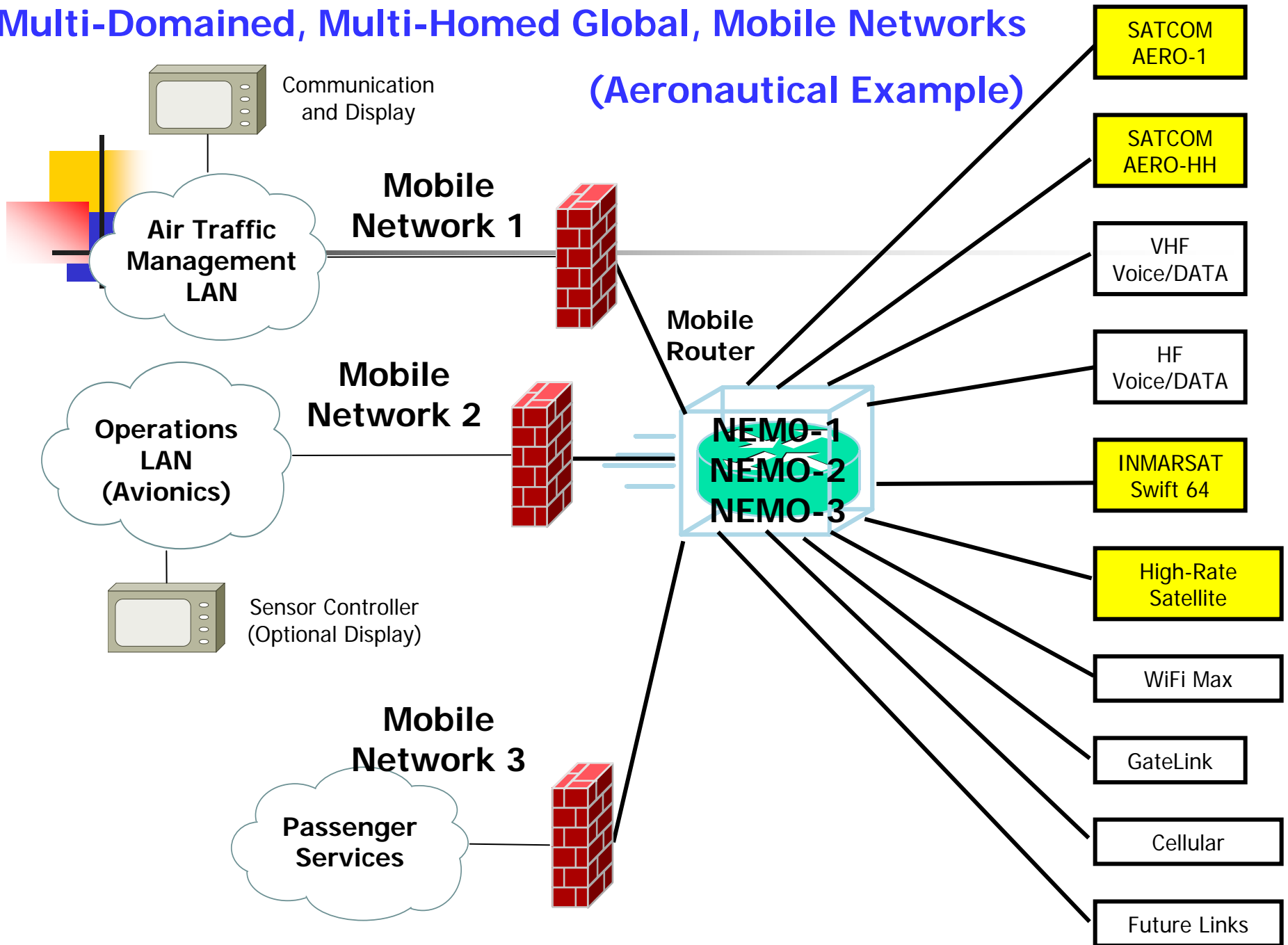
Mobile Router uses





IPv6 Mobile Networking Demonstration to Dr. Linton Wells April 2004

Multi-Domed, Multi-Homed Global, Mobile Networks (Aeronautical Example)





Comments Relative to Mobile Networking

- Fixed Flat-Rate pricing please
 - Price per bit or connect time
 - Not manageable
 - Impossible to budget!
 - Bad for the consumer and bad for the industry
- Voice, Video and Data are all just bits
- Cost of satellite equipment and services justifies:
 - Development of new technologies (e.g. Ad Hoc Networks, High Altitude Airships and Stratospheric Platforms)
 - Deployment of new infrastructure
 - Change in behavior