

# NASPI Scottsdale Zero Trust when using GPS for Timing & Synchronization

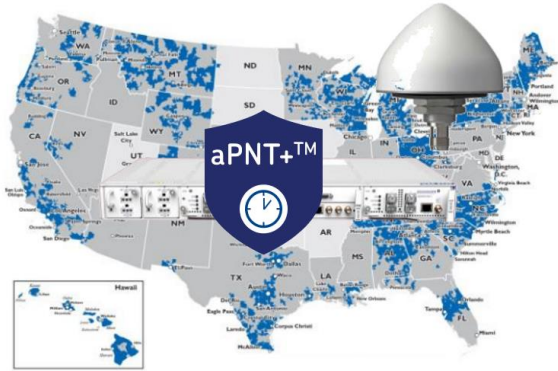
US Government Executive Order 13905  
issued 12 February 2020

4 April 2023

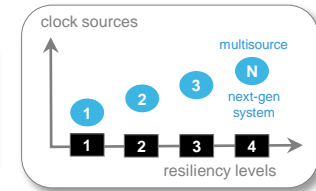
Daniel B. Burch- Sr Manager Business Development- North America



# Backed by 75 years of know-how in network sync



- ✓ **#1** - Industry's first supplier of sync solutions
- ✓ **#1** - The leader in resilient & assured PNT & packet-based timing
- ✓ **#1** - Leading-edge technologies in defense-in-depth PNT cyberthreat protection, including multilayer detection, zero-trust multisource backup & multilevel fault-tolerant mitigation, aligned with these industry standards:

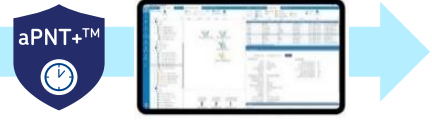


- ✓ **#1** - The leader in field-proven, vendor-agnostic & intelligent sync network management
- ✓ **#1** - Industry's best complete portfolio of trusted sync services, from network design to installation to commissioning

The #1 trusted secure sync solution provider globally

# Our timing product range by best-fit/cost application

Ensemble Sync Director™ management



**accessSync™**

OSA SF5401 SyncPlug

OSA 5405-I/O/MB/P

**OSAinside™**

OSA 5400 SyncModule

TimeCard

OSA SoftSync Linux

**edgeSync™**

OSA 541x

OSA 5412

**edgeSync+™**

OSA 5420/21

OSA 5422

**coreSync™**

OSA 5430 NG GM/SSU

OSA 5440 NG GM/SSU

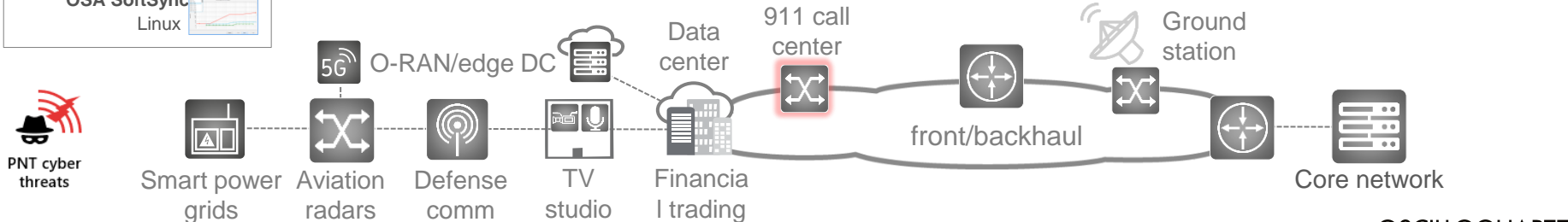
**coreSync™**

OSA 3300-HP optical Cs

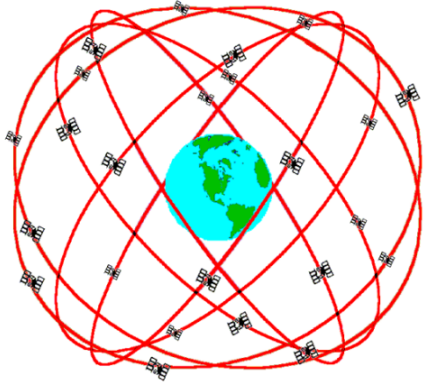
OSA 3350 optical Cs ePRC+

3230B Cs magnetic PRC/ePRC

device/network Monitor

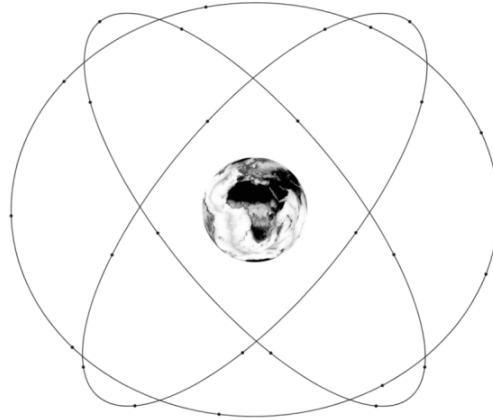


# Satelles based on Iridium



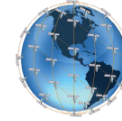
## GPS Constellation

24+ Satellites in 6 Orbital Planes  
4 Satellites in each Plane  
20,180 km Altitude, 55 Degree Inclinations  
Orbital speed 14,000 km/hr (9k mph)  
Orbital period 12 hours (2x/day)  
Different satellite in each plane every 3 hrs



## Galileo Constellation

24+ Satellites in 3 Orbital Planes  
8 Satellites in each Plane  
23,222 km Altitude, 56 Degree Inclinations  
Orbital speed 13,200 km/hr (8k mph)  
Orbital period 14 hours (~2x/day)  
Different satellite in each plane every ~1.5 hrs



## Iridium LEO Constellation

**66 Satellites in 6 Orbital Planes**  
11 Satellites in each orbital plane, spaced 30° apart  
781 km Altitude, Polar orbits (86.4 degrees)  
Orbital speed 27,000 km/hr (17k mph)  
Orbital period 100 minutes (14x/day)  
Different satellite in each plane every 9 min

# Alternatives to GNSS (GPS)

MEETS UPCOMING “ZERO TRUST” GUIDELINES

## SOLUTIONS

- ePRTC
- Low Earth Orbit
- Terrestrial
- Timing over Fiber
- Local RF Relay
- eLORAN
- Timing as a Service over ETH
- Timing Backup as a Service

## Worldwide Coverage



# Satelles STL Antenna



THE FIRST TIMING WHITEPAPER IN 2023 TO GO VIRAL!

# Can you handle the TRUTH?

## Establishing “Truth” in Network Synchronization

NETWORK TIMING & SYNCHRONIZATION IN AN UNTRUSTWORTHY WORLD

*By Daniel B. Burch- Sr. Manager Business Development NA*

For electronic copy of this popular whitepaper, see me at our booth or email request to [dburch@adva.com](mailto:dburch@adva.com)

Just say: **TELL ME THE TRUTH**

THANK YOU! [dburch@adva.com](mailto:dburch@adva.com)