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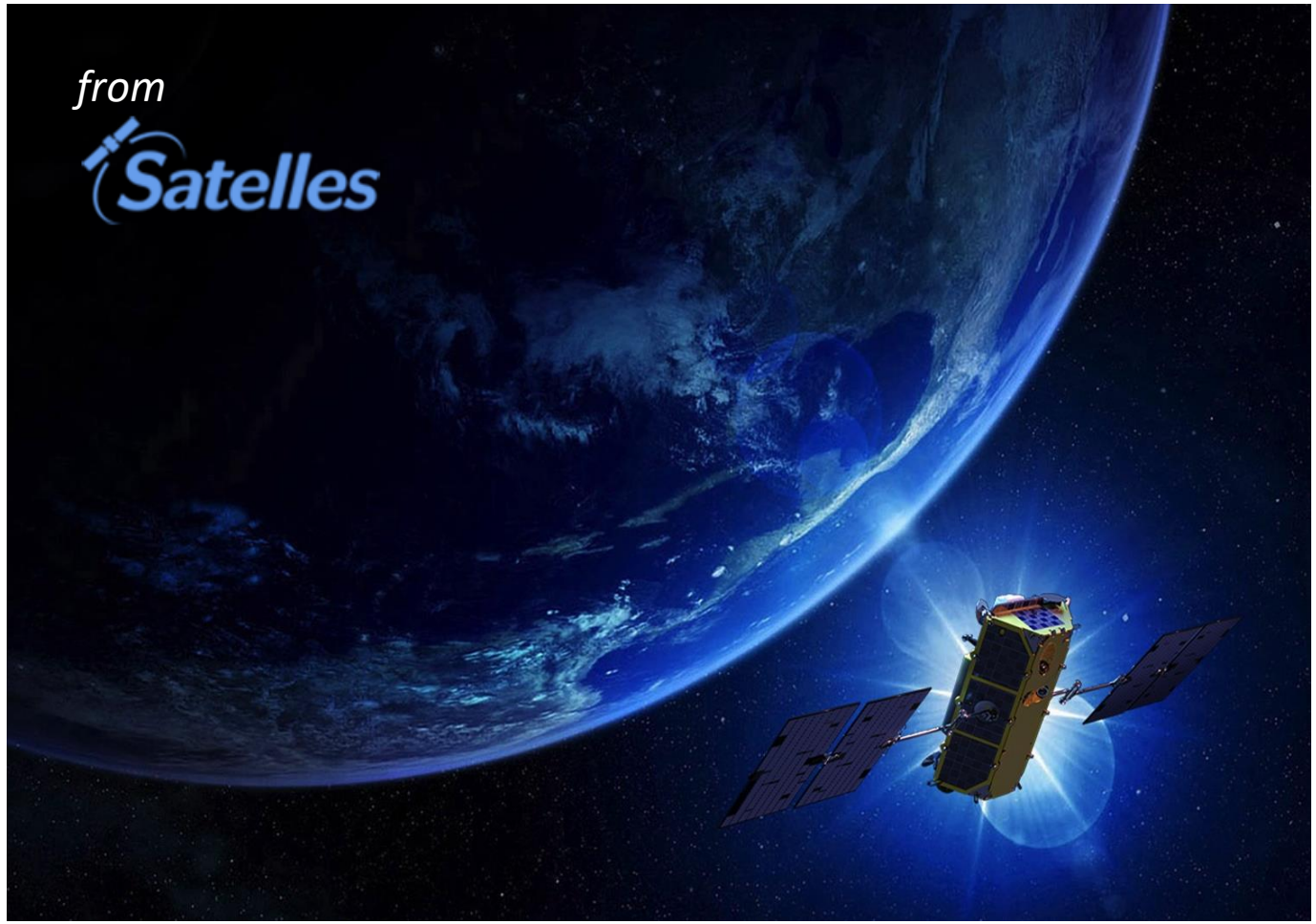
orolia

Resilient Timing Solutions

Satelles STL and BroadShield

June 2017

STL – *Satellite Time and Location Signal*



- New signal available today
  - Broadcast on the Iridium sats
- >30 dB stronger than GPS
  - Higher jamming and interference resistance
  - Operates indoors
- Encrypted signal
  - Inherently anti-spoof
  - Subscription based service
  - Available for civilian use

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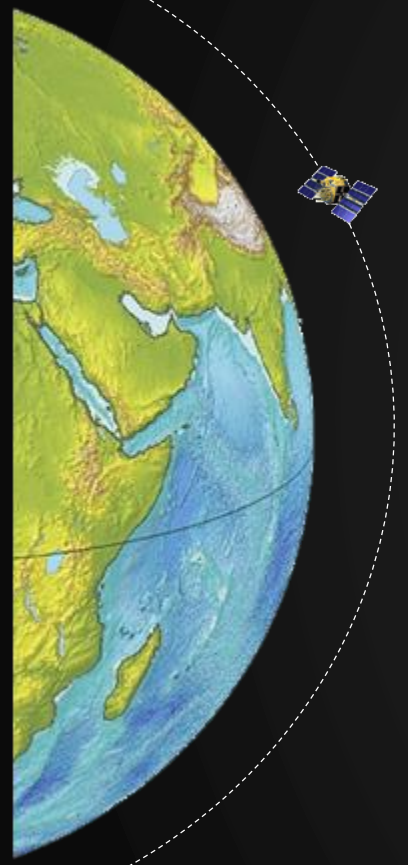
from Satelles



STL

- ✦66 Iridium Satellites
- ✦Global coverage
- ✦500 mile altitude
- ✦1000x stronger than GPS

GPS

- ✦24 GPS Satellites
- ✦Global coverage
- ✦12,500 mile altitude
- ✦25x further away

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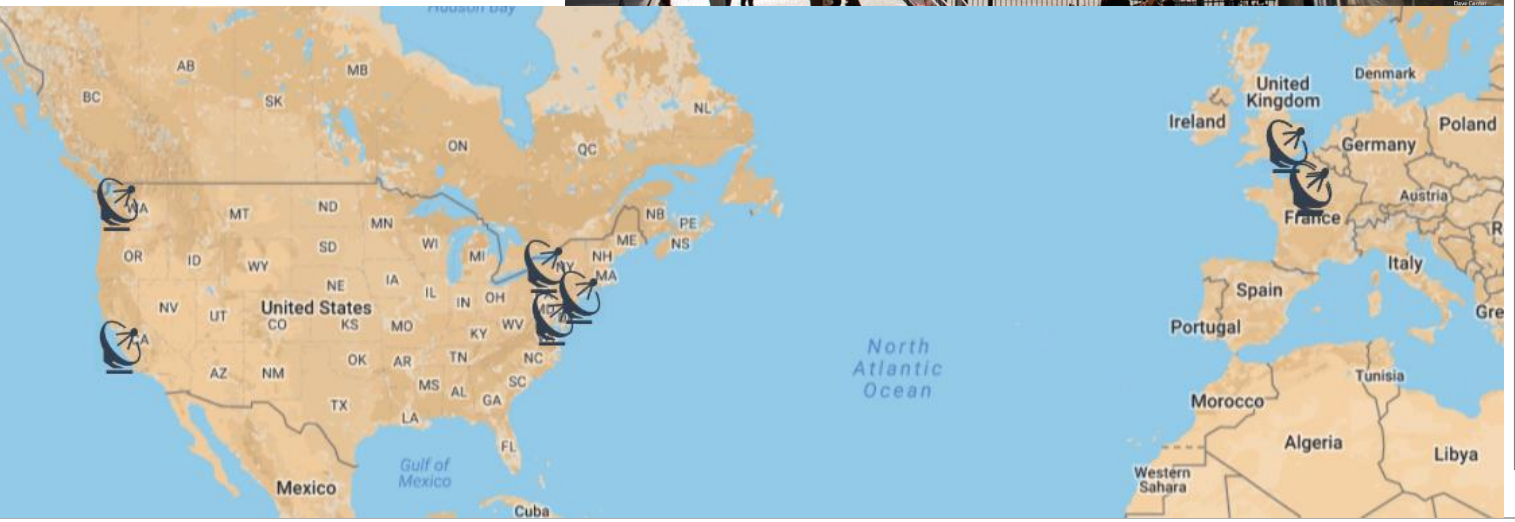
Indoor Demonstration – New York Stock Exchange

Since then, dozens of indoor demonstrations across North America and Europe.

Asia is next.



- January 2017 – *ATIS Time and Money Event*
- Wall Street – one of the most difficult urban canyons in the world for GPS reception
- STL signal received and locked to UTC time with Spectracom's SecureSync
  - Interior room, 7th floor
  - Weak signal
  - ~30 minutes to converge

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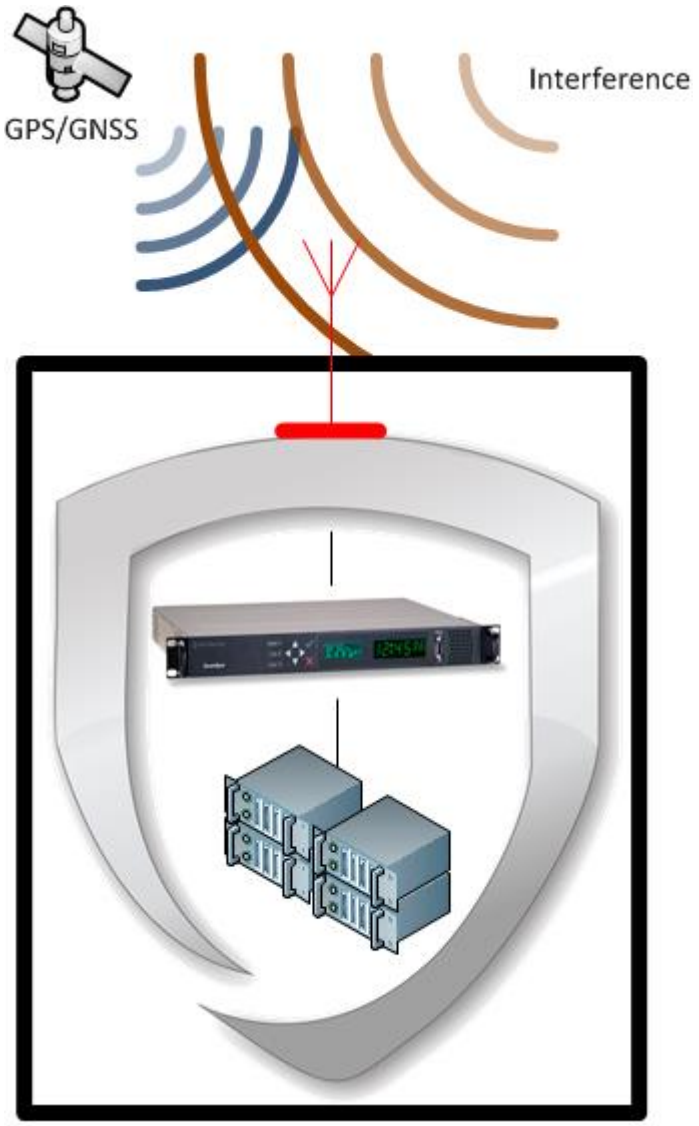
BroadShield™

from TALEN-X COMMUNICATE - NAVIGATE - EXCEL

Protecting GPS/GNSS critical infrastructure against emerging threats

- Detects Interference and Spoofing within the GPS signal and GPS spectrum
- Over ***75 jamming / spoofing*** detection algorithms
- SW seamlessly integrated with SecureSync
  - Works with our standard commercial GPS/GNSS receiver
  - Automatic enable/disable GPS during interference events
  - Status information through the UI
  - Integrated notifications and alarms

Know when jamming/spoofing is occurring– and ignore the bad signals



Adding Resilience and Trust to GPS/GNSS

BroadShield

Satelles
STL

Atomic
Holdover
Clocks

spectratime

New services and features available from Spectracom

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