

Welcome to the Webinar on Resilient Timing for Critical Infrastructure

This is presented as an introduction to topics that will be explored in depth at the Workshop on Sync and Timing Systems (WSTS).



More details at WSTS at the end of the webinar.

Moderator: Marc Weiss, WSTS Chair, Time & Frequency Expert
Consultant

Outline of Webinar

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- Motivation for Resilience
- Presentations: Three specific types of resilience plus an example of resilience and assurance, as applied to each of four different industries
- Panel Discussion including questions from audience– Please submit questions in the chat as we proceed through the webinar

Short Power Presentations

1. Redundancy and Monitoring in Media and Broadcast, Doug Arnold, Principal Technologist, Meinberg
2. Solutions for Backup Resiliency in Finance and Data Centers, David Chandler, Product Line Manager, Microchip
3. Diversity of Sources (Beyond GNSS) in Telecom, Anand Ram, Vice President Business Development, Calnex
4. An Example of Resilience and Assurance in Power Systems, Nino De Falcis, Senior Director of Business Development, Oscilloquartz

Panel– Focus of the Webinar

Moderator: Marc Weiss, WSTS Chair, Time & Frequency Expert Consultant

Resilient Timing for Critical Infrastructure

- Critical Infrastructure is vulnerable to a variety of timing problems
 - Loss or degradation of timing due to intentional or unintentional effects
- Intentional effects include:
 - Jamming or Spoofing of Global Navigation Satellite Systems (GNSS)
 - Cyber attacks on data systems
 - Timing attacks on networks
- Unintentional effects include:
 - Solar weather effects
 - Radiated RF noise causing jamming
 - System failure modes

Resilient Timing for Critical Infrastructure

	Redundancy and Monitoring	Solutions for Backup Resiliency	Diversity of Sources (Beyond GNSS)	An Example of Resilience and Assurance
Media-Broadcast	Doug Arnold Principal Technologist Meinberg			
Finance and Data Center		David Chandler Product Line Manager Microchip		
Telecom- Mobile			Anand Ram Vice President, Business Development Calnex	
Smart Grid				Nino De Falcis Senior Director of Business Development Oscilloquartz