

IEEE/NIST Timing Challenges in the Smart Grid Workshop October 26, 2016

Draft Agenda (rev. September 14, 2016)

Time	Title	Speaker
8 a.m.	Introductions and Workshop Objectives Presentation	Doug Arnold, <i>IEEE 1588 Co-Chair</i> Dave Wollman, <i>Smart Grid and CPS Program Office</i>
Utility Perspective		
8:20 - 8:40	Utility Keynote: Time Synchronization and the Power System	Aaron Martin and Brett Aguirre, <i>Bonneville Power Administration</i>
8:40 - 9:00	PTP for Substation Synchronization at PG&E	Dr. Vahid Madani, <i>Pacific Gas and Electric</i>
9:00 - 9:20	Timing at SCE	Anthony Johnson/Brenden Russell, <i>Southern California Edison</i>
9:20 - 9:40	GPS Timing in Substations at Dominion	Robert Orndorff, <i>Dominion Virginia Power</i>
9:40-10:00	Break	
Research Perspective		
10:00 - 10:20	Timing Security Assessment and Solutions	Glen Chason, <i>Electric Power Research Institute</i>
10:20 - 10:40	GPS Timing in Critical Infrastructure	Sarah Mahmood, <i>Department of Homeland Security</i>
10:40 - 11:00	<i>A DOE Perspective on Time Synchronization Needs</i>	Terry Jones, ORNL
11:00 - 11:20	Testbed Capability at the Pacific Northwest National Laboratory	Jeffrey Dagle, <i>Pacific Northwest National Lab</i>
11:20	Lunch	
Timing Research Areas: Distribution, Anomaly Detection, Resilience		
12:30 - 12:50	Time Distribution: Current Technologies and Future Visions	Dr. Marc Weiss, <i>NIST Time and Frequency Division</i>
12:50 - 1:10	Time Anomaly Detection	Dr. Judah Levine, <i>NIST Time and Frequency Division</i>
1:10 - 1:30	Clock Ensembling for Resilience	Dr. Dhananjay Anand, <i>NIST Software and Systems Division</i>

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1:30 – 1:50	Reliable GPS-Based Timing for Power System Applications: A Multi-Layered Multi-Receiver Approach	Grace Gao, <i>University of Illinois Urbana Champagne</i>
1:50 - 2:10	Computation of Link Delays to Avoid 1588 Performance Issues Due to Link Asymmetry	Satheesh Kumar S, <i>Juniper Networks</i>
2:10 - 2:30	Quantum Technologies for Secure Wide-Area Time Distribution	Phil Evans, <i>ORNL</i>
Industry Efforts		
2:30 - 2:50	<i>PTP Power Profile Conformity and Interoperability</i>	Bob Noseworthy, <i>UNH/IOL</i>
2:50 – 3:05	Potential for Time from Century Link	Carmine Chase, <i>CenturyLink</i>
3:05 – 3:15	1588 Over MPLS	Mark Adamiak, <i>GE</i>
3:15 - 3:30	<i>Break</i>	
3:30 - 5:00	Round Table: <ul style="list-style-type: none"> • Application Timing Requirements Near-term and Long-Term • Time Distribution Experiences and Challenges • Potential Solutions - Standards and Technology • Future research directions 	Moderated by Doug Arnold: Vahid Madani, <i>PG&E</i> Aaron Martin, <i>BPA</i> Judah Levine, <i>NIST</i> Bob Noseworthy, <i>UNH-IOL</i>
5:30	<i>IEEE Sponsored Networking Hour</i>	At the Gaithersburg Hilton