



PTP in IP Broadcast Workshop

APC Time, the UK's leading provider of precision timing technology, in collaboration with **Root6**, will present an overview of the challenges and opportunities of PTP timing in an IP broadcast network environment.

Workshop Information

Date: 17th January 2018

Venue: Jigsaw 24, 8 Golden Square, Soho W1F 9HY

[Click for registration](#)

Workshop Context

When moving to the All-IP studio, traditional synchronisation techniques like Black Burst or Tri-Level-Sync have to be replaced by a packet based method to make best use of a single shared medium.

The Precision Time Protocol (PTP) is ideally suited for this. With the ST2059 standard, SMPTE has defined PTP profile tailored to the needs of the broadcasting industry, covering a large variety of different application scenarios ranging from OB-VANs to large studios. Planning, configuration, deployment, and continuous monitoring is crucial for every mission critical application.

Daniel Boldt (Head of Software Development, **Meinberg**) and Nikolaus Kerö (General Manager, **Oregano Systems**) present experiences gathered from extensive measurements as well as real-world applications demonstrating the performance of PTP under varying network conditions. In addition, they will also highlight traps and pitfalls of PTP which may affect both its availability or accuracy. Different PTP enabled network topologies are compared. The presentation will be complemented by a real-world demonstration.

Workshop Agenda

Registration and drinks

5.00pm

Introduction

Rupert Watson, Jigsaw24/Root 6 Media and Entertainment Sales Director

5.45pm

APC-Time introduction

Mark Broadhead, Business Development Manager

5.50pm

Joint presentation

Daniel Boldt, Meinberg Head of Software Development and Nikolaus Kerö, Oregano Systems General Manager

6.00pm

Close, networking, drinks and nibbles

7.30pm



From power companies to broadcasters and financial traders, organisations are increasingly relying on high precision time synchronisation within their systems to ensure that virtualised resources and distributed systems achieve flawless performance.

APC Time has over fifteen years' experience in designing, specifying and supporting time and frequency synchronisation systems within the UK and Ireland for a broad range of applications within the broadcast, finance, IT, telecoms, power and defence sectors.

Combining our extensive technical expertise with high precision, market-leading timing and synchronisation technologies we provide scalable timing solutions that tightly co-ordinate synchronisation across your network - both now and in the future. As the UK and Ireland exclusive distributor for Meinberg & Oregano Systems timing products, we provide the innovation, quality and range of products & systems backed by our extensive expertise in network infrastructure and timing requirements.



Meinberg is a global leader in time synchronisation solutions. As an AIMS member Meinberg supports the transition from SDI to IP in the broadcast industry. As PTP is the selected technology for synchronising studio equipment over IP, Meinberg can provide GPS synchronised grandmaster solutions that are already well-established

in other industries for many years. Meinberg synchronisation products can easily be integrated into a hybrid SDI/IP scenario, by serving PTP and traditional genlock signals like Black Burst or word clock generated from a common time base.

Customers rely on Meinberg equipment because of its future-proof approach, scalability and flexibility and the extensive experience of Meinberg with key technologies like PTP, GPS, NTP and many more. The broadcasting industry benefits from this experience on the way to a SMPTE ST 2110 compliant All-IP infrastructure by using the SMPTE ST 2059-2 PTP profile.



The Flavour of Excellence

Oregano Systems offers design services as well as a product portfolio for IEEE1588 high accuracy clock synchronization (aka PTP). Design services offered include board design (high-speed, high-density), board-level verification, complex high-speed digital FPGA/ASIC design and verification as well as embedded software development. Oregano Systems provides all building blocks for any type of IEEE1588 clock synchronisation requirement within their syn1588® product family.

There are network interface cards, single chip nodes, the PTP Stack, and Transparent Clocks. Ready-to-use devices are available as well as IP cores that can be integrated seamlessly into designs for a variety of different application domains. Aside from supporting all major FPGA families with our syn1588® IP Cores Oregano can provide the accompanying PTP Stack, which has been highly optimised with respect to memory footprint and resource usage to specifically support embedded CPUs within FPGAs. The PTP Stack supports all PTP profiles published so far including AES67 and ST2059-1/2.



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