



STAC[®] Performance Summit

April 19, 2010

Bank of America Merrill Lynch
2 King Edward Street, London

Gold Sponsors:



Welcome

Iain Mortimer, Head of Solutions Architecture,
Global Markets, Bank of America Merrill Lynch

STAC updates (STAC-M and STAC-E)
[\[slides/video\]](#)

Peter Lankford, Founder/Director, STAC

“What you may not know about PTP (IEEE 1588)”

Tracking latency today requires synchronizing multiple machines to extremely small tolerances. This used to require specialized cabling to distribute time information. But the Precision Time Protocol (PTP) is a standard that theoretically enables sub-microsecond synchronization using standard Ethernet. Over and done, you say? Not so fast. Nikolaus Kerö, a veteran of time synchronization, will summarize the basic IEEE1588 principles, dig into real-world implementation and optimization issues, and lay out all of the factors influencing achievable accuracy.



Nikolaus Kerö, CEO, [Oregano Systems](#). After receiving a Masters Degree in Communication Engineering with distinction from the Vienna University of Technology, Nikolaus led the ASIC design division at the university's Institute of Industrial Electronics, successfully managing numerous research projects and industry collaborations. His research activities centered on distributed systems design, especially highly accurate and fault-tolerant clock synchronization. In 2001 he co-founded Oregano Systems Design & Consulting Ltd. as a university spin-off. While offering embedded systems design services to customers, Oregano transferred research results into a complete product suite for highly accurate clock synchronization under the brand name syn1588®, for which Nikolaus manages both development and marketing. He is an active member of the IEEE1588 standardization committee and holds frequent seminars on clock synchronization for both industry and academia.

Panel: Latency monitoring – The big issues

A panel of experts will discuss the major business and technical challenges associated with monitoring the latency of market data, trade execution, and trading apps—as well as the leading solutions to those challenges. This continues the discussion at the February 23 STAC Performance Summit in New York.

[\[slides/video\]](#)



Nicholas Morrison, Head of Market Data and Middleware Technology, Nomura. Nick is responsible for market data and middleware within the Nomura European Infrastructure Division. Before joining Nomura as part of the Lehman Brothers acquisition, Nick spent 8 years with Lehman’s as a specialist in Middleware Messaging before moving into market-data technology. Prior to joining Lehman Brothers, he worked for Chase Manhattan Emerging Markets Fixed Income Analytics group developing realtime trading systems. Prior to this, Nick spent 3 years working for Teknekron/Tibco as a Marketdata technology consultant.



Florian Miciu, Head of Technology, Chi-X Europe Limited. Florian was appointed Chief Technology Officer, leading Chi-X Europe’s technology group with a primary focus on technology development and deployment. He brings more than 15 years experience building technology products and platforms, primarily electronic trading systems for equities and government debt, for capital markets institutions. Florian joined Chi-X Europe after a brief tenure at Turquoise, and prior to that spent ten years working in Credit Suisse’s technology and equity trading departments.



Donal Byrne, CEO, [Corvil](#). Donal has over 20 years’ experience working in the field of computer systems, networking and telecommunications. His most recent interest is in mathematical and algorithmic-based solutions for low-latency management and optimization of high frequency electronic trading infrastructure. Donal joined Corvil in 2000 as the non-executive Chairman and in 2002, he took on the role of Chief Executive with a view to building a successful multinational software company for the Financial Services sector. In 2004, Donal was selected by the World Economic Forum as a Technology Pioneer for his work with Corvil, and in 2005 he was named in the Top 10 Emerging Technology Companies in the Ernst and Young, Entrepreneur Of The Year. He is a frequent speaker at industry events, and has numerous publications and patents in the field of network communications.



Henry Young, Director of Product Development, [TS-Associates](#). Henry is a founding director of Trading Systems Associates plc (TS-Associates), a firm that specialises in monitoring and analysis of networks and real-time financial middleware products. TS-Associates’ “TipOff” middleware analysis appliance leverages both FPGA and ASIC based hardware acceleration techniques for real-time capture, decode and analysis of 1GE and 10GE data flows. With a built-in, high-resolution, hardware-based time-stamping capability, TipOff is leading the charge into high-resolution passive latency monitoring of direct exchange feed and transaction infrastructures. Prior to founding TS-Associates in 1999, Henry split his time between London and New York on consulting engagements for banks and exchanges. Henry led the team at MSB Consultants that developed the RT Emulator in the mid 90s, a product that delivered Reuters Terminal functionality integrated with six of the then available market data platforms. Henry holds an MSc in Computing from Imperial College and a BSc in Physics & Electronics from Edinburgh University.

Innovation Roundup – Part 1

Each Innovation Roundup presenter has 5 minutes.

• “Corvil Latency Management Solutions For Trading Infrastructure”	Donal O’Sullivan , VP Product Management, Corvil
• “Precision Software Instrumentation” [slides/video]	Henry Young , Director of Product Development, TS-Associates
• “Identifying and reducing latency in high-performance networks” [slides/video]	Dave Clare , Regional Vice President, EMEA, Solace Systems
• “Wire-Speed Capture for Latency-Sensitive Environments” [slides/video]	Matthew Percival , UK and Nordic Sales Director, VSS Monitoring
• “Low-Latency Monitoring Switch” [slides/video]	David Ellem , UK Account Manager, Simena

<ul style="list-style-type: none"> • “Precision clock synchronization made easy by Syn1588®.” [slides/video] 	<p>Nikolaus Kerö, CEO, Oregano Systems</p>
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“Adoption and Advancement of the AMQP Messaging Standard”

What do NASA, the BBC, and Deutsche Boerse have in common? They all run AMQP. John O'Hara will provide insights into the benefits a financial institution can expect by adopting this emerging open protocol in its technology strategy. [\[slides/video\]](#)



John O'Hara, Chief Architect of Global Equities, Bank of America Merrill Lynch. John has over 18 years of commercial computing experience and has successfully delivered many large scale projects at banks across equities, F&O, prime brokerage, rates and fixed income businesses. John originated the Advanced Message Queuing Protocol (AMQP) standard after experiencing too many impractical and overly complex middleware stacks. He founded the AMQP Working Group which brings together users and technology companies to drive AMQP forward. The group currently comprises 20 firms including Cisco, Microsoft, Red Hat, Bank of America, Barclays, Goldman Sachs and JPMorgan. John graduated from formal studies with a BSc Honours degree in Computer Science and Electronic Engineering from Aston University.

Innovation Roundup – Part 2

Each Innovation Roundup presenter has 5 minutes.

<ul style="list-style-type: none"> • “AMQP in Production: Examples and Case Studies of How Customers are Using AMQP Today with Red Hat Enterprise MRG” [slides/video] 	<p>Peter Green, FSI Sales Manager, Red Hat</p>
<ul style="list-style-type: none"> • " Ultra-Low Latency without the Pain: Solarflare’s New Dual-Port Server Adapter " [slides/video] 	<p>Dr. David Riddoch, Chief Software Architect, Solarflare</p>
<ul style="list-style-type: none"> • “Cisco Innovations for the HFT Workload” [slides/video] 	<p>Bret Kean, Systems Engineer, Cisco</p>
<ul style="list-style-type: none"> • “29West Ultra Messaging® Update” [slides/video] 	<p>Annalisa Sarasini, VP Global Sales Messaging, 29West, now part of Informatica</p>

Cocktails