S T A C ™
BENCHMARK COUNCIL

STAC® Performance Summit

November 1, 2010

IBM Innovation Center
71 South Wacker
Chicago

Platinum Sponsor:

IBM

Gold Sponsors:

SOLARFLARE
Communications

(intel)

SPREAD
N E T W O R K S

CISCO

Panel Discussion: Trading technology: Today's challenges and opportunities

*The landscape for trading firms and trading venues continues to evolve in interesting ways. Our panelists offer four different high-level perspectives on the latest issues and their implications for trading technologists.***[video]**

Joseph A. Panfil, Managing Director, Operations and Systems Engineering, CME Group. Joe is responsible for CME Group's computer operations and distributed computing areas, as well as the company's change control and risk evaluation processes. The Distributed Computing group supports CME Group's production, certification, development and quality assurance environments by providing server and storage infrastructure, Data Center Design/support and second level software support. Joe is also responsible for change control and risk evaluation within the Technology Division at CME Group. Before assuming his current role, Joe served as Director, Enterprise Technology Services. Before joining the company, he served as UNIX Group Manager with First Options of Chicago from 1996-97 and supported Tradelink's computerized trading systems from 1989-1996. Joe earned a bachelor's degree in electronic engineering technology from Purdue University.

Matthew A. Giedt, Head of Technology, Bds Quant, LLC. As head of technology, Matt focuses on the development, implementation, and maintenance of the firm's automated trading platforms. Prior to his current role, Matt was a consultant for Citisoft, helping global buy-side asset managers implement new technologies and providing key recommendations on how to optimize the firms' existing technology investments and operational workflows. Through the successful completion of a number of highly visible and forward looking projects, Matt was recognized as a thought leader in the Order Management System and FIX connectivity technology space. Matt has a degree in Computer Engineering from the Dartmouth College Thayer School of Engineering.

Brennan Carley, SVP Product Management and Marketing, Spread Networks. Brennan has extensive strategic and operational experience at leading financial technology and telecommunications firms, including Radianz which he founded, Instinet, Reuters, NYFIX, IBM, Yipes, and Marketcetera. Brennan has advised companies and served as an executive with both operating and strategic responsibility. He has worked closely with many leading venture capital and private equity firms, as an executive in portfolio companies, as an independent board member of portfolio companies, and in an independent advisory capacity. Brennan is a Magna Cum Laude graduate of New York University, with a degree in Economics.

Philip Enness, Banking and Financial Markets Global Solutions Manager, IBM Sales and Distribution. Philip's experience in financial markets spans more than 27 years. He is a key contributor to IBM's Financial Markets strategy and has served IBM in EMEA, North America, China, and other areas of Asia Pacific. Prior to IBM, Philip spent 17 years at trading firms, in senior positions at Midland Bank (Midland Montagu) and Nikko Europe (Nikko Gilts).

Community-specified test regimes for trading systems

Peter will review the purpose and design of five standardized benchmark specifications developed for trading technologies by the STAC Benchmark Council, as well as their corresponding test harnesses. **[slides/video]**

Peter Lankford, Founder & Director, Securities Technology Analysis Center. Peter has overseen STAC since its birth in 2006. Before that, Peter was SVP of Information Management Solutions at Reuters, where he led the $240M market data systems business. Peter's team led Reuters into the business of low-latency direct feeds and catalyzed the widespread adoption of Linux on Wall Street by making RMDS available on that platform. Prior to Reuters, Peter held management positions at Citibank, First Chicago Corp., and operating-system maker IGC. Peter has an MBA, Masters in International Relations, and Bachelors in Chemistry from the University of Chicago.

Innovation Roundup

• "TIBCO Software, Lighting the way to Extreme Low Latency" **[slides/video]**	**William McLane**,Senior Product Architect, Messaging, TIBCO Software Inc.
• "Wire Speed Capture For Latency Sensitive Environments" **[slides/video]**	**Rick Kane**, Regional Sales Manager , VSS Monitoring
• "Leveraging high performance network mirroring for application and transaction analysis" **[slides/video]**	**Nick Ciarleglio**, Senior Architect, Arista Networks
• "Building robust low latency infrastructures" **[slides/video]**	**Jacob Rapp,** Technical Marketing Engineer, Cisco
• "HP Low Latency Solution Update" **[slides/video]**	**Lee Fisher,** Worldwide FSI-HPC Business Development**,** Hewlett-Packard
• "Precise Time Synchronization (and how to measure it)" **[slides/video]**	**Paul Skoog**, Product Marketing Manager, Symmetricom
• "Network driver tuning for financial services configurations" **[slides/video]**	**Allen Light,** Director, Product Management, Broadcom
• "How optimizing cache usage can lead to dramatic performance gains" **[slides/video]**	**Scott Lasica**, VP Global Alliances , Rogue Wave Software

Panel Discussion: Making standards-based infrastructure sing for HFT

Despite an expanding range of choices for low-latency infrastructure, most trading organizations still rely heavily on standards such as x86 and Ethernet. What are the keys to getting the best performance from these standards? Four vendors draw on real customer experiences to illustrate leading approaches.
[slides/video]

Jacob Rapp, Technical Marketing Engineer, Server Access and Virtualization Technology Group, Cisco. Jacob is Technical Lead for Application Solutions, including Financial Services and HFT, HPC and Web Services, for the Nexus Access products. He has over 10 years of IP networking experience. Prior to joining Cisco, Jacob worked at Juniper Networks, Force 10 Networks and Procket Networks (later acquired by Cisco) in various technical positions. Jacob has a B.S. In Computer Science with a minor in Mathematics from San Jose State University.

Steve Pope, Co-Founder and Chief Technology Officer, Solarflare. Steve is CTO for controllers at Solarflare. Previously he co-founded Level 5 Networks and prior to that was a post-doctorate researcher in the field of high-speed networks and operating systems at Olivetti Research Labs, which later became AT&T Laboratories Cambridge. Steve holds a PhD in Computer Science from the University of Cambridge.

David O'Shea, Financial Services ISV Segment Manager, Intel. David has been with Intel for more than 15 years, the last 10 of which he has served as Intel's ISV lead within financial services. During that time, Intel platforms matured from file and print applications to the mission critical work horse of the industry. David has pioneered Intel's efforts to meet industry requirements for risk management, market data, and high frequency trading. Prior to Intel, David worked with leading software providers on RISC and PC platforms. David is married, has three children, and is an avid golfer with a high handicap.

Falke Bruinsma is Chief Architect of WebSphere Front Office and Low Latency Messaging at IBM. Falke joined IBM with its acquisition of InfoDyne, where he was Vice President of Research and Development.