Dependability of e-commerce Systems: Workshop Agenda
Program Chairs: Lisa Spainhower, Nicholas Bowen, Steven Hunter

08:30-08:40 Introductory Remarks................................................................. Lisa Spainhower

08:40-09:20 “The Future of the Internet”......................................................... John Patrick (Attitude LLC)
John Patrick’s presentation and technology demonstrations will bring to life John's vision of the characteristics the next generation of the Internet will have -- a network that will be fast, always on, everywhere, natural, easy, intelligent and trusted. John will provide an exciting vision about the power and the potential of the Internet and how it will provide significant advances in ease-of-life. John will discuss the key opportunities that are just beginning to surface, and the potential limitations that may stand in the way. More importantly, he will offer a visionary glimpse, from his book, Net Attitude, of the future beyond the Internet as we know it.

09:20-10:00 “Managing eBusiness Systems to Increase Availability”.............. Eric Siegel (Keynote)
From the IT manager's point of view, the move to the Internet carries with it a new challenge: the responsibility for assuring performance and availability over a heterogeneous maze of networks and devices that the manager cannot directly control. In this talk, we'll examine some basic ways that an Operations manager can improve MTBF and MTTR. First, to improve MTBF through more realistic testing of applications as they move to production, we'll look at the (sometimes startling) differences between load testing on client-server systems and on Web systems. Second, we'll look at the use of "triage" techniques to improve MTTR by quickly detecting problems and quickly assigning them to the responsible party, whether inside or outside the firewall. And third, we'll look at the raw data and the statistical processes we need both for triage and for long-term performance tracking.

10:00-10:30 BREAK

10:30-11:10 “Challenges of Operating the World's Largest 24x7x365 Email System” Carl Hutzler (AOL)
Running what we believe to be the largest email system in the world is no small task. Combining this with the requirement to be over 99.99% available, in terms of user-minutes, could be considered a daunting challenge. Hear how AOL runs a complex of over 1000 processors on a 24x7 basis. Discussion will include the architecture, tools, and availability practices that have made us successful. In addition, we will discuss the pitfalls we have and in some cases continue to experience as we learn the ins and outs of running AOL’s email system.

11:10-11:50 Section 1 Q&A

11:50-12:30 “Running High Availability E-Commerce Sites on Windows”.... Matthew M. Kerner (Microsoft)
The Windows Reliability Team works with customers to measure the reliability and availability of Microsoft Windows servers in production environments. After analyzing data and working with customers to identify leading reliability and availability issues, the team identifies and publishes best practices and drives product or feature changes to improve customer availability. This talk will focus on recent issues that we have identified in our data analysis, and how subsequent product improvements have resulted in availability and reliability improvements.

12:30-01:30 LUNCH

01:30-02:10 “Autonomic Applications and Autonomic Systems: Dependable Internet-Based e-business” Stuart Feldman (IBM)
Qualitatively, dependable e-business computing requires that users consistently get responses and results they want. Achieving this is of course difficult, and requires consistent management frameworks that apply to all layers, including process integration, solutions, applications, middleware, underlying operating systems and networking. Each of these is very complicated; the totality is much too complex for any programmer to handle or for people to manage directly. This talk will address some of the requirements and approaches that are appropriate for creating a dependable whole out of so many interacting pieces.

02:10-02:50 Section 2 Q&A


03:10-03:30 K. Bhattacharya, S. Kumaran, F. Heath III, “A process oriented methodology for High Availability planning”
Speakers

John Patrick is President of Attitude LLC and former vice president of Internet technology at IBM, where he worked for thirty-five years. During his IBM career John helped start IBM's leasing business at IBM Credit Corporation, and was senior marketing executive for the launch of the IBM ThinkPad brand. Starting in the early 1990s, John dedicated his time to fostering Internet technologies. One of the leading Internet visionaries, John is quoted frequently in the global media and speaks at dozens of conferences around the world. Business 2.0 named him as one of the industry's most intriguing minds, Industry Week named him one of the top 30 people who drive innovation and provide the initial spark to economic growth, and Network World called him one of the 25 most powerful people in networking. John was a founding member of the World Wide Web Consortium at MIT in 1994, a founding member and now the chairman of the Global Internet Project, a senior member of the Institute of Electrical and Electronics Engineers, and a member of the Internet Society and the ACM. He has been an advisor to several Internet companies, including Lou Dobbs' Space.com, ThirdAge Media, IntraLinks and Neoteny. His book, Net Attitude, was released in November 2001.

Eric Siegel, Principal Internet Consultant with Keynote Systems, Inc., "the Internet performance authority," has worked on the Internet since 1978. He wrote "Designing Quality of Service Solutions for the Enterprise" (John Wiley & Sons) and has taught Internet performance tuning and QoS at major industry conferences such as Networld+Interop. Before joining Keynote Systems, Mr. Siegel was a Senior Network Analyst at NetReference, Inc., where he specialized in network architectural design for Fortune 100 companies, and he was a Senior Network Architect with Tandem Computers, where he was the technical leader and coordinator for all of Tandem's data communications specialists worldwide. Mr. Siegel also worked for Network Strategies, Inc. and for the MITRE Corporation, where he specialized in computer network design and performance evaluation. Mr. Siegel received his B.S. and M.E.E. degrees in Electrical Engineering from Cornell University, where he was elected to the Electrical Engineering honor society.

Carl Hutzler is currently the Senior Manager of Mailbox Operations for AOL. Mr. Hutzler joined America Online as a Project Manager in May 1997. As project manager, Carl led the transition of the email system from Stratus Continuum hardware to the Tandem NSK platform. After the transition, Carl took over management responsibilities for the operations team and is currently responsible for the 24x7 availability of the Mailboxes subsystem. AOL's email system is the largest of its kind in the world. It runs on 28 S70000 and over 50 S74000 Tandem NSK nodes and processes a peak of 380 million emails per day. The system currently has over 2.5 billion emails resident and continues to double in size every 11 months. Carl is responsible for a team of database administrators, systems programmers and systems administrators. He also works closely with the mail application development team and AOL business units to solve scaling and technical issues as well as implement new capabilities. Prior to joining AOL Technologies, Carl was network design engineer with Booz, Allen & Hamilton, Inc. a privately held technology-consulting firm. Carl was responsible for a team of network engineers and software developers who designed large-scale enterprise network solutions for major government clients. While at Booz, Allen & Hamilton, Carl also worked as an electrical engineer consulting the Army Tank Automotive Command on technologies involving weapons countermeasures for ground vehicles.

Matthew M. Kerner is Program Manager for the Windows Reliability Team, Microsoft Corporation.

Stuart Feldman is Vice President, Internet Technology, responsible for overall IBM strategies relating to the future of the Internet, as well as managing a department that creates experimental Internet-based applications and drives critical Internet standards. Feldman did his academic work (AB, Princeton and PhD, MIT) in astrophysics and mathematics. He is a Fellow of the IEEE and a Fellow of the ACM. He has been a member of the Board of the Computing Research Association and chair of ACM SIGPLAN and is founding chair of the ACM SIG on E-Commerce. He has taught E-Commerce Courses at Yale School of Management and is a Consulting Professor of Information Technology at Carnegie-Mellon West. He was a computer science researcher at Bell Labs and a research manager at Bellcore before joining IBM in mid-1995. He has published research in software engineering (and was the creator of Make), programming languages, scientific computing and other areas of computer science. He was also architect for a large new line of software products at Bellcore. At IBM's T. J. Watson Research Center, Feldman was Head of Computer Science for IBM Research, with worldwide responsibility for growth and focus on research in computing. He was also Director of IBM’s Institute for Advanced Commerce, an organization dedicated to increasing IBM’s intellectual leadership in e-commerce, to forging better connections to the outside research world, and accelerating creation of new technologies for support of e-Business.