



Portable Computer and
Communications Association

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NEXT MEETING - NOVEMBER 7

The next meeting of the PCCA standards and architecture committee will be on November 7, hosted by NetMotion Wireless. The meeting will tentatively be in Houston, Texas. The focus of the meeting will be on Java and possibly other platforms supporting portable downloadable code. Proposed topics include:

- ❑ The Java 2 Platform, Micro Edition
- ❑ K Virtual Machine (KVM)
- ❑ Connected Limited Device Configuration (CLDC)
- ❑ Mobile Information Device Profile (MIDP)
- ❑ Implications for modem/handset developers
- ❑ Multimedia Messaging Service (MMS) support
- ❑ WAP integration
- ❑ Development implications
- ❑ Testing implications
- ❑ Security considerations
- ❑ Wireless extensions to APIs
- ❑ Other topics to be determined

We are still finalizing the agenda and location for the meeting. Any company wishing to contribute to the agenda should send an e-mail to the PCCA. We have not made a final decision yet on whether we will hold an interoperability workshop at this meeting.

YEAR 2002 AGENDA

We have started defining our technical agenda for next year. In addition to the projects underway (see “Summary of Current Work” at the end of this newsletter), members have submitted a number of subjects for more intensive investigation. The mission of the PCCA is to address topics involving mobile and wireless interoperability, particularly items that involve the overlap and integration of networks, devices, interfaces, platforms and applications. Such items are not normally handled by existing standards organizations.

Some topics suggested so far include:

- ❑ QoS issues, particularly integrating QoS mechanisms in wireless networks with Internet protocols and operating system mechanisms
- ❑ Integration of wireless LANs and wireless WANs (e.g. roaming between the two)
- ❑ Wireless VPNs and other wireless security issues
- ❑ Bluetooth ease of use, application integration

We welcome any input that members may have on what areas of focus would most benefit their organizations.



MEMBERSHIP UPDATE

By Gloria Kowalski.

The PCCA would like to take this opportunity to thank its members for their support and participation in the PCCA.

The PCCA welcomes three new members since the last issue of this newsletter:

- ❑ **Flash Networks.** Affiliate level. <http://www.flashnetworks.com>. Representative: Joe Fried, Director, Product Management.
- ❑ **Megisto Systems.** Affiliate level. <http://www.megisto.com>. Representative: Elvis Tucker, Product Manager.
- ❑ **Toshiba.** Associate level. <http://www.toshiba.com>. Representative: Dang Q Nguyen, Sr. Manager, Wireless Group.,

These companies have submitted the following information for publication in this newsletter:

Flash Networks develops and markets infrastructure products to accelerate TCP/IP applications over wireless data networks, enabling dramatic improvements in network capacity and performance. The NettGain product portfolio, available as a client/server or clientless solution, supports a wide range of architectures, wireless infrastructures and client devices including Windows, Windows CE, Handhelds and PDAs. Its unique technologies, including protocol acceleration, compression and application-specific enhancements, provide a competitive advantage to carrier and enterprise implementers of wireless solutions. Contact Flash in the U.S. at 732-203-4060 or visit their website at www.flashnetworks.com.

Megisto Systems is building infrastructure that enables operators to fully deliver on the promise of the Mobile Internet, and that helps them make it pay through provision of an array of advanced network services. The Megisto team is made up of veterans of both the IP data networking and mobile telecommunications markets, and is a driving force in many of the organizations developing standards and next generation architectures for the Mobile Internet. These experts provide Megisto with the unique insight required to effectively develop the carrier-class infrastructure required to deliver always-on mobile data networks. Megisto Systems' products will be used by mobile operators, IP service providers, and Mobile Virtual Network Operators (MVNOs).

Toshiba Computer Systems Group is one of the world-leading vendors for portable computers. In addition to notebooks, the company offers portable, desktop and server computing solutions for business customers under the Toshiba brand name. With headquarters in Irvine, and with annual sales of approximately \$2.5 billion, Toshiba America Information Systems is comprised of six divisions, organized into two business groups, which manufacture, market and service a wide range of business and information-oriented products in the United States and Latin America. Products include portable and



desktop computers, PC servers and storage subsystems; voice-mail systems; digital business telephone systems; interactive voice-response systems; network systems and digital cameras. TAIS is an independent operating company owned by Toshiba America Inc., a subsidiary of the \$52 billion Toshiba Corp., the eighth-largest computer and electronics company and the world's twenty-sixth largest industrial corporation in terms of sales. Toshiba Corp. is a world leader in high-technology products with more than 300 major subsidiaries and affiliates worldwide.

SUMMARY OF MEETING AUGUST 23

This meeting, held in Redmond, WA, and hosted by AT&T Wireless Services, focused on PDAs and wireless networking. The following companies and organizations participated in the meeting, with fifty-four people attending:

Advanced Wireless, AT&T Wireless Services, Boeing, Cingular Wireless, Cisco, Compaq, Ecutel, Ericsson, Flash Networks, France Telecom, IBM, Icomera, Intel, Kyocera Wireless, Lucas Valley Technologies, MCCI, Medtronix, Megisto Systems, Microsoft, Motorola, NetMotion Wireless, Nokia, Novatel Wireless, NTT DoCoMo/MCPC, Palm Computing, Research In Motion, Rysavy Research, Sierra Wireless, Strix Systems, Toshiba, VoiceStream Wireless and Xybec Solutions.

In addition to a review of current PCCA programs, a number of companies gave special technical presentations, which included:

- ❑ Review Of Interoperability Workshop Prior Day, Francis Truntzer, Intel/MDI
- ❑ 3G QoS Parameters For NDIS Wireless Objects, Masutada Mouri, MCPC
- ❑ AT Commands Via IP, Atis Freimanis, Motorola
- ❑ IEEE 802.11i And 802.1x Security Framework, Dave Halasz, Cisco
- ❑ Compaq IPaq Wireless Directions, Jim Mann, Compaq
- ❑ Windows CE Networking, David Campbell, Microsoft
- ❑ Palm's Wireless Directions, Lars Rehder, Palm Computing
- ❑ PDA To Cellphone Physical Connectivity Issues, Jim Panian, Ericsson
- ❑ Virtual Linking As A Means of Creating the Ideal Mobile Device Network, Duke Kamstra, Strix Systems
- ❑ Mobile Communications - Wireless Connectivity Challenges, Brad Saunders, Intel

Following the presentations, we had a useful discussion that identified additional issues with PDAs and networking.

Complete minutes of the meeting and copies of these presentations are available in the Members Only area of the PCCA Web page at <http://www.pcca.org/private/members.htm>. People from PCCA member companies needing a user ID and password should send e-mail to the PCCA. If you don't know whether your company is a member, please refer to <http://www.pcca.org/membership/members.htm>.



WIRELESS WORKSHOP TASK FORCE (WWTF) UPDATE

On August 22 in Redmond, WA, we completed the second joint PCCA/MDI-ng Wireless Workshop. Our thanks to AT&T Wireless Services for hosting their GPRS network and to Intel for hosting the workshop. Nineteen people from eight companies spent a day testing their products together, using the GPRS network. Testing produced very useful results for the participants, all of whom indicated they found the workshop worthwhile.

Results Summary

Overall, testing showed a high degree of interoperability among products and with the GPRS network:

Some general conclusions were as follows:

- ❑ Windows XP (RC2) has the same or better GPRS experience compared to Windows 2000.
- ❑ We experienced good results with IR connectivity (between computer and handset) using Windows 2000 and XP.
- ❑ We had successful GPRS phone connections using USB.
- ❑ We measured GPRS throughput between 15-31 Kbps, though these were not rigorous tests.
- ❑ Web compression showed up to a four times speed improvement.

Other conclusions were specific to individual companies. It is our policy to keep such information confidential. The real benefit of these workshops is for companies to work together constructively to solve interoperability issues. Many of the participating companies identified items that they could take back with them to improve their products.

What's Next

Testing items previously suggested for the next workshop include:

- ❑ Network Transparency: Public vs. private IP addressing, IP address assignment, Network Address Translation (NAT), Network Address and Port Translation (NAPT), test for IPSec compatibility.
- ❑ End-user Apps (Outlook, Notes, NetMeeting, etc.): Which ones can be used effectively over wireless networks? What are their optimal configurations?
- ❑ Roaming: Effect of roaming in another network on latency, throughput, how IP packets are actually routed, and value-added services.
- ❑ Understanding inherent and implementation-variant latencies of GPRS (and other) networks.



FUTURE MEETINGS

We are currently finalizing the 2002 schedule. The PCCA meets once per quarter. We are planning on meeting February, May, August and November. Any company wishing to host a meeting, please send an e-mail to the PCCA.

For the latest information on PCCA meetings and other events, see <http://www.pcca.org/news/news.htm>.

SUMMARY OF CURRENT WORK

This section summarizes the work currently underway by the standards and architecture committee.

- ❑ **Quarterly Meetings.** These meetings are used to plan our work, provide updates on work projects, and then focus in depth on technical issues facing the industry. At each meeting we analyze one major topic using a symposium format that consists of technical presentations followed by discussion.
- ❑ **Interoperability Workshops.** Working with the MDI-ng, the PCCA regularly holds interoperability workshops that address usage, development, and deployment of mobile devices, networks, and applications. Current workshops are on GPRS. We are planning a CDMA2000 workshop for the first half of 2002.
- ❑ **Wireless Extensions to NDIS.** These objects, which now include support for GPRS, are available in Microsoft Windows. We are working with Microsoft to examine how the OS, protocol stacks, and applications can best take advantage of these objects. Future appendices will define support for UMTS and CDMA2000.
- ❑ **AT Commands via IP (ATVIP).** We have an active technical subcommittee, chaired by Atis Freimanis of Motorola, to examine how AT commands can be transported over IP protocols between a computer and modem. This is important because standards define AT commands for control, but most user sessions are IP based. An ATVIP mechanism will allow in-band signaling.
- ❑ **Apply STD-201 Wireless Objects to USB Control Plane.** We are working with the USB Device Working Group to determine how our work with wireless extensions to NDIS can be applied to the USB framework.

ABOUT THIS NEWSLETTER

This is the newsletter of the Portable Computer and Communications Association. Effective 2000, this newsletter has been distributed via e-mail. The purpose of this newsletter is to keep PCCA members current with the activities and directions of the PCCA. This newsletter is published on a quarterly basis and is distributed to everybody on the PCCA mailing list,



including both PCCA members and non-members. Prior copies of this newsletter are available at <http://www.pcca.org/news/news.htm>.

We welcome contributions. If you have any topics or articles you would like to contribute, please contact us. The editor of this newsletter and chair of the PCCA Standards and Architecture Committee is Peter Rysavy, <http://www.rysavy.com>, 1-541-386-7475. For questions about PCCA membership, please contact PCCA Director Gloria Kowalski, <http://www.pcca.org>, 1-541-490-5140.