PCcA

Portable Computer and Communications Association

http://www.pcca.org

Newsletter

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METRICS ON A PCCA MEETING

We are leading with this item so readers can better appreciate the work of the PCCA. Each of our quarterly meetings takes a significant amount of work in finding an appropriate location, negotiating hotel logistics, obtaining access to wireless networks for our workshops, developing an agenda, soliciting technical content and presentations and executing the actual meeting.

People who attend our meetings regularly state that the quality and depth of the technical presentations and discussion is simply not available in any other forum. Participants not only gain valuable technical information and insight, but they develop important contacts for furthering their technical and business objectives.

Here are some metrics on the meeting held on April 23 and 24 in San Francisco that covered the topics of CDMA2000 and wireless security.

- **Attendees:** 45
- **Companies represented:** 27
- **E-mails sent by Peter Rysavy to coordinate the meeting:** 187
- **E-mails sent by Ron Smith to coordinate the workshop:** 60
- **Hotels evaluated by Gloria Kowalski for meeting/workshop suitability:** 12

Participants giving presentations at these meetings often need to customize material, or develop entirely new presentations, and we are particularly grateful for their contributions.

NEXT MEETING - JULY 16, 17, 2002

Background

The PCCA has conducted a number of workshops with GPRS and 1XRTT networks, and has gained considerable insight into compatibility issues and usage considerations for enterprise applications over cellular data networks. Many member companies have done similar or related work.

The purpose of this meeting is to conduct another GPRS workshop, emphasizing VPN usage, and to analyze and develop recommendations on how enterprise applications can best be used with these new networks.

Preliminary Workshop Agenda (July 16)

This workshop will use GPRS and T-Mobile Broadband Network (to be confirmed) hosted by VoiceStream Wireless.

- Execute VPN test plan from April 23 meeting that used 1XRTT

- ❑ Test enterprise applications across VPNs
- ❑ Conduct experiments to identify VPN performance and compatibility issues
- ❑ Conduct other measurements to evaluate use of enterprise applications
- ❑ Evaluate integrated WLAN/WWAN operation

Preliminary Meeting Agenda (July 17)

The preliminary agenda is as follows:

- ❑ Host presentation by VoiceStream
- ❑ Debriefing of workshop results from prior day (GPRS, T-Mobile Wireless Broadband, VPNs, other applications)
- ❑ Presentation by Microsoft on GPRS Usage Analysis
- ❑ Native support for GPRS in Microsoft Windows
- ❑ Common authentication/billing across WWAN/WLAN
- ❑ Based on all workshop results (multiple GPRS workshops, WLAN, 1XRTT workshop), discussion and analysis of:
    - o Performance of GPRS/1XRTT networks
    - o Best application configurations for GPRS/1XRTT/WLAN
    - o Middleware approaches with GPRS/1XRTT/WLAN
    - o VPN conclusions for GPRS/1XRTT/WLAN
    - o Pros/cons of different remote access models
    - o Suitability of current pricing plans
    - o Identification of work items for future workshops

We are also receptive to any technical presentations related to the agenda.

Registration

The registration deadline is July 10, 2002.

If you are interested in participating in the workshop or the meeting, please register by sending e-mail to the PCCA. Please include your name, company name, e-mail address and phone number.

For information about the workshop, please contact Ron Smith (PCCA Wireless Workshop Chair) at ronald.m.smith@intel.com, 503-456-1649.

Organizations that are not PCCA members and that have not attended prior PCCA meeting may attend for a fee of $300 per person. This fee is waived under special circumstances. For further details, visit our web site at http://www.pcca.org. Meeting agendas are located in the News and Activities section.

WIRELESS WORKSHOP TASK FORCE (WWTF) UPDATE

By Ron Smith, WWTF chairman.

PCCA members from 18 companies turned out for the fourth wireless interoperability workshop in San Francisco in April, and proved that we are not just interested in GPRS, by testing on Verizon's 1xRTT network. The theme for the workshop was Enterprise Access, and we were able to gather lots of data regarding network / VPN compatibility and performance. Verizon, along with Kyocera and Sierra Wireless did a terrific job of providing coverage, phones, and PC cards for PCCA members to test with. Among our findings was that the seven VPNs tested had only a 4% hit on average to Internet download speeds. That, coupled with good data rates over the air, resulted in a good intranet access experience.

That being said, the next workshop, on July 16th and17[th] in Bellevue, will re-focus on GPRS. Our network host will be VoiceStream, and plans are to repeat the Enterprise Access testing theme. Please go to http://www.pcca.org for logistics and venue. I will be updating the testing document and contacting the testing 'regulars' over the next couple of weeks. In the meantime, please email or call me if you are planning to attend, would like us to invite a specific company to participate, would like more information, or have suggestions. In particular, I would like to encourage companies that have not previously attended our workshops, but who have an interest in understanding how their application or middleware may perform in a wireless environment to participate.

Regards,

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MEMBERSHIP UPDATE

By Gloria Kowalski.

The PCCA welcomes new members IBM and WideRay Corp. Here is information that these companies have provided.

IBM, Associate level. http://www.ibm.com. Representative: Peter Lee, Senior Technical Staff Member.[1]

IBM is very focused on providing our customers with "Anytime, Anywhere" connectivity for eBusiness applications. As proof points, IBM has integrated Bluetooth, Wi-Fi, 10/100 Ethernet, Modem, and IR in select ThinkPad models. To address the ease of use issue IBM also includes IBM Access Connections with its ThinkPads. Access Connections is a location manager that makes it very easy for the user to switch between different wired and/or wireless networks by simply clicking on the desired profile. Each profile can have

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[1] We introduced IBM in the last newsletter, but did not have a company description at that time.

different network, VPN, application program, browser, and printer settings. IBM leads in the creation, development and manufacture of the industry's most advanced information technologies, including computer systems, software, networking systems, storage devices and microelectronics. And our worldwide network of IBM solutions and services professionals translates these advanced technologies into business value for our customers.

Wide area connectivity is fast approaching a need for our customers to stay connected and reachable in various geographies, whether it is voice or data. The industry will embrace this form of communication as an essential tool to do business. IBM would like to enable our customers with the technology, solution and services to make this pervasive. This is the very reason, IBM has join PCCA, as it has vested interest in creating a market opportunity and assuring interoperability between various mobile terminals and wireless network infrastructure. IBM believes that creating an industrial standard for PC industry, broad wireless WAN coverage and a reasonable pricing structure for consumers and corporate users will fuel the market for wireless WAN applications.

WideRay Corp, Affiliate level. http://www.wideray.com. Representative: Saul Kato, CEO.

WideRay is an equipment and integrated platform provider focused on the high-speed free-spectrum on-location wireless data services market. WideRay has developed a new single-box architecture for deploying centrally managed, high-speed, low-cost wireless data services in scale, using both infrared and short-range RF for connecting with mobile devices. WideRay's back-end architecture is based on GSM/GPRS for global, always-on support.

WideRay's novel architecture is embodied in WideRay's first hardware product, the Jack Mobile Caching Server. The Jack can communicate and deliver content, applications, access, and transactional services to a wide variety of mobile devices via infrared, 802.11, and Bluetooth.

WideRay has over 50 enterprise customers in a wide variety of verticals, including Trade Shows/Conferences/Events, Health Care, SFA/mobile CRM, Media, Education, and Government.

For membership information please check our website at www.pcca.org or contact me directly by phone at 541-490-5140.

ANDY SEYBOLD ON THE PCCA

The following column by Andy Seybold appeared in Wireless Week on June 3, 2002.

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This month I'd like to introduce you to the Portable Computer and Communications Association (www.pcca.org), a nonprofit organization that doesn't charge a lot of money for membership. The PCCA works to establish wireless standards (the wireless extensions for the Modem AT command set came from the PCCA) and works with a sister organization (MCPC) in Japan. Most notably, the day prior to its quarterly meetings it holds interoperability workshops.

Member companies include AT&T Wireless, Cingular Wireless, Ericsson, Intel Corp., Microsoft, Motient Corp., NetMotion Wireless, Nokia, Novatel Wireless, Sierra Wireless, Toshiba Corp., VoiceStream Wireless Corp. and others. Quarterly meetings are based on specific themes and industry speakers are invited to explore the topics in detail. Topics for the April meeting were CDMA2000, wireless virtual private networks and wireless security.

Interoperability workshops provide an opportunity for members to gain valuable experience with new networks and to test their products for interoperability. Each workshop focuses on a single network. Over the past nine months, Cingular, AT&T, VoiceStream and Verizon have provided network access for these events and between 15 and 20 companies have had an opportunity to test their products at each event.

Beyond the testing, members gain insight into technical issues through interaction with other companies with immediate access to their representatives, including those of the network operator. Individual rooms are available for companies to test their products without the presence of other vendors. These sessions provide them with the opportunity to work with network operators to make sure that their products work properly. There is also a common testing "lab" where many vendors meet and work together testing products and integration.

During these workshops, member companies are able to show their products and services to key individuals from other companies, thus developing or strengthening business relationships. Finally, interoperability workshops play an important role in identifying complete mobility solutions, which benefits the industry as a whole (e.g., best use of VPNs with wireless networks, latency times and other real-world information.)

At the CDMA2000 1X workshop held in April, 18 companies were represented. Verizon provided the network, Sierra Wireless provided PC Cards and Kyocera Wireless supplied CDMA2000 1X phones and interconnection cables. Seven companies tested VPNs. All of these VPNs worked over the Verizon network and the average overhead was only 4 percent. This is low overhead and when paying by the byte, it doesn't have a major impact on the cost of a wireless data session. However, it was also discovered that VPNs are not a good fit with per-minute billing since the VPN tends to keep the system up and running even when data is not flowing.

Each workshop not only enables companies to make sure that their products work with a specific network, it enables them to make sure that their products work with products from other companies. During all three workshops held so far, companies taking part in the tests validated their own findings–or determined that they had a problem that they then worked on with the network operator platform or other vendor. Many companies work side-by-side to determine the optimum configuration of their hardware and software.

The value to member companies is obvious. Because the PCCA is a neutral, unbiased organization, companies that take part in these workshops find out what works and what doesn't and are able to verify the performance various combinations of wireless data products and services will deliver to the customer.

My hat is off to the folks at the PCCA: Peter Rysavy, executive director; Ron M. Smith of Intel, who organizes the workshops; and a number of others who, while working for their own companies in a very competitive market, share the belief that getting things right for everyone is paramount. If we are to have a successful wireless data industry, we need more companies working together for the good of the entire industry. The PCCA is bringing companies together.

BOARD ELECTIONS

In March, the PCCA elected a new board of directors for the term April 1, 2002 to March 31, 2004. Please welcome our new board:

Executive Members:

Boris Fridman, Broadbeam
Masahiro Hataguchi, Mobile Computing Promotion Consortium
Mike Hlavaty-Laposa, AT&T Wireless
Robert O'Hara, Microsoft
Jim Panian, Sony Ericsson
Peter Rysavy, Rysavy Research
Andrew Seybold, Outlook4Mobility
Ronald M. Smith, Intel

Associate Members:

Steve Medina, Toshiba America
Terrill Moore, MCCI
Dave Robins, Motient
Emil Sturniolo, NetMotion Wireless
Richard Wodzianek, Sierra Wireless

LAST MEETING, SAN FRANCISCO, APRIL 23, 24

This meeting focused on CDMA2000, wireless VPNs and wireless security. The meeting was well attended with forty-five people from the following organizations:

AT&T Wireless, Certicom, Cingular Wireless, Cisco Systems, Ecutel, Ericsson, Flash Networks, Kyocera, IBM, Intel, MCCI, MCPC, Megisto Systems, Microsoft, NetMotion Wireless, Nokia, Novatel Wireless, Oulook4Mobility, Qualcomm, ReefEdge, Rysavy Research, Sierra Wireless, Sony Ericsson, Toshiba, Verizon Wireless, Waterforest Consulting and WideRay Corporation.

This meeting, held in San Francisco, hosted by Qualcomm, presented information about CDMA2000, BREW and examined the use of VPNs over wireless networks and wireless security issues in general. Presentations, listed in the order given, included:

- Hosting Company Presentation, Ryan Gorostiza, Qualcomm
- Review Of Interoperability Workshop Program and Prior Day Workshop Results, Ron Smith, Intel
- Verizon Wireless - Wireless Data & Internet Services, Franke Martinez, Verizon Wireless
- CDMA2000 Architecture, Protocols And Performance, Peter Rysavy, Rysavy Research
- BREW - Delivering Secure Applications, Brian Kelley, Qualcomm
- Securing Mobile Intranet Access to Corporate Data, Rich Neves, Reefedge
- Wireless and Mobility, Warren Barkley, Microsoft
- Challenges Of Wireless Security, Paul Fahn, Certicom
- The Mobile Enterprise - Requirements and Service Options, Elvis Tucker, Megisto Systems
- MCPC Proposal to NDIS Wireless Extension (PCCA STD-201), Hiroyuki Sakamoto, MCPC
- ME-UART Interface Specification for IMT-2000 Systems, MCPC
- Mobile Computing Market Demand Forecast in 2002, MCPC

Thanks to Qualcomm for hosting this meeting, Intel for sponsoring the workshop on April 23, Verizon Wireless for hosting their network, and Kyocera and Sierra Wireless for providing devices for the workshop.

Notes, presentations and the minutes (which include meeting conclusions) are available in the members' section of the PCCA web page at http://www.pcca.org/private/members.htm. If your company is a PCCA member and you do not have a user ID/pwd, please send a request to the PCCA. If you do not know whether your company is a member, check http://www.pcca.org/membership/members.htm.

FUTURE MEETINGS

The PCCA meets once per quarter. Beyond the meeting on July 16,17, we are planning on an additional meeting on October 22, 23. Any company wishing to host a meeting, please send an e-mail to the PCCA. Why would you want to host a meeting? There are two reasons. First, it is often less expensive to host a meeting in your local area than to travel to one. Second, the hosting company is invited to present information about its products and services in a host presentation at the beginning of the meeting.

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 or more major topics using a symposium format that consists of technical presentations followed by discussion.

❑ **Interoperability Workshops.** The PCCA regularly holds interoperability workshops that address usage, development, and deployment of mobile devices, networks, and applications. We have held four GPRS workshops so far, using network provided by AT&T Wireless, Cingular Wireless, Verizon Wireless and Voicestream Wireless.

❑ **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 a technical subcommittee, chaired by Atis Freimanis of Motorola, to specify 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.

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, 1-541-490-5140.