# *Newsletter*

## *March 8, 2003*

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## INTRODUCTION

Wireless-data continues to gain traction. WLAN technology has become mainstream; 1XRTT and GPRS are available worldwide with a wide variety of user devices; the number of wireless hotspots is expanding; and Bluetooth is becoming a standard option on many user devices. However, interoperability and ease-of-use issues remain, and the PCCA continues to address the barriers that still prevent many of these technologies from being broadly adopted.

## WHO PARTICIPATES IN THE PCCA AND WHY

Companies who find the most value in the PCCA, as expressed by their ongoing membership, and comments made about their memberships, are those that participate the most actively. It would be easy to conclude that companies participate because they find the work of the PCCA valuable. However, the opposite is more likely the case. Companies actually make their involvement worthwhile through the process of active ongoing participation. There are a number of reasons that this ongoing participation proves value for so many members:

1. The PCCA addresses industry issues at a technical level and with a technical scope not addressed by other industry forums.

2. The PCCA brings together technical experts from a wide variety of companies, including operators, device vendors, platform vendors, infrastructure software vendors, and applications providers. The PCCA is thus able to analyze complex technology deployment issues from a broad perspective.

3. Participants are able to network with each other and to jointly solve problems, both within the scope of the PCCA agenda and outside of it.

4. Actively involved companies are able to ensure that the PCCA work agenda best overlaps with their corporate direction. This happens both at meetings and through board involvement.

5. Active members leverage the PCCA relationship to achieve significant objectives. For example, Intel held their Centrino compatibility testing at the same location as the last PCCA meeting, which allowed attendees to both attend the PCCA meeting and to participate in Intel's workshop. See further below for further details about this workshop.

## SPREADING THE WORD

In many larger companies, there are often multiple groups who are interested in the work of the PCCA. In many cases, however, other groups are not aware of our work. We would like to encourage multiple groups in member organizations to participate in the PCCA. Feel free to forward meeting announcements within your organizations. To facilitate this further, we offer the following:

1. **Mailing List.** We can add any number of people to our main mailing list, which makes it easy for other people to receive notifications about meetings, minutes and so forth. Send e-mail to pcca@pcca.org to request mailing list additions. If you want to know who in your organization is already on our mailing list, just ask us.

2. **Members Web Page.** We can provide access to the member's part of our Web site to as many individuals in any member company as are interested.

# WIRELESS AND MOBILE TAXONOMY

At the last meeting, Emil Sturniolo led a discussion to define terms commonly used in the industry. Unfortunately, these terms are used in an inconsistent fashion, and generate considerable confusion, especially among end-user organizations. Some of the worst culprits include:

**Ad hoc**
**Mobility**
**Nomadic**
**Portability**
**Roaming**
**Persistence**
**Policy**
**Ubiquitous**
**Seamless**

Other terms that are used inconsistently include: Authentication, Authorization Macro-Mobility, Micro-Mobility, Mobile IP, Network Security and Transportable.

To illustrate, Emil presented some industry definitions. As defined in "DHCP for Mobile Networking with TCP/IP", Charles E. Perkins and Tangirala Jagannadh, IBM, T.J. Watson Research Center, 1995:
"… Mobility is the capability of transacting continuous network traffic as long as there is a physical path available for data…"
"…Portability is just the ability to initiate network transactions whenever there is a physical data link available…."

As defined by the OpenGroup MMF, Secure Mobile Architecture Issues and Requirements,
"…mobile means to be communicating while moving around…"
"…or it can mean that communications happen at fixed places but the user and device are often in transit between them (portable)…"

One member suggested a definition of Nomadic Internet:

"The personal power and freedom to access the Internet and the content of one's choice at whim, no matter where daily living takes us, be it for business or personal reasons (without the "tax" of logging on or booting up)."

The PCCA is soliciting definitions of these terms. If we receive a worthy set, we will publish them. Please send contributions to Peter Rysavy at rysavy@rysavy.com.

# NEXT MEETING – MAY 28, 2003 – PERSONAL-AREA NETWORKING

## Background

The purpose of this meeting is to examine developments for tethering wireless devices (e.g., mobile telephones) to computing platforms, and for personal-area networking in general. Proposed topics include:

- What are the different personal-area usage models?
- How important are PANs for the success of 3G applications?
- What are the pros/cons of different tethering approaches?
- Is Bluetooth ready for wide adoption or do ease-of-use and interoperability issues remain?
- How serious are Bluetooth and WLAN interference issues and what are the remedies?
- Will Bluetooth displace IRDA?
- What is the future of Ultra Wideband (UWB), including capabilities, standardization, regulatory issues, interference issues and deployment? What will its impact be on other radio technologies?
- What is the status of other IEEE 802.15 personal-area networking standards?
- What are the most recent developments with USB, USB On-the-Go and what are the applications?

Our agenda is almost full, but we are still open to additional contributions for this meeting. Please contact Peter Rysavy at rysavy@rysavy.com if you would like to present at this meeting.

## Preliminary Agenda

Meeting time: 9:00 AM to 5:00 PM. May 28, 2003. The preliminary agenda is as follows.

- Introductions
- Organization update and future meetings
- Introduction, Bob O'Hara, Microsoft
- Update, Windows WWAN support, Microsoft
- Presentation, Bluetooth, Mike Foley, Microsoft
- Presentation, Personal-area Networking in Medical Applications, Medtronic
- Presentation, "UWB Communications Technology: PANs or LANs?", Richard Paine, Boeing
- Presentation, USB and USB On-the-Go, Paul Berg, MCCI
- Other presentations to be determined
- Discussion and analysis

## Meeting Logistics

The meeting will be held on the Microsoft campus and details will be posted soon. Hotel and registration details are available at http://www.pcca.org/news/Agendas/ag03-05.htm.

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## MEMBERSHIP UPDATE

By Gloria Kowalski.

The PCCA welcomes iPass as its latest members:

**iPass.** Associate level. http://www.ipass.com. Representative: Rick Bilodeau, Director of Corporate Marketing.

Here is company-overview information from the iPass Web page:

As a leading virtual network operator, iPass provides quick, reliable and secure connections to corporate networks, e-mail and the Internet in approximately 150 countries. iPass contracts with over 200 global network providers to deliver on-demand local connectivity using the iPassConnect™ client.

Companies choose iPass for simple and secure mobile access to access points at iPass-enabled airports, hotels and conference centers via wired and wireless broadband service, as well as dial-up, ISDN and Personal Handyphone Systems (PHS). The iPass solution enables interoperability between customers' security management policies while integrating with their existing VPN and authentication systems.

Founded in 1996, iPass is headquartered in Redwood Shores, California, with employees in North America, Europe and Asia Pacific.

## CENTRINO TESTING AT LAST PCCA MEETING

By Ron Smith, Intel, Wireless Workshop Task Force Chair, March 6.

At last month's PCCA meeting in San Francisco, Intel kicked off a month-long round-the-world tour for testing the compatibility between existing wireless WAN (WWAN) devices and the soon-to-be-launched generation of Intel® Centrino™ mobile technology notebooks. We chose to coincide with the PCCA event because of the amount of overlap between PCCA members and the needed operators, WWAN device vendors, notebook vendors, and software vendors. Intel considered the event a total success: 27 engineers from 12 companies tested 17 different 1xRTT/GPRS PC cards and handsets with 7 different notebooks on three WWAN networks hosted by their respective operators. My thanks to all for participating! Although results of testing between vendors were kept confidential, Intel identified a number of important problems and issues from their own testing. As of this writing, the Intel testing team is in London, having visited Tokyo, Beijing, and Stockholm. Next is Munich, then back home. By then, we will have tested between 40 and 50 WWAN devices on between 15 and 20 networks. I will be glad to share our experience and findings at a future PCCA meeting.

# Last Meeting: Feb 4-5, 2003

## Mobile IP, Application Persistence and Roaming

Held February 4, 2003 at the San Francisco Airport Hyatt Regency. Thanks to The Open Group for collaborating on this meeting.

Forty-nine people from the following organizations attended:

AT&T Wireless, Boeing, Cingular Wireless, Cisco Systems, Cometa Networks, Ecutel, Ericsson Mobile Platforms, Fujitsu Laboratories/MCPC, Hughes Network Systems, IBM, Intel, Medtronic PhysioControl, Melard, Microsoft, Mitre, Moore Computer Consultants Inc (MCCI), Motorola, NetMotion Wireless,  Novatel Wireless, The Open Group, Rysavy Research, Sierra Wireless, Sony Ericsson Mobile Communications, Toshiba, Verizon Wireless, WideRay and Xybec Solutions.

### Invitation to PCCA Members from The Open Group

Stef Coetzee of The Open Group invited PCCA members to participate in the Open Group Thursday meeting on its project to specify Secure Mobile Architecture. The Open Group is also inviting PCCA members to become Open Group members for free during 2003 to encourage participation in its technical work. Please contact Stef (s.coetzee@opengroup.org) for details.

### MCPC (Japan) update,  Masao Yamasawa,  Fujitsu/MCPC

Masao Yamasawa, chair of the Mobile Computing Promotion Consortium WLAN committee, gave an overview of public WLAN developments in Japan, including: a summary of operator offerings; deployment, technology and business issues; and details of NTT DoCoMo's Mzone service. MZone will include the ability to handover from MZone to FOMA 3G service.

Note: the PCCA also has an MoU with the MCPC.

### Presentation and focused discussion from Emil Sturniolo,  NetMotion Wireless, "Mobile  Taxonomy"

Emil Sturniolo moderated a vigorous discussion on definitions of terms such as mobility, portability,  roaming, persistence, security and authentication.

There was a general feeling that the PCCA could make an industry contribution by developing standard definitions for these terms as they are used inconsistently, and confuse customers.

### Presentation from Read Bell,  Cisco,  "Mobile IP Deployment: Issues and Solutions"

Read Bell presented on the benefits of Mobile IP, mobility in the enterprise, Mobile IP services architecture and Cisco's support for Mobile IP in IOS (since 1999). He covered deployment issues, different deployment approaches (e.g., centralized home agent, distributed home agent), and implementation considerations (e.g., dynamic home agent assignment).

**Presentation, Larry Brilliant, CEO, Cometa Networks (AT&T, IBM, Intel venture for a nationwide wireless hotspot network)**

Larry Brilliant described Cometa's business plans and deployment strategies. Cometa intends to be a public WLAN wholesaler, and to have a hotspot within five minutes walking distance in all major metro areas, and within five minutes driving distance in suburban areas. The initial goal is 20,000 hotspots.

**Presentation from Bill Cole, Ecutel, "Mobile IP in the Enterprise"**

Bill Cole described enterprise mobility problems, network security problems, and how Ecutel addresses this in a solution using Mobile IP and IPSec protocols. Ecutel's product supports roaming between 802.11 and wide-area networks.

**Presentation from Dennis Anderson, IBM, "Secure IP Roaming in a Heterogeneous Network Environment."**

Dennis Anderson discussed the challenges for enterprises to support multiple wireless networks, including new public 802.11 networks and a variety of legacy networks, some of which are not based on IP. Ideally, customers should be able to have applications roam across these various networks. Topics included the use of VPNs, 802.1X, Mobile IP, and security approaches. He finally described IBM's Everyplace Connection Manager.

## Workshop: Enterprise Adoption of Wireless Data - Barriers and Solutions, February 5, 2003

Joint session of PCCA and MMF.

Thirty-four people from the following organizations attended:

AT&T Wireless, Boeing, Cingular Wireless, Distributed Mgmt Task Force (DMTF)/Cisco, Ecutel, Fujitsu Laboratories/MCPC, Hewlett-Packard, Hughes Network Systems, IBM, ipUnplugged, Kyocera Wireless, Lockheed Martin, Microsoft, MITRE, Medtronic PhysioControl, Motorola, NetMotion Wireless, The Open Group, Pacific Gas and Electric, Rysavy Research, Sierra Wireless, Tertius Intelligence Services, US Dept of Defense/DISA and Verizon Wireless.

**Richard Paine, Boeing, "Boeing Secure Mobile Architecture."**

Richard Paine presented on Boeing's use of wireless networking, which emphasizes WLANs, and the eventual use of voice over IP. He described Boeing's wireless security architecture, and described the key issues Boeing is addressing.

**Jan Forslow, CTO, ipUnplugged, "IP mobility in Enterprise Environments."**

Jan Forslow described business uses cases for IP mobility, the market drivers, the needs for stable IP addresses while mobile, and various strategies to achieve this. He described the mobility solution that ipUnplugged developed for Vodafone that uses Mobile IP and IPSec protocols.

**George McQuillister III , Mobile Computing Architect, Pacific Gas and Electric Co., "Wireless Data Networks, A California Gas and Electric Utility Perspective."**

George McQuillister described how PG&E uses wireless technology, what their approach is for making network and technology selections, and what they see as the major wireless technology challenges.

**Edward Kemon, The MITRE Corporation, "Department of Defense Wireless Policy Development, Status Briefing."**

Edward Kemon presented on a new Department of Defense wireless policy statement that seeks to establishes minimum thresholds, promote interoperability and to educate users.

# 2003 MEETINGS

The PCCA meets once per quarter.

The meeting after the May meeting discussed above will be in August, hosted by Cingular Wireless, on the topic of Enhanced Data Rates for GSM Evolution (EDGE). This will be done in conjunction with an interoperability workshop focusing on device / interface / platform / middleware / application integration.

We are currently planning the Q4, 2003 meeting.

For any company wishing to host a meeting; please send an e-mail to pcca@pcca.org. 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 GPRS and CDMA2000 1XRTT workshops so far, using network provided by AT&T Wireless, Cingular Wireless, T-Mobile and Verizon 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.

## 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 at pcca@pcca.org. The editor of this newsletter and chair of the PCCA Standards and Architecture Committee is Peter Rysavy, rysavy@rysavy.com, 1-541-386-7475. For questions about PCCA membership, please contact PCCA Director Gloria Kowalski, pcca@pcca.org, 1-541-490-5140.