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August 8, 2001

VIA HAND DELIVERY

Magalie Roman Salas, Esq.
Secretary
Federal Communications Commission
445 12th Street, S.W.,
Washington, DC 20554

Re: In the Matter of Authorization and Use of Software Defined Radios, ET Docket No. 00-47

Notice of Oral and Written Ex Parte Presentation

Dear Ms. Salas:

On Monday, August 6, 2001 Ron Smith, Senior Vice President of Intel's Wireless Communications and Computing Group, and Peter Pitsch and Mike Chartier of Intel met with Adam Krinsky, Legal Assistant to Commissioner Gloria Tristani. In general Mr. Smith restated Intel's positions contained in its comment and reply comments in the above referenced proceeding and discussed the attached presentation. Specifically, he and Mssrs. Pitsch and Chartier stated: open architectures and standard interfaces in wireless networks and devices are necessary to spur the development of data applications; Intel's Personal Internet Client Architecture will foster the development of data applications because it defines interfaces between the communication and computing blocks; the FCC should promulgate SDR rules that explicitly exclude data applications from equipment certification regulation; and this approach would permit operators to set the level of openness of their systems. Finally, in the course of this discussion Mr. Smith also stated that Intel believes the FCC should

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List A B C D E

use market-based spectrum management techniques to substantially increase the amount of spectrum available for wireless Internet applications.

Pursuant to Section 1.1206(b) of the Commission's Rules, an original and one copy of this letter are being submitted to the Secretary's Office and a copy is being provided to each of the above referenced FCC personnel. Please inform me if any questions should arise in connection with this filing.

Respectfully submitted,

Peter K. Pitsch

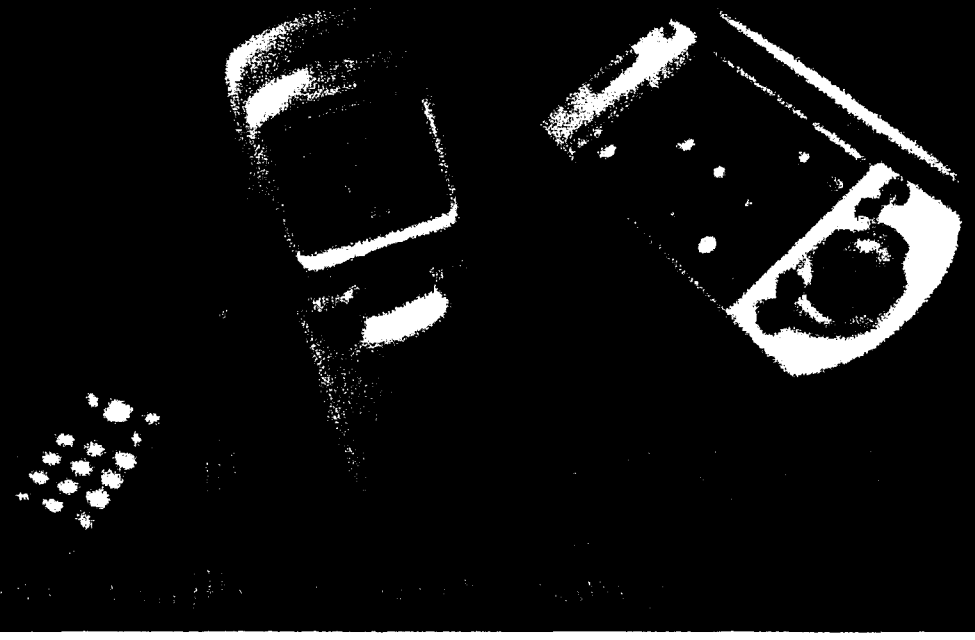
Peter K. Pitsch

cc: Adam Krinsky

Intel's Wireless Perspective

Ron Smith
Senior Vice President and General Manager
Wireless Communications and Computing Group

August 6, 2001



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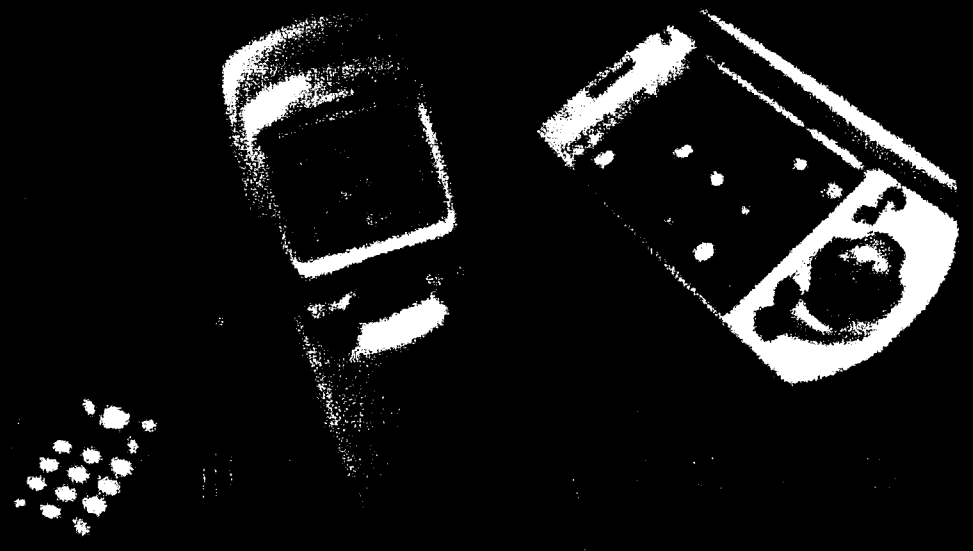
Agenda

Environment

Intel's Wireless Strategy

Related Regulatory Issues



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Wireless Environment

Market healthy as measured by demand metrics MOU & subscriber growth.

Consumers benefiting from dropping prices & increased competition, but.....

Roadblocks exist to realizing true promise of bringing the Internet to wireless.

PC Economics, "Software Spiral", vital to creating value, finding new uses and users, for wireless services.

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Ingredients Critical to Enabling the Software Spiral In Wireless

1. Increasing Processing Power

2. Open Architectures
   & Standard Interfaces

3. Removing Bandwidth
   Bottlenecks

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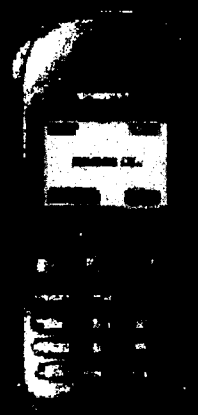
Ingredient # 2: Open Architectures and Standard Interfaces

Today's Development Paradigm Means No "Software Spiral"



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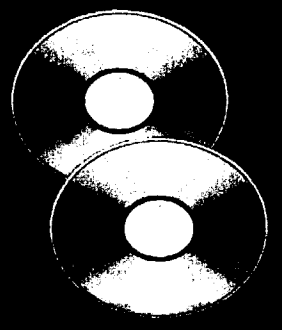
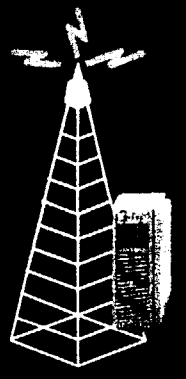


Applications



Comm. Type Approval

End Users

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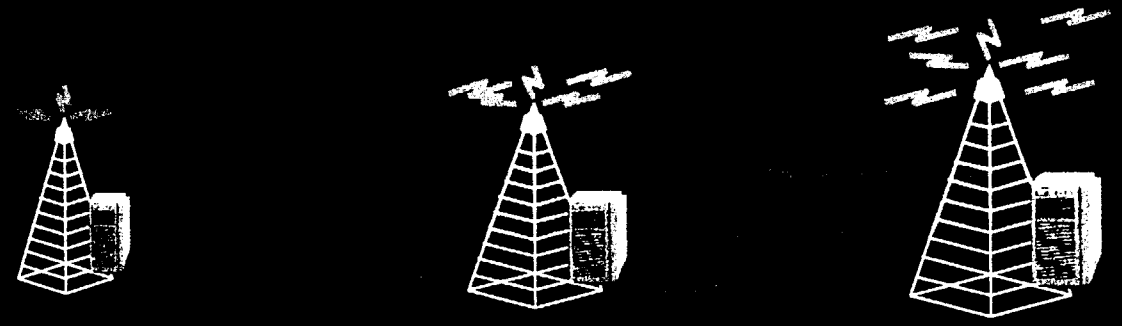
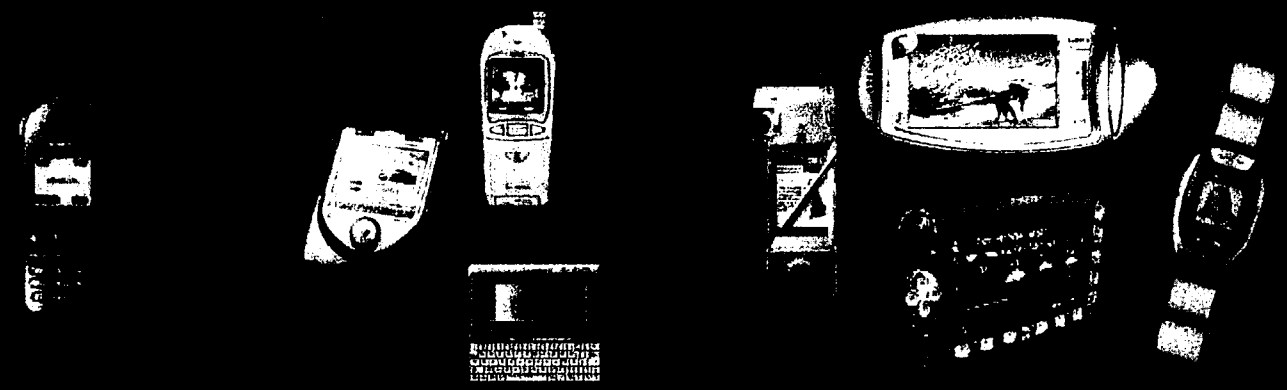
Abstraction Layers Needed to Enable New Development Paradigm

Communication



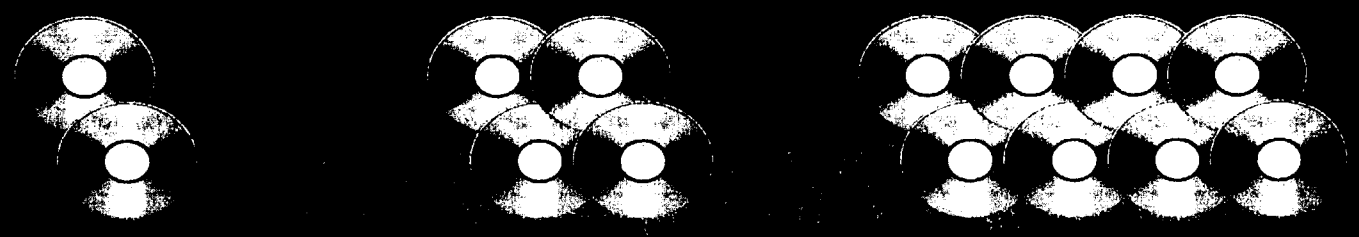
DECOUPLING NETWORK; ESTABLISH "NETWORK DEMARCATION"

Clients



DECOUPLING APPLICATIONS

Applications



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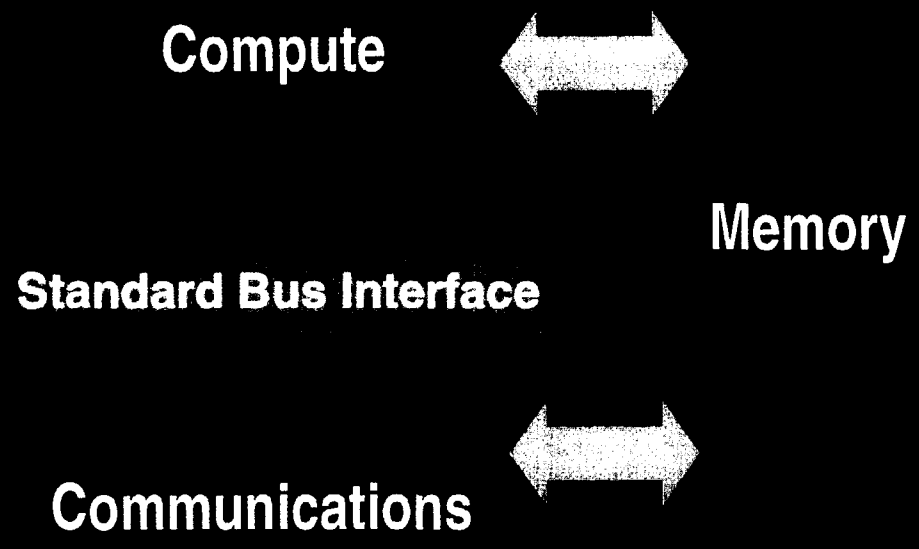
Intel® Personal Internet Client Architecture-PCA



- An Open HW and SW platform framework.
- Defines the interfaces to abstract the communication and computing blocks.
- Applications written to a general purpose processor in a high level language enables huge developer community.
- Flexible and Adaptive Architecture for multiple device types.

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Related Regulatory Issues:
Software Defined Radio NPRM

Two Areas of Concern:

- Long-Term Promise of Spectrum Utilization.
  - *CTIA cited SDR in recent testimonies*
- NPRM exposed the immediate need for equipment certification rules update.

Proceeding is particularly important because Regulatory Agencies in ROW are looking to the FCC for guidance in this area for their own rule makings which may begin later this year.

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Software Defined Radio SDR

Equipment Certification Need Rules update.

- "Permissive change" rules never envisioned programmable devices as we know them.
- Currently, only original grantee can make permissive changes.

Three Viable Solutions:

Intel: Specific to devices; explicitly exclude application software from regulation.

Motorola: Broader approach; Updates permissive change regime for Software era; let third parties make Class I changes

NTIA: Mandate "security plan" to protect radio from user-loaded software.

Operators can still set the level of openness of their systems.

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Ingredient # 3: Relieving Spectrum Scarcity.

- Spectrum scarcity—why Intel cares?
- Auctions as messenger
- Wireless spectrum scarcity is artificial
  - Only 155 MHz is wireless today
  - Additional 200+ MHz needed
- Greater reliance on market forces
  - Fungibility
  - Transferability
  - Look for "win/win" situations.
- High tech looking to get more involved

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