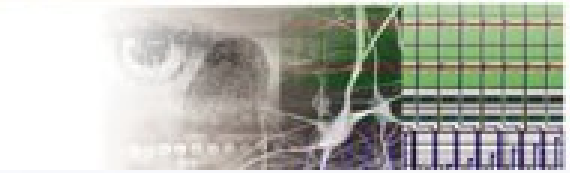
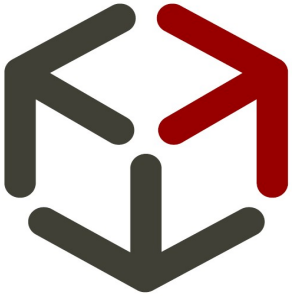
EuroTecH GROUP

Digital Technologies For a Better World





EXADRON

A DIVISION OF EUROTECH S.P.A.

Systems and Components for High Performance Computing

Eurotech today

Continuous Investment in R&D activities

A centre of technology excellence" offering innovative solutions

A "factory of ideas" with to eye on future scenarios

a Fabless production model

Active in the fields of

- Miniaturized computers (NanoPC)
- High Performance Computers (HPC)

Present in

- Europe (Italy, French, Germany, Finland)
- North America
- China (Shanghai)

Group overview

Business Units: NanoPC & HPC

NanoPC

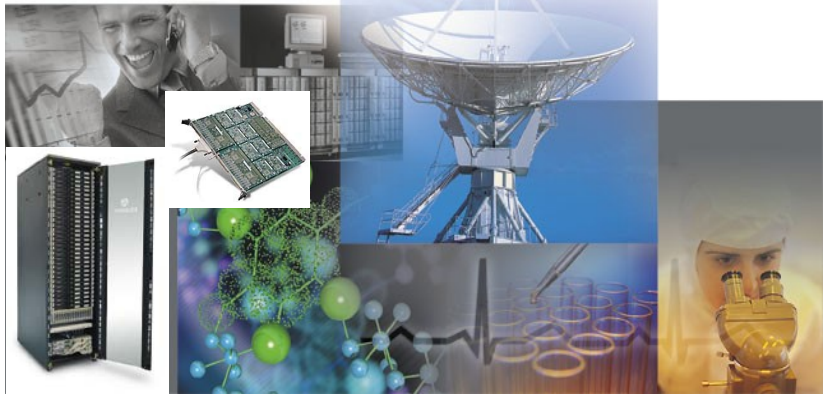
Eurotech
Parvus
Erim

Transportation,
Defence,
Medical

HPC

Eurotech Exadron

Universities,
Research institutes



Eurotech Ascensit
IPS

Industrial

Neuricam

Medical,
Industrial,
Transportation

NanoPC

- High-performance low-consumption miniaturized computers
- Compliant with international standards
- Provided with standard interfaces and standard programming languages
- Rugged and reliable, they operate in critical environmental conditions
  - vibrations, humidity, mechanical shock, extreme temperatures

NanoPC inside: some examples

AVL-AVM
Public-Transportation

Stereo-Vision Cameras
People-Counting

6.4” Multi-
Function Display

Industrial HMI

Train Cockpit MMI

Network Appliance:
Bandwidth Manager

Advance Traffic Controller
ITS

VISoc: A Vision System on Chip

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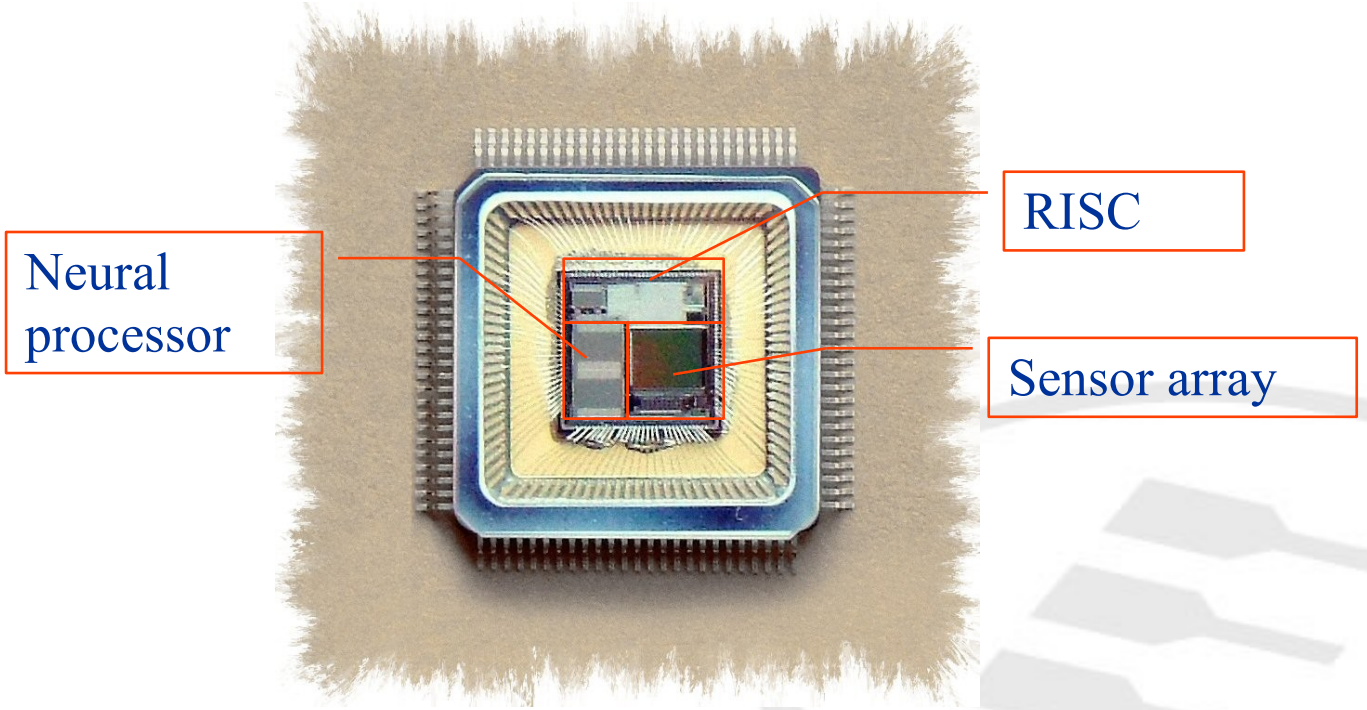
Family of SOC smart cameras

320x240-pixel (1/4 VGA), 120 dB dynamic range logarithmic sensor, 10-bit A/D converter, 32-bit, 40 MHz RISC CPU, NN with 32 processors, SPI interface



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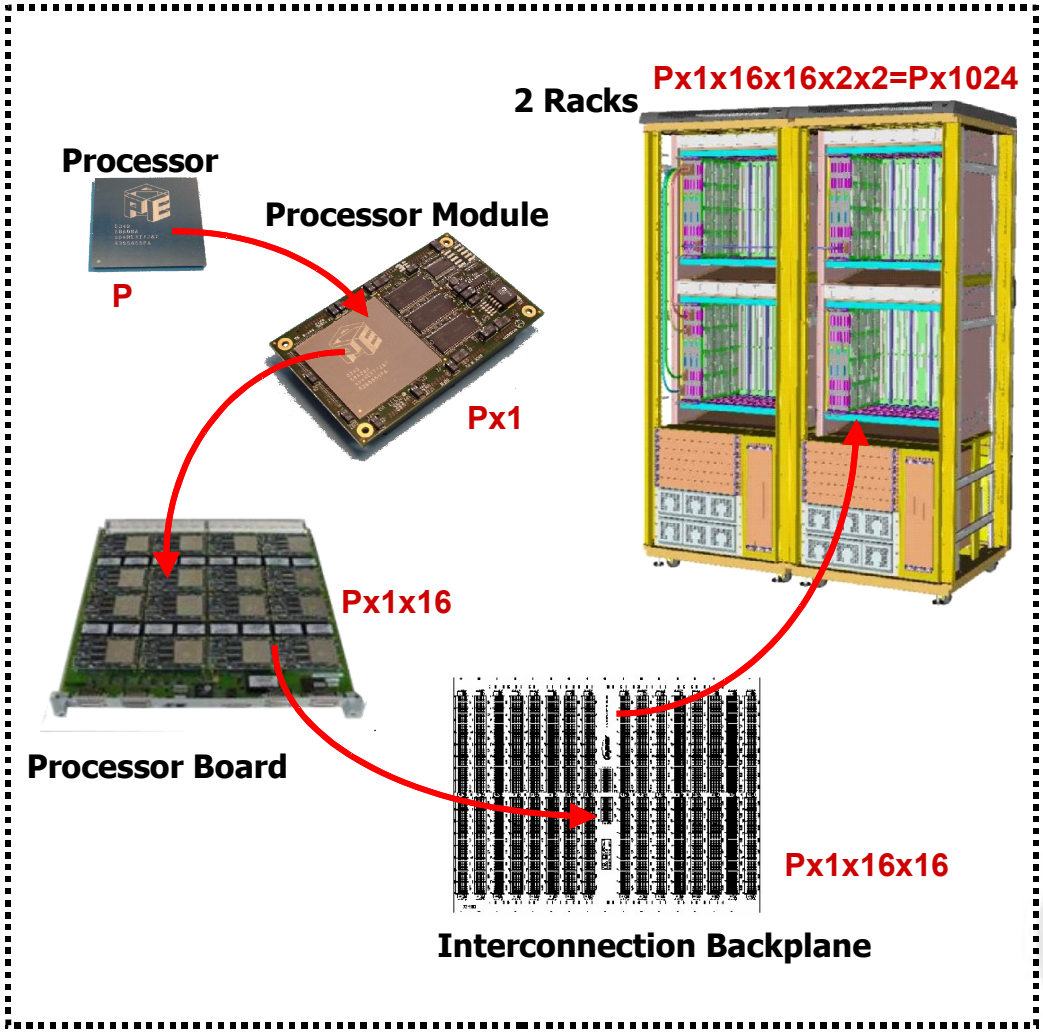
HPCs

- HPCs are computers with extremely high computational power
- They are built massively coupling processors
  - Supercomputers with extremely high parallelism: custom HPCs
  - PC clusters with very high parallelism: standard HPCs

HPC: some examples



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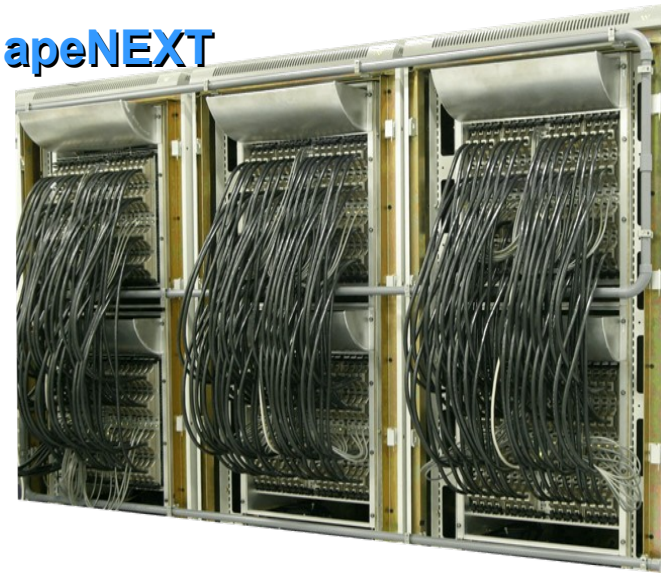

Avogadro

Customers & Applications

Alstom:	NPC/Transportation
Ansaldo:	NPC/Transportation
BA Systems:	NPC/Defence
BAE:	NPC/Defence
Boeing:	NPC/Defence
Bombardier:	NPC/Transportation
Elsag:	NPC/Transportation
Galileo Avionica:	NPC/Defence
Gendex:	NPC/Medical
Imaje:	NPC/Industrial
L3 Communication:	NPC/Defence
LMA:	NPC/Medical
Lockheed:	NPC/Defence
MBDA:	NPC/Defence
Rockwell:	NPC/Defence
Salvagnini:	NPC/Industrial
Selca:	NPC/Industrial
Thales:	NPC/Defence
Varian:	NPC/Medical

CILEA:	HPC/Computing Centre
DESY:	HPC/Research Institute
INFN:	HPC/Research Institute
SISSA:	HPC/University

The Vision

"The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it."

Mark Weiser

"The Computer for the 21st Century", Scientific American - Vol. 265 No.9, pp. 66-75, 1991

The computer Ecosystem in the 20th century

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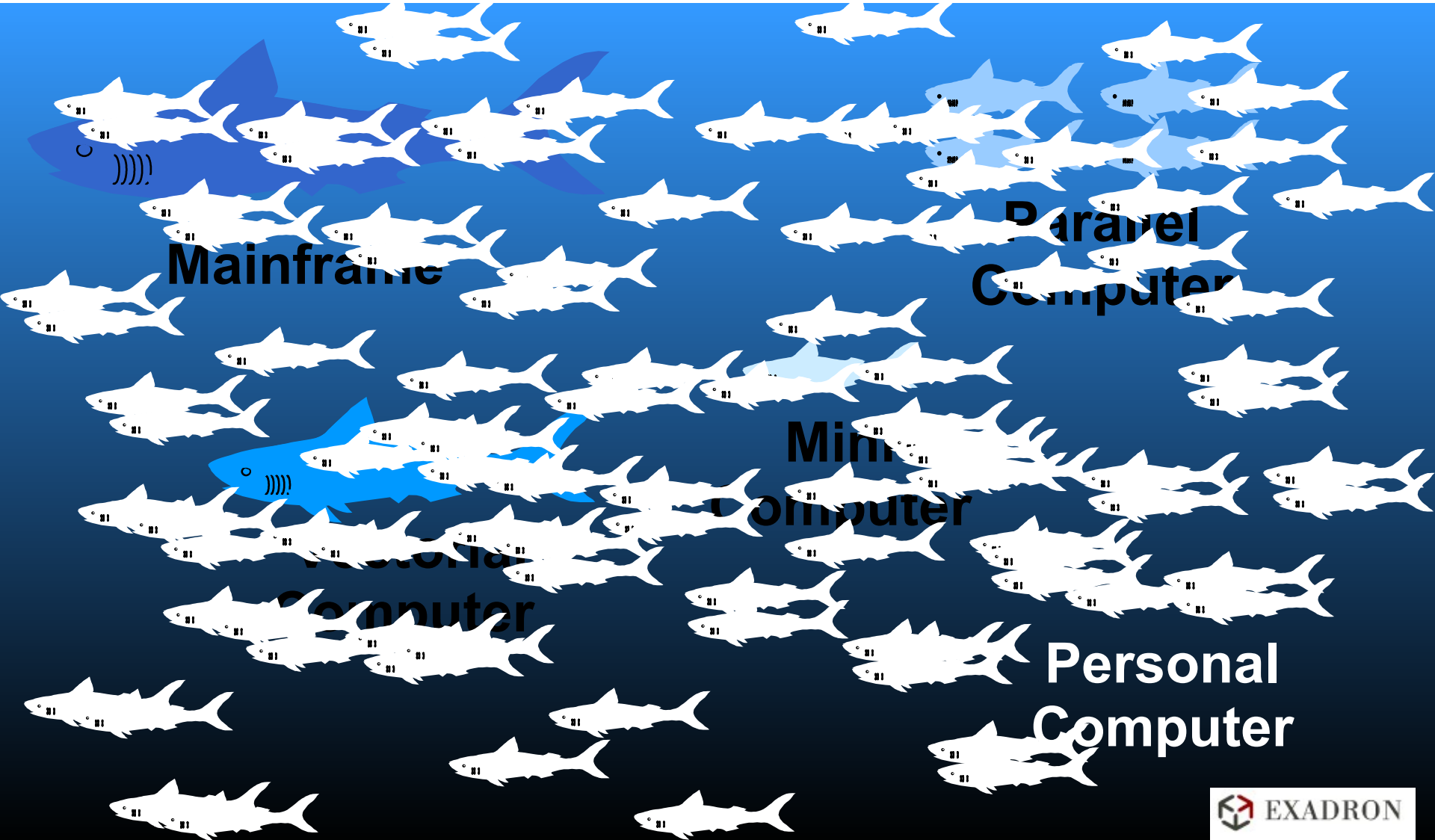
Once upon a time… (from the 1^ wave to the 2^ wave)



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The computer Ecosystem in the 21th century

Cont… (from the 2^ wave to the 3^ wave)

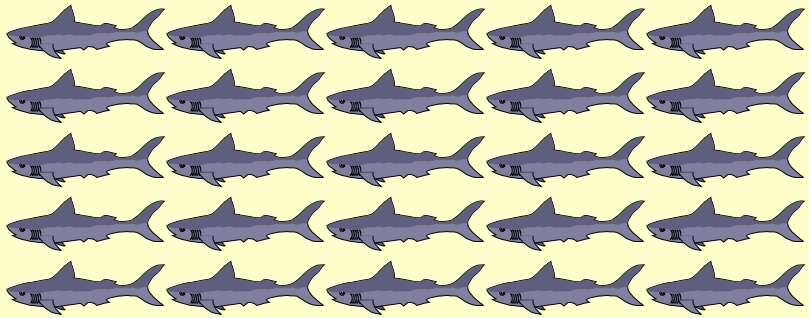
Mainframe

Vectorial Computers

Parallel Computers

Mini Computers

Nano PC



High Performance Computer

Wireless & wired Telecommunication

inspired from a presentation of Dave Patterson, UC/Berkeley

the PERVASIVE COMPUTING Scenario

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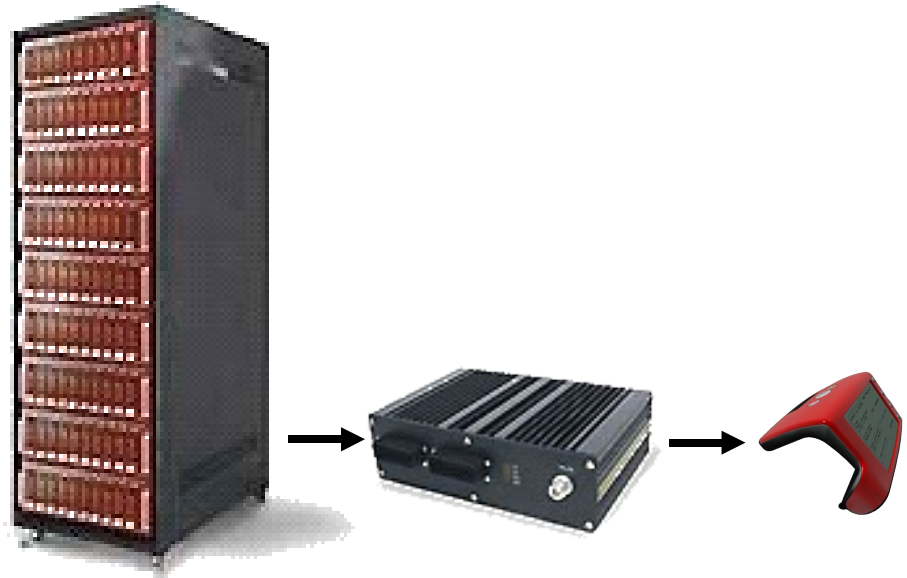
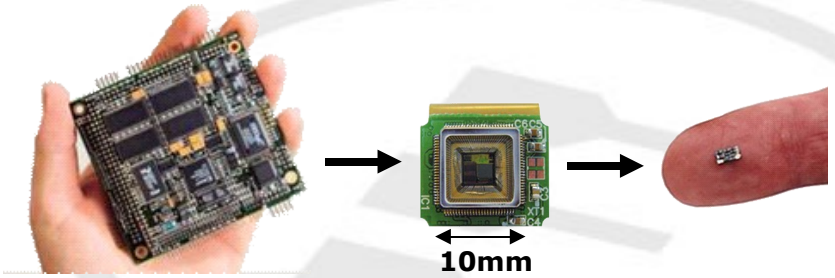
COMPUTERs will be more* MINIATURIZED and INTERCONNECTED through the *GRID

They will WEAVE themselves in to the ENVIRONMENT of everyday life until they are indistinguishable from it.

The 3^wave is coming (2005-2015) : the beginning of the Pervasive Computers Era





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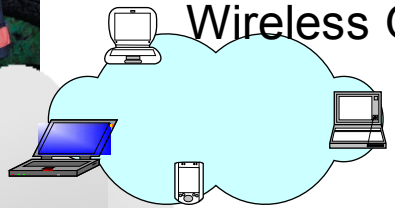
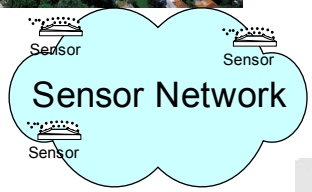
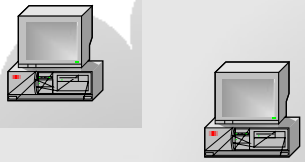
Pervasive Computation : NanoPC e HPC

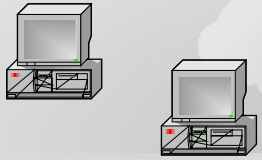
Wireless Ad Hoc Network/
Wireless Grid

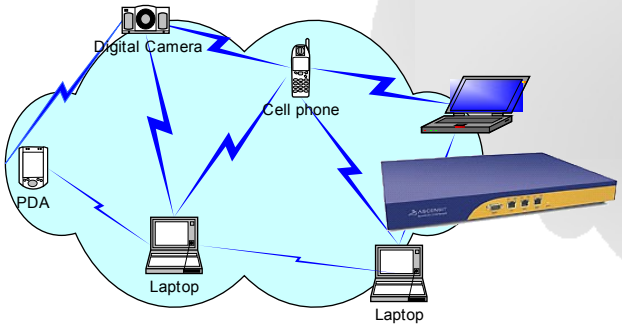






Internet / Wired Grid





Wireless Ad Hoc Network/
Wireless Grid

Evolution of the Application Space

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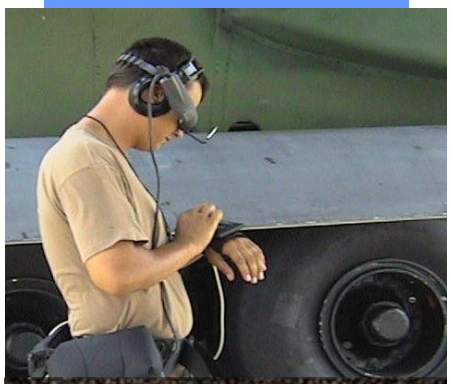
GRID

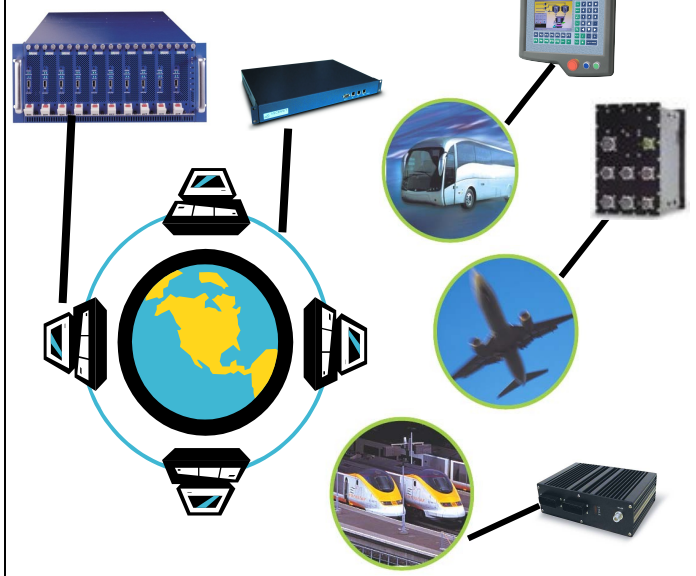
from Embedded Computers to Pervasive Computers

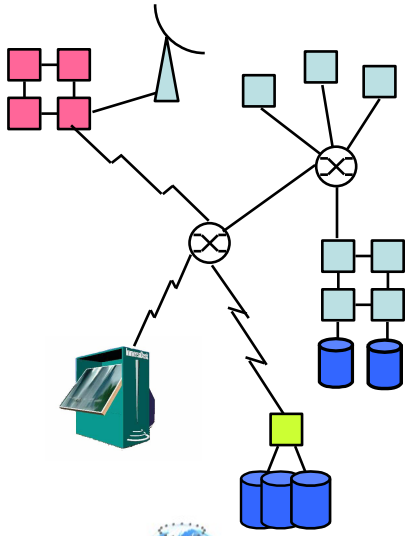
the Future

Wearable



the Present





HPC

nanoPC

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