
Application-Driven PBD: Some Industry Profiles

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Philips Semiconductors Organization

- Business Units
 - Digital Consumer Systems
 - Mobile Communications
 - Display Solutions
 - Emerging Businesses
 - Mainstream Consumer Systems
 - Identification
 - Discretes/Multimarket ICs
- Central Technology
 - Process development
 - Libraries
 - Design technology
 - System technology
 - System ASICs
 - Re-Use technology
 - Platform Infrastructure Department (Ralph von Vignau)

Philips Semiconductors PID Vision

System solutions will become the prime enabler for the necessary increase in productivity to achieve shorter time to market with higher maturity in the development of the growing complexity of SoC

Philips Semiconductors PID Mission

Be the preferred supplier of SW & HW
integrated IP solutions with a focus on
platform infrastructure as required by the
business needs of PS

What is a Philips Platform?

- An entity that provides a mature bases on which developments can be based that profit from the facilitation of IP reuse through standardization and horizontal sharing leading to a reduction in costs and Time to Market.

Philips Semiconductors PID Objectives

- Provide competitive system IP to enable our customers to rapidly build high quality products
- Deploy reuse standards & methodology by means of products and services
- Understand customer and market needs and using this knowledge to pro-actively develop product portfolios in time for leading products
- To be both a major provider and driver of reusable platform architecture and technology in alignment with PS business goals and complementary to BU platform organizations

Philips Semiconductors PID Strategy

- Develop clear product roadmaps aligned with market and customer inputs and become a reliable partner in the definition of platform HW & SW architectures
- Focus on the timely and predictable realization of programs in a customer oriented supplier relationship
- Actively proliferate system solutions based on HW & SW components
- Enable reuse by deploying accepted PS and industry standards in PID products
- Provide a working environment that is attractive, challenging and fulfilling
- Serve the customer through a well defined process for delivery, maintenance and support

Platforms as a Business Strategy at Philips

- Up front investment to provide technology bases
- Drive to share knowledge amongst business units
- Provide high reliability at very low time-to-market
- Centralize commonly required knowledge to lower costs
- Re-enforce reuse of IP

Re-Use of IP at Philips

- Differentiation between Horizontal and Vertical IP
 - Horizontal IP can be used by several Business Groups
 - Vertical IP is specific for a particular Business Group or product
- Definition of standards facilitates reuse
 - HW bus standards
 - IP interconnection standards
 - Delivery views
 - Tooling and development flow standards
 - SW API & OS standards

Platform Expectations at Philips Semiconductors

- Is easily instantiated
- Provides a solid working base of a system
- Is mature
- Continues to evolve without needing radical changes to mature IP
- Can be easily applied to several domains
- Always uses the best IP available
- Is supported and maintained
- Provides cost and TM savings that compensate for up-front investment

Embedded System Platforms at Motorola

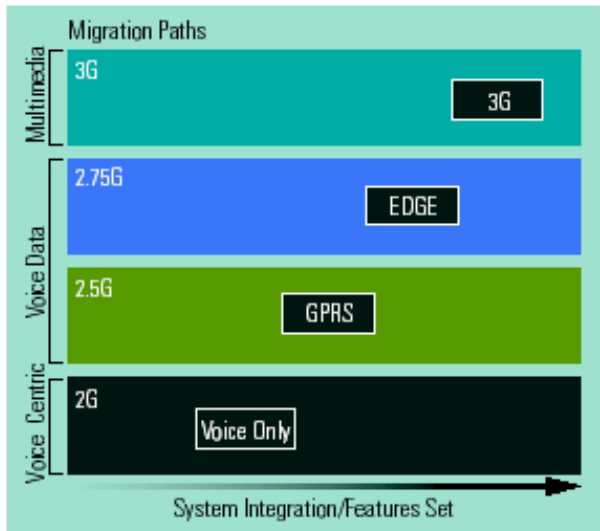
- Platform architectures are the catalyst for systematic reuse, rapid development of derivative products, and dramatic reductions in time-to-market
- Platform architectures are themselves reusable components, stored in the repository along with the components that comprise them
- Embedded systems will support platform-based integration at both the SoC (core, chip) and systems/applications levels
- Four key attributes of a complete embedded system platform:
 - Business life cycle description
 - Components and features
 - Development and integration tools
 - Support practices

A platform is
more than
GDS II ...

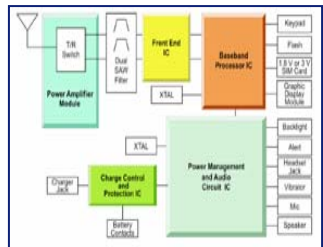
Motorola's View of Platform Attributes

- Business Life Cycle Description
 - Platform requirements
 - Product Line roadmap
 - Platform life cycle plan
 - Partner/customer plan
 - Business plan
- Components and Features
 - Platform architecture specification
 - Virtual components (hardware, software, systems, etc.)
 - Interface specifications (signals, software, API, etc.)
 - System-level models
 - Platform characterization
 - Standards references
- Development and Integration Tools
 - Full embedded system design flow and verification methodology
 - Application and system engineering support for designers and integrators
 - Software development tools and environments for programmers
 - Reference implementations and designs in the application domain
- Support Practices
 - Program management
 - Integrator and developer relations
 - Training and documentation
 - Web presence
 - Change management
 - Promotion and marketing

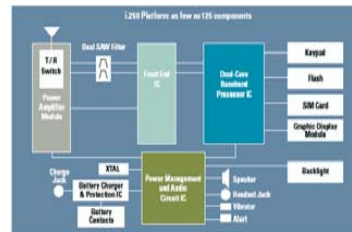
Motorola's Innovative Convergence™ Platforms



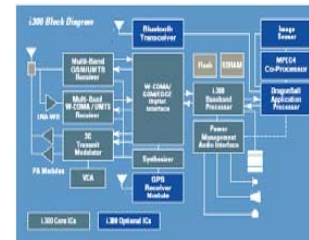
Motorola's mobile handset product family platform roadmap addresses different market tiers, technology generations



i.200
(2G/Voice Only)
Platform Architecture

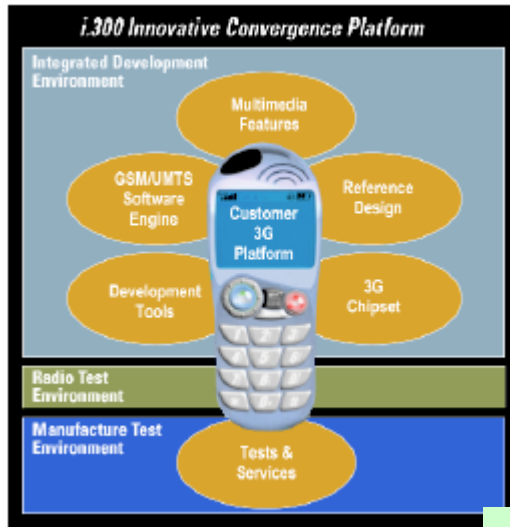


i.250
(2.5G/Voice-Data)
Platform Architecture



i.300
(3G/Multimedia)
Platform Architecture

Motorola's Mobile Platform Scope



The mobile phone product family shares many common features, as well as development, test, and support environment

Platform support includes:

- IDE for development
 - RTE for test
- MTE for production

