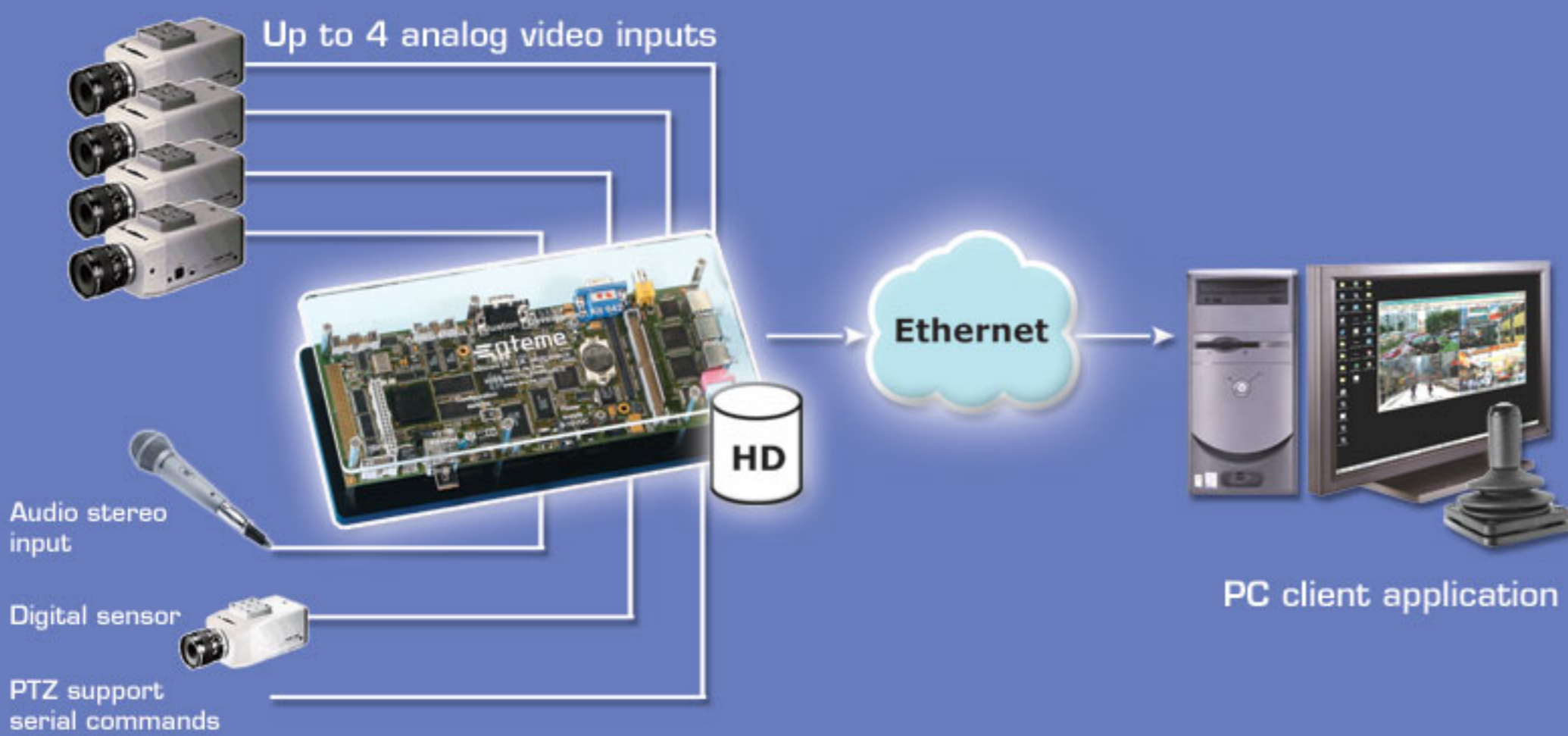


# VSIP

## Open Applicative Development Platform Video Security over IP

### MPEG-4 IP camera and Network encoder



### A READY-TO-USE REFERENCE DESIGN

- DM642-based H/W Platform
  - Hard-drive and digital sensor camera
- Embedded Software Package:
  - Applicative framework, real-time
  - Set of libraries
  - Plug-and-Play demos
- Development tools DSP & FPGA
- PC supervision application
- Complete documentation



### TARGETING MULTIPLE APPLICATIONS:

- IP camera
- Network encoder
- Digital video recorder
- Network demos

Ideal bundle for quick prototyping and **IP end-product** differentiation

- Simple and complete reference design to ease transition from analog to digital
- Design modularity for development of multiple products at different price points
- Cost-effective access to the digital market

# All-in-one Applicative Development Platform

## VSIP is ...

- A plug-and-play demo of end products
- A complete open development platform
- A bundle of Video Security fundamental bricks

## including ...

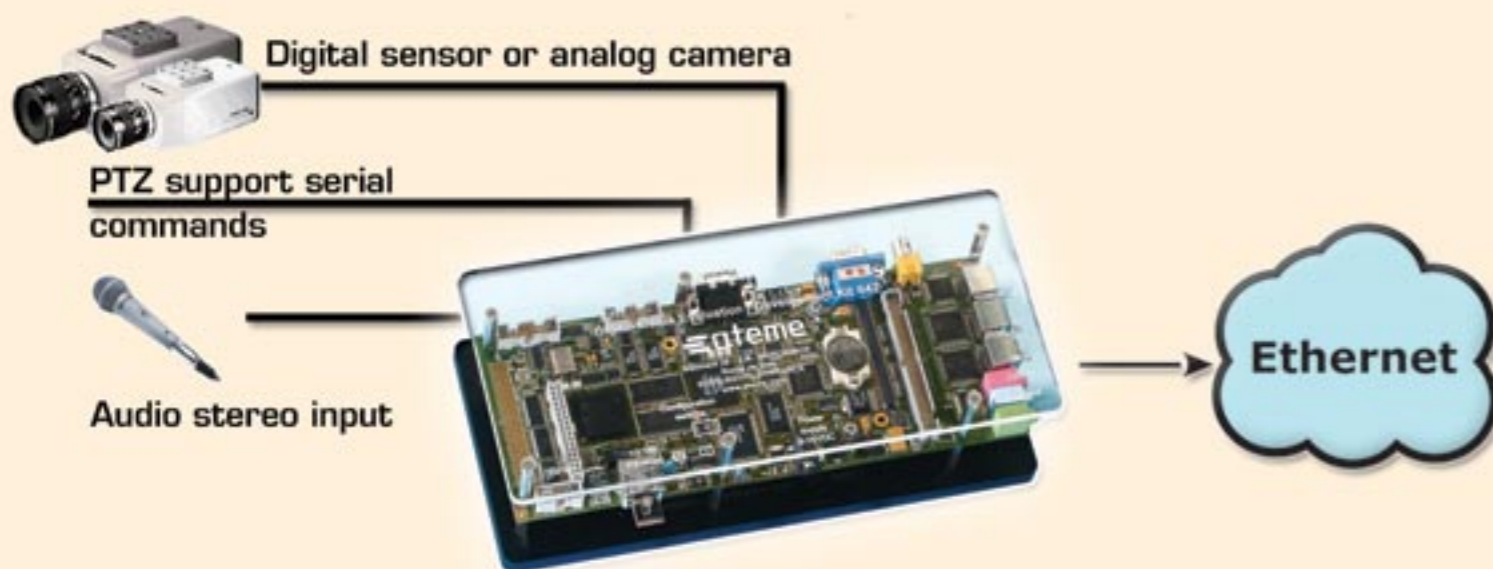
- Hardware reference design
- Set of the most needed algorithms
- Application, framework and drivers in source code
- Supervision application for PC
- Development tools

## Fast-track to Market

- 1 Decreases the investment for new DSP customers**
  - Application-oriented development platform
  - Start from an operational application, developed in standard C language
  - No need for a deep dive into DSP programming techniques
- 2 Cuts down time-to-market**
  - All the application pieces already gathered and glued together
  - Between 80% and 100% of the software ready
- 3 Simplifies the development management**
  - "One-stop-shop" solution
  - Engineering services support model
- 4 Reduces the development risk**
  - Plug-and-Play demo shows the platform possibilities
  - One support center only for hardware and software
- 5 Allows differentiation**
  - Hardware schematics become source for production board
  - Open development platform includes all source code needed

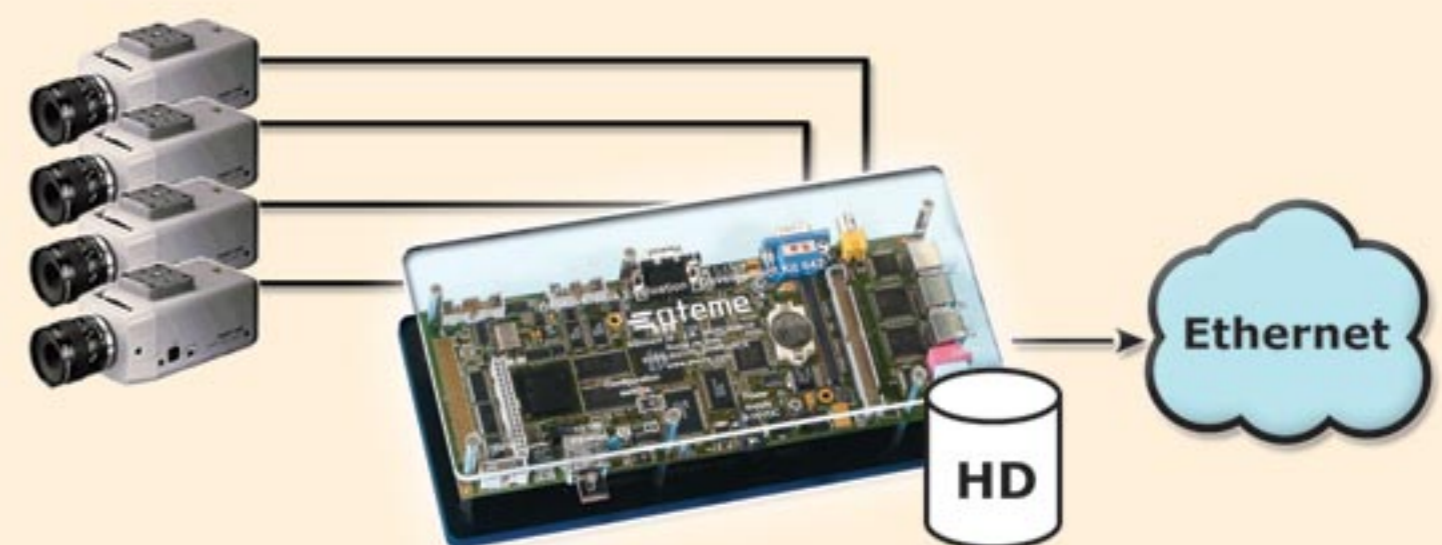
## Use Cases & Performances

### IP Camera



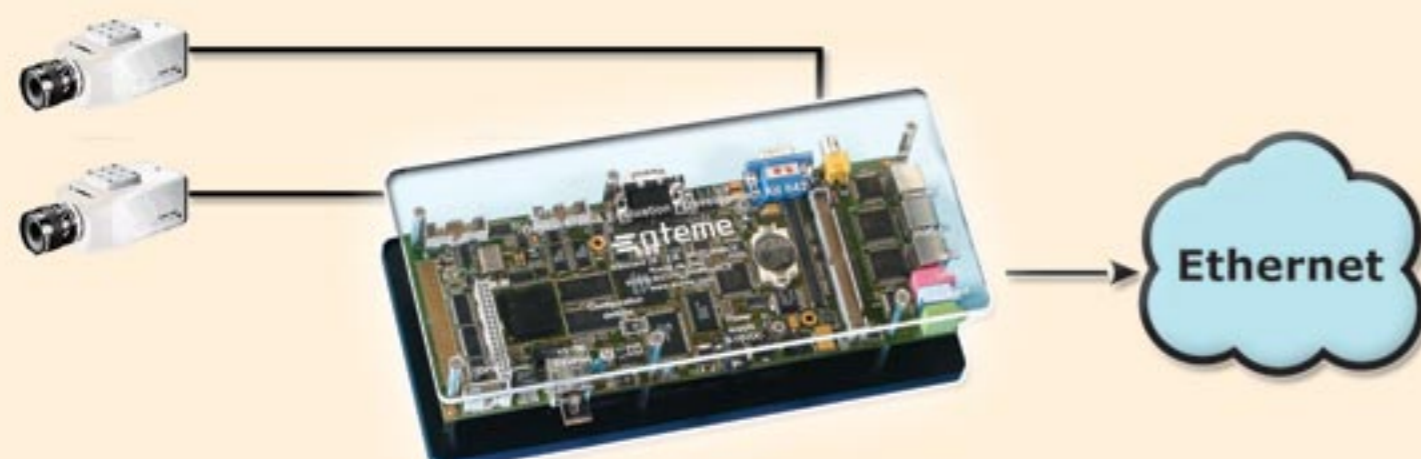
- Video IP camera: MPEG-4 D1 30 fps\*
- Audio/Video IP camera: MPEG-4 VGA 30 fps\* + ADPCM
- Smart IP camera: noise reduction + MPEG-4 + ADPCM + motion detection

### Digital Video Recorder

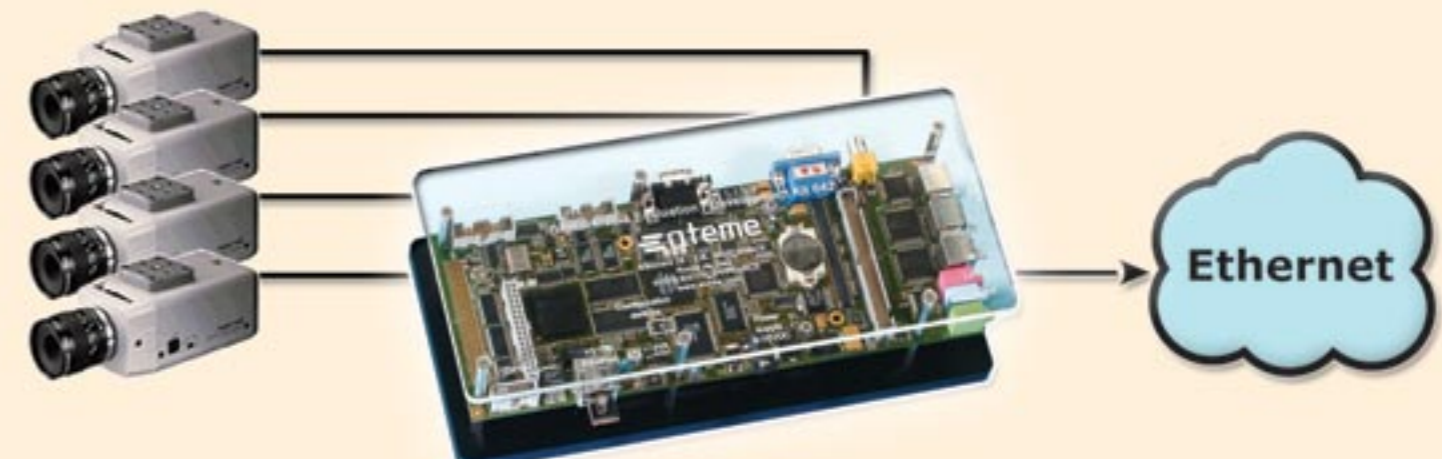


- Loop recording of last minute, with backup on alarm
- High resolution recording while low-resolution streaming
- Simultaneous record and replay

### Digital Network Encoder



- Dual mode: 2 simultaneous 2CIF channels 30 fps\*



- Quad mode: 4 simultaneous CIF channels with image subsampling

\* 30 fps in NTSC, 25 fps in PAL

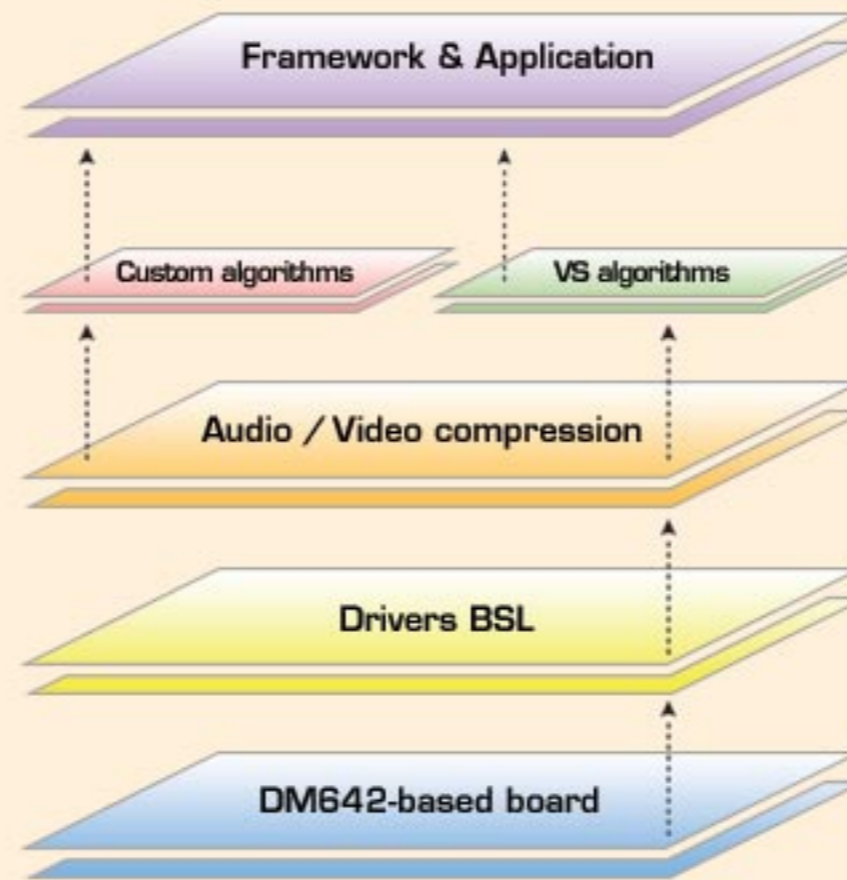
# Reference Embedded Software

## Framework & Application

- Audio video synchronization
- RTP/RTSP streaming
- Access right management

## Audio/Video compression

- MPEG-4 video compression
- ADPCM audio compression



## Custom algorithms

- End product differentiation:
- Customer algorithms
  - Engineering services (Ateme)

## VS-specific algorithms

- Noise reduction
- Image dating and referencing
- Motion detection
- PTZ control

## Drivers BSL

- High-level APIs
- H/W interface

## Development tools:

- DSP development environment: Code Composer Studio v2.2 from Texas Instruments
- JTAG Emulator for DSP (optional): aDICE710 from ATEME

## Documentation:

- User's Manuals
- Programmer's Guides and Software Reference Guides

# Reference Hardware Platform

## Ready-to-use platform:

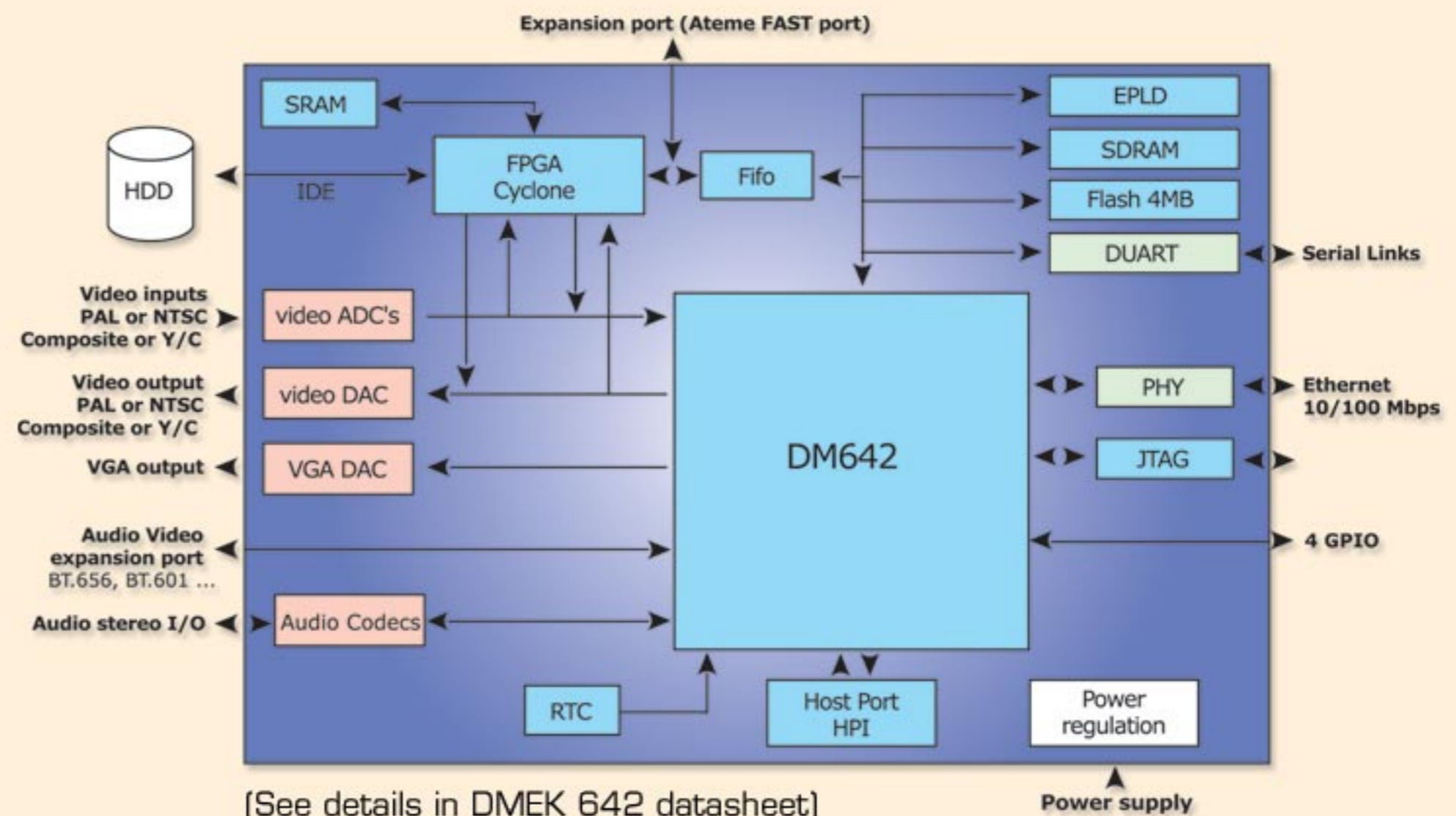
- Based on Texas Instruments DM642 and Altera EP1C20
- Audio/Video hardware synchronization
- Includes peripherals and accessories: BT656 camera sensor, hard disk, audio, video and ethernet cables

## Documentation:

- Hardware platform Getting Started Guide, User's Manual, Programmer's Guide, Software Reference Guide,
- Hardware Board Schematics (pdf)
- FPGA source code

## Development tools:

- Programmable logic FPGA development environment: Quartus II v3.0 from Altera



# PC Client Supervision Application



Demonstration software of parameters control, audio/video stream, decode and display.

- Interoperability with standards clients (Quicktime™, Real™)
- Audio and Video decompression libraries
- Sample code for VSIP and PTZ control



## KIT CONTENTS

### • Hardware:

- 1 DM642-based board
- 1 video camera sensor (CMOS)
- 1 hard disk (30 GB)
- 1 power supply
- 1 power cable
- 1 plexiglass stand
- 1 cross over Ethernet cable
- 2 video cables & adapters
- 1 audio cable & adapter

### • CD1: Hardware Platform

- Board Support Library, with source code
- Complete Documentation Set
- Sample codes and demonstrations

### • CD2: Complete Tool kit

- Framework complete application, for AV synchronized acquisition, compression, IP streaming
- PC exe application for Win2000/XP
- PC libraries: MPEG-4 and ADPCM decompression ...
- Complete Documentation Set

### • CD3: Libraries

- MPEG-4 and Pre-processing libraries
- ADPCM library
- Motion detection library
- RTP/RTSP Streaming library
- Documentation for each library

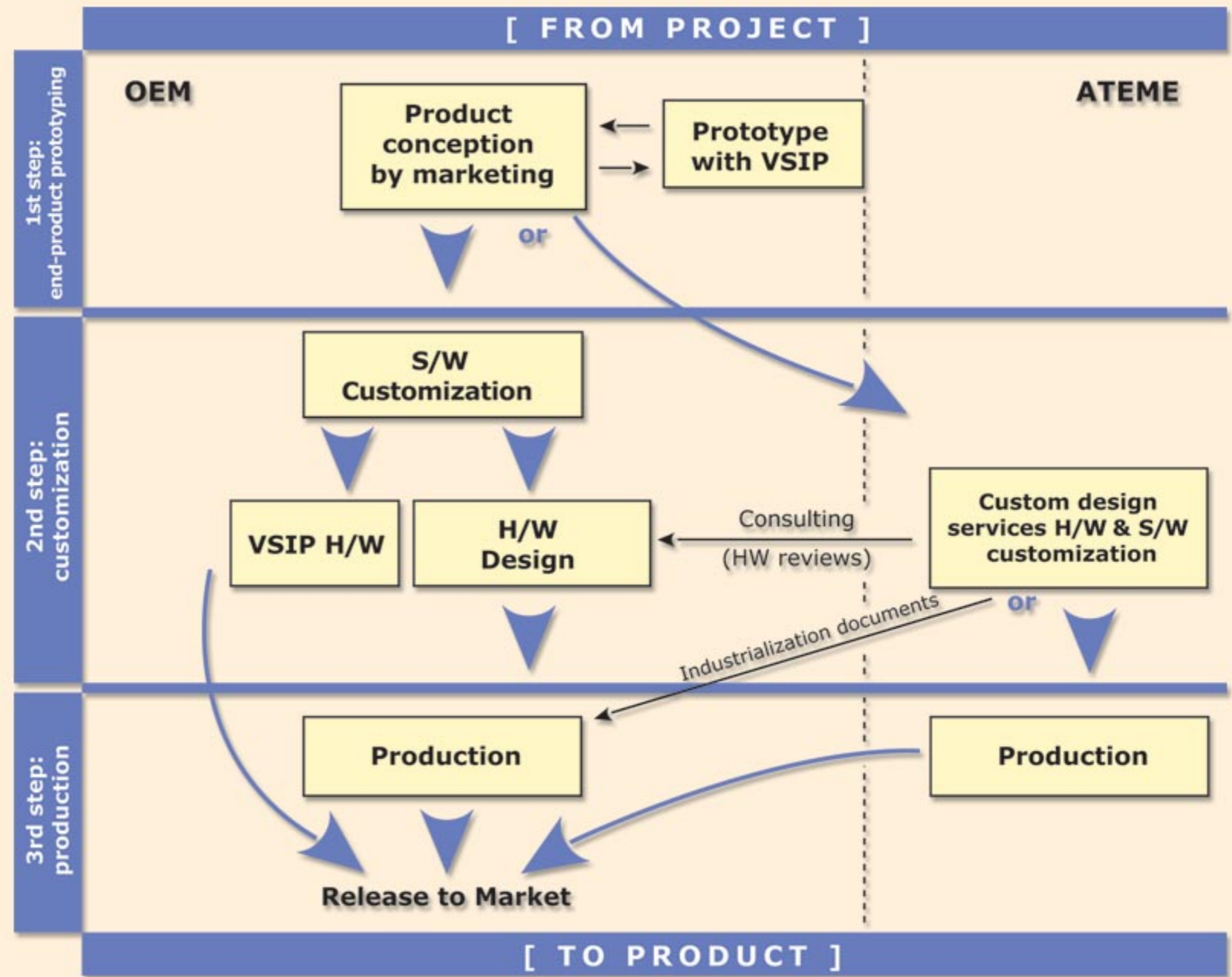
### • CD4: Code Composer Studio

- CCS v2.20 full version for C6x family (by Texas Instruments)

### • CD5: Quartus II

- Quartus II – v3.0 web edition (by Altera)

# Business Models



# Custom Design Services

ATEME provides different ways to help you develop your own product with the best time-to-market and development costs.

- Custom hardware and software design at fixed cost
- OEM hardware schematics review
- Consulting services
- Use of existing hardware for immediate market delivery

# Options

- JTAG PCI emulator (Ateme's aDICE710)
- ORCAD schematics and detailed bills of materials
- Video libraries: MPEG-2, MJPEG, ...
- Audio libraries: MP3, AAC, ...
- Software features: encryption, pre-processing, ...

# Purchase References

- VSIP-US with US power cord
- VSIP-3 US with US power cord plus option JTAG emulator
- VSIP-EU with european and UK power cord
- VSIP-3 EU with european and UK power cord plus option JTAG emulator



All trademarks property of their respective owner.  
ATEME may change product characteristics without prior notice.

© ATEME 2003 – ref ATE3201/COM03/1.3  
All rights reserved

**ATEME - 26 Burospace, route de Gisy - 91570 BIEVRES - FRANCE**  
**Tel: 33 (0) 1.69.35.89.89 - Fax: 33 (0) 1.60.19.13.95**

For more information, visit our website <http://www.ateme.com/products/>  
or downloads on <http://extranet.ateme.com>