



## INDUSTRIAL & DEFENSE SOLUTIONS *from* ITTIAM

*High Performance Multimedia*

**Ittiam Systems** is a technology company that provides cutting-edge multimedia solutions for a wide range of embedded products and online video services. With its offerings spanning across media components, SDKs, applications, hardware platforms and turnkey systems, Ittiam provides solutions to In-Flight Entertainment, Avionics, Surveillance, Industrial, Enterprise, Medical, Defense, Broadcast, Consumer and Automotive Markets.

### IFE & Avionics



### Surveillance



### Industrial



### Enterprise



### Medical



### Defense



Ittiam's [Industrial & Defense Solutions](#) leverage our **strong multimedia expertise** and enable customers to achieve the best product specifications & performance in a cost & time optimal manner.

### Highlights

- **High Performance** (Low Latency, Low Power, High Channel Density, Robust operation over different wired / wireless networks)
- **Reliable Operation** (24x7, harsh operating and environmental conditions)
- **Field Proven** software and hardware IPs
- **Standards Compliant** product specifications, algorithms and protocols
- Product development and qualification as per **Quality Standards**
- **Proven track record of multiple turnkey engagements** across Surveillance, Defense & Broadcast applications

### Key Technologies

- Ultra-Low Latency (ULL) Streaming
- Video Networking (Streaming & Recording Technologies)
- Adaptive Streaming
- Wi-Fi Streaming
- Content Security

## Embedded Solutions

Multimedia Application Software

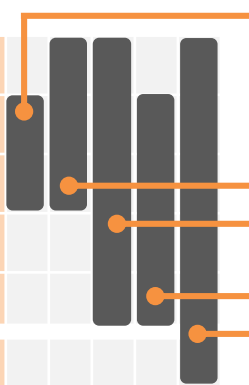
Middleware for System Design

Multimedia Codecs / Components

Operating System & BSP

Hardware

Volume Manufacturing



### Media SDKs ([adroitSDK](#))

- Video Networking Use Cases
  - Server, Client/Player, Recorder, Transcoder
- Low-Latency Use Cases
  - Server, Client/Player, Transcoder

### System Software based on adroitSDKs

• [Pre-configured Systems](#) based on adroitSDKs and neonCaster Hardware

• adroitSDKs + **neonCaster Hardware**

### Turnkey System Design & Development

- Based on adroitSDKs
- Life-time Product Support

[adroitSDK](#): Embedded middleware for video, audio, metadata, image, speech and graphics processing, available in multiple configurations.

[Pre-configured Systems](#): neonCaster hardware boards (Clove, NPM) bundled with System Software (based on adroitSDK) for pre-defined use cases.

Use Case	adroitSDK	Pre-configured System
Video Encoder (Server)	adroitStream	cloveStream, magnaStream
Video Decoder (Player)	adroitPlay	clovePlay, magnaPlay
Low Latency Video Encoder/Decoder	adroitLive-E/D	cloveLive-E/D, magnaLive-E/D
Video Recorder	adroitRecord	cloveRecord, magnaRecord
Hybrid Video Recorder & Server	adroitRecord+	cloveRecord+, magnaRecord+
Hybrid Video Recorder, Server & Player	adroitRecordPro	cloveRecordPro, magnaRecordPro
Transcoder	adroitXCode	cloveXCode, magnaXCode

### adroitRecordPro SDK

- Available on neonCaster Gen II (NPM, Clove), TI's DM816x and Sitara™ AM57x
- 2x 1080p60 / 4x 720p60 / 10x SD on TIs DM816x
- 1x 1080p60 / 2x 1080p30 / 9x SD on TI's AM5728
- Video preview, text overlay, scaling
- Simultaneous recording, streaming and playback
- Playback of streamed/recorded content with Ittiam's Player/Client App on Android and iOS

### adroitLive-E/D SDK

- Ultra [low latency](#) streaming : **As low as 40 msec glass to glass**
- End-to-end latency optimization across device drivers, media compression, other media processing and streaming functions
- Available on neonCaster Gen II (NPM, Clove), TI's DM816x and Sitara™ AM57x
- Playback of streams with Ittiam's Player/Client App on Android and iOS
- Ideal for high-precision real-time interactive applications

### Highlights

- Off-the-shelf on multiple processors/platforms, options for custom platforms
- Extensive configurability for media and networking parameters
- Customizable for additional features, formats and custom functionality

## Off The Shelf Hardware Platforms

### neonCaster Gen I

- TI DM816x and C6678 based high-performance hardware platform

### neonCaster Gen II – NPM

- TI DM816x based compact, high-performance processor module

### neonCaster Gen II - [Clove](#)

- TI Sitara™ AM57x based compact, low-power processor module

### neonCaster Gen III – TBA

- For H.265 (HEVC) and 4K video processing

### neonCaster I/O Boards (Nova) for NPM / Clove

### HD A/V Encode/Decode Cards

- TI DM6467 based processing cards

### PCIdash: PCIe Capture Card

- TI DM6467T based PCI Express card for audio video capture & encode

### openGear A/V Encoding Card

- TI DM816x based multi-channel HD/SD encoding card



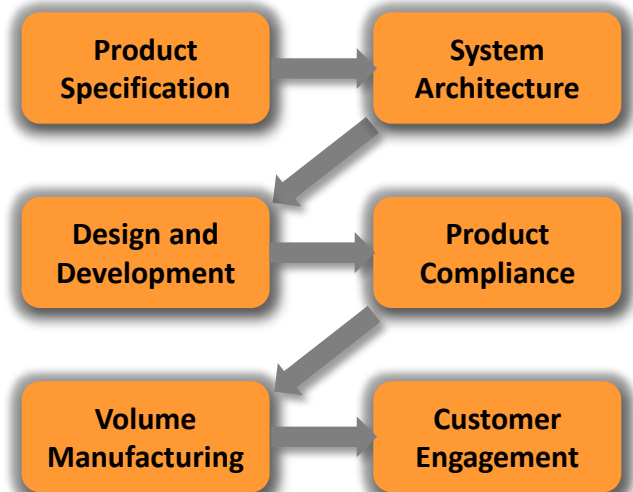
### Custom Hardware Solutions

Reference Hardware Designs and Board Support Packages (BSP) licensing options.

## Turnkey Solutions








Offerings ranging from concept to product realization and support involving:

- System design
- Software & hardware design & development
  - Delivered with the suitable configuration of androidSDK
  - Includes BSP
  - Includes customizations to address specific use cases
- Product compliance
- Volume manufacturing



## Customers

- Over 30 customers across the world
- More than a decade of relationships with Tier 1 / Tier 2 ODMs / OEMs globally
- Repeat wins for multiple generations of products in various market segments

IFE			
Surveillance & Enterprise			
Medical			
Govt. & Defense			
			

## The Ittiam Advantage

### Reuse of pre-existing IPs to reduce

- Product realization timelines
- Time-to-market
- Overall program cost

### Flexible licensing, delivery options

### Field-proven, robust solutions for

- Ensuring predictable program timelines and cost
- Quick deployment
- Ensured product quality, performance

### Well established support

- Warranty
- Annual Maintenance Contract
- Source Code Escrow

## Memberships / Alliances



For more information, visit <http://www.ittiam.com/markets/industrial-defense/> or contact Ittiam Sales

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