

## THE MOST COMPLETE AND WIDELY DEPLOYED OSI STACK



**MARBEN PROVIDES THE MOST RELIABLE AND ADAPTIVE SOURCE CODE SOLUTION FOR SEVEN-LAYER OSI APPLICATIONS.**

**TRUST THE MOST COMPLETE AND ADAPTIVE SOLUTION** – ADAPTED TO ANY  
OSI APPLICATION FROM AUTOMATIVE TO TELECOM BUSINESSES

### TELECOM MARKET

- GR.253 and TMN references into Network Elements and Managers
- FTAM, CMISE, OSI over IP tunneling and OSI/IP gateways

### AUTOMATION INDUSTRY MARKET

- Transport stack for EC.61850 Substation Automation Networking
- Complete transport stack TP4/CLNP and TP0/RFC1006

**GET THE MOST PROVEN SOLUTION** – MARBEN OSIAM HAS BEEN DEPLOYED IN  
MORE THAN 600 000 DEVICES IN THE FIELD AND IS STILL DEPLOYED IN MORE THAN  
40 000 DEVICES PER YEAR.

### REPLACE YOUR OBSOLETE OSI AT NO RISK

- Reuse XTI/TLI interface and build on easy to use Java and C API.
- Get expert support close to your development team.

### LARGEST REFERENCES AND CUSTOMERS BASE

- Alcatel Lucent, Fujitsu, NEC, NSN, Tellabs deploy MARBEN OSIAM
- HP OTS and SUN Solstice rely on MARBEN OSIAM.

**PROTECT YOUR INVESTMENT** – ADAPTED TO ANY PLATFORM AND PROVIDED IN  
SOURCE CODE

### PORTABLE

- C source code delivery
- Qualified on Linux and Windows and many other real time OSs.

### HIGH CUSTOMER SATISFACTION

- Browse Marben's high software quality reports and customer satisfaction for maintenance and support .

### TARGET APPLICATIONS

Telecom: Network management in Optical and mobile Network Element, EMS/NMS, Handcraft, Supervision tool, Alarm dispatcher  
Industrial: MMS client application, utility control center.

### About Marben

A leading provider of key software solutions for next generation service-driven networks.

### More than 30 years of experience

Delivers interoperable, robust and efficient signaling, routing and AAA solutions to accelerate the delivery of network services.

### Marben Customers

Airbus, Be-Mobile, Bosch, Ciena, Cisco, Continental, CSG, Ericsson, ESA, Fujitsu, GMV, HP, Nokia, NEC, Oracle, Siemens, Sprint, Telstra, Valeo, Verizon, Volvo ...

## TECHNICAL OVERVIEW

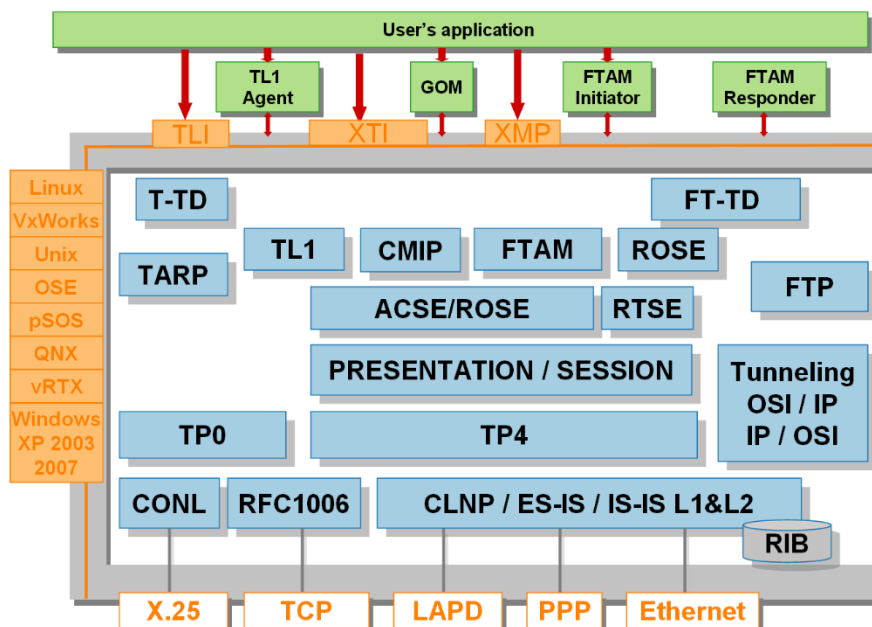
MARBEN OSIAM is a set of C source building blocks that run independently with each other through synchronous or asynchronous public interface. Every building block is a standalone part number and sales if required. It gives to this Marben products the most adaptive solution to the market.

The framework can even be used for additional protocol development either developed in house by our customer or on project based development that Marben can handle with commitment on time delivery and maintenance period.

## ARCHITECTURE

MARBEN OSIAM is an environment for the development and execution of portable telecommunication software. It provides all the functionality necessary to write building blocks implementing efficiently a wide range of protocols in a portable way. In the OSIAM programming model, layers (in particular protocol machines) are implemented in building blocks called entities. Entities are event driven and the OSIAM Kernel assumes the scheduling of events amongst all such entities it manages. The OSIAM Kernel provides the entities with the following services:

- Buffer management,
- Timer management,
- Address and SAP management,
- Connection-oriented context management,
- Administrative framework,
- Debug and trace management.



Marben entities cover most of the OSI functionalities layer per layer. Network layer is provided through MARBEN CLNP, ES-IS, IS-IS L1&L2 and also extension with Multi IS-IS area support and CLNP forwarding deported on line cards. Transport layer is provided through MARBEN TP0, TP2 and TP4 through an efficient and performing user interface or a TLI based interface. Marben also provides COTS upper layer from the Session to the Application layer such as TL1, ROSE, CMIP, FTAM. Marben has also more advanced application in its portfolio such T-TD and FT-TD for OSI to IP migration. These are just part of a long list of development that has been driven on top of the MARBEN OSI stack: MARBEN can also on demand develop custom applications that fit customer's requirements in project-based development.

The Marben's stack is highly portable and qualified on all major Operating systems. It fits in extreme constrained environment such as low CPU and small memory to the most recent and enriched platform. Marben stresses its portability on platforms that are listed above. Please ask the sales department if you have any requirement on such OSI stack.

## CONTACTS

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## CONFORMANCE

ISO: ISO/IEC-8602, ISO/IEC-8072, ISO/IEC-8073, ISO/IEC-8326, ISO/IEC-8327, ISO/IEC-8348, ISO/IEC-8473, ISO/IEC-8648, ISO/IEC-8649, ISO/IEC-8650, ISO/IEC-8823, ISO/IEC-9542, ISO/IEC-10589, ISO/IEC-10608, ISO/IEC-10609,  
Telcordia: GR-253-CORE,  
SIF: SIF-011-1998, SIF-019-1998, SIF-018-1998, NSIF-033-1999,  
IETF: RFC1006, RFC1661, RFC3719,  
ANSI and K&R C enforced standard writing.

## RELATED OFFERS

MARBEN OSI-IP gateway offer, MARBEN Control plane for DCN.  
Consulting, training and custom services.

## SYSTEM REQUIREMENTS

Portable solution with qualified porting kits on:

- All 32/64 commercial or home-grown Linux,
- Windows XP, 2003, 2008 (32/64),
- Real time system as VxWorks (5.5 to 6.8), FreeBSD 5.0, OSE 5.4, QNX,
- Sun Solaris 8, 9 and 10 ( Spark & Intel),
- HP-UX on PA-RISK and Itanium.

Flash memory 4,2MB, RAM memory 10MB to 120 MB.