

# AUDISO : OSI PROTOCOLS STACK

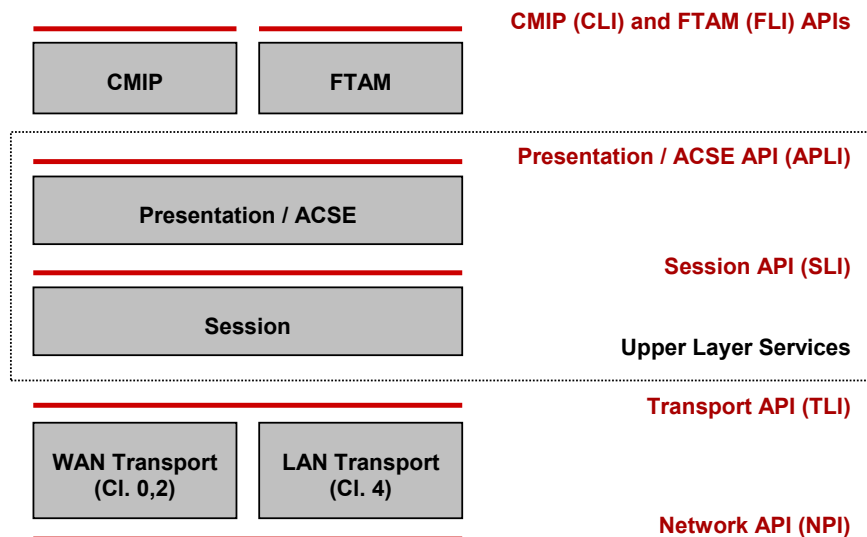
## GENERAL PRESENTATION

AUDISO is a complete communication protocols stack distributed by Audilog. AUDISO conforms to ITU-T and ETSI international standards. AUDISO protocols are currently available for SUN Solaris and Linux. On request, Audilog can provide an evaluation in order to implement AUDISO under any other Operating System (AUDISO source files are available in C Language).

AUDISO can be used in various environments such as network supervision platforms (managers), Network Equipment supervision agents, Mediation Devices, Data Collectors, files servers, ...

AUDISO includes the following components :

- Lower Layers : WAN Transport and LAN Transport
- Upper Layers : Session, Presentation, ACSE
- administration protocols : CMIP, ROSE
- FTAM file transfers.



### ■ AUDISO WAN Transport

AUDISO WAN Transport constitutes an implementation of the four Lower Layer of the OSI Reference Model, and conforms to ISO 8073 (OSI - Connection Oriented Transport Protocol - Cl. 0 / 2).

AUDISO WAN Transport is highly configurable and provides a standardised TPI interface to upper layers (Session layer and above) through Unix streams. AUDISO WAN Transport is implemented as a specific driver within the Unix kernel, ensuring high performances and multiple simultaneous communications with remote entities.

Samples of application source code and binaries are included as part of the standard delivery and can be executed on a single platform (loop) or on two platforms (local and remote) in order to insure that the stack is fully operational and well configured.

AUDISO WAN Transport allows applications to communicate through X25 networks, based on adequate X25 packages (X25 software and communication board).

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## ■ AUDISO LAN Transport

AUDISO LAN Transport constitutes an implementation of the four Lower Layer of the OSI Reference Model, and conforms to ISO 8073 (Connection Oriented Tr. Protocol - Add. 2 : Cl. 4 operation over connectionless network service). It makes use of services of the NDIS interface to access the LAN level (Ethernet).

AUDISO LAN Transport is highly configurable (End System or Intermediate System) and provides the same facilities and characteristics as AUDISO WAN Transport (standardised TPI interface through Unix streams, configurability, samples of application source code, implementation within the Unix kernel, ...).

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## ■ AUDISO Upper Layer Services

AUDISO Upper Layer Services includes the ACSE, Presentation and Session Services and Protocols, and conforms to ISO 8649, 8650 (ACSE), ISO 8822, 8823 (Presentation), and ISO 8326, 8327 (Session).

AUDISO Upper Layer Services enables application programs (based on CMIP, FTAM, or others) to establish, to use and to release associations with peer application entities using the OSI Upper Layers Protocols. The package is implemented as a library of ANSI C functions. AUDISO Upper Layer Services makes use of AUDISO WAN Transport or AUDISO LAN Transport as 4 lower layer.

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## ■ AUDISO CMIP (AUDICMIP)

AUDISO CMIP constitutes an implementation of CMIP / ROSE protocols and services for networks and systems management applications. AUDISO CMIP conforms to ISO 9595 (CMIP) and ISO 9072 (ROSE). The implementation also conforms to AOM11, AOM12, UK GOSIP and US GOSIP profiles.

AUDISO CMIP provides a CMISE API allowing the development of managers or agent applications on top of the OSI stack. The CMISE API provides the following primitives :

- M-Event-Report
  - M-SET
  - M-CANCEL-GET
  - M-ACTION
  - M-GET
  - M-CREATE
  - M-DELETE
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## ■ AUDISO FTAM (AUDIFTAM)

AUDISO FTAM constitutes an implementation of standard file transfer protocols. AUDISO FTAM conforms to ISO 8571. The system using AUDISO FTAM can act as a file transfer initiator or as a responder (i.e. sender or file server), and can transfer either text or binary files. The following Functional Units are provided :

- Kernel
  - Limited File Management (creation, deletion, attributes reading)
  - Read / Write
  - Enhanced File Management (modification of attributes)
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## ■ Hardware / Software environments

AUDISO is currently available for SUN Solaris or PC / Linux environments. Typical hardware / software configurations are :

• <b>Audiso SUN Solaris</b>	• <b>Linux Linux PC</b>
WS or server (ULTRA 5, E450, E10 000, ...)	PC Intel Pentium (600 Mhz or more)
RAM : 256 MBytes or more	RAM : 256 MBytes or more
Solaris 8 or more	RedHat 7.3 Kernel 2.4.18 / LIS 2.13
X25 : SUN Link X25 9.x + serial port or HSI	X25 : (please contact us)

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## REFERENCES ...

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- ORANGE FRANCE      Supervision of the GSM Network with BULL OpenMaster over AUDISO
  - AUDILOG              Obs\_Server : mediation device for data collection (CDRs, statistics, alarms, ...)
  - EADS                   RUBIS : Network Equipment Agent
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