

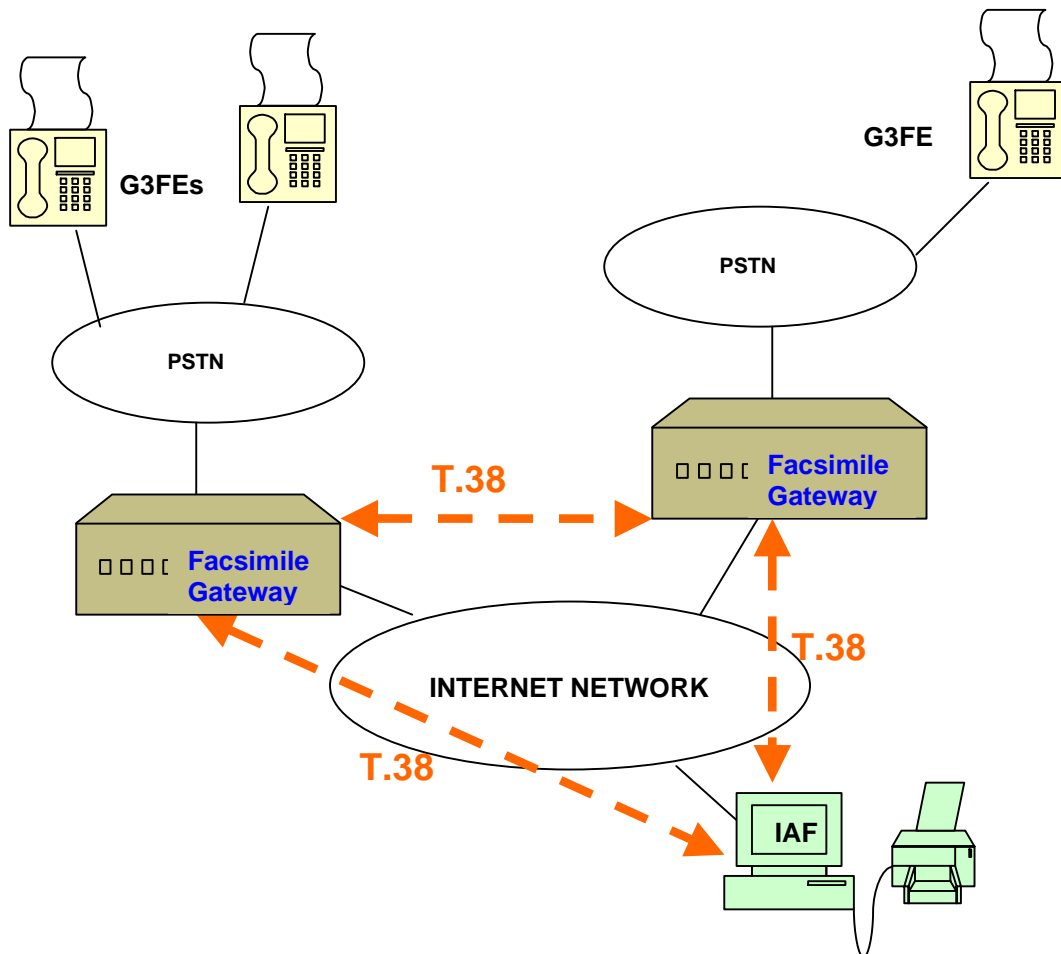


NETBRICKS

T38-BRICKS

INTRODUCTION

ITU-T T.38 recommendation specifies the communication protocol to be used between facsimile gateways or between facsimile gateways and IAF (Internet Aware Fax device) connected via an Internet network in order to transfer fax between G3FEs (Group 3 Fax Equipments) connected to facsimile gateways via PSTN (Public Switched Telephone Network) or between G3FEs and IAFs.



NETBRICKS *T38-BRICKS* is a portable software package written in 'C' language implementing the T.38 protocol and available for use in Facsimile Gateway or in Internet Aware Facsimile device (IAF).

T38-BRICKS is fully compliant with ITU-T T.38 (03/2002) and implements the IFT (Internet Facsimile Transfer) protocol as specified in this recommendation. This protocol uses an IP network to transport the IFT protocol data units through UDP or TCP.

T38-BRICKS is based on NETBRICKS architecture using object oriented design and a message passing mechanism for inter-entity communication. *T38-BRICKS* is designed to interface UDP or TCP/IP through BSD like Sockets. Interfaces to most of commercial OS and RTOS are provided: Linux, Windows, AMX Nucleus, OSE, PSOS+, Thread-X, Unix, VRTX, VxWorks...

T38-BRICKS can be combined with Netbricks signaling protocols (MGCP-BRICKS, MEGACO-BRICKS, SIP-BRICKS) in order to establish Internet session required to transfer T.38 IFP protocol data units as well as with ISDN-BRICKS to interface ISDN access in facsimile gateway. For example, Netbricks implementation of SIP available in SIP-BRICKS product is featuring ITU-T T.38 Annex D and RFC 3362 for support of T.38 in SIP.

T38-BRICKS is addressed to the OEM market. Netbricks can develop any custom product based on *T38-BRICKS* technology according to Customer's specifications.

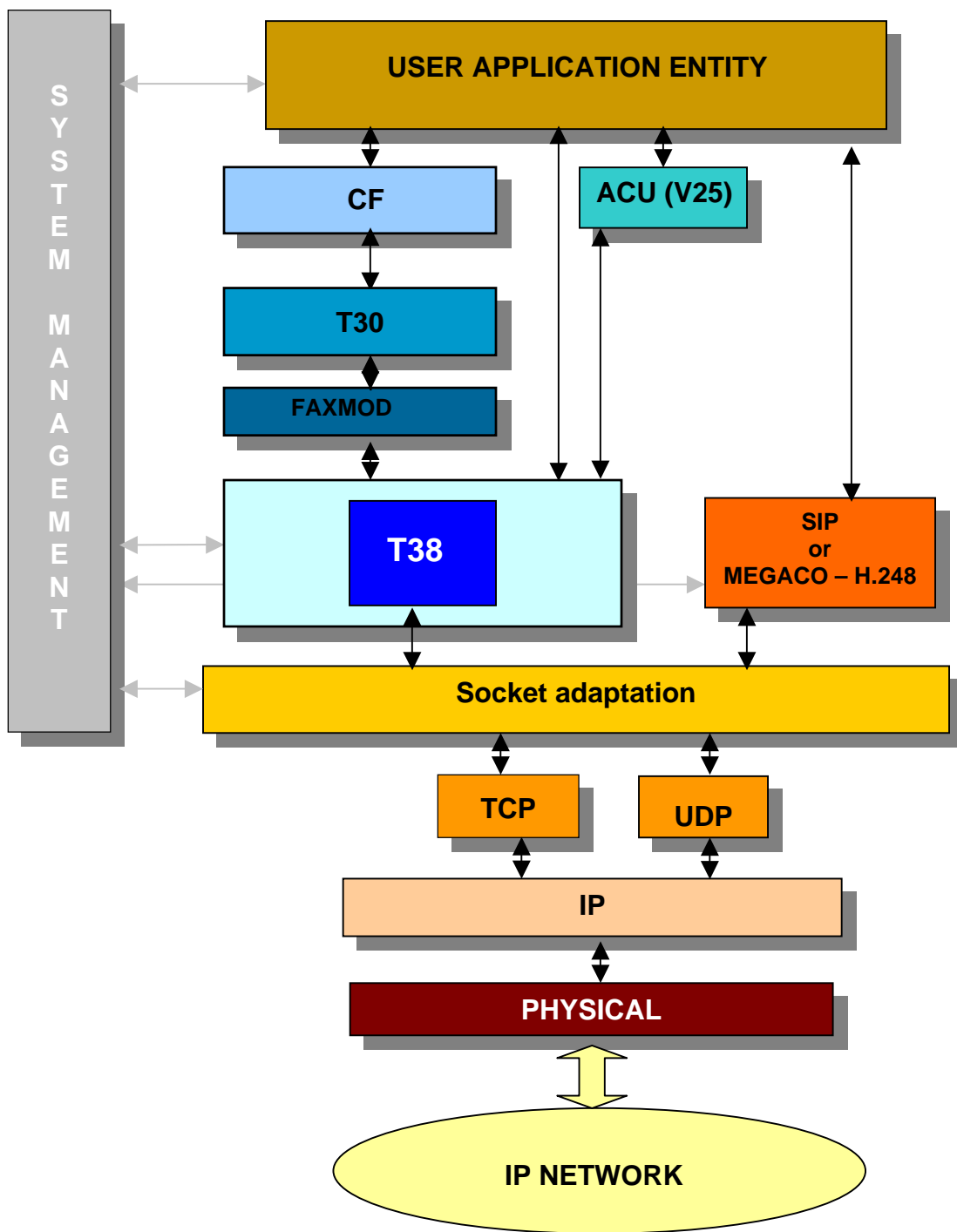
T38-BRICKS FEATURES

T38-BRICKS main features:

- ❑ Compliant with ITU-T T.38 (03/2002), ITU-T T.38 Amendment 3 implementation guidelines (01/2004),
- ❑ Flexible support of T.38 packet types: T30_indicator and T30_data type,
- ❑ Works on TCP & UDP ports (non-blocking mode) or RTP (ITU-T T.38 Amendment 2 (04/2004),
- ❑ Consistent interface with Netbricks Socket Entity easing use over UDP,
- ❑ Modular architecture separating T.38 IFP protocol (used in IAF and Facsimile Gateway) and inter-working function (used in Facsimile Gateway),
- ❑ Easy integration with other signaling protocols from Netbricks: MEGACO-BRICKS, SIP-BRICKS, MGCP-BRICKS, ISDN-BRICKS,
- ❑ Consistent interface with Netbricks T30-BRICKS Fax group 3 protocol offering an integrated communication stack for IAF development,
- ❑ Consistent interface with Netbricks SOFTMODEM-BRICKS providing an extensively featured communication solution to build facsimile gateway,
- ❑ Netbricks portable architecture.

- ❑ **SM** : system management,
- ❑ **TCP/UDP/IP** : TCP/UDP/IP protocol stacks,
- ❑ **SOCKET ADAPTATION** : BSD socket like interface,
- ❑ **T38** : T38 IFP protocol module,
- ❑ **GWT38** : Facsimile Gateway Inter working adaptation and relay module,
- ❑ **ACU** : Call Control of IP session signaling protocol or PSTN signaling,
- ❑ **FAXMOD** : fax modem convergence and provisioning functions,
- ❑ **T30** : T.30 protocol with or without Error Correction Mode (ECM),
- ❑ **CF** : control function,
- ❑ **SIP/ MEGACO-H248** : IP session signaling protocol – SIP protocol or ITU-T H.248 (Megaco) protocol,
- ❑ **SOFTMODEM** : Software Demodulation/Modulation by Netbricks,
- ❑ **CC** : ISDN call control,
- ❑ **NS** : ISDN network signaling,
- ❑ **MNS** : ISDN network signaling layer management,
- ❑ **DL** : ISDN LAPD,
- ❑ **MDL** : ISDN data link layer management,
- ❑ **PH-D** : D channel physical layer,
- ❑ **PH-B** : B channel physical layer,
- ❑ **MPH** : Physical layer management.

IAF SOFTWARE ARCHITECTURE



FACSIMILE T.38 GATEWAY SOFTWARE ARCHITECTURE

