

# VoIP – T.30/T.38

## *ikon T.30/T.38 Subsystem for Real-Time Fax over IP*

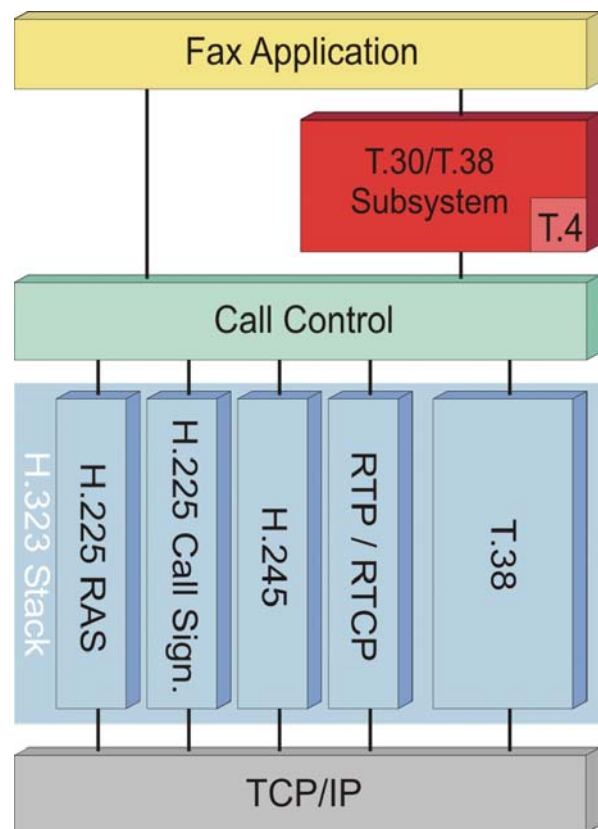
### General

G3 Facsimile Transmission is a Telecommunication Industry's demand for Public switched Telephone Networks as well as for Packet based IP-Networks. More and more Vendors of VoIP-Gateways offer the opportunity to transmit G3 Facsimile Messages compliant to ITU-T Recommendation T.38, which describes the Procedures for real-time G3 Facsimile Communication over IP. The Usage of T.38 within the H.323 Recommendation is specified e.g. in H.323 Annex D.

Some of the H.323 Protocol Software Implementations available on the Market, support H.323 Annex D. But this Support does usually not include T.30 Fax Call Control, which is necessary for Fax Session Establishment between communicating Partners and for Transmission of G3 Facsimile Messages encapsulated in T.38 Packets.

With the new ikon T30/T.38 Subsystem it is now possible to extend H.323 Annex D supporting Protocol Software with T.30 Call Control Features handling T.38 Realtime Fax Messages, thus reducing Time-to-Market for new Products dramatically. The Software includes a complete T.30 Finite State Machine (FSM) with Conversion of G3 Facsimile Messages compliant to T.4.

The ikon T.30/T.38 Subsystem can be combined with the innovaphone H.323 and SIP Software Protocol Stack to build comprehensive Voice over IP solutions. Due to its modular Design the Software can be used in conjunction with H.323 or SIP Protocol Stacks from other Vendors also. ikon offers Engineering Services for the Integration of the T.30/T.38 Subsystem into these VoIP Stacks.



### Key Features

- Facsimile Channel Density continuously scalable, only limited by CPU Performance.
- Interoperability proven e.g. with Cisco and innovaphone Gateways, among others.
- Speed up of Time-to-Market for VoIP Products.
- No expensive and long term Development for gaining real-time Fax Capability
- Small set of API Functions.
- Preintegrated with innovaphone H.323 and SIP Software Protocol Stack.

## Fax Features

- G3 and Structured Fax File-Format (SFF) Support.
- Data coding and decoding compliant to ITU-T Recommendation T.4.
- Bit transparent with DTMF-Tone Creation and Recognition.
- DTMF-Tone send and DTMF Indication (CNG = 'X', CED = 'Y').
- Fax G3 up to 14.400 Baud.
- B3 Protocol 4, B3 Protocol 5 (ECM, MH, MR and MMR).
- Headline Support.
- Fax on Demand.
- Fax Polling.

## Developer Tools

ikon's T.30/T.38 Subsystem includes Developer Tools to assist Developers integrating and porting the Software. It includes sample Applications, Traces and Probes. The Tools help Developers within the Debugging Process to accelerate the Integration of the T.30/T.38 Software.

## Operating System and processor independent implementation

ikon's T.30/T.38 Subsystem is designed to be Operating System and Processor independent. The software is designed to work together with real time operating systems (VxWorks, OS-9, Nucleus, etc.) as well as general purpose operating systems (Win 32, Linux, etc.) and proprietary operating systems.

## Target System Requirements

- ikon T.30/T.38 Subsystem is written in ANSI C++ (C++ compiler required)
- ikon T.30/T.38 Subsystem requires the usage of SIP Stacks or H.323 Protocol Stacks complying to H.323 Annex D (e.g. innovaphone H.323 and SIP Software Protocol Stack)

## ikon VoIP Portfolio (Excerpt)

**ikon**▲ RTP/RTCP Software

**ikon**▲ VoIP-CAPI

**ikon**▲ Professional Services

## Professional Services

ikon offers Engineering Services to adapt the Protocol Software to customer specific Hardware or Operating Systems, including the development of the necessary Device Drivers, as well as Turnkey Solutions.

## About ikon

ikon GmbH delivers Products and Development Services with main Focus on Telecommunications. Since its Foundation in 1988 ikon GmbH is a reliable Partner for customer specific Development in the Telecommunication Sector.

Parts of our Product Portfolio are several Protocol Stacks and Software Modules for Technologies like ATM, DECT, ISDN, VoIP, Frame Relay, MPLS, IP-Routing and V5.x.

## Trademarks

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