Empower Video in 3G Network using our 3-way access Video Gateway
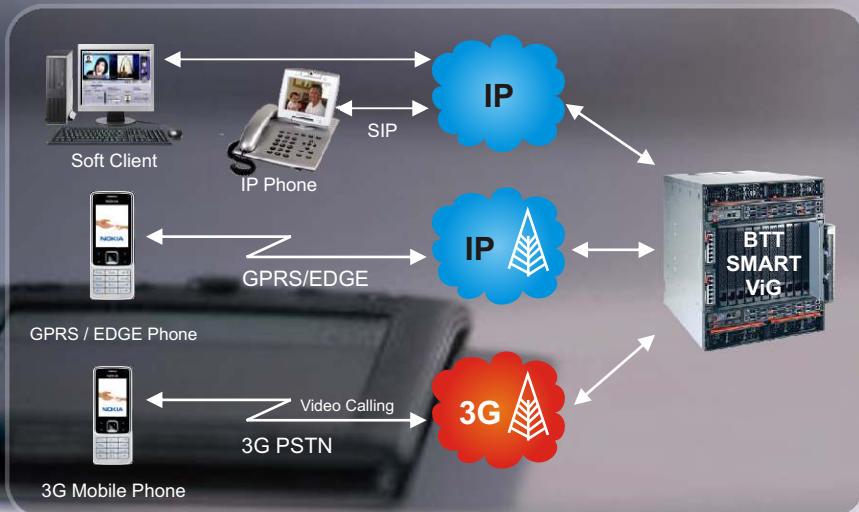

INTRODUCTION:

The BTT Smart Video Gateway **(Smart ViG)** provides audio / video transport to the 3G Mobile switching centre and uses 3G-324M protocol. It has transcoding and proxy functions for call signaling, command control, and voice and video transcoding between multimedia systems protocols including 3G-324M/H.324M, ITU-T H.323 and the IETF SIP. The Smart ViG provides transcoding tailored to end-terminals such as mobile phones, PDAs, and IP terminals. It supports a variety of voice and video coding standards and connects end-terminals on circuit switched, packet switched networks, wireless networks and GSTN. The Smart ViG does transcoding in real-time and on-the-fly between major voice and video standards and protocols including the GSM-AMR, G.723.1, voice codecs; H.263 and MPEG4 video codecs. The BTT gateway complies with all protocol requirements as defined by the 3GPP 3G-324M ITU-T H.324, H.324m, H.323, and the IETF RTP and SIP protocols. It is equipped with patented technologies that enable rapid session setup, minimal media delays and skews, while ensuring the widest interoperability and unparalleled user experience and media quality.

Network Diagram:

BTT Smart ViG – 3 way Access

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FEATURES:

- Channel based T1/E1 interface.
- 4 digital PSTN trunks, software selectable between T1 and E1 (120 ohm) per board.
- A-law or μ-law PCM encoding
- Dual 1/10Gigabit interfaces either on rear panel or connected to PICMG 2.16 backplane.
- On-board RTP/RTCP processing by fast PowerPC
- Fast Video call setup using MONA (Media Oriented Negotiation Acceleration) in less than 1 Second.

TECHNICAL SPECIFICATIONS:

GENERAL:

- Developed to meet 3GPP 3G-324M standards
- Supports development of IP multi-media messaging servers
- Supports 3G to IP phone conferencing
- Native Hairpin
- On Fly Frame Rate Conversion , Bit rate conversion, Image Size conversion
- I Frame update
- Text Overlay
- Video Conferencing with participants video layout feature.
- Seamless integration with optional Video Transcoder 1.1 for MPEG-4 and H.263 formatting and rate translation

3G 324M CIRCUIT SETUP:

- ISDN: 5ESS, 4ESS, DMS 100/250, NI-2, Euro-ISDN, INS 1500.

VIDEO PROCESSING:
- Pass-through
- H.263,MPEG-4
- Transcoding
- Seamless integration with full featured Video Transcoder 1.1

AUDIO PROCESSING:
- Pass-through
  AMR, G.723.1
- Transcoding
  (Codec selection impacts port density)
  AMR, G.723.1, G.729, G.711

APPLICATION DEVELOPMENT TOOL (ADT):

The Smart ViG comes with Application Development Tool (ADT).

ADT is a GUI based application tool and allows users to develop & design Video application call flow. By using ADT one can create a video based application without any programming skills. Users can create and modify applications faster and add them on-the-fly, considerably speeding up time to market and thereby ensuring faster response time to changes. It has several objects to develop end to end video applications.

SAMPLE ADT OBJECTS:

- Play & Record Video
- Call Control
- Conferencing
- Web Objects
- Database Objects

READY-TO-USE VIDEO APPLICATIONS USING ADT:

- IVVR (Interactive Voice Video Response)
- Video SMS
- Video Greetings
- Video Mail
- Video Help Desk
- Video On Demand
- Video Portal
- Video Conferencing

SERVER HARDWARE REQUIREMENTS:

CPU	Single - Processor, dual - core Intel Pentium - D or Xeon Processor based System
Clock Speed	2.6GHz or higher
Memory (RAM)	2 GB or higher
PCI	PCI Express (PCIe) - 2 Nos
Ethernet Interface	Dual Gigabit for Media

GATEWAY CAPACITY:

Up to 420 gateway ports per system

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