INTERNATIONAL DATACASTING

Tattoo Gateway™

Satellite-to-IP Gateway for DTH Satellite Operators

Applications

- **DTH Operators,** who want to extend their footprint within multi-dwelling units such as apartments, gated communities and hospitality locations.

Features

- DTH extension over Ethernet to IP-STB
- Up to 8 DVB-S/S2 compliant demodulators with IP outputs
- MPEG Transport Stream PID Grooming
- MPTS to SPTS Conversion
- Automatic configuration

Tattoo Gateway™ enables direct-to-home (DTH) satellite operators to deliver their existing content cost effectively to a new subscriber base - residential customers in MDUs.

Increase the Market for Existing Services

Part of the Digital Tattoo™ suite of products, Tattoo Gateway™ enables direct-to-home (DTH) satellite operators to expand the addressable market for their existing services by gaining access to residential customers living in multi-dwelling units (MDUs). Tattoo Gateway helps overcome the distribution challenges currently faced by DTH operators wishing to expand in to this segment of the market.

High Density Satellite-to-IP Gateway

Installing a satellite dish for every resident is not generally embraced by MDU owners. Distributing satellite signals from a single dish to multiple apartments is expensive, and requires the MDU owner to invest in a dedicated RF distribution network which cannot be repurposed. IDC's Tattoo Gateway uses IP to distribute content from a single satellite dish to every MDU apartment over a standard Ethernet network. This approach is easier and cheaper to implement, and the Ethernet infrastructure investments can be repurposed, allowing the MDU owner to offer residents lucrative additional services, such as internet connectivity, voice over IP, and surveillance camera monitoring.

Conditional Access Transparent

Tattoo Gateway is content and Conditional Access (CA) transparent. This enables DTH operators to keep their content encrypted all the way to the subscriber's Set Top Box (STB), guaranteeing security, and allowing the same business systems used for CA and billing in DTH deployments to be used in MDU deployments. Operators simply have to deploy an IP version of their STB to offer MDU subscribers the same user experience as their existing DTH customers.

Expanded Service Offering

Tattoo Gateway enables DTH operators to increase the addressable market for their existing services by delivering linear content over Ethernet to new subscribers within MDUs. The broader Digital Tattoo solution also allows operators to expand their service offering within the MDU. Content can be delivered by satellite to a micro video server with the MDU which can be used to provide a comprehensive Video on Demand (VOD) service. Server content is delivered and managed using IDC's Centient media aware CDN platform. Once again, the content remains encrypted, and is accessed using the operator's own Electronic Program Guide (EPG) and streamed over the MDU Ethernet network to residents' STBs.

TECHNICAL SPECIFICATIONS—Tattoo Gateway™

CHASSIS

Capacity	Up to 4 modules per chassis
L-Band Inputs	2 per module (8 Max)
Gigabit Ethernet Outputs	2 per module (8 Max)
Demodulation	• **DVB-S:** QPSK • **DVB-S2:** QPSK, 8PSK
Carrier Rate	• **DVB-S:** QPSK - 1 MS/s to 45 MS/s • **DVB-S2:** QPSK/8PSK - 5 MS/s to 30 MS/s • **Turbo Code:** QPSK/8PSK - 2 MS/s to 30 MS/s

DVB-S SUPPORT

FEC	Concatenated Viterbi/Reed-Solomon
Demodulation	QPSK - 1/2, 2/3, 3/4, 5/6, 7/8 with Reed-Solomon at 204/188
Alpha Factor	0.35
Standards Compliance	ETS 300-421, EN 301 210

DVB-S2 SUPPORT

FEC	DVB-S2 LDPC and BCH
Demodulation	• QPSK - 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 • 8PSK - 3/5, 2/3, 3/4, 5/6, 8/9, 9/10
Alpha Factor	0.20, 0.25 and 0.35
Standards Compliance	EN 302 307

L-BAND INTERFACE

Frequency Range	950 to 2150 MHz
AFC Range (Drift tracking)	± 2 MHz
Carrier Input Level	-35 to -65 dBm
Connector	Type-F, female
Impedance	75 ohms, unbalanced
LNB DC Power	+18 VDC at 200 mA maximum suitable for DRO LNBs center conductor positive, short circuit protected
DiSEqC LNB Control	• +18 VDC for horizontal polarity • +13 VDC for vertical polarity • 22 kHz 650 mV • OFF selects 950 to 1950 MHz • ON selects 1100 to 2150 MHz

IP NETWORK INTERFACE

Connector Type	RJ-45 Ethernet (8 Max)
Electrical Interface	Gigabit Ethernet

STATUS AND CONTROL

Rear panel indicators	2 LEDs for status plus 2 LEDs for Ethernet activity
Monitor and Control	SNMP, SSH

POWER REQUIREMENTS

Supply Voltage	100 to 240 VAC ± 10%, 50 or 60 Hz
Power Supply Type	Switching, autosensing
Power Consumption	150 Watts max (4 modules + 8 DRO LNBs)

PHYSICAL PARAMETERS

Chassis	Rack Mount, 1 EIA 1.75" Rack space
Dimensions (H, W, D)	4 cm x 48 cm x 36 cm (1.57" x 18.89" x 14.17")
Weight	5.8 kg (12.7 lbs.)

ENVIRONMENTAL CONDITIONS

Operating Temperature	0° to 50° C (32° to 122° F)
Storage Temperature	-20° to 70° C (-4° to 158° F)
Humidity	Maximum 90% relative humidity, non-condensing

COMPLIANCE

Safety/Emissions	• FCC Part 15 Class A • CE in Accordance with EN50081-1 and EN50082-1 Class A
European Union Requirements	RoHS compliant