INTERNATIONAL DATACASTING

Net Manager

Network Management - Satellite IP Video and Data Networks

The Net Manager is a highly reliable GUI-driven network management system designed to control DVB/IP satellite receivers using in-band communications.

Service providers often have deployed an extensive network of satellite receivers and are then faced with the daunting task of having to upgrade and reconfigure receivers already deployed and operational in a network. From satellite providers shuffling segment allocations that require new frequency assignment programming to network operators changing the carrier symbol rates to accommodate additional bandwidth, it is sometimes necessary to re-program carrier parameters for each receiver. Net Manager helps operators address these challenges.

Net Manager is IDC's next generation network management system designed to work with IDC's portfolio of audio, video and data products (refer to feature compatibility matrix for availability). Featuring a Web-based GUI for operator-friendly local and/or remote operation, this robust system supports multiple languages. Delivered on a highly integrated hardware/software platform.

With the ability to interface and control individual receivers, groups of receivers and entire networks via the satellite link, Net Manager securely maintains configuration information for each receiver. The audio, data and control outputs of compatible receivers, as well as their receive frequencies and demultiplexer parameters can be administered by Net Manager remotely.

Net Manager is also capable of sending upgrades in a foreground queue or continuous background queue.

Net Manager generates a UDP/IP multicast data stream which is injected into the DVB carrier by an IP Encapsulator. This data stream is then received and interpreted by the satellite receivers as it contains addressing, authorization and routing information.

All receivers tuned to the DVB carrier receive the Net Manager control data stream. They decode addressing information within the IP data stream to determine which data to extract and use for configuration.

Each receiver contains a unique IDC address, and may also be a member of one or more receiver groups. Each Net Manager message contains either an individual IDC receiver address or a group address allowing for efficient configuration updates to as many or as few receivers as needed.

As a background task, Net Manager continuously transmits each receiver's configuration; ensuring the proper network configuration. The Net Manager message addressed to any specific receiver includes a sequence number that increments whenever a change in configuration occurs. This allows the receiver to optimize its handling of Net Manager messages.
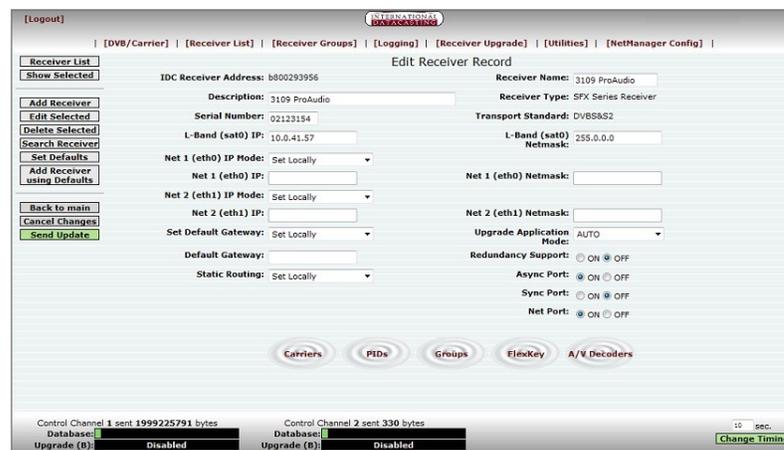
The BISS decryption key, to be used by IDC receivers equipped with the BISS option, can be distributed using IDC's Net Manager. Only authorized receivers can receive the BISS key and thus only authourized receivers are able to perform BISS decryption. For security, and in accordance with the BISS standard, the BISS decryption key cannot be read from a receiver even if authorized by Net Manager.

TECHNICAL SPECIFICATIONS—Net Manager

Audio Receivers Feature Compatibility	SuperFlex Pro Audio	STAR One G1	STAR Two G1	STAR Three G1	STAR Two G2	STAR Four G2
Foreground/background upgrades, Carriers, PIDs, CHs, FlexKey IP and Port, Groups, Global, Individual	✓	✓	✓	✓	✓	✓
Net Manager RTP/IP Channel Tuning	✓				✓	✓
Net Manager PES Channel Tuning					✓	✓

POWER REQUIREMENTS	
Supply Voltage	100 to 240 VAC, +6%, -10%, 50 or 60 Hz
PHYSICAL PARAMETERS	
Chassis	1U rackmount server platform
Dimensions (H, W, D)	5.4 cm x 48 cm x 40 cm (1.75" x 19" x 16")
Weight	8.5 kg (18 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, non-condensing

International Datacasting Corporation is a technology provider for the world's premiere broadcasters in radio, television, data and digital cinema. IDC's products and solutions are in demand for radio and television networks, targeted ad insertion, digital cinema, 3D live events, VOD, and IPTV. IDC is headquartered in Ottawa, Canada, has installations in over 100 countries, and a strong world-wide network of value-added partners and distributors. For more information visit: www.datacast.com.

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