



SHAPING THE FUTURE OF SATELLITE COMMUNICATIONS



WBU-ISOG 18-19 May 2011

Carrier ID

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Newtec at a glance

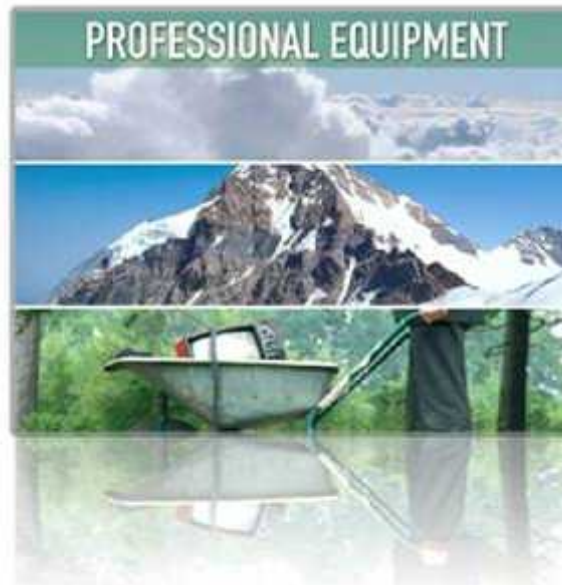
- The European market leader in the DVB satellite broadcasting market and consumer internet access market with **ASTRA2Connect**
- Over 400 customers worldwide
- Award winning Product Leadership strategy in the Satellite Communications equipment industry
- A privileged relation with  **esa**
- A strong product portfolio for TV and IP applications
- Sustained growth :
 - '05: 165 people/23MioEuro
 - '10: 295 people/49MioEuro



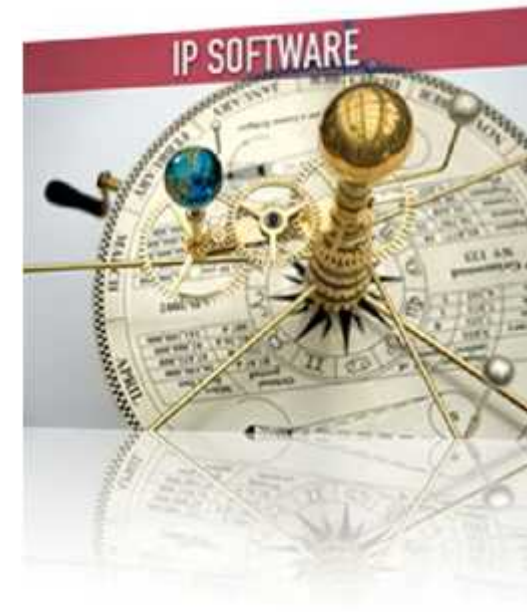
A full range of products



Consumer VSAT
Broadcast Exchange Networks



Broadcast, Telco and WAN
IP over satellite
Mobile and Terrestrial TV



Internet Acceleration
Traffic policing
Reliable Content Distribution

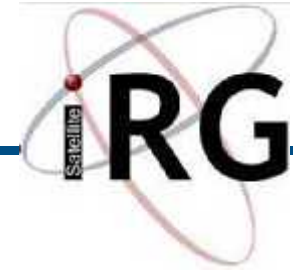
Satellite Interference Is Everybody's Problem



Interferences generate dissatisfied Customers
Everybody in the industry has a responsibility to be part of the solution

Carrier ID

Current Status



Video Working Group

Proposition

Carrier ID into the NIT

- Encoder Manufacturer
- Encoder Serial Number
- Tel Number
- Carrier Identifier
- Longitude
- Latitude

Data Working Group

Idea

Enhancing the physical framing structure ?
Insertion of Dummy Frame
Or pilots?

VSAT Working Group

Under analysis

Adjacent sat. Interference
Cross-Pol /Co-Pol interference

Newtec's Position

Main Characteristics of the Solution

Robust

The required Es/No of the Carrier ID of the interferer has to be as low as possible



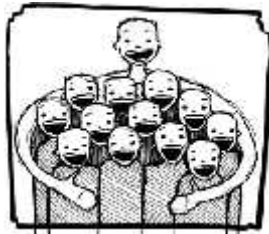
Standardized



Every player needs to use the same method/solution

Patent free

Patents threaten adoption by manufacturers



Video & Data

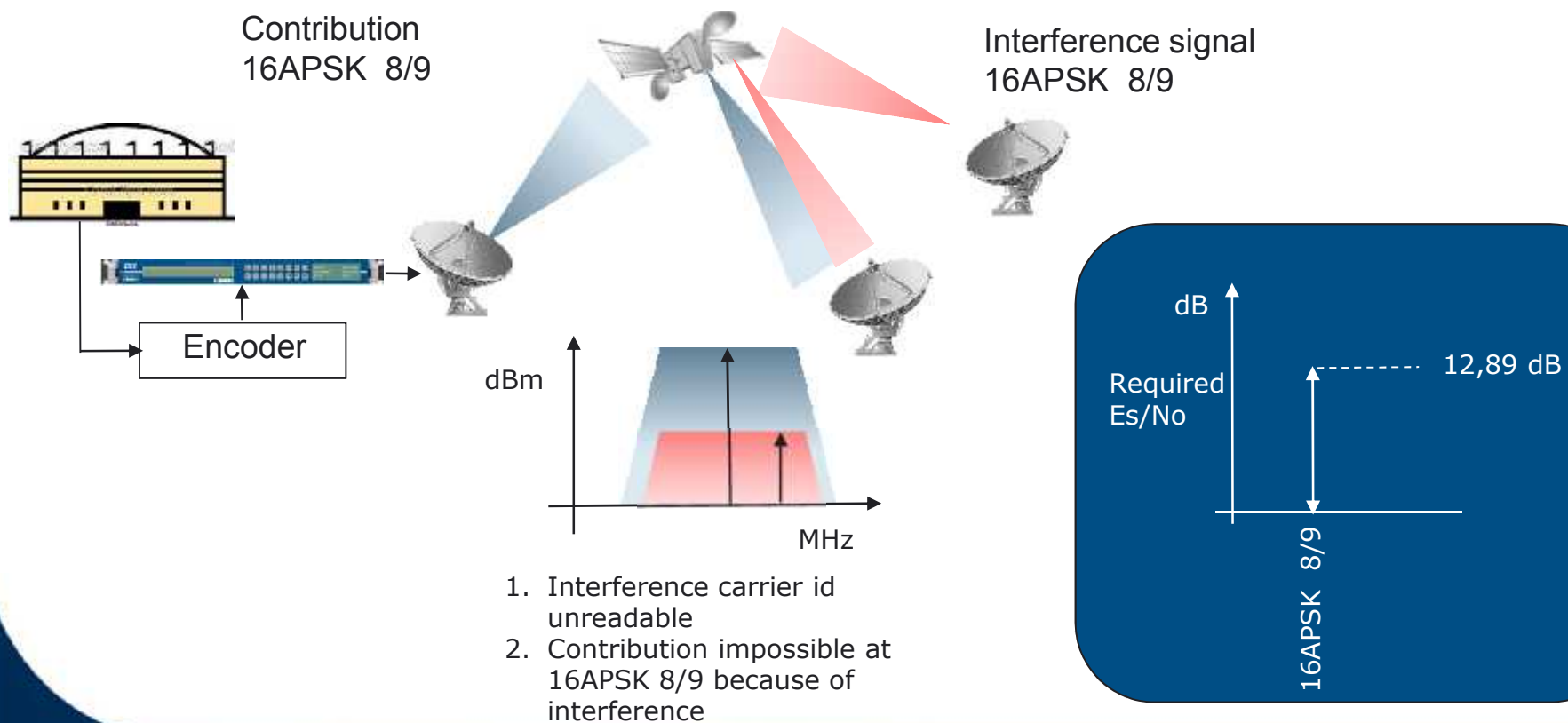


Multistream transmission combining video and Data on the same carrier

Current Carrier ID (NIT proposition)

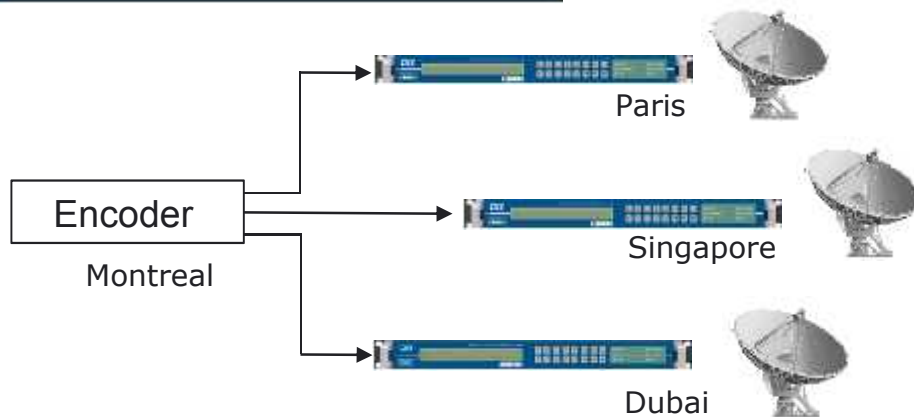
Lack Of Robustness

The current "NIT" solution requires a high Es/No reducing the possibility to extract the Carrier ID info.



Current Carrier ID (NIT proposition) Edited Into The Modulator

Multi-uplink configuration



Several configurations request adaptation of the Carrier ID

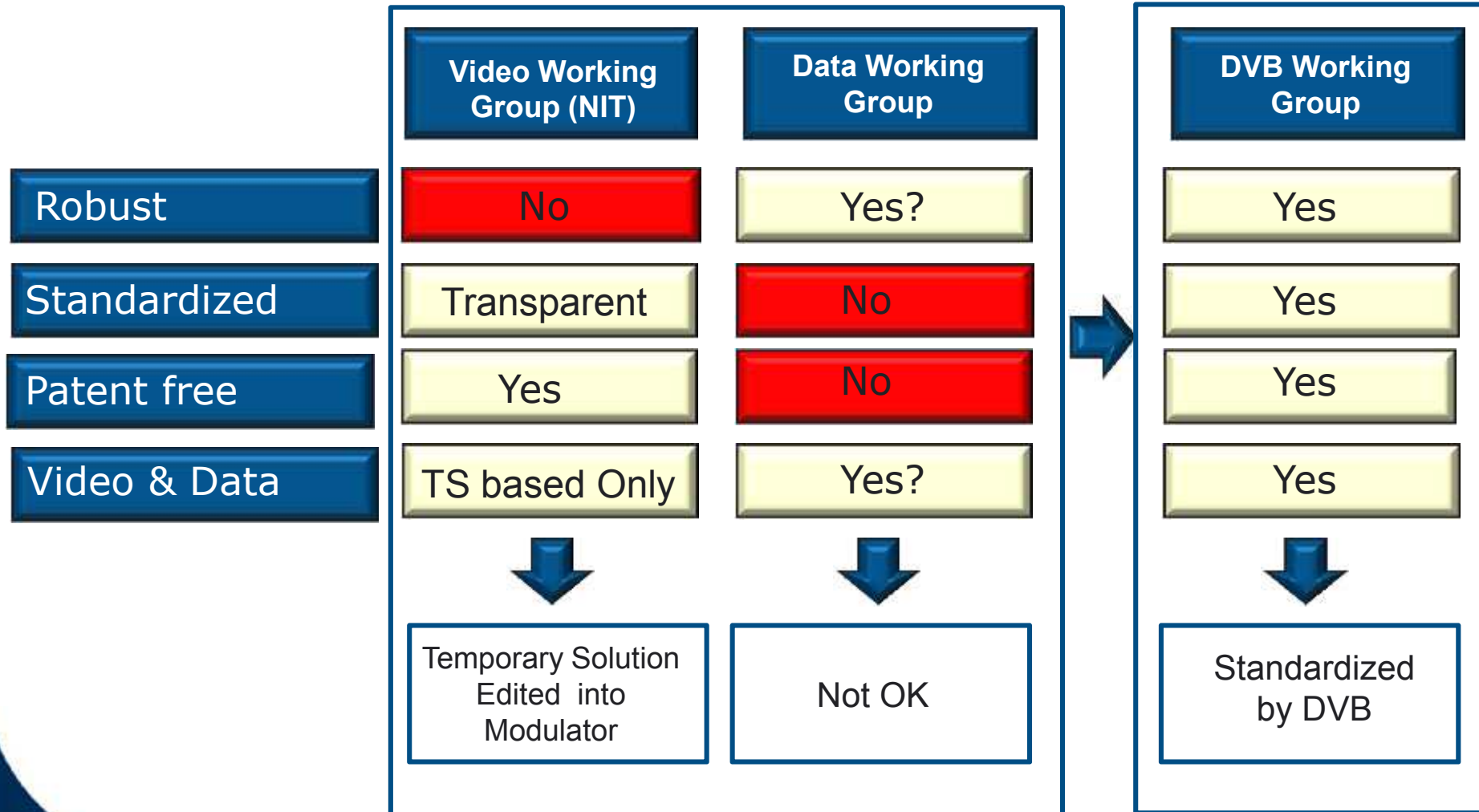


- Encoder / Mux inserts descriptors into the NIT
- Carrier ID is edited into the Modulator

Multi-Hop configuration



Newtec's Proposition

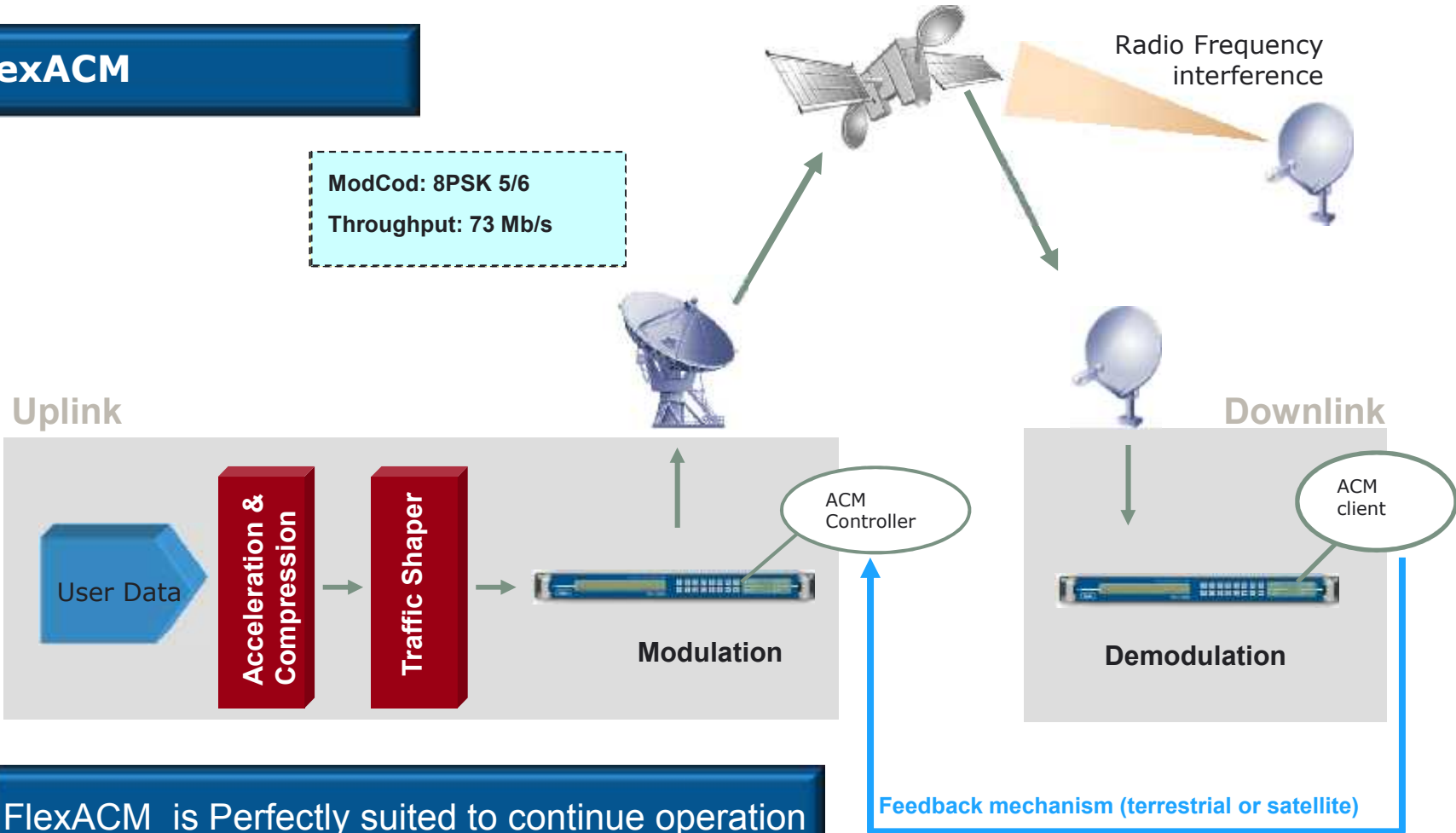


Resilient Solution

FlexACM

FlexACM

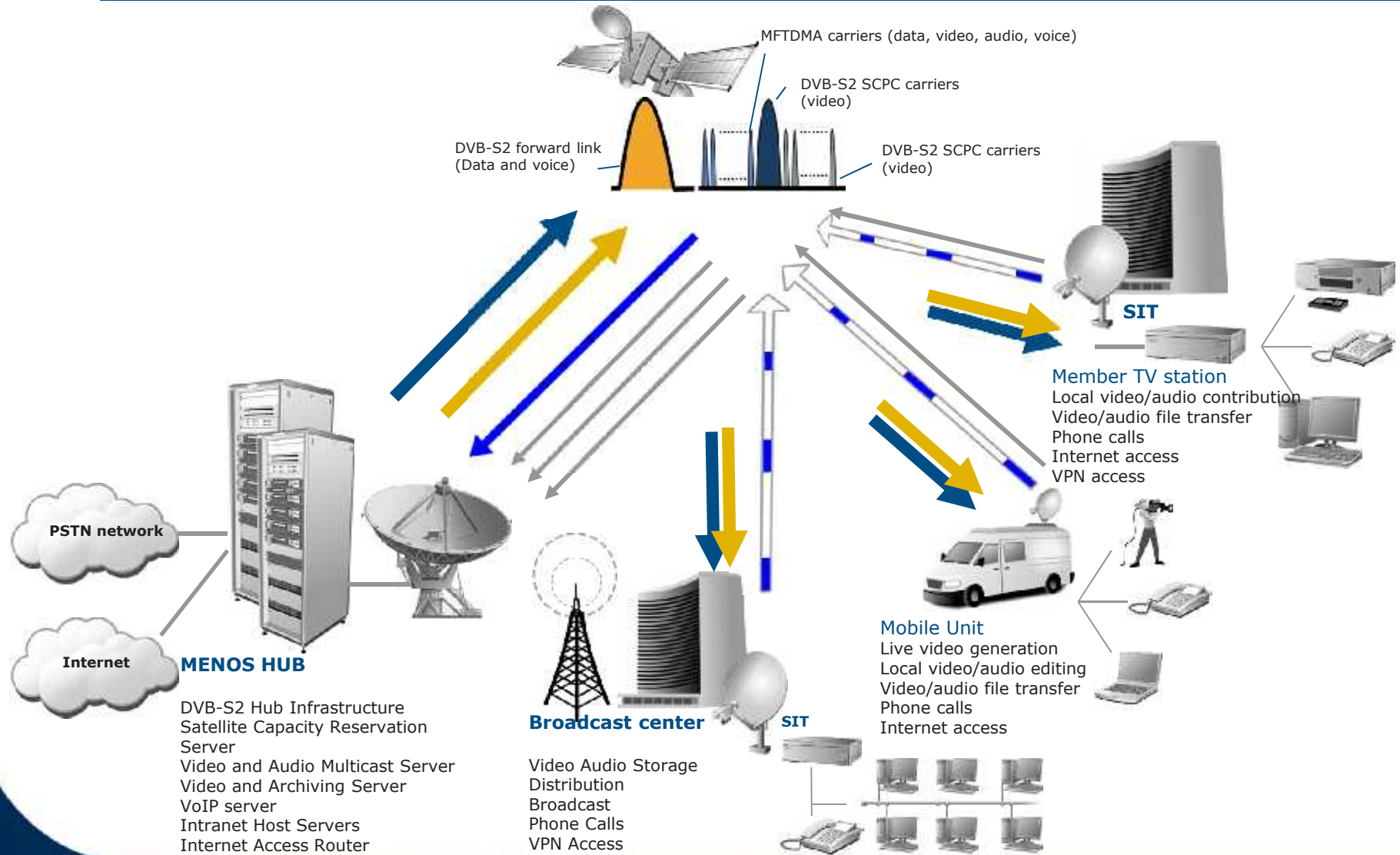
ModCod: 8PSK 5/6
Throughput: 73 Mb/s



FlexACM is Perfectly suited to continue operation while suffering radio Frequency interference

Resilient Solution

MENOS: Automation Of Occasional Transmission 1/2



Resilient Solution

MENOS: Automation Of Occasional Transmission 2/2

MENOS allows to Eliminate the Frequent Manual errors



The screenshot displays the MENOS web interface. At the top left is the MENOS logo and the Newtec logo. On the right, there are navigation links for 'Central Archive', 'User Management', 'Contact', and 'Logout', along with the date and time '2009-05-05 08:52:38 GMT' and the user information 'Radio Exchange, terminal KRT-1, admin'. Below the navigation links are several tabs: 'Exchange Activity', 'Terminal Activity', 'Search Sessions', 'Local Storage', 'Error Log', 'Warning Log (3)', and 'System'. The main area shows a calendar view for the date '2009-05-05'. The calendar has a time axis from 08:50 to 10:10. There are several sessions booked, including one for 'Tennis: Federer vs. Nadal' and another for 'Just a test session'. Below the calendar is a section titled 'Booking a new Local-Capture session'. This section includes a text box with the instruction 'Select available encoder slots in the schedule above to copy start/end times into the controls below'. The controls include a 'Start' date and time selector, a 'Duration' selector in hours and minutes, an 'Encoder' dropdown menu, and a 'Profile' dropdown menu. There are also 'Cancel' and 'Continue' buttons.

Carrier ID

Conclusion

Newtec




- Acknowledges the importance of counteracting radio frequency interferences
- Develops and offers resilient solutions (FlexACM and MENOS)
- Supports the current "NIT" solution with the possible edition of the "Carrier ID" in the Modulator
- Not convinced of the success of the current proposal in the Data Working Group
- The final solution has to be standardized by the DVB organization, robust, patent free for Video and Data transmission

Carrier ID



Thank You

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-  Broadband Systems
-  Professional Equipment
-  IP Software

