Western and Central Pacific Fisheries Commission

E-MONITORING AND E-REPORTING WORKSHOP

Pacific Islands Forum Fisheries Agency Headquarters, 31 March – 1 April 2014
Honiara, SOLOMON ISLANDS

Satlink ECOLOG System
R&D for long-term Sustainable Tuna Fishery

1 April 2014

Egor Zaborovskly

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R&D for long-term Sustainable Tuna Fishery

Egor Zaborovskiy, Satlink WCPO
Honiara, March 2014

Satlink Introduction

- Maritime, Land Mobile & Aeronautical solutions provider
  - Satellite communications equipment
  - Distributor and development of own product
  - Direct development or through sub-contracts
  - Embedded SW & HW
  - Client/Server development & Web Development

- Private held company established in 1992
  - Offices in Spain, Ecuador, Seychelles and Solomon Islands.

- Main areas are
  - Fishing industry
  - Defence, Governmental,
  - Media, NGOs, Industry
  - Airtime

# Company Overview
Presence

Satlink Seatube
Electronic Observer Onboard

Seatube – General Description

- Seatube is the brand name for Satlink's recording and real-time onboard video monitoring system

- Seatube is a solution that uses the latest available technologies

- Seatube consists of:
  - Onboard Video Recording System
  - Fishing Trip Analysis Software for land analysis
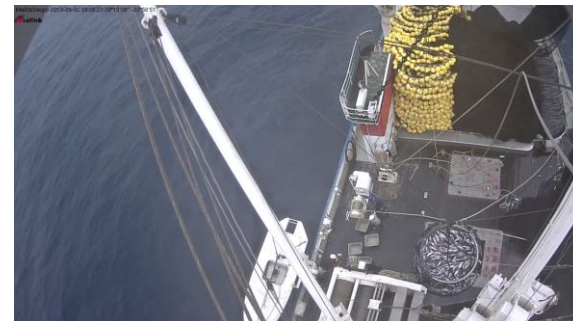 - Via satellite System Status Reporting and Monitoring Service
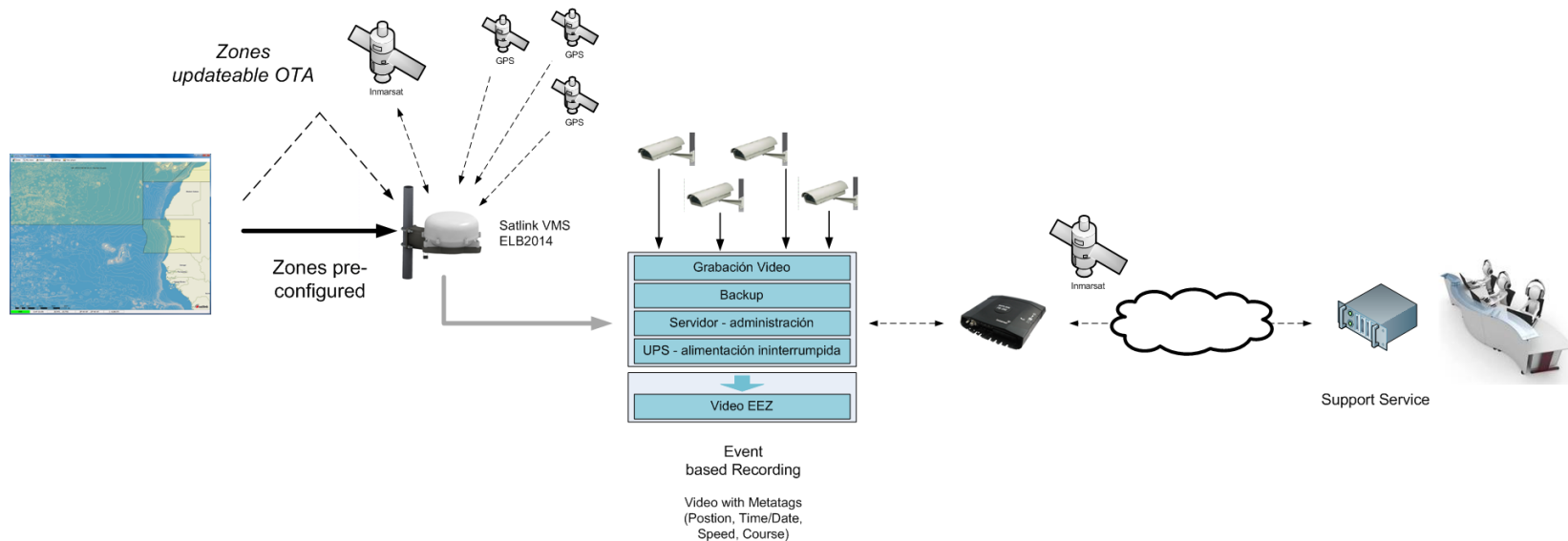
Seatube – Onboard Video Server: Recording Operation

- Satlink Seatube recording system can be configured for:
  - 24/7
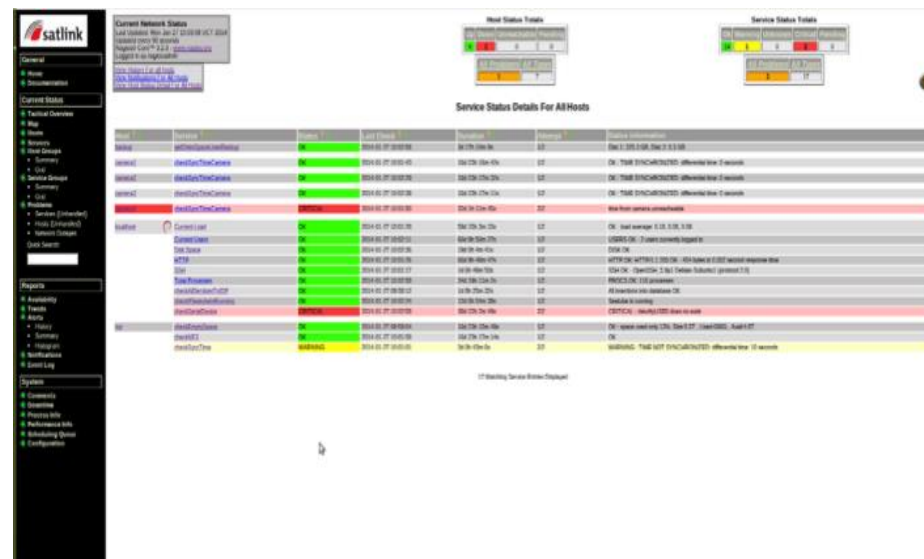 - Sunrise / Sunset
  - Sensor interaction

- Satlink Seatube recordings are divided into 10 minutes videos clips, each with
  - Date and Time of recording
  - Date and Time of current GPS position
  - Current GPS position, speed and course
  - Other metadata collected from VMS sources and sensors, like vessel details recorded at installation.

- Videos are recorded onboard at 720p @ 24FPS (HDTV quality)

Seatube – Onboard Management PC: Alert System

- In case of an unexpected incidence the System Status Reporting and Monitoring Service sends a report to Satlink Secure Server

- Satlink IT will then assess the severity of the incidence immediately 24/7

- Soft issues are resolved remotely without external intervention

- This provides a intuitive health status system on-board the vessel
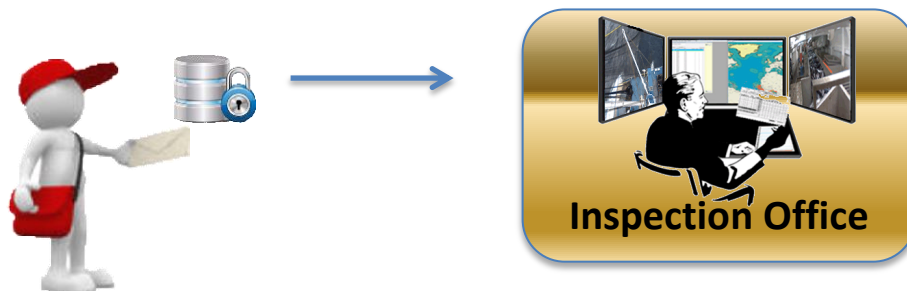
Satlink SeaTube
Satlink View Manager Demo

Example of SeaTube video from a purse seine vessel
Video recorded from sunrise to sunset
No sensors used

Many days without activity

# Seatube – Retrieving Videos From Vessel

- The videos to be inspected are located on the BACKUP recording device
- The discs drives has to be replaced with new discs and the BACKUP installed in the Observer office

- All videos are stored encrypted and only person with correct authorization can decrypt the discs
- All videos are stored by date on the discs in clips of 10 minutes
- Satlink View Manager can now be used to inspect the videos

Seatube – View Manager

- View Manager is a group of tools integrated into one solution
  - World Map with default or customized EEZ (Satlink Zone Designer allows for user definable zones)
  - Video Player that shows all videos simultaneous
  - Tag, Note and vessel information editor for detailed inspection of the videos
  - Inspection Report creation that joins all notes and vessel information into one report

- Inspector will extract Trip into separate Projects
- Inspector will play, comment and analyze videos retrieved from the vessel
- GPS data extracted from metatags inside the video(s) is used to show the vessels position, course and speed for the time of the video
- Video selections directly from marine chart, data selections or video file
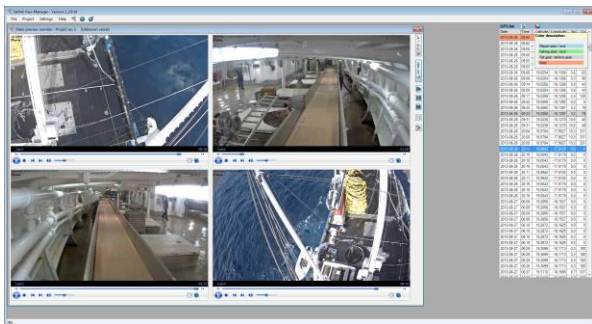
Seatube – View Manager

- Edit mode allows for full control of video, adding notes to video, adding tags gear user defined activities and generate report
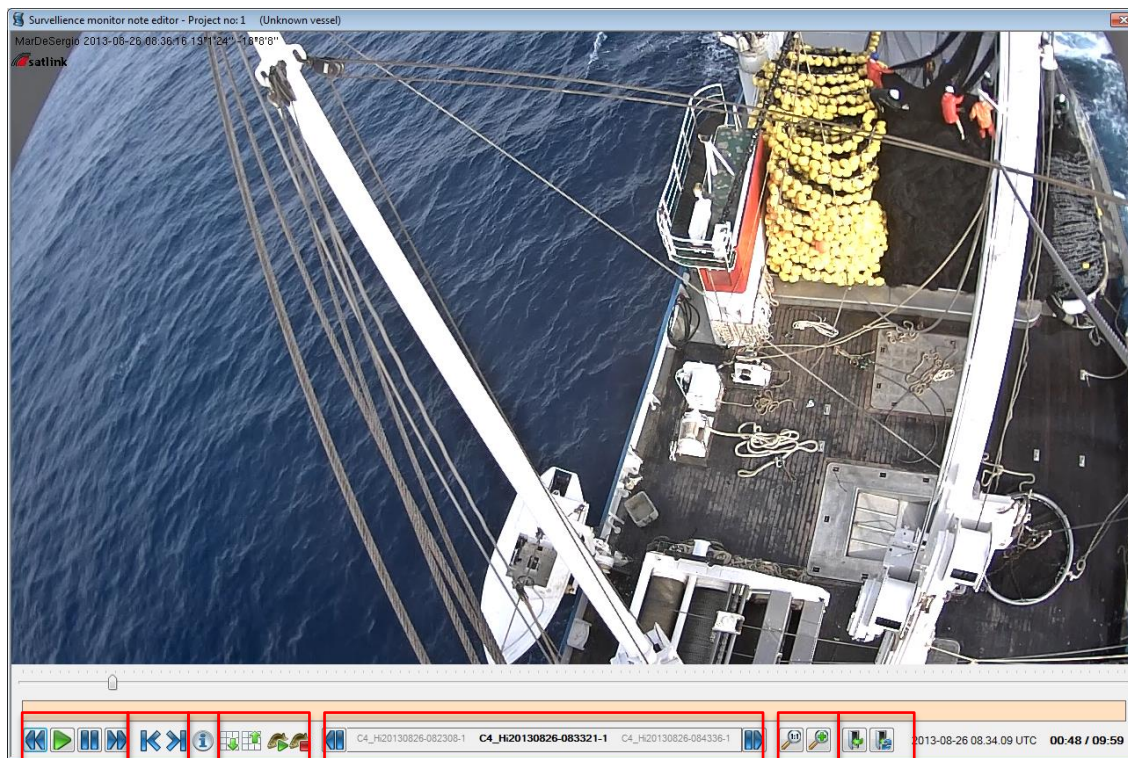
Add note

Play control

Tags (User defined text)

Video control

Zoom/Pan

Leave HD mode and Sync or Not other camera to this moment

Seatube – View Manager

- Report format currently shows
  - Name of vessel
  - Vessel details
  - Data and Time
  - Lat and Long for notes and tags
  - Activity by adding tags with user defined text
  - Activity by using written text or by including optional photo
  - Speed and course with position
  - Inspection title
  - Owner name
  - Watermark from image extracted
  - Reference to actual video file

www.satlink.es