

SATISFY

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Project Overview

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Mission Statement

“To provide European business customers with state of the art, high quality mobile or semi-fixed satellite services, in particular IP and multimedia services, at any place and any time.”

Project curriculum

- The Past: SATISFY2000 builds on the technical infrastructure for mobile and semi-fixed applications developed by the TOMAS project (ACTS European R&D Programme) .
- The Present: technical and commercial validation of mobile high-speed satellite services. SATISFY2000 is the first deployment phase of a platform for high quality mobile and semi-fixed satellite services.
- The Future: SATISFY2000 intends to be the first European provider of a new and advanced portfolio of high speed, high quality telecommunication services via satellite.

Project Approach

- Prototyping of (commercial) SATISFY2000 services in 2 selected market segments and application areas:
 - IP services in Small and Medium Enterprises support applications
 - Multimedia services in environment and emergency management applications
- Pre-commercial end user trials in 2000
- Establishment of commercial organisation in 2nd quarter 2000
- Start of commercial operations in 3rd quarter 2000

Business Goals

- Be first to market with a portfolio of high-speed mobile satcom services
- Offer a service portfolio of satcom based IP services like Internet Access and Intra-/Extranet Connectivity and a range of multimedia services
- Build a customer base for IP and multimedia services in the coming 5 years
- Be compatible with UMTS services and applications and with major multimedia standards
- Complement UMTS networks in rural areas.

Who is SATISFY2000? - The Consortium

- Most partners are working together for more than 5 years in the mobile satcom business.

–	Expertel Consulting	FR	Marketing and Innovation Consulting (Project Management)
–	ComCenSus Ltd	UK	Customer Operation Systems
–	Nera Ltd	UK	Provider of Satellite Earth Station and Terminal Equipment
–	Marac	GR	Provider of Satellite Terminals
–	MediaMobil	D	Mobile Satcom Service Provider and System Integrator
–	Ceryx New Media	NL	Satcom Market Research & Consultancy
–	University of Bremen	D	Mobile Satellite Systems Simulation and Design
–	Anite Telecoms	UK	Billing Systems
–	ISB	D	Internet Service Provider

Key Features

- All IP-based Internet/Intranet/Extranet and real-time multimedia services.
- Bit rates up to 2 Mbit/s for mobile/semi-fixed users and above for fixed users.
- Quality-of-Service on demand.
- IP-Routing and switching function in FES.
- Internet and terrestrial WAN connectivity.
- DVB based forward link system for low cost terminal equipment.
- FDMA/SCPC Return link system with possible future upgrade to DVB-RCS.
- Use of existing GEO space segments (L- and Ku-band).
- Integrated Customer Operation System including Customer activation, QoS management, Fraud monitoring and billing functions.
- Flexible billing schemes based on QoS requested and actually delivered.

SATISFY2000 Bearer Services

Low Speed Service

Up to information bit rates of 64 and 80 Kbps interconnected to the Internet, ISDN with one B-Channel (64 Kbps) plus the full signaling (D-) channel (16 Kbps) as well as to the PSTN with modem speeds at 4.8 to 57.6 Kbps

Medium Speed Service

Up to information bit rates of 128 and 144 Kbps providing interconnection to the Internet and ISDN, the latter offering a full So interface (2 B- and a full D-channel)

High Speed Service

Up to information bit rates of 384 Kbps with interconnections to the Internet and multiple ISDN lines.

Ultra Speed Service

Up to information bit rates of 2048 Kbps with interconnection to the Internet, ISDN, and leased lines.

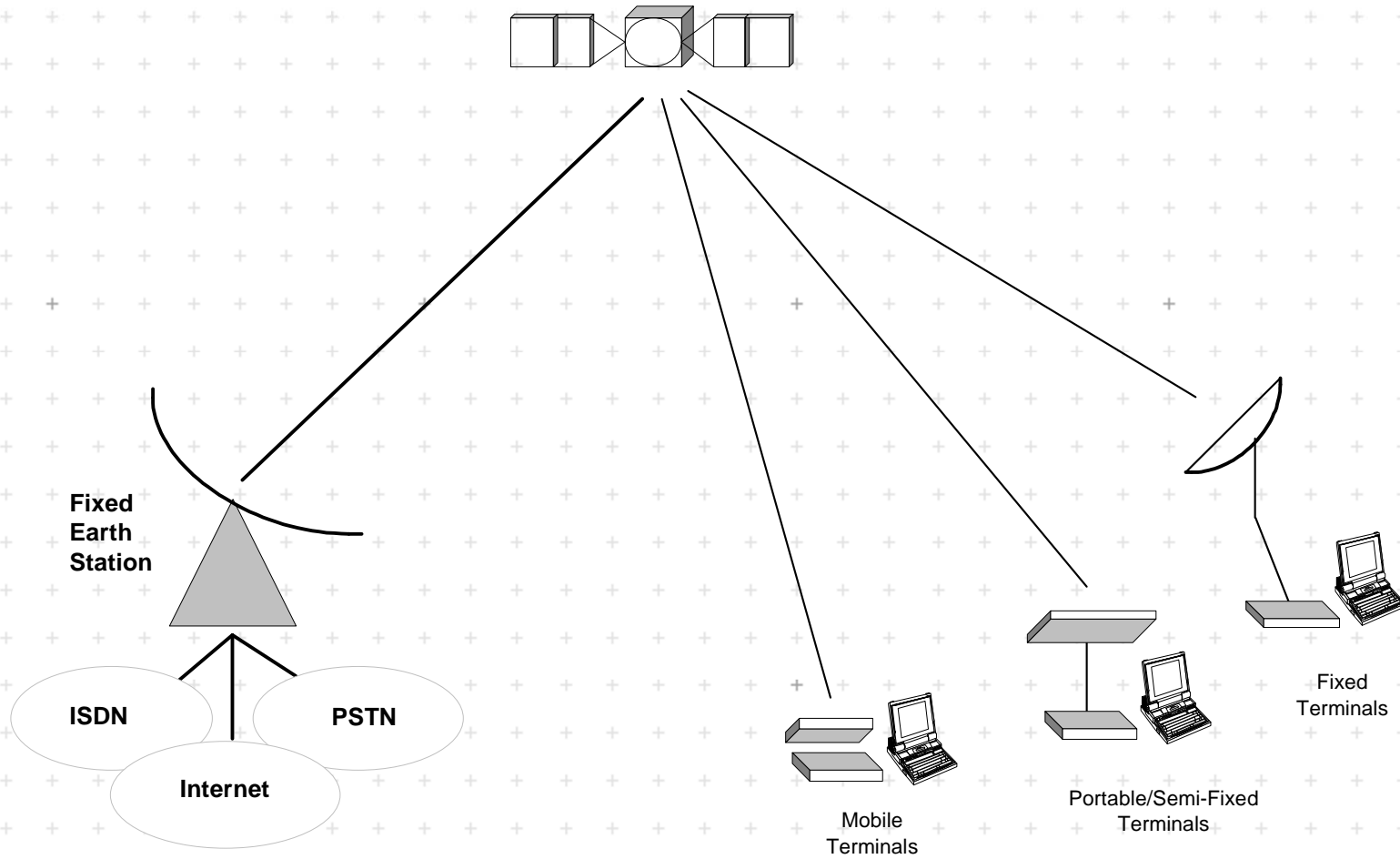
List of Teleservices

Tele service Name	Description
Internet Access	Shared forward link with bandwidth of 2 Mbps (Internet down stream). Return link with bandwidth up to 384 Kbps per user (up stream).
Intranet Connect: Bronze, Silver, Gold	Intranet connectivity with bandwidth up to 2 Mbps in forward direction and up to 128 Kbps (bronze), 384 Kbps (silver) and 2048 Kbps (gold) in return direction.
Extranet Connect: Bronze/Silver/Gold	Same service as Intranet, but for Extranet connections.
Email	Email server on satellite terminal.
H.323 Multimedia: Low/Medium/High/Ultra Speed	Real time multimedia service for bit rates up to 64 Kbps (low speed), 128 Kbps (medium speed), 384 Kbps (high speed) and 2048 Kbps (ultra speed).
VoIP	Telephony service with access to PSTN.

Target Market Segments

- Current Inmarsat HSD Markets: Oil and Gas, Media (store&forward), Governmental Authorities, Peacekeeping Forces, Emergency Management.
- Press and Media: Live News (video/audio feeds).
- Multinational Corporations: Construction (Intranet/Extranet).
- SME support: Internet access, Intranet/Extranet connectivity.
- Content Providers: Mobile Multicasting

Network Configuration



Satellite Terminal Types

- **Type 1:** Mobile terminal for users with the need for high mobility, but limited transmission speed. The maximum speed supported by this terminal is 144 Kbps.
- **Type 2:** Portable terminal for semi-fixed applications, but high transmission speed. The maximum speed supported is 2 Mbps.
- **Type 3:** Fixed (VSAT type) terminal for fixed users. This terminal can support service rates up to 2 Mbps and above (for future implementation)

Status:

- Service and System Definition completed (SDMv1).
- Performance of bearer services up to channel rates of 256 Kbps via EMS tested.
- First demonstration of multimedia conferencing via EMS at IBC 99 (satellite terminal - EMS - FES - ISDN).
- Full trial system implementation in progress (satellite terminals, FES gateway and customer operation system).
- Intermediate business planning in progress.
- Survey of space segments and negotiation of lease conditions.
- Discussions with potential (value chain) partners.