

# BRASIL and WISECOM:

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Advanced Broadband Satellite  
Systems for Rural and Emergency  
Communications

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# Why Merge Rural and Emergency?

- To highlight and explore the interesting commonalities and the substantial benefits of a joint global effort.

# Technical Commonalities

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- Integration of satellite and terrestrial wireless
  - Satellite spectrum costs money to use...
    - Requires highly efficient solutions for VoIP and other services
      - Voice probably most important service
      - Data services for e-health and e-education
  - Bandwidth on demand
  - Quality of Service approaches
- Other issues: Local communication, Support for Standards, Power supply.

# Main Differences

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- Different Markets
  - Rural often - not always - a market with lower income subscribers
    - Rural Africa, Rural South-America, Rural Asia
    - ... but Rural satcom solutions extend to Maritime markets, aeronautical markets
  - Emergency government or aid organizations; often small budgets too
    - ... but satcom solutions may extend to e-security and business continuity where markets are solid.
- Both solutions may target several markets from a SatCom point.
  - Financing, sale, market approach varies.



# Synergies

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- Efficient Satellite-Wireless Technology
  - For small, lightweight robust solutions for Emergency
  - For Cost-Efficient solutions for Rural
- GSM over satellite
- Integration with WiMAX and other
- TETRA integration for security

# Why WISECOM?

- ❑ During emergencies, communications is often a key challenge.
  - Existing systems can be down or missing.
  - Lack of capacity.
  
- ❑ Satellite extends the reach of networks
- ❑ **SATIN users communication with standard GSM/WiFi equipment**
  - Closed proprietary systems do not cover these needs for users.
  - GSM(/mobile) and WiFi is present with billions
  
- ❑ GSM/mobile infrastructure - allows commercial aspects
- ❑ WISECOM used for search and rescue.

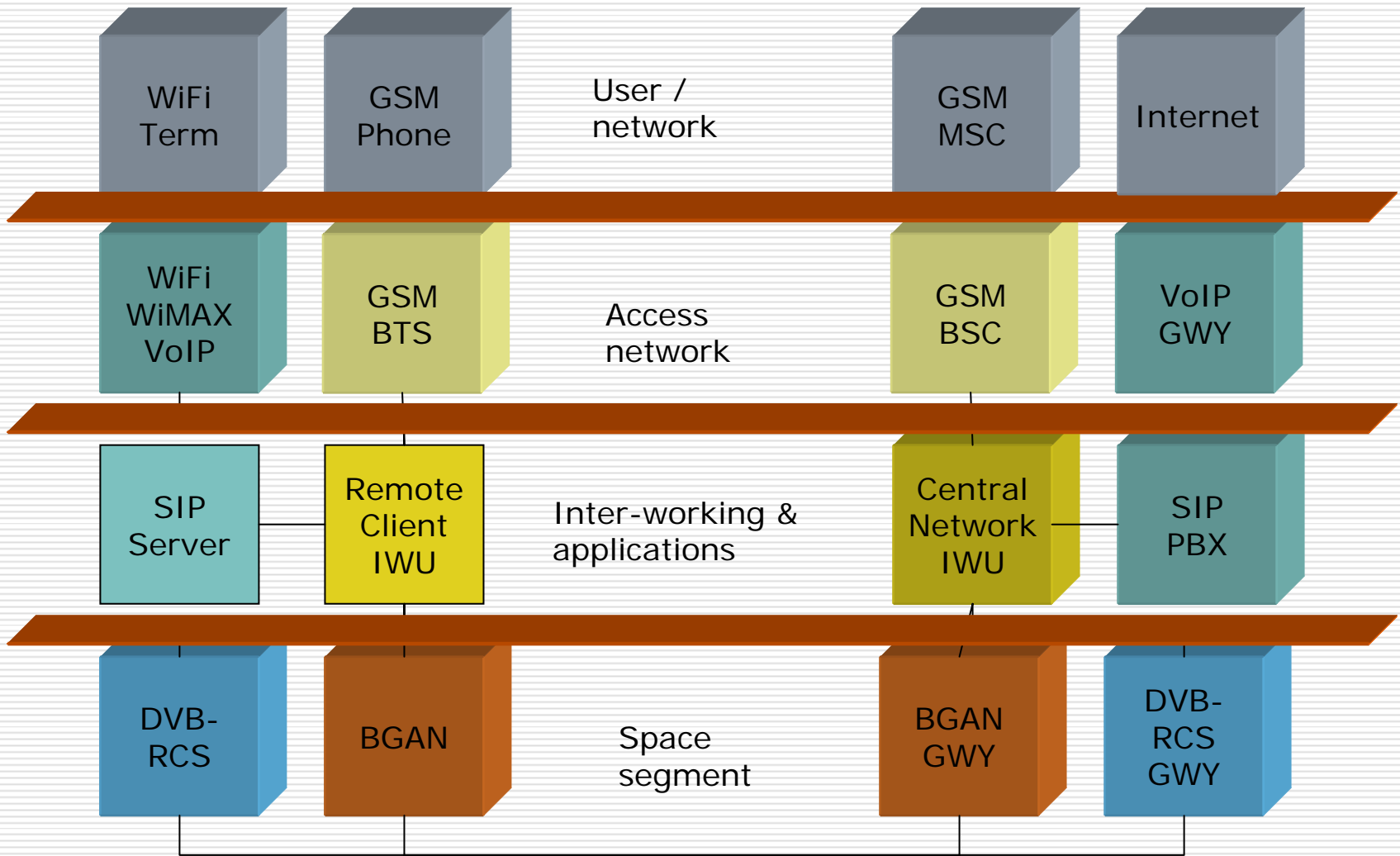


# Why BRASIL?

- In rural areas, basic communications is often a key challenge.
  - No Existing systems.
  - Not sufficient capacity
- Satcom extends the reach of telecommunication networks
- **BRASIL users communication with standard GSM/WiFi equipment**
  - Basic voice and e-services.
  - Cheap access equipment
- GSM infrastructure - allows commercial aspects;
  - Data access often government initiatives
- BRASIL targets development of the developing world
  - e-health, e-education etc.



# BRASIL and WISECOM Concept



# About the Agenda

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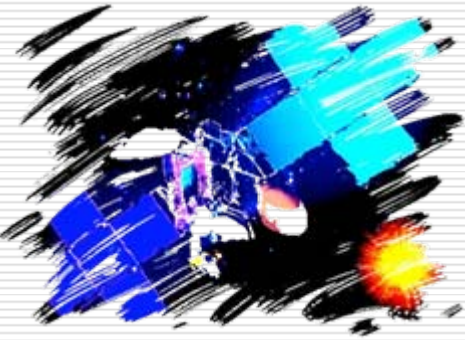
- Overview of challenges
  - Requirements for BRASIL and Rural
  - Requirements for WISECOM and emergency
  
- Presentations of Technology and Applications
  - Presentations of WISECOM and BRASIL projects
  
- Panel discussion on how to explore synergies via SPACE in RURAL and EMERGENCY
  - All speakers



# Workshop Agenda



<i>Time</i>	<i>Session</i>	<i>Title</i>	<i>Speaker</i>	<i>Affiliation</i>
9:00	<i>Opening</i>	Setting the Scene for the workshop, Combining BRASIL and WISECOM	Dr Harald Skinnemoen	AnsuR, Norway
9:20	<i>Session 1</i>	Present Situation for Emergency Communications from an Emergency Physician View	Dr. Laszlo Gorove	Hungarian Ambulance Service
	<i>EMERGENCY</i>			
9:40	<i>RURAL Overview</i>	Rural Communications in Brazil; Visions and Challenges	Roberto Aroso	TELECOM, Leader e-Brasil
		.....		
10:10	<i>Session 2</i>	Emergency Telecommunications over DVB-RCS	Jean-Louis Fondere	Thales Alenia Space, France
	<i>Technology</i>	The Emergesat initiative		
10:30	<i>Satellites Rural</i>	Satellites in Emergency and Rural Communication: Korean View	NamKyung Lee	ETRI, Korea
10:50	<i>Emergency</i>	ESA Satellite Communications Projects serving Rural and Emergency communications	Frank Zeppenfeldt	ESA, Netherlands
11:10		WISECOM: GSM and Wi-Fi Rapidly Deployed	Matteo Berioi	DLR
11:30	<i>Coffee Break</i>	Coffe Break		
11:45	<i>Session 3</i>	The PSC Forum Vision & Roadmap	Latif Ladid	PSC Forum, Luxembour
	<i>Applications for Rural and Emergency</i>	*) European Commission Initiatives for Emergency and Security via Satellite	Dr. Jorge Pereira	EU Commision
12:00		Telemedicine in the Amazonas - a solution using the AmerHis satellite systems	Frank Zeppenfeldt	ESA, Netherlands
12:15		TWISTER: Rural Experiences with Wi-Fi and DVB-RCS Satellite over 3 years	Ariane Isoard	EADS Astrium
12:30		BRASIL: Providing Rural Services over Satellite	Harald Skinnemoen	BRASIL Coordinator
12:50		.....		
13:10	<i>Session 4</i>	How to explore the synergies further between SPACE, RURAL and EMERGENCY applications	All Speakers, moderator HS	
14:00	<i>END</i>	Workshop Conclusions	Harald Skinnemoen	AnsuR



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Enjoy the workshop!



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