Boundless Communications

Ka-band: Prospects

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Company Overview

Gilat facts at a Glance…

Company:	**Leading global provider of satellite communications equipment and Sat-Com solutions on the move (SOTM):** • Commercial and civilian government SATCOM • Defense and Homeland Security SATCOM
Growth Strategy:	**Strengthening the positions and solutions in Ka-band** **Ka-band broadband services** **SOTM for civilian and military markets**
Employees:	**~1400 employees worldwide**
Financials:	**2011 Revenue: $339.2M (45% growth YoY)** **2011 EBITDA: $33.5M (236% growth YoY)**
Management Objectives:	**2012 Revenue: $340 - $350 million** **2012 EBITDA: 10%**

Business Lines

Commercial VSAT Technology





Defense and Homeland Security Satellite Technology

WAVESTREAM

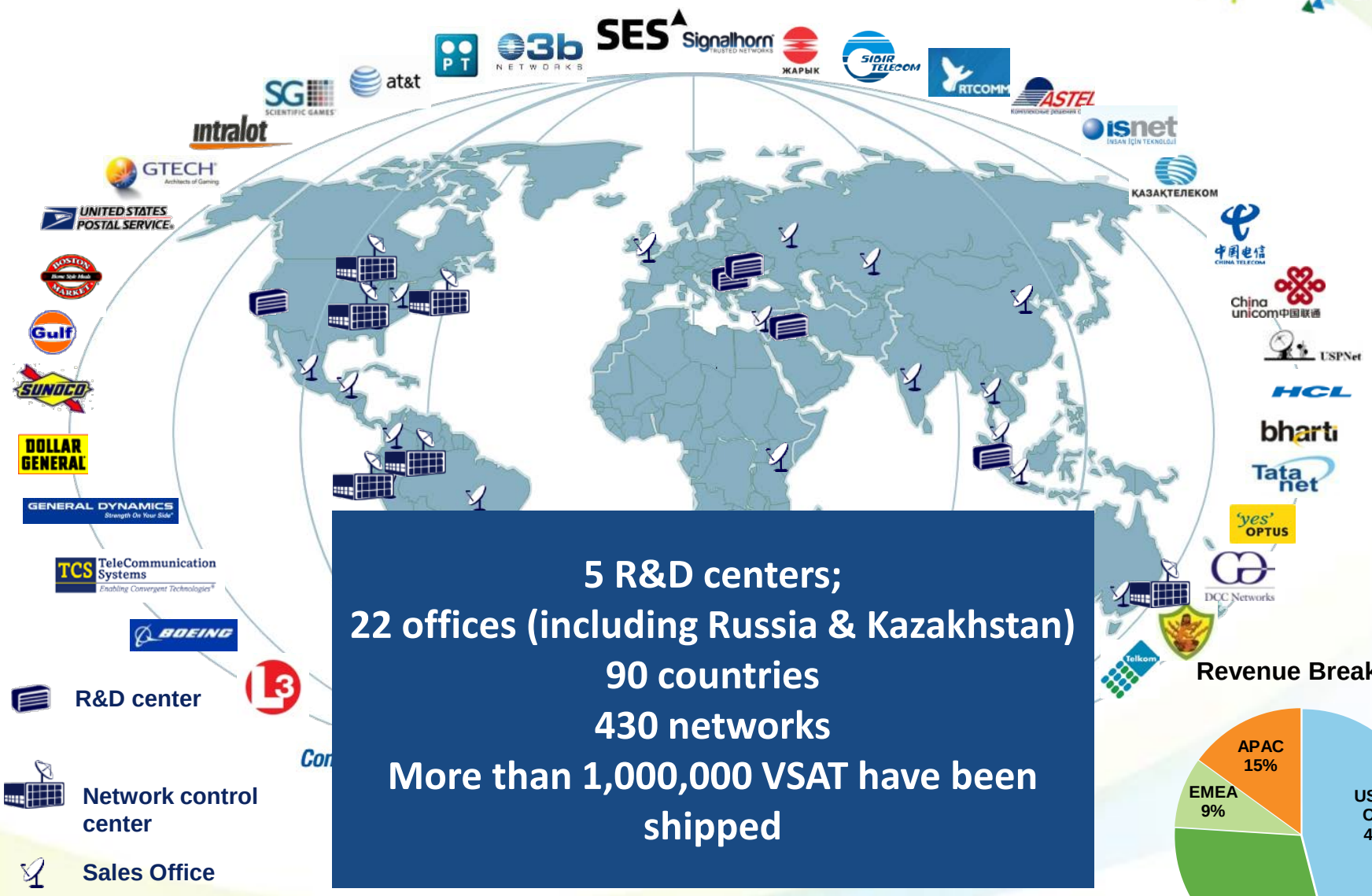
ANTENNA SYSTEMS RaySat Satcom on-the-move

SIGS SPACENET INTEGRATED GOVERNMENT SOLUTIONS


Satellite services – USA, Peru & Columbia

SPACENET


Worldwide Presence



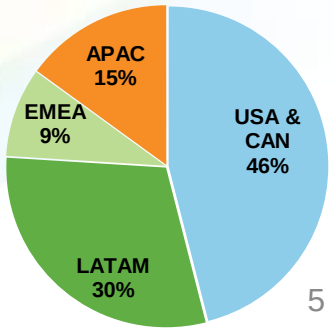
5 R&D centers;
22 offices (including Russia & Kazakhstan)
90 countries
430 networks
More than 1,000,000 VSAT have been shipped

R&D center

Network control center

Sales Office

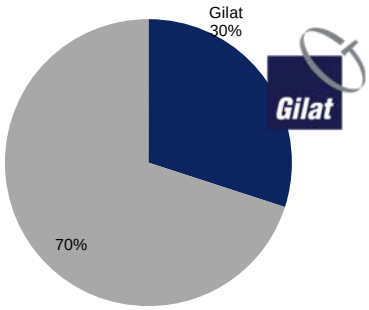
Revenue Breakdown



Leader on SATCOM market

- Leading positions in the world:
  - #1 in Rural Telephony
  - #1 in Low Profile Antennas SOTM
  - #1 in high power Ka SSPAs

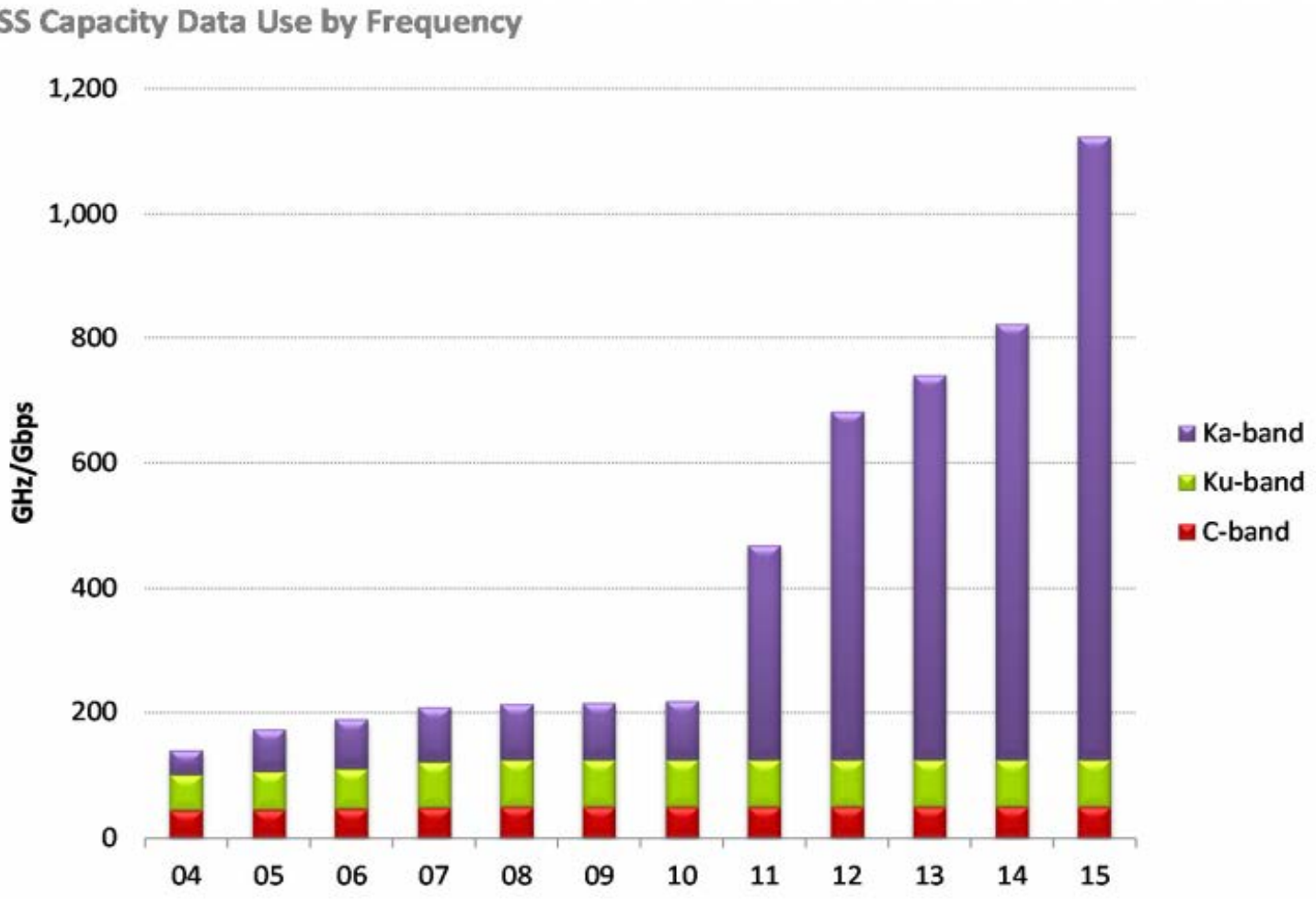
International Markets VSAT Shipments



Source: Comsys 2009 VSAT report and company estimates

Evolution of VSAT Technology

Accessibility of Satellite Capacity



Source: Comsys 2011

Evolution in SATCOM

- Satellite operators
  - Lack of the existing capacity
  - Investments in the future
- Interference in Ku-band (Ext Ku extended)
  - High density on orbit
- National Interests
  - In order to keep the orbital position
- The driving force of growth in the satellite industry

  - Next stage of evolution– Ka-band

Ka-band capacity will be more than the entire capacity of the existing C and Ku

Practical Application

Ka- band

Internet connectivity

Ku- band

Enterprise & government projects

C- band

International connectivity

«Food» Chain of Satellite Business

Before Ka- band

- Owns and operates SC
- Sells capacity in MHz
- Sells equipment

- Buys capacity in MHz
- Buys equipment
- Sells services – MBit/s

«Food» Chain of Satellite Business

Ka- band (Producer)

- Owns and operates SC
- Sells equipment
- Sells services – MBit/s
- Sells services to people

«Food» Chain of Satellite Business

Ka- band (Service Provider)

- Owns and operates SC
- Sells equipment
- Sells services – MBit/s
- Sells services to people

«Food» Chain of Satellite Business

Ka- band

- Owns and operates SC
- Sells equipment
- Sells services – MBit/s
- Sells services to people

Astra2Connect - Example

- **HUB delivery – this is only the first phase!**

- **Need to sell a complete solution to internet service providers – next phase.**

- **Adaptation and integration with existing solutions**

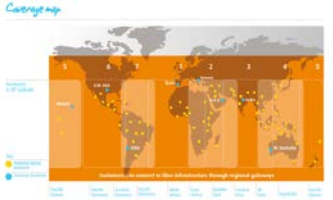
Projects in Ka- band (examples)

- **Europe– SES / Astra2Connect**
  - **The largest service in Europe**
  - **3 satellites, up to 120,000 users**
  - **VSAT self-installation kit**
  - **High-performance NMS**
  - **Integration with OSS\BSS systems**
- ***Systems integration and adaptation***

- **Australia - Optus / NBN Co – Government program by construction of National broadband satellite network**
  - **11 beams, Ka/Ku up to 48,000 users**
  - **11 HUBs, 20,000 VSATs within 3 years**
  - **Integration and operation by network**

Projects in Ka- band (examples)

- **O3B – Middle orbital satellites/ Ka-band**
  - **Gilat provides HUB and satellite terminals Tier-2 with support up to 25 Mbit/s**
  - **“Turn-key” solution and system integration**



- **Russia- RTComm.RU**
- **Government project by providing of the high-speed access to information networks**
- **4 Satellites, up to 2 million users**
- **First stage on RSCC satellites**
  - **20 Ka beams**
  - **2 satellites**
- **Second stage on own satellites**
  - **64 Ka beams**
  - **2 satellites**

Ka- band – Future

- **Capacity emergence in Ka-band will certainly have a huge impact on the entire industry:**
  - **More available capacity**

    Ka-band capacity will be more than the entire capacity of the C- and Ku- bands
  - **More satellite terminals**
    - Number of issued terminals will be more than ever
  - **Price reduction**
    - Ka-band capacity cost will be much lower than in C- or Ku- bands
    - Terminal equipment cost will reduce significantly

Practical Application

Ka- band

Internet access

Ku- band

Corporate and state projects

C- band

International communication

Ka – it's not just another frequency band..

- **Flexibility in providing services**

Subscriber access

- **Access speed; 5-20Mbit/s (10-40κbit/s)**
- **A large excess of resource utilization**
- **Technology: DVB-S2/TDMA**

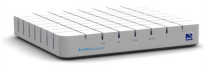
Internet provider

- **Access speed; 10-100Mbit/s (about 1-50Mbit/s)**
- **Guaranteed quality – low utilization rates**
- **Technology: DBV-S2/SCPC**

Flexibility of service providing system

Gilat Advantages

- **Focus on Technology and System Integration**
  → Will not be a satellite operator or service provider
- **Solutions for Consumer, Enterprise, ISP and Governments**
  → More than just consumer



Internet access:
Aries

Corporate and state projects:
WebEnhance

- **Leading Ka-Band Solutions**
  - **Advanced Ka-band technology**
  - **Local presence and partnerships**
  - **Flexibility and customization**

ESV and Trunking:
Accent

Summary

25 years experience in the support of 500 customers – telecommunications providers

A leading supplier of antenna solutions for the SOTM and Ka BUC for military solutions

Ka-band VSAT satellite system of Custom, Corporate, Government sectors

Best Performance – high throughput OB, high-speed IB

More than **20** support offices and sales worldwide for more than **400** **networks in 90 countries**

More than **1M** VSAT terminals have been shipped for more than 400 networks

- **Reliability**
- **Technological leadership**
- **Flexibility**

Thank You