Ka band and the Evolution of the VSAT Operator’s Business Model
September 2012
iDirect is the industry’s leading IP-based satellite communications company providing hardware, software, and services that enable partners to optimize networks and profitably expand their business.
100% focused on providing the ground infrastructure technology that allows our partners to:

- Build the best, most optimized networks
- Seize new revenue opportunities
- Maintain margins and lower TCO
- Differentiate and expand their business
Remote (IDU)

iDirect Ground Infrastructure Technology

Private Network
Corporate VPN
Internet/Backbone
iVantage™ NMS

Private Infrastructure or Network Operator Partner

C, Ku or Ka Transponder

TDM D-TDMA/SCPC 10/100 Ethernet

Teleport ODU Remote (IDU)

Data Video VOiP
VSAT Landscape
Demand for VSAT is rising

Cell Backhaul: Small cells / 3G helping Mobile Operators reach new customers, bringing new value to the backhaul market

Government: Budget cuts are forcing more effective intelligence sharing and higher reliance on COTM

Oil & Gas: High bandwidth applications pushed offshore, urgency to protect pipeline and meet safety, environmental reporting requirements

Utilities: Government regulations, legacy SCADA systems driving upgrades and connectivity to edge of the network

Maritime/Mobility: Requirements expanding from crew welfare to reliance on VSAT for essential operational needs

102% CAGR
5% CAGR
6.5% CAGR
52% CAGR
15% CAGR

*5 year projected CAGR. Sources: NSR, Comsys, Pike Research, Informa, Euroconsult, Raymond James
HTS/Ka will Provide Influx of Capacity to Fuel Further Growth

Ka and High Throughput Satellites will provide capacity across all these markets creating significant new opportunities

- **Cell Backhaul**: Small cells / 3G helping Mobile
  - 102% CAGR

- **Government**: Budget cuts at
  - 5% CAGR

- **Oil & Gas**: High bandwidth applications plus
  - 6.5% CAGR

- **Utilities**: Government regulations, legacy SCADA
  - 15% CAGR

- **Maritime/Mobility**: Requirements expanding from
  - 102% CAGR

*5 year projected CAGR. Sources: NSR, Comsys, Pike Research, Informa, Euroconsult, Raymond James
Ka Implications: The Market

- Massive amount of capacity ~90% by 2015 according to Simon Bull, Comsys
- Clear benefits: less cost, higher speed
- Originally deployed for consumers; next wave of Ka capacity addresses enterprise and government needs
- Will dramatically expand the VSAT market and create opportunity for Satellite Service Providers
- Evolutionary shift in industry dynamics and economics
  - Large quantities of bandwidth at lower cost
  - Will open new users, applications and markets
  - Significant implications to our industry
Ka Typically Delivered via HTS Satellites
Fundamentally Different Architecture

Traditional Satellite

HTS Spotbeam Satellite

HTS economics drive a centralized infrastructure model
Ka Implications:
The VSAT Operator

- Centralized infrastructure changes the dynamics for the VSAT operator

- Infrastructure is just part of the equation – the value add for the service provider remains unchanged

- Bringing on Ka requires a versatile VSAT platform:
  - Allows you to serve widest range of markets
  - Provides high adaptability; freedom to choose best business models and quickly adjust to change
The Evolution of the VSAT Operators Business Models

iDirect pioneered a flexible satellite hub technology platform that enabled multiple business models
Business Model Evolution: The Value Chain

- Satellite Operator
- Teleport Facility
- Hub Infrastructure
- Network Operations
- Service Provider
- End User

Management of the End User
Management of the Network Infrastructure
Vertically integrated:

- SO owned and operator
- High total investment
- High margins
- Full service direct to the end user
Managing service:
- High capital investment for SO, lower opex
- SO needs to establish SP/distributor network for sales and marketing
- Low investment for SP
- Accelerated time to market for SP
Business Models Enabled by the iDirect Platform

Vertically Integrated
- Satellite Operator Owned
  - Ka

Managed Service
- Satellite Operator Owned
  - Ka

VNO
- Satellite Operator Owned
  - Ka

Co-Lo
- Service Provider Owned
  - Service Provider Owned

VNO/Hub CoLo:
- SO further market expansion; mix HNO, VNO, CoLo models
- Low capital investment or SP: "Pay-as-you-grow"
- SP serves many customers with shared BW, multi-satellites and bands
Service Providers can Leverage a Blended Portfolio using the iDirect Platform

- Vertically Integrated: Satellite Operator Owned
- Managed Service: Satellite Operator Owned
- VNO: Satellite Operator Owned
- Co-Lo: Service Provider Owned

Leverage capacity from many Satellite Operators (C, Ku, Ka)
Choose the model(s) best suited to your business
One management system across all models
Leverage accumulated knowledgebase: technical support, sales
Taking Advantage of Ka: The Successful VSAT Operator

- Will draw from multiple business models for bandwidth choices - C/Ku and Ka – managed a blended portfolio
- Will choose how to best offer multi-band services
- Will leverage existing investments, managing from a common platform, to optimize business operations
- Will stay focused on value-added differentiation to the customer
Ka and the iDirect Platform

- Optimized for all frequencies, all networks
- Broad range of remotes:
  - SOHO, enterprise, government, mobility
  - New class of embedded routers for specialized integrated terminals
- Highest higher performance, availability and reliability
- Single, web-based management of all customers no matter what infrastructure

One platform enabling service providers to adopt the most effective technology for their business
Thank You