



**Ka band and the Evolution of the
VSAT Operator's Business Model
September 2012**

Who is iDirect?

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**

iDirect Value Proposition

100% focused on
providing the
ground infrastructure
technology
that allows
our partners to:

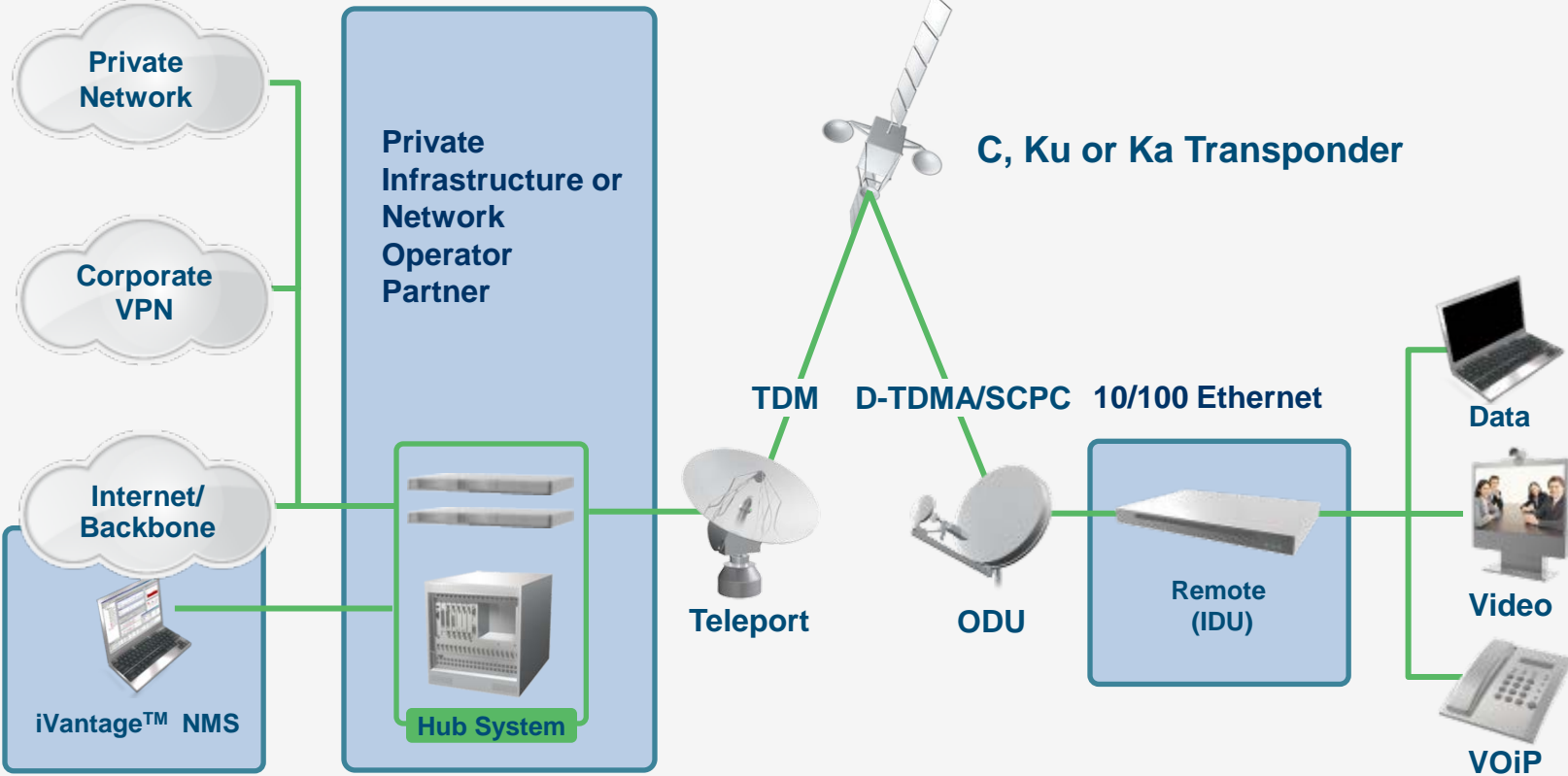
**Build the best, most
optimized networks**

**Seize new revenue
opportunities**

**Maintain margins and lower
TCO**

**Differentiate and expand
their business**

iDirect Ground Infrastructure Technology



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



**102%
CAGR**

Government

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



**5%
CAGR**

Oil & Gas

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



**6.5%
CAGR**

Utilities

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



**52%
CAGR**

Maritime/ Mobility

Requirements expanding from crew welfare to reliance on VSAT for essential operational needs



**15%
CAGR**

HTS/Ka will Provide Influx of Capacity to Fuel Further Growth

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Government

Budget cuts and

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High bandwidth
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Utilities

Government
regulations,
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Maritime/ Mobility

Requirements
coming from

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



102%
CAGR



5%
CAGR



6.5%
CAGR



15%
CAGR



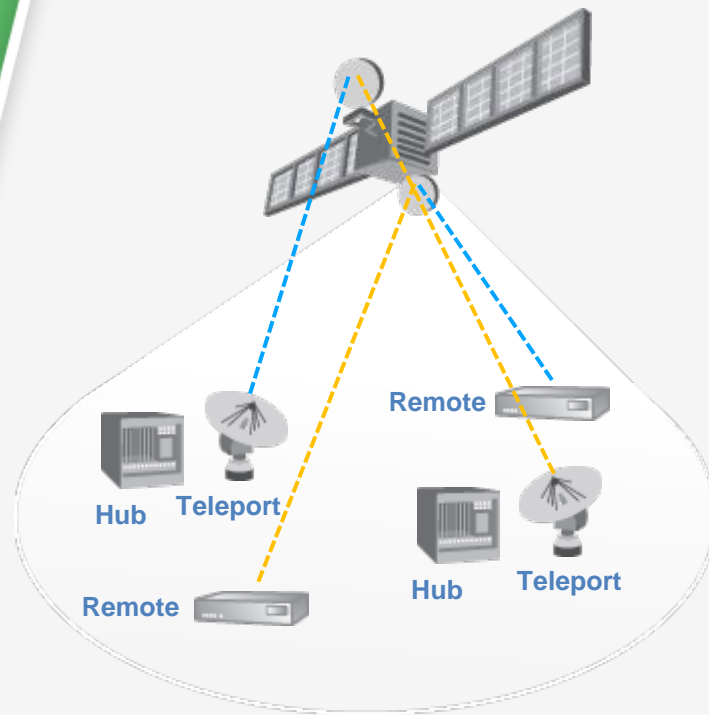
Ka Implications: The Market

- 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

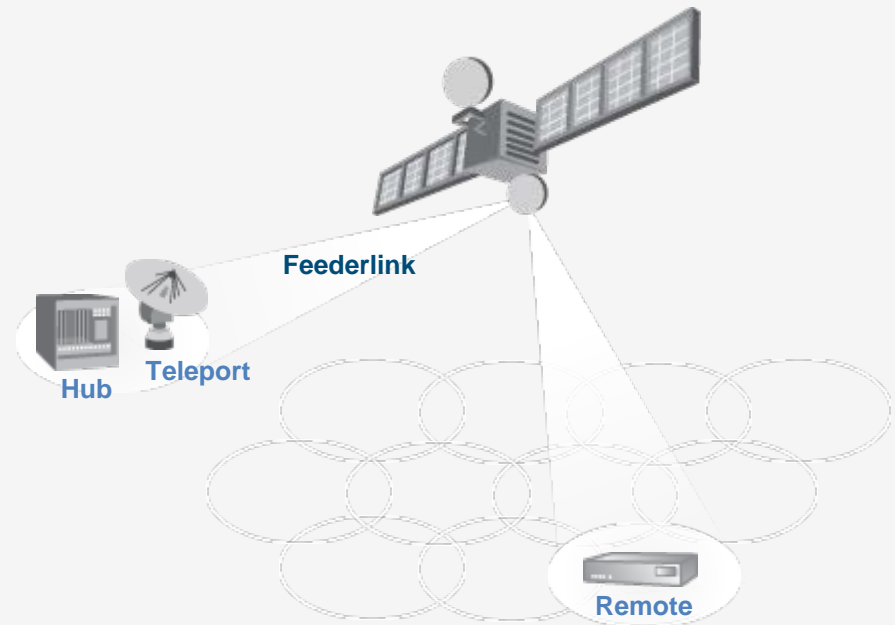
Ka Typically Delivered via HTS Satellites

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 Network
Infrastructure

Management of
the End User

Business Models Enabled by the iDirect Platform

Vertically Integrated

Satellite Operator Owned

Satellite Operator



Teleport Facility



Hub Infrastructure



Network Operations



Service Provider



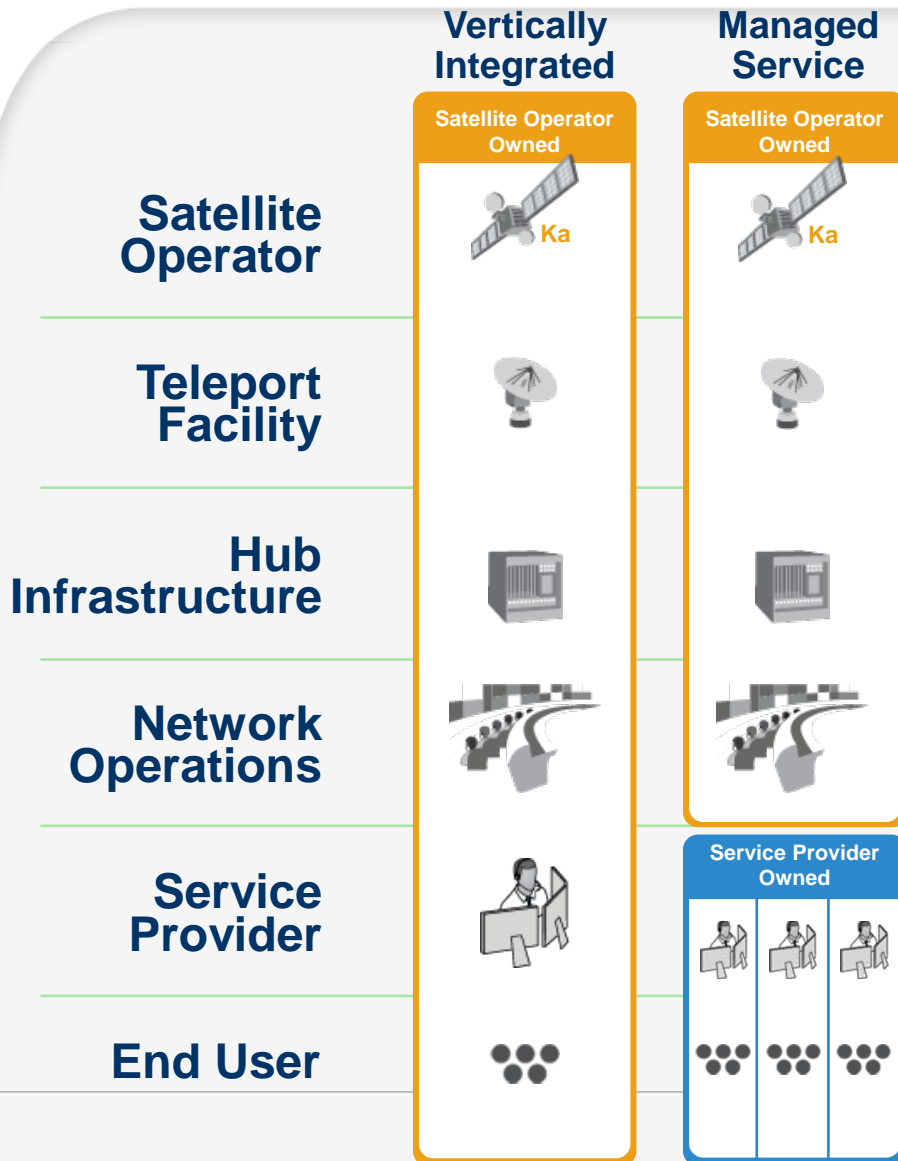
End User



Vertically integrated:

- SO owned and operator
- High total investment
- High margins
- Full service direct to the end user

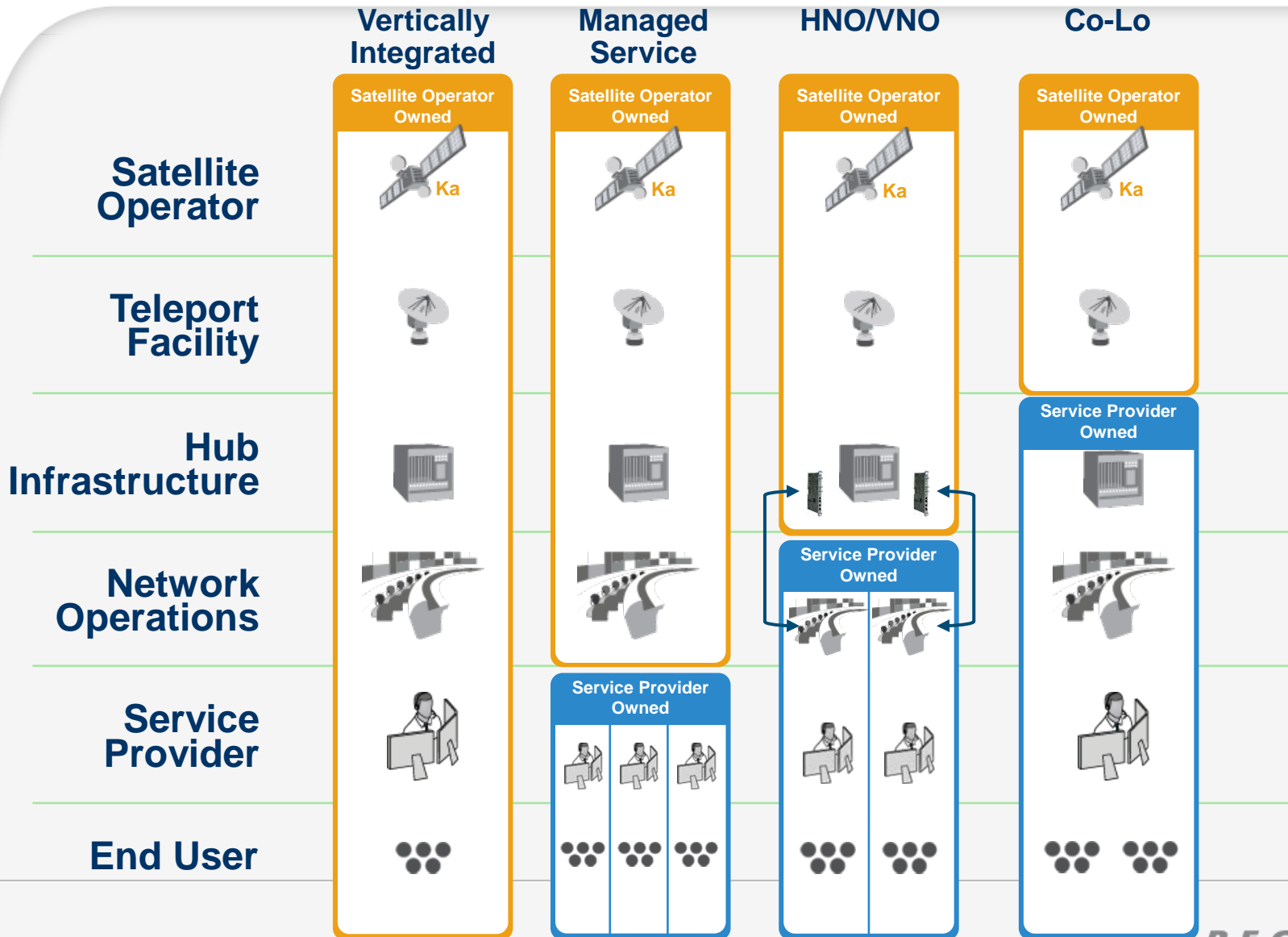
Business Models Enabled by the iDirect Platform



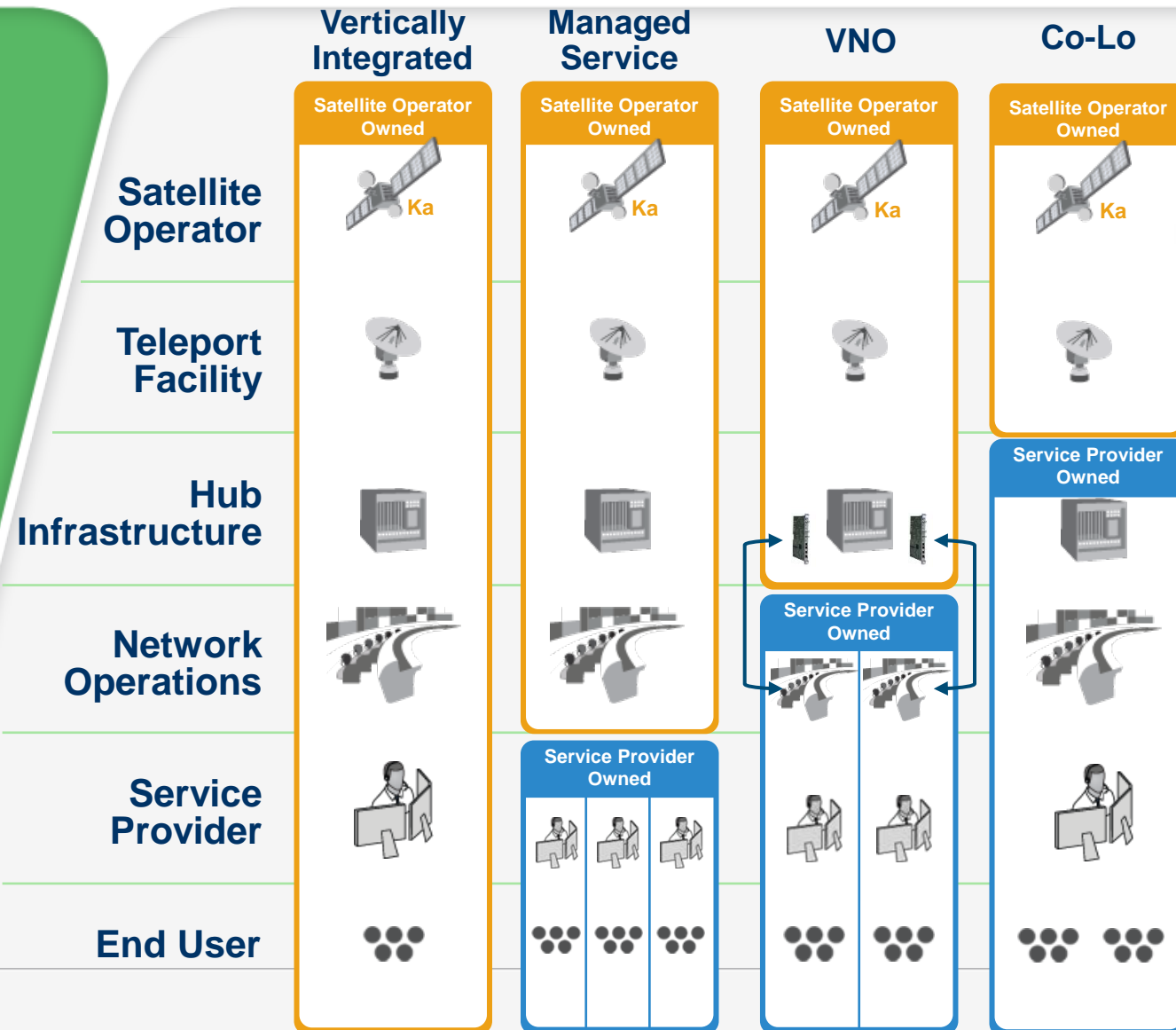
Managed service:

- 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



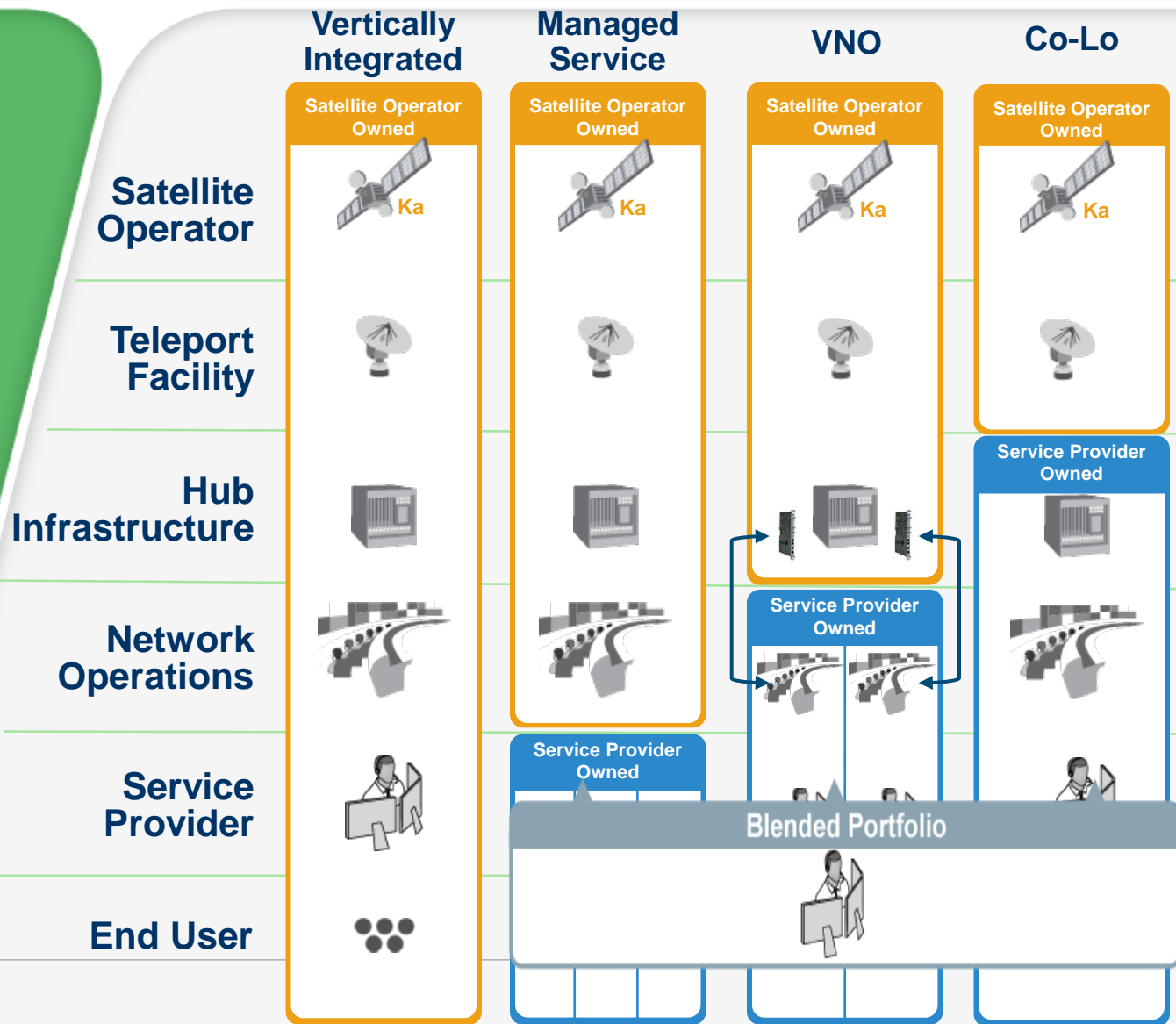
Business Models Enabled by the iDirect Platform



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



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