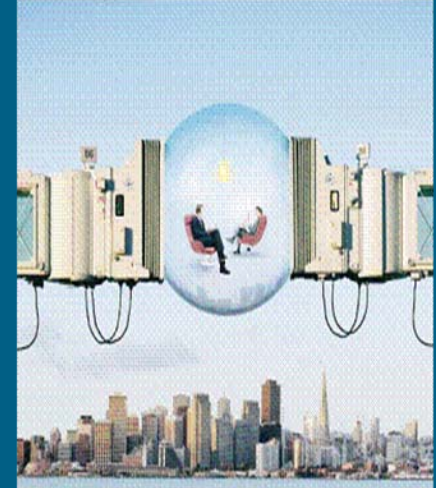




From transporting to connecting people

Strategic opportunities for Airlines in a connected world



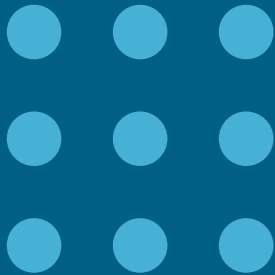
October 2010

James Crowther (jacrowth@cisco.com)
Cisco
Director and NL Lead Cisco IBSG
(Internet Business Solutions)

Contents

- 1. Introduction Cisco**
- 2. Video: the next voice**
- 3. Public TelePresence**
- 4. Strategic rationale for airlines**
- 5. Conclusions**

1



Introduction: Cisco

The Cisco Vision

changing the way we
work, live, play, and learn. SM



**to shape the future of the Internet by
creating unprecedented value and
opportunity for our customers,
employees, investors and ecosystem
partners**

Cisco Today...



- **World leader in networking equipment**
- **Head office in San Jose, California**
- **\$42 billion revenue (#241)**
- **\$170 billion market cap (#13)**
- **70,000+ employees in 120+ countries**
- **\$5 billion yearly R&D spend**
- **142 acquisitions**



Networked Economy 2.0 2010

Collaboration / Web 2.0
2008

Network is the Platform
2006

Network of Networks
2000

All in one Data / Voice / Video
1997

“Market Transitions Wait For No One”

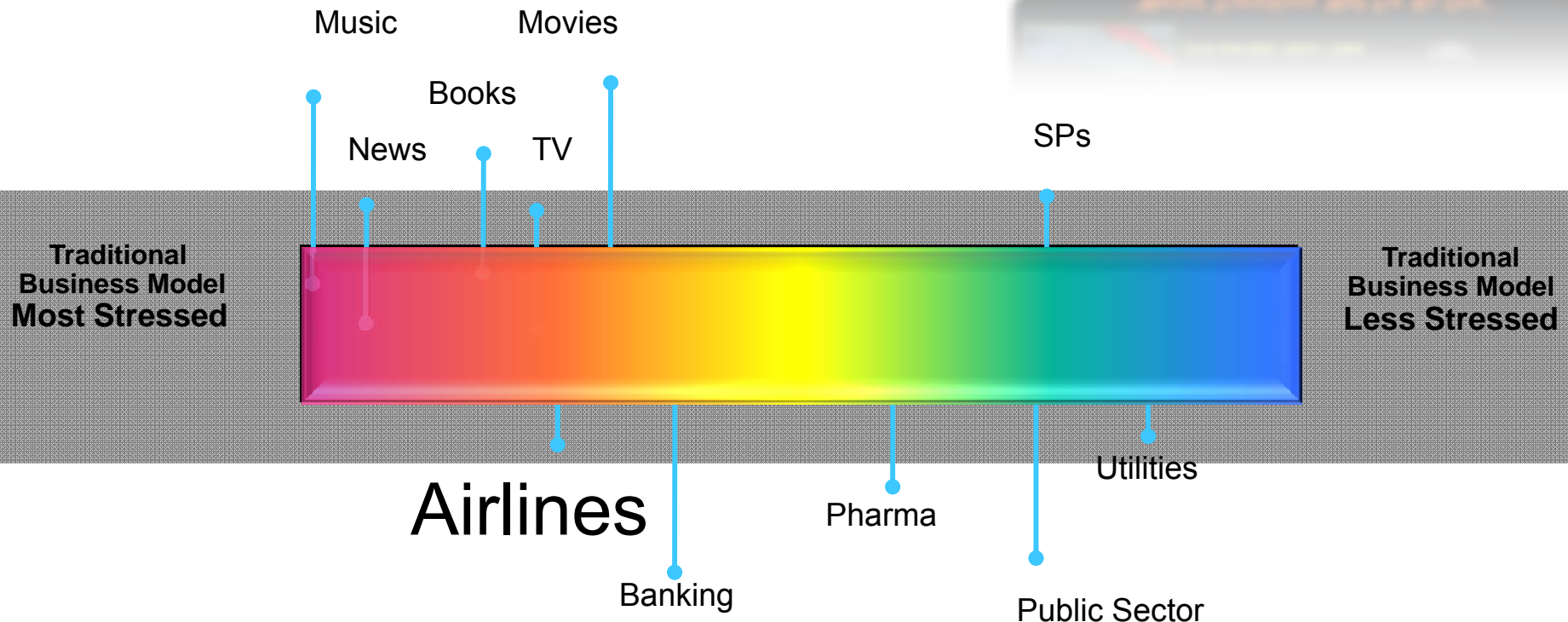
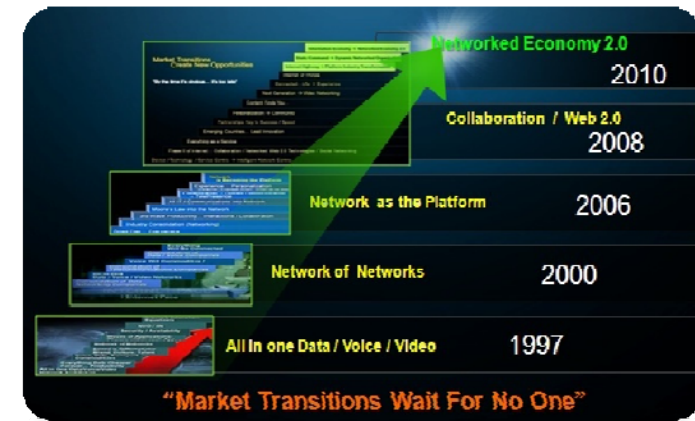


Technology Architecture

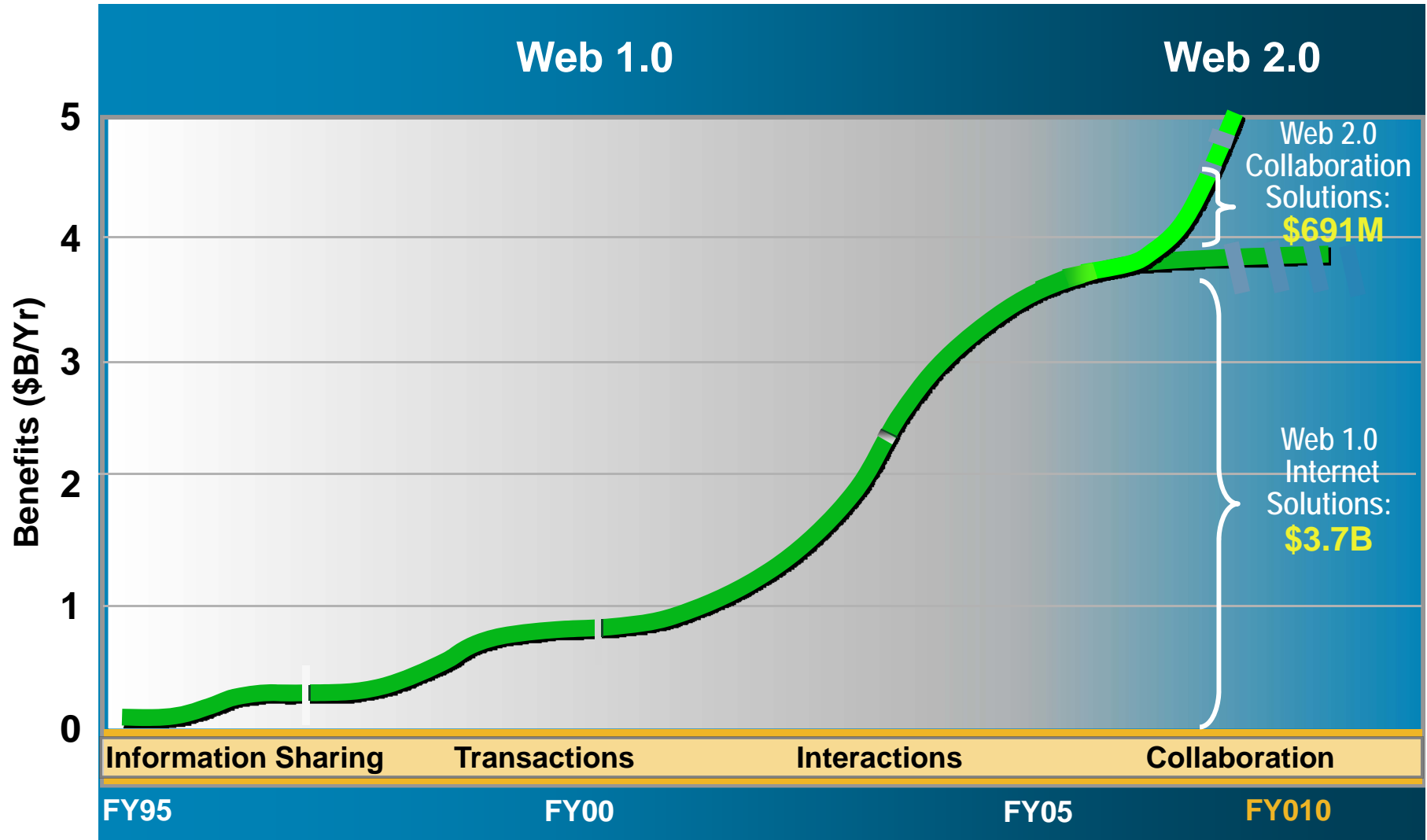


Market transitions...

- Connectivity... Network Enables
- Video, Cloud, Collaboration, Virtualization
- New Market Adjacencies
- Key Industries / Transitions



Cisco's New Productivity Journey



Source: Cisco IBSG, 2009

Collaboration Acceleration Within Cisco



Productivity



Collaboration



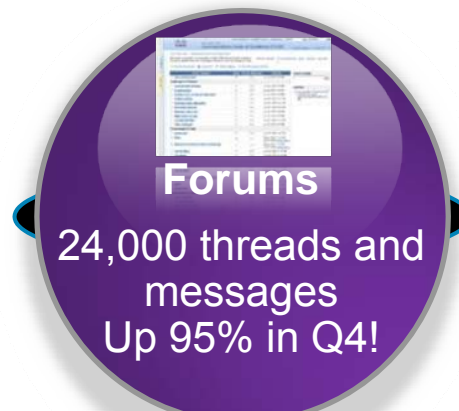
Travel Savings



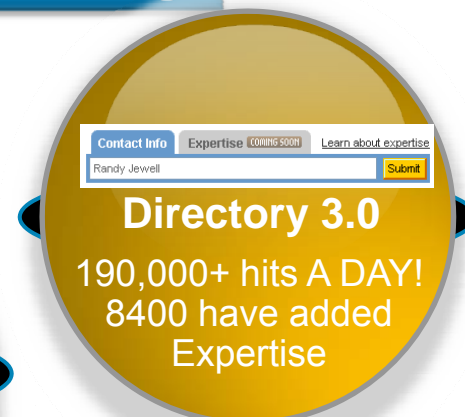
Video Sharing



Web 2.0 Content

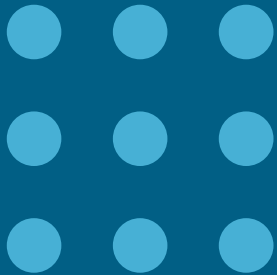


Group Discussions



**Connect with
Experts**

2



Video: The next Voice

The Network Effect



Gartner - Video Telepresence Will Replace 2.1 Million Airline Seats Per Year by 2012 *

Publicatie : NRC NEXT
Datum : 13-10-2010
Pagina : 20

Oplage : 83.369
Frequentie : 5x per week

Advertentiewaarde : € 21980,00
Regio : landelijk

Het lijkt alsof je samen aan één tafel zit

Dat komt omdat alle openbare virtuele vergaderzalen van Cisco wereldwijd identiek zijn

► Eerst dook je met collega's een hok in om te vergaderen. Later zat je met meerdere mensen tegelijk te overleggen per gsm, mail of chat.

► En nu is er telepresence.

Door SJOERD SCHOLTEN
ROTTERDAM, Een Nederlands be

als de apparatuur. De camera's leggen niet alleen de vergadering vast, maar zoomen ook in op degene die op dat moment aan het woord is.

Virtueel vergaderen zou de effectiviteit verhogen. „Mensen kijken minder weg of op hun mobieltje omdat ze constant in beeld zijn”, zegt directeur Boorsma. Op het beeldscherm verschijnt tien minuten voor het einde van de vergadering een klokje. Als de

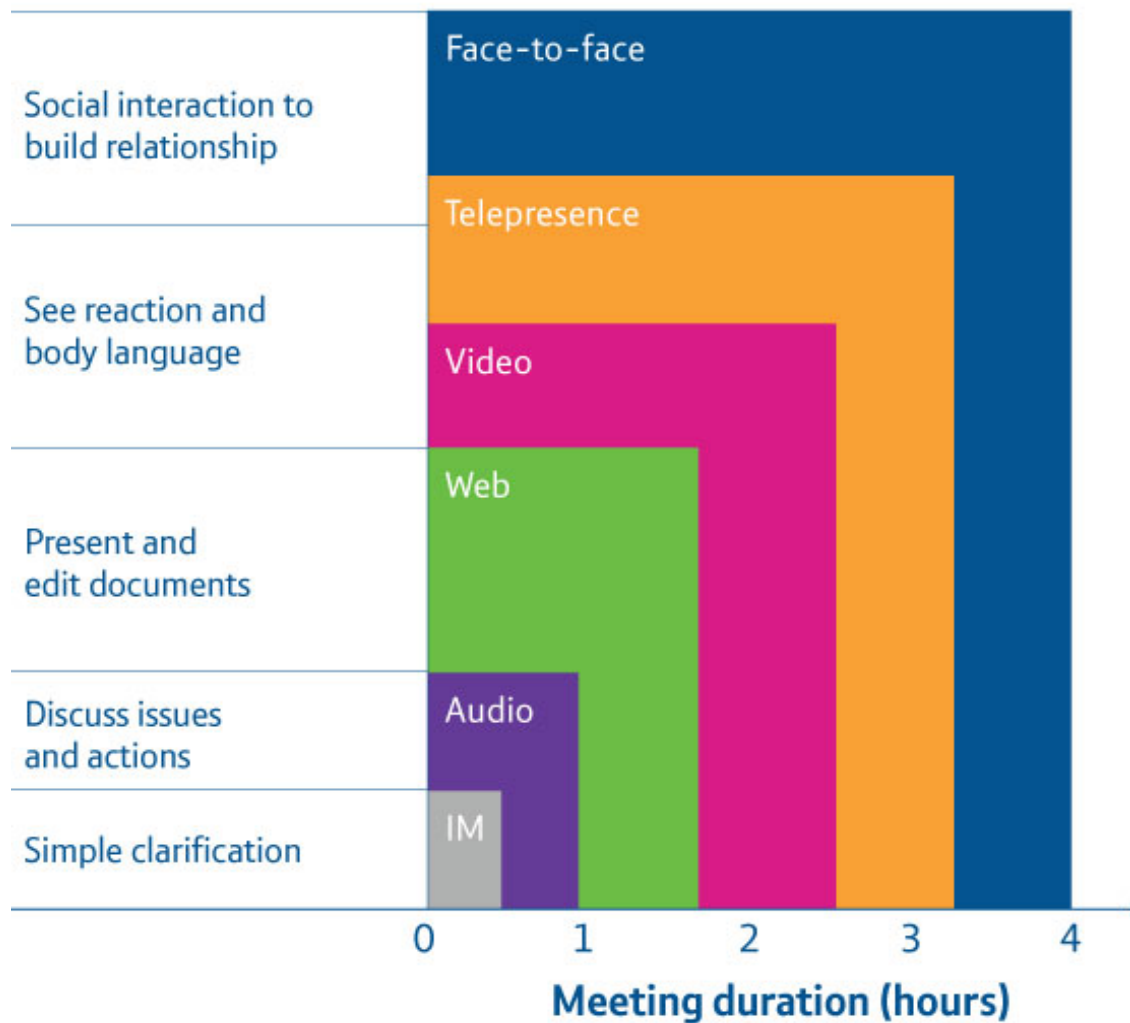
kunnen enkel contact maken met ruimtes die gebruik maken van Cisco's systeem. „Hun zalen zijn wel heel luxe. Maar wij zijn daarentegen ook weer een stukje goedkoper.”

De opening van de eerste telepresence locatie is volgens vergaderdeskundige Wilbert van Vree „een logische stap” in de trend van vergaderen op afstand die halverwege de jaren negentig begon. Hij promoveerde aan de Universiteit van Amsterdam

Industry \$3.5 billion annually *

Dynamics of collaboration

Meeting needs



What's Driving Video Collaboration and Cisco TelePresence Adoption



Travel for Global Collaboration

- How far can you travel in a day?
- How many companies can you reach?
- How can you cross cultural barriers?



Budget Cuts... doing more with less

- How do you find new efficiencies?
- Can you be in the office and at the customer?
- How do you leapfrog the competition?



Being Away... from home and the office

- How is meeting more also living better?
- How many nights at home can you give to your team?
- What is your carbon footprint?

Cisco's Strategy

TelePresence for Everyone, Everywhere



Enterprise



Public Suites



Telecommuter



Desktop



Consumer

Business to Business
Business to Consumer
Consumer to Consumer

Enterprise

Service Providers

Consumer

Benefits of an Integrated Architecture

Comprehensive Interoperability
Security, Scalability, Reliability

Virtualized Collaboration
New Business Models

Social Networking Interaction
New Ecosystems

Cisco TelePresence

Market Momentum October 2010

550+ Customers with 3500+ Rooms

- The top four global investment banks
- 64 Financial Services Customers
- 62 top high tech companies
- 84 service providers globally
- The four largest WW food/beverage firms
- 32 retail and consumer goods companies
- 8 of the largest pharmaceutical companies
- 27 global energy companies
- 33 healthcare companies
- 12 top U.S. research universities
- 50 education institutions
- 78 public sector organizations

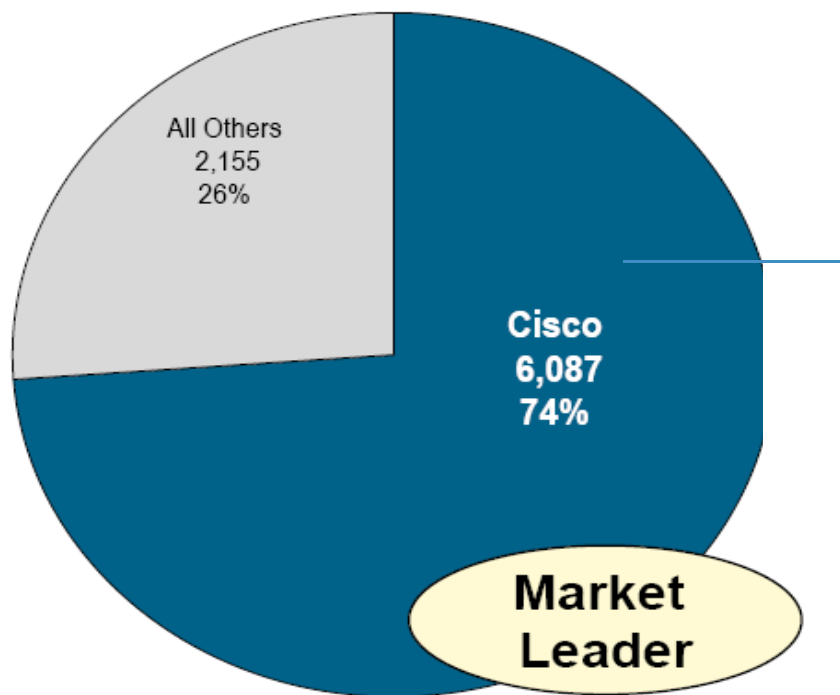


Global Market Share : Q1 CY2010

Personal



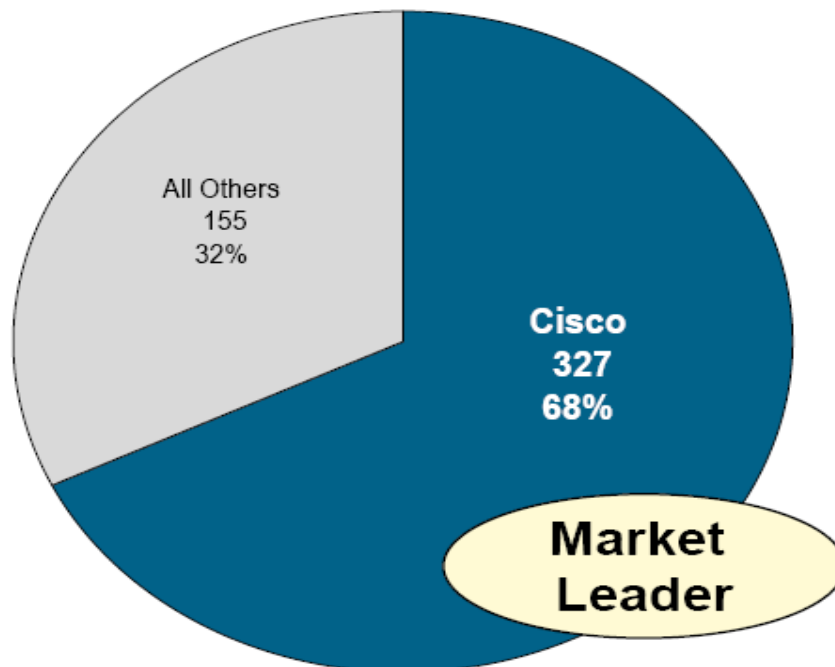
Q110 Desktop TelePresence Shipments
100% = 8,242 Systems



Life Size



Q110 Immersive TelePresence Shipments
100% = 482 Systems



CTS3210 – 14 to 18 participants



CTS1100 –TelePresence (2 participants)

ūmi
telepresence

[Meet ūmi](#) | [What You Need](#) | [ūmi Support](#)

[Pre-Order](#)

Introducing Cisco ūmi
The new way to
be together.

[Meet ūmi ▶](#)



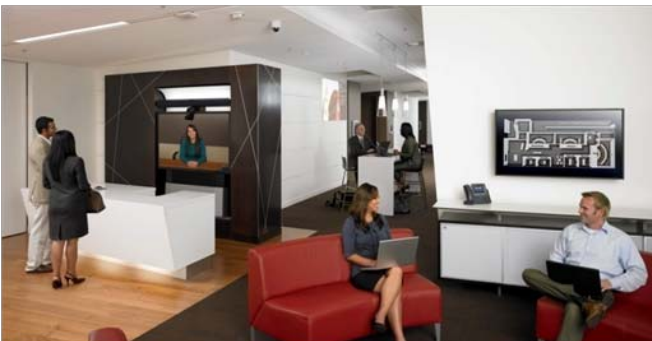
See How Families
Connect with ūmi ▶



Cisco ūmi Telepresence. The new way to be together.



Public TelePresence



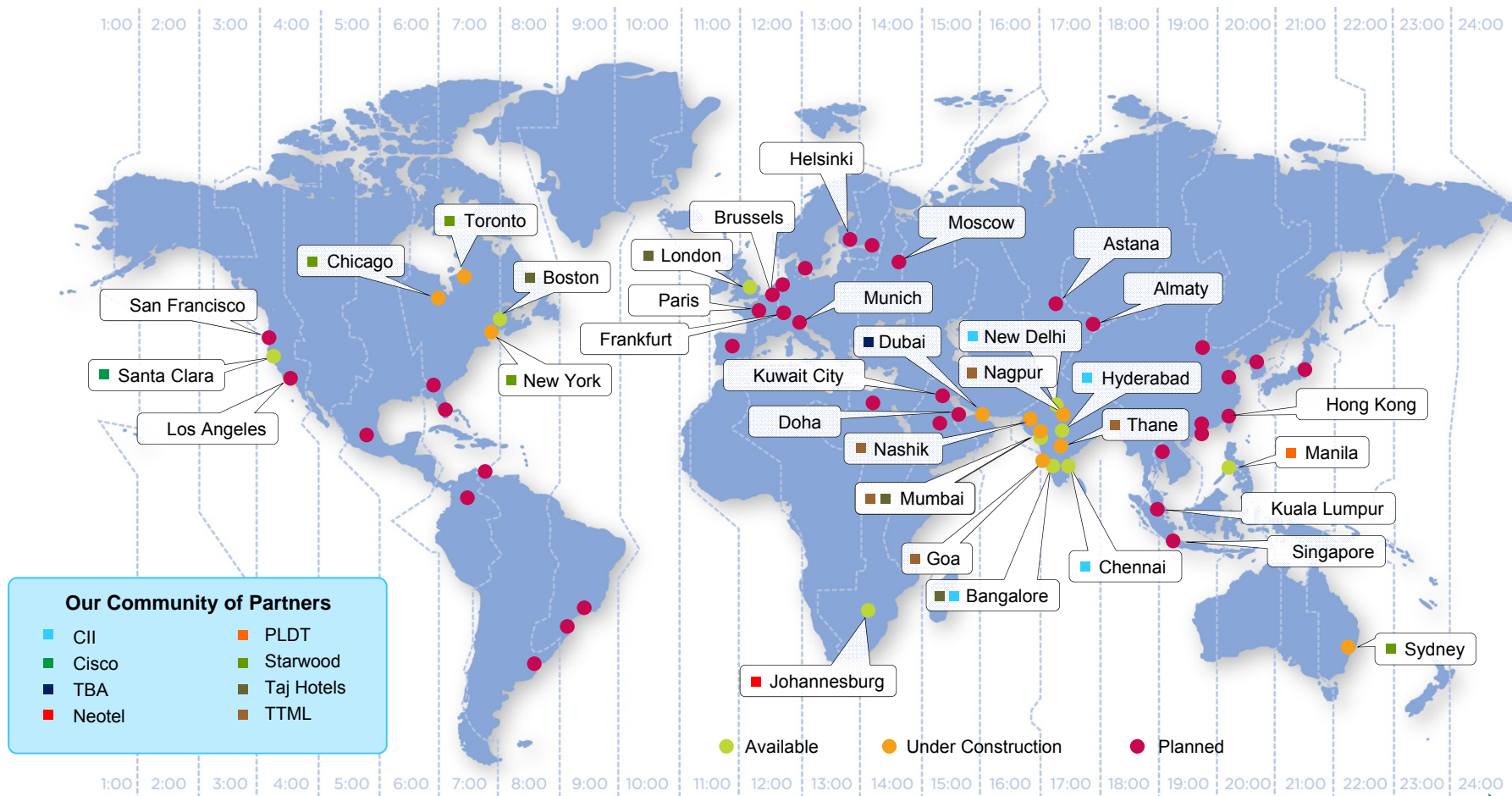
Introducing the Cisco TelePresence Suite

3979 Freedom Circle
Santa Clara, California



1 CTS 3200 Room
2 CTS 3000 Rooms
4 CTS 1000 Rooms

Public Cisco TelePresence Suites Locations



February 2010
10 rooms

End of Q2 2010
35 rooms

End of Q1 2011
80 rooms

End of Q4 2011
140 rooms

Public Cisco TelePresence Suites



at&t



Hotels Resorts
and Palaces



STARWOOD®
HOTELS & RESORTS WORLDWIDE, INC.

Le MERIDIEN



PHILIPS



ThoughtWorks®

WAL★MART®




Bank of America



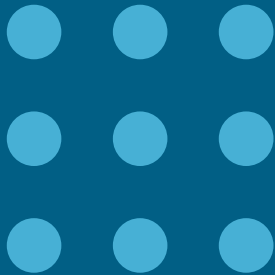
BAE SYSTEMS



TCL is developing a global Demand Generation Program to fill all rooms on the network

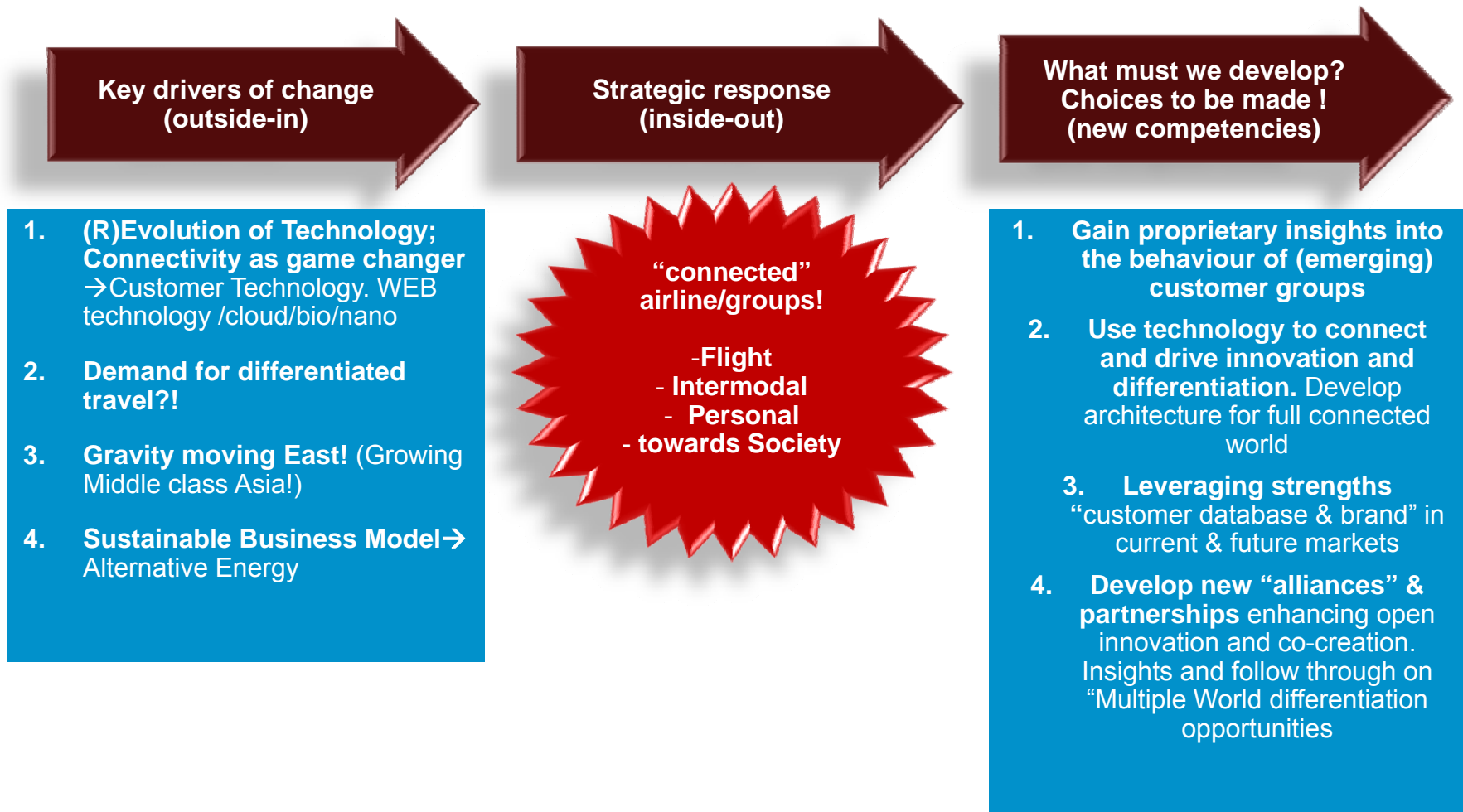
CHANNEL	DEMAND GENERATION PROGRAMS/ BENEFITS
<p>Tata Communications</p>  <p>Eerste publieke TelePresence ruimte in Nederland ! Locatie: Amsterdam Bright City Nu te reserveren !</p> <p>Nieuws</p> <p>ZUIDAS AMSTERDAM BRIGHT CITY</p> <p>Publieke Telepresence in Amsterdam</p> <p>In samenwerking met Cisco Nederland, Tata Communications en Amsterdam Bright City heeft TPEX de eerste publieke Telepresence-locatie in Nederland gerealiseerd! Deze ruimte is gebouwd bij Amsterdam Bright City aan de zuidas. Hier is een CTS3010 geïnstalleerd welke beschikbaar is voor Telepresence-sessies met vele publieke lokaties over de gehele wereld, ...</p> <p>► See Details</p>	<ul style="list-style-type: none"> Corporate Sales Force working with Fortune 500 accounts globally <p>TP</p> <p>s to</p> <p>A</p>
<p>Cisco</p> 	<ul style="list-style-type: none"> Global corporate sales force offering public TP conferences to selected accounts.

4



Strategic rationale for Airlines

The “new” world requires a different strategic response and additional knowledge and competencies



The TelePresence opportunity



- **Rapidly-maturing virtual collaboration technologies such as TelePresence are also impacting travel by offering substitutes for how people connect.**

- 69 percent of companies agree that these technologies have the potential to significantly reduce the number of flights taken by their organizations.
- Conditions are ideal for the incubation and growth of technology substitutes for air travel.
- 64 percent of American senior business and technical decision makers are considering telepresence investments over the next 24 months.
- The immersive experience of TelePresence offers a realistic substitute for in-person meetings, helping telePresence utilization surpass traditional videoconferencing by a factor of 10

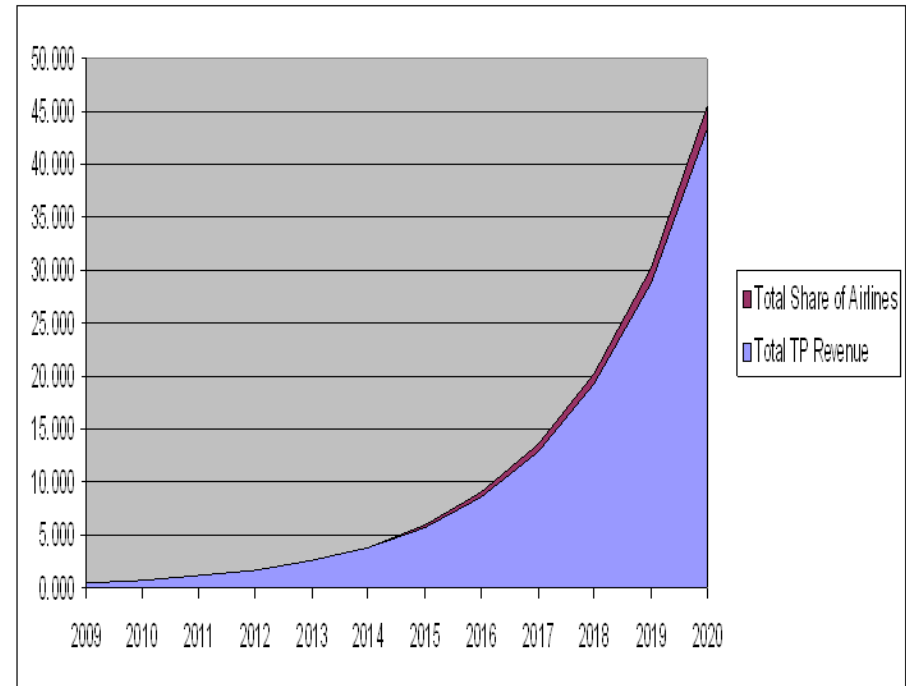
- **Airlines are well positioned to work with their hospitality, travel, and service provider partners to benefit from these trends**

- **Expanding to value chains transporting people to connecting people, utilizing TelePresence to provide adjacent business opportunities, innovative airlines will maintain revenues during travel disruptions and achieve even higher earnings during times of normal operations.**

Revenue Impact Public TelePresence by 2019

- Cisco IBSG sees airlines earning **3% of the total revenues** from the TelePresence market in the next 5 years, and 5 percent of revenues by 2015.
- Costs and traditional barriers to **entry for this new disruptive technology will come down quickly** as market adoption and penetration rates increase
- The user experience will continue to improve
- In 2020, **\$2.2 billion of potential revenue** upside exists for just selling public TelePresence with margins between **52 and 58 percent**

Public TelePresence Revenue Opportunity for Airlines



Source: Cisco IBSG Economics and Research, 2010

An Opportunity Emerges: Public TelePresence

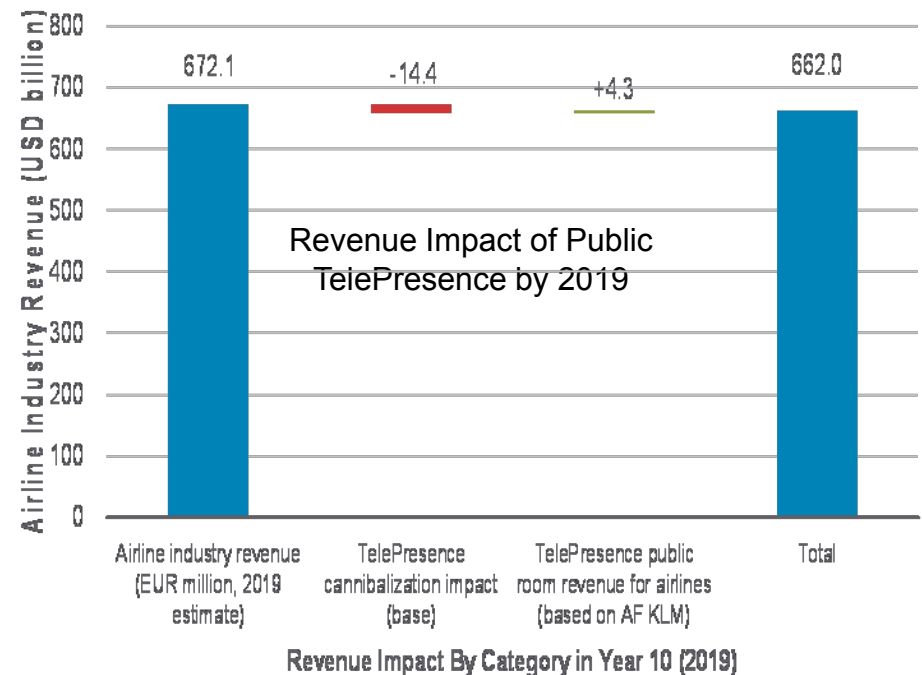
Exploring New Approaches

In response to these challenges, airline executives have implemented a number of tactically-oriented changes in three main areas:

- 1) unbundling services such as charging for food and extra luggage,
- 2) reaching out to ecosystem partners to offer new services like ringtones, and
- 3) adding technology services including Internet access while flying. While these changes have had a positive impact, the magnitude of the challenges requires a more strategic approach and a fundamental re-architecting of the airline business model.

Benefits

- Revenue impact of TelePresence on business air travel is presently marginal, the technology offers a **first-mover advantage** as well as new revenue opportunities.
- Cannibalization impact will be just 2.1 percent or \$14.36 billion of airline revenue by 2019.
- Airlines can, however, offset approximately 30 percent or \$4.26 billion of this loss with public TelePresence room service offerings by 2019
- Increased TelePresence use could eventually i
Increase travel in some segments



The rationale for this business case NOW is twofold

1. Strategic relation to current business

- ▶ TP will replace part of business
 - ▶ It is happening as we speak (Philips, Shell)
 - ▶ Is a realistic alternative to travel
 - ▶ Gartner expects TP will replace 2,1 M airline seats by 2012
 - ▶ 67% of travel managers indicates they will stimulate videoconferencing
- ▶ TP is a logical extension of the business
 - ▶ Address meeting needs not just travel needs
 - ▶ Become 'the most connected airline'



Airlines can move in this business and learn about it

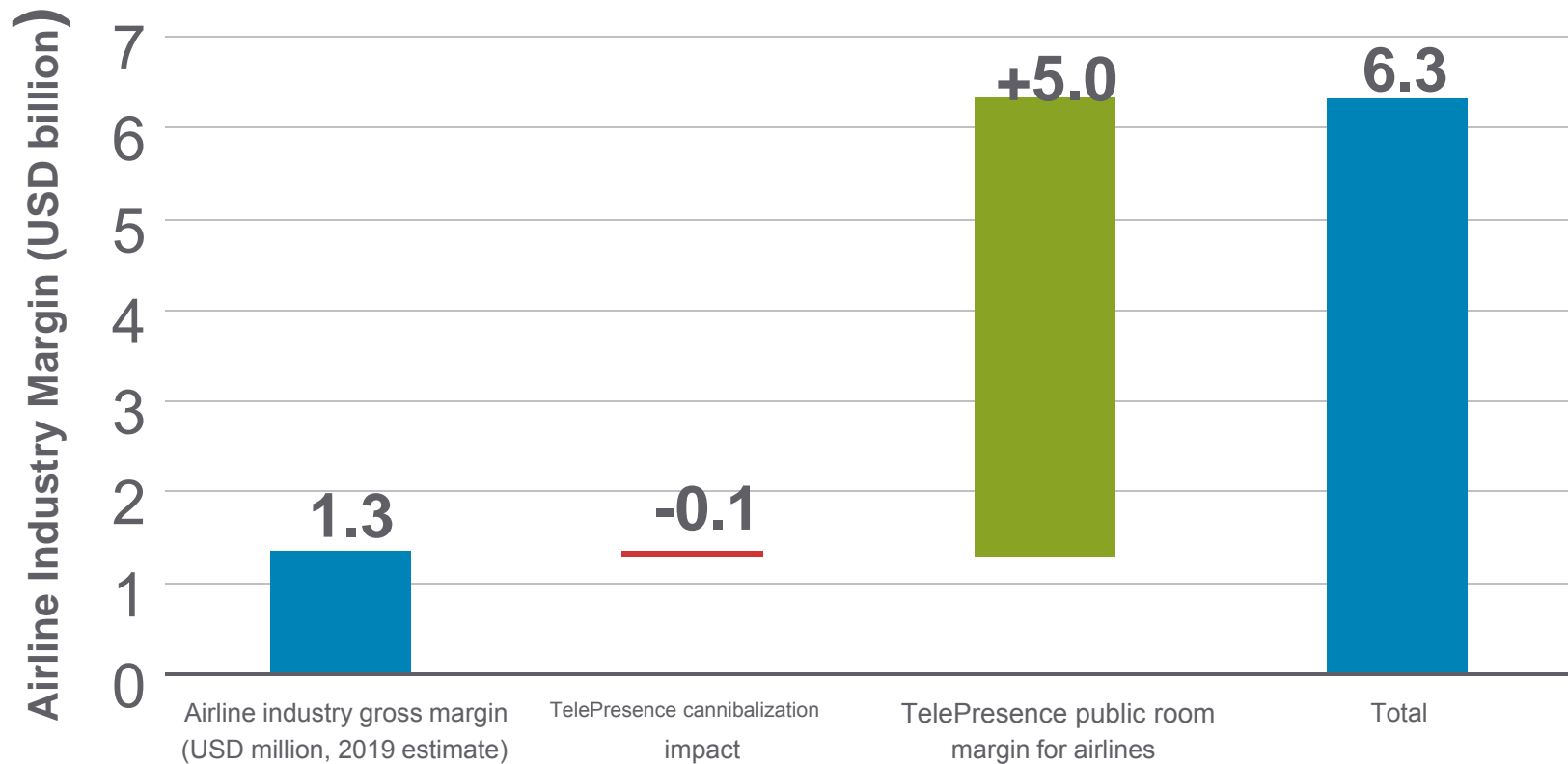
2. Airlines can play a significant role, thereby only improving longer term sustainability

- ▶ Strong assets: distribution, network intelligence, customer base and brand
- ▶ Hedge against longer term cannibalization risk
- ▶ Business case has both short as long term potential
 - ▶ First airline mover advantage is key to get the best business case and highest value creation
 - ▶ Vice versa is valid too: If we wait too long, the opportunity is probably gone forever.



Innovators needs to do it NOW, but exposure/risks need to be mitigated

EBT margin of Public TelePresence can have +5% impact on total revenues



Margin Impact By Category in Year 10 (2019)

Airlines have hidden strategic assets that can provide competitive advantages in this new market

Categories	Airlines' Strategic Assets
Customer Bases	<ul style="list-style-type: none"> •Largest airline in the world •250 global accounts, 1,500 key accounts, 25,000 small-to-medium enterprise (SME) accounts
Customer Intimacy	<ul style="list-style-type: none"> •One of the largest frequent-flyer programs in the world •Approximately 12 million business customers that travel to more than 240 destinations worldwide with intimate knowledge of flying patterns in target segments
Partnerships	<ul style="list-style-type: none"> •“Air-Miles” partnerships with many of the leading hotel chains, rental companies, and travel agencies globally
Physical Networks	<ul style="list-style-type: none"> •Largest airline network consisting of 240 destinations worldwide •Strategic hubs at Charles de Gaulle airport in , and Schiphol airport in •Significant presence at 's Heathrow airport •Recently upgraded their entire aircraft fleet which now includes more than 569 planes
Brands	<ul style="list-style-type: none"> •Innovation industry leader, experience with lounge branding •Emerging strategy to connect people in the broadest sense
Real Estate	<ul style="list-style-type: none"> •Established city and airport offices in 240 destinations

Airlines need to rely on a mix of partnerships in the hospitality, travel, service provider & technology

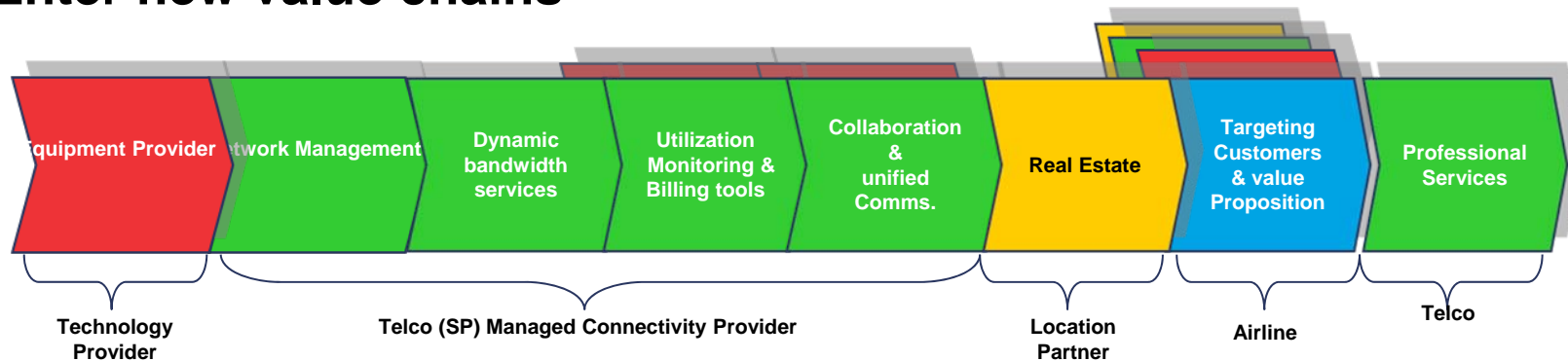
Asset Categories	Strategic Assets
Hospitality Companies	<ul style="list-style-type: none"> •Real estate and rooms at highly-accessible locations •Staffing at TelePresence locations 24 hours a day, seven days a week •Sales & Marketing expertise and resources such as website reservation and customer loyalty programs
Travel Firms	<ul style="list-style-type: none"> •Go to Market
Service Providers	<ul style="list-style-type: none"> •Unlimited connections between third-party rooms enables a “network effect” •Hosting and management of telecommunications & TelePresence infrastructures •Concierge services including meeting scheduling, booking, user assistance enables TelePresence reservation and inventory management •Help desk management and support for technical and billing enquiries •Reporting including usage and performance, billing and financial metrics, travel avoidance, and environmental impact
Technology Companies	<ul style="list-style-type: none"> •Business innovation leadership and technology improvement •TelePresence systems and processes as well as experience with setup and operation •Telecommunications carrier partnerships and market overview enables “network effect” •Extended enterprise relationships and franchises allows for connections to third-party rooms •Sales, marketing, and branding expertise and resources

Developing a Public TelePresence capability.

1. Align core strengths

- Marketing, sales, and branding power (including loyalty programs).
- Operational knowledge—.
- Partner networks in the hotel, hospitality, and travel industries—
- Booking and concierge
- Virtual community

2) Enter new value chains



3) Build partnerships to enable new services

- Capturing the mind- and wallet-share of customers who need to connect and collaborate with other people to get their jobs done, as well as stay in touch with friends and family.
- Staying connected while travelling internationally or even as an alternative to travel, however, is still a challenge. Roaming issues, broadband connections, and access to online entertainment all make it difficult to stay connected.
- Currently, this market is dominated by telecom service providers that, in general, earn extra revenues from their travelling customers who are using their services abroad. Airlines' frequent flyer databases could be highly attractive to service providers wanting to develop global connectivity services.

Driving utilization to the max, at acceptable price levels, is key in the business model

Cash flow sensitivity analysis

Cumulative cash flow end of year 5 in € mio

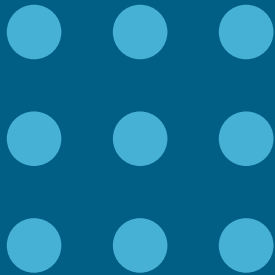
Average utilisation ²	Average rate p/h ¹ (€)					
	300	400	500	600	700	800
30%	-88	-55	-22	10	43	75
35%	-70	-31	8	46	84	121
40%	-51	-6	38	82	125	168
45%	-32	19	69	118	167	215
50%	-14	42	98	153	206	258

Profitability sensitivity analysis

EBIT margin in year 5 in percent

Average utilisation ²	Average rate p/h ¹ (€)					
	300	400	500	600	700	800
30%	-64%	-25%	-1%	14%	25%	33%
35%	-35%	-3%	16%	28%	37%	43%
40%	-12%	14%	29%	39%	46%	51%
45%	7%	28%	40%	48%	53%	57%
50%	22%	39%	49%	55%	59%	61%

4



Conclusions

Conclusions

- Although headwinds are abating, the airline industry will always face challenges to business profitability and continuity from economic, environmental, and political events.
- Fortunately, technological advances, especially in the area of TelePresence, are now making it possible for innovative airlines to transform their business models from transporting people to connecting people..
- Airlines can increase revenues while reducing the competitive threat of new technologies that, over time, will decrease air travel.
- For airline companies seeking telltale signals for broad market adoption of this non-traditional opportunity before getting started, look for the following seminal events.
 - Broad adoption of TelePresence across Global 500 enterprises. The top 100 companies already own or have plans for implementation.
 - Hospitality franchises announcing entry into public TelePresence suites across their businesses and meeting properties.
 - Temporary office providers shifting from video conferencing to TelePresence in meaningful numbers.
 - Non-traditional enterprises joining the fray with innovative models for business and personal TelePresence interactions.
- Airlines that aspire to harness the market in the early stages should prepare now

But first, are we..... “transporting businesses” or “connecting businesses”?

