



Consumer Cloud Demand

A Connected Life Market Watch Perspective

Cisco Internet Business Solutions Group

March 2012

Connected Life Market Watch Program

Service Delivery & Cloud Experiences

Scope

- United States
- Canada
- France
- Italy

Approach

Market Watch Program

- Cisco IBSG's recurring primary research program
- Monitors changing consumer behavior to identify key market transitions

Methodology

- Broadband consumers
- 20-minute online survey
- 1,000 total respondents
- April 2011

Segmentation

- Used proprietary scoring methodologies to identify consumer "technology" segments

Source: Cisco IBSG Connected Life Market Watch, 2011

Key Findings

Positive Impact	Better Together	Certain Features	Certain Customers
Cloud enhancements positively impact consumers' reaction to Connected Life services, and cloud demand is expected to increase	Cloud is more powerful as a suite of enhancements vs. a single enhancement	Different cloud-based enhancements have stronger consumer interest and impact than others	The level of consumer cloud interest (overall and types) differs by customer segments

- To increase adoption potential for Connected Life services, service providers should **strategically include cloud enhancements** with their offerings
- Prioritize the enhancements to balance between coverage / impact and cost (optimization) by **aligning the enhancements to company strategy**

Source: Cisco IBSG Connected Life Market Watch, 2011

Agenda

- Connected Life and cloud services
- Assessing impact of cloud services on buyer behavior
- Developing a service provider strategy for consumer cloud services



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Connected Life and Cloud Services

Connected Life Experiences

An expanding collection of services that enables consumers to connect from anywhere in order to **work, live, play, and learn**

Communication

Family communication
Television programming

Entertainment

Gaming
Social networking

Collaboration

Work applications
Healthcare
Automotive maintenance
Roadside assistance
Education
Childcare
Travel

Monitor & Control

Home appliances
Energy management

Connected Life services can give consumers **easier control** and **better quality** in their service experience

Anyone



Anywhere



Any Device

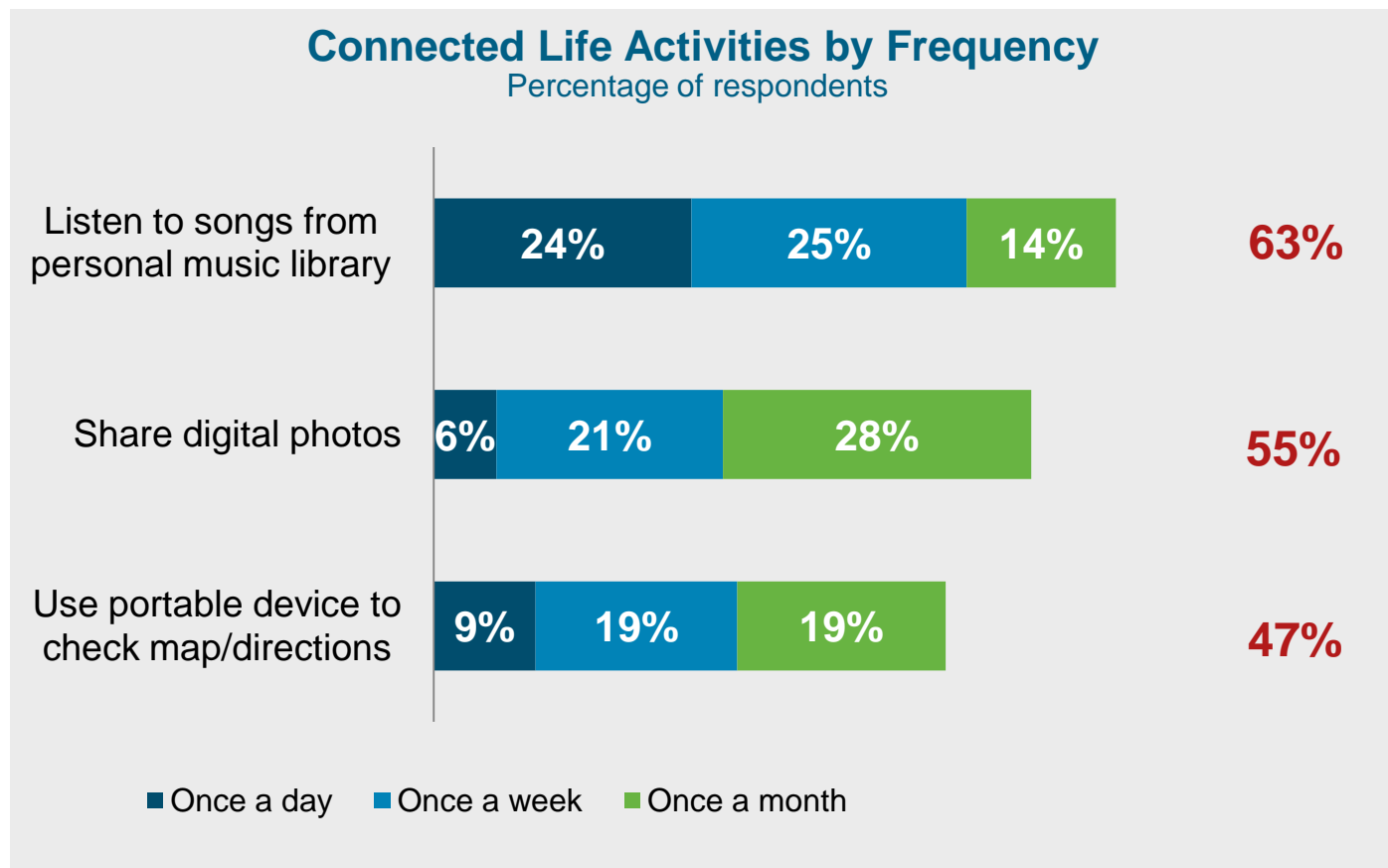


Any Content or Application



Source: Cisco IBSG, 2012

Consumers Regularly Engage in Connected Life Activities

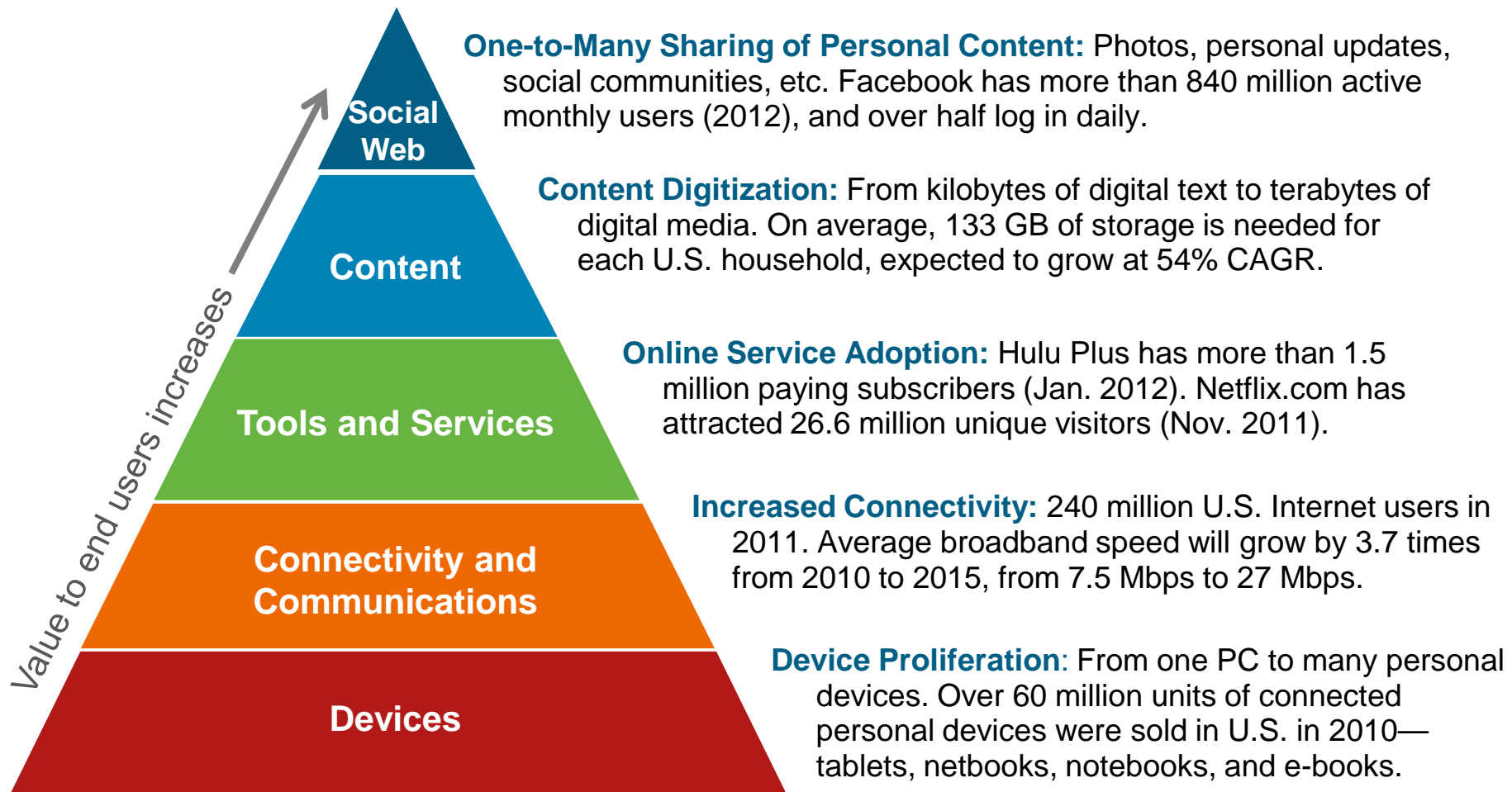


Question: How often do you?

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: U.S. broadband consumers

Consumers' Hierarchy of Needs Leads to Connected Life Activities



Sources: Yankee Group, 2011; Cisco VNI; Cisco IBSG Connected Life Market Watch, 2011

Adoption of Connected Life Activities Has Created New Challenges

Challenges

Social

- **Social and sharing behavior becomes complex to manage**

Consumers' sharing behavior becomes more sophisticated, outpacing their ability to manage activities. Also introduces privacy implications.

Content

- **Large collections are hard to manage and require backup**

Consolidating content collection on one physical device massively multiplies the risk of losing all of the collection

Services

- **Disjointed experience among online services**

Online service activities require opening new windows and managing across them, as services have not been integrated into a seamless user experience

Connectivity

- **Devices with connectivity are disconnected from each other**

Access connectivity alone does not provide a connected experience among devices

Devices

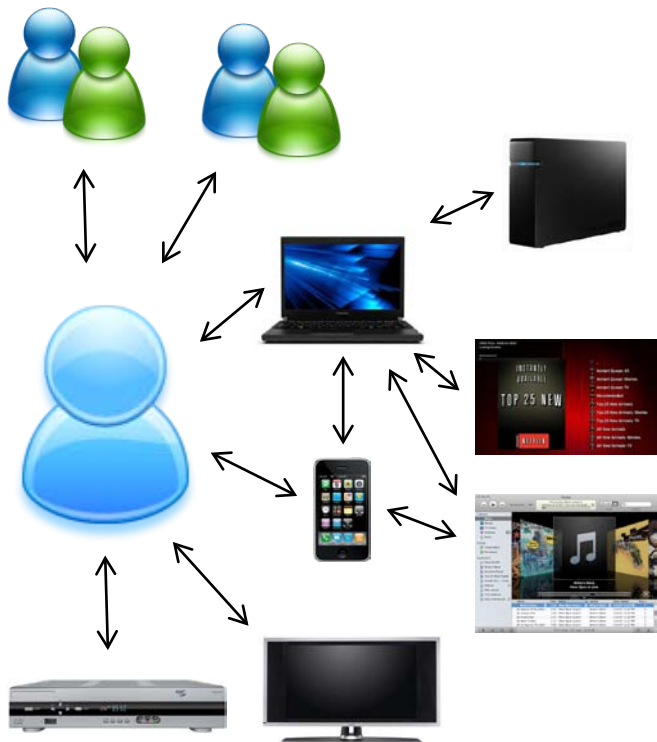
- **Multiple devices add to the complexity**

Each device comes with its own platform and management software, and managing multiple devices is difficult and time-consuming

Sources: Yankee Group, 2011; Cisco IBSG, 2012

Cloud-Based Features Enhance the Consumer Experience

Before: Without Cloud



Manual and disjointed experiences

Source: Cisco IBSG, 2012

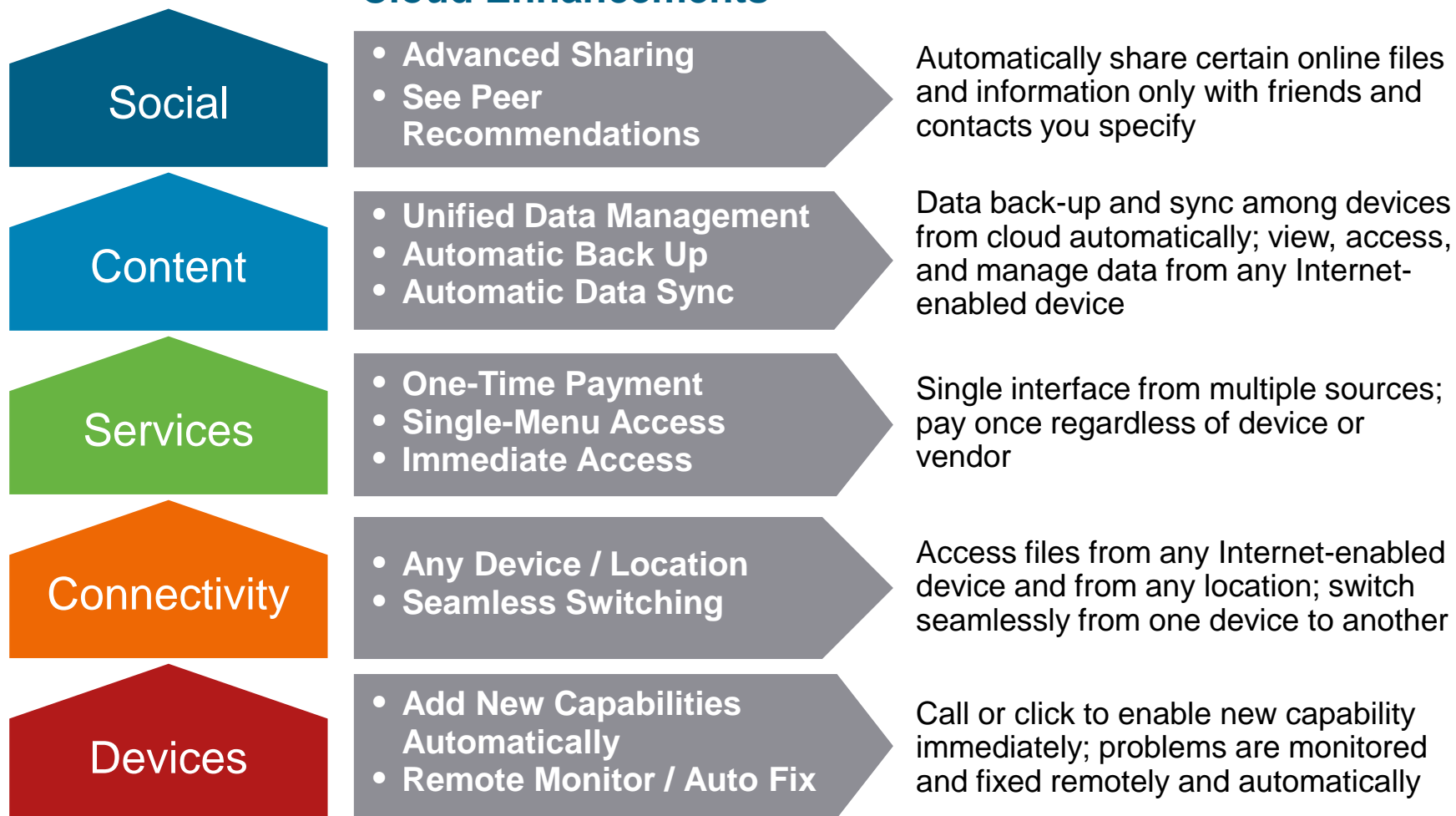
After: With Cloud



Automated and unified experiences

Key Cloud Enhancements

Cloud Enhancements*



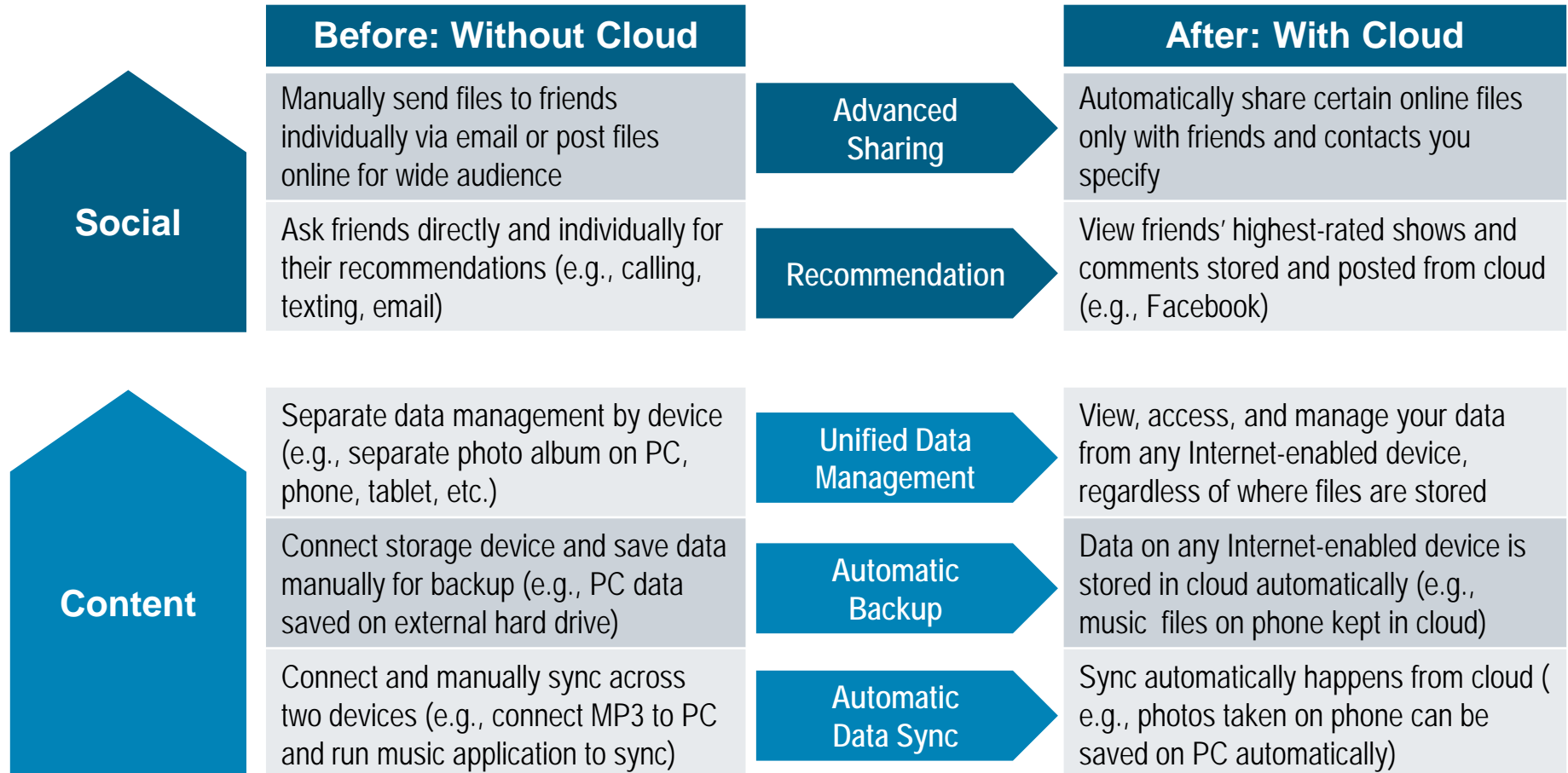
Sources: Yankee Group, 2011; Cisco IBSG, 2011 *Select enhancements and may not cover complete cloud capability.

Key Cloud Enhancements: How They Work

	Before: Without Cloud		After: With Cloud
Social	Manually, directly, and individually send files and information	Advanced Sharing Recommendation	Automatically share certain online files and information only with friends and contacts you specify
Content	Contents are stored and managed by individual devices. Backup and sync require manual connection and operation.	Unified Data Mgmt Automatic Backup Automatic Data Sync	All contents are stored / backed up in cloud. View, access, and manage data from any Internet-enabled device. Backup and sync happen automatically.
Services	Multiple interfaces and payments for content based on device and source (VoD on TV, iTunes, Hulu, Amazon.com)	One-Time Payment Single-Menu Access Immediate Access	Single interface from multiple sources; pay once regardless of devices used
Connectivity	Files can be accessed only on the device where they reside, and a session cannot be continued on another device	Any Device / Location Seamless Switching	Access files from any Internet-enabled device, and from any location. Switch services seamlessly from one device to another.
Devices	Device-driven experience. Troubleshooting and addition of new capabilities happen physically at the device level.	Automatic Add Remote Monitor & Auto Fix	Call or click to enable new capability immediately. Problems are monitored and fixed remotely and automatically.

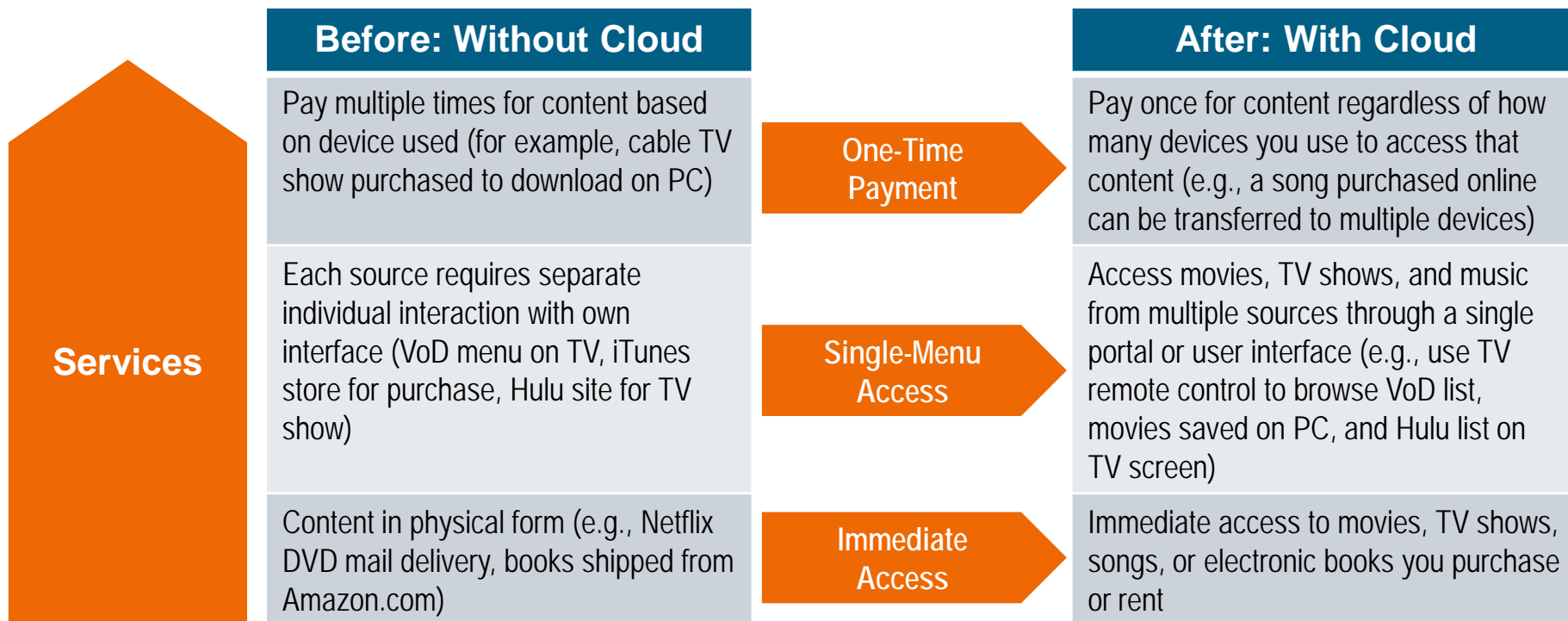
Source: Cisco IBSG, 2012

Social and Content-Based Cloud Enhancements: A More Detailed Look



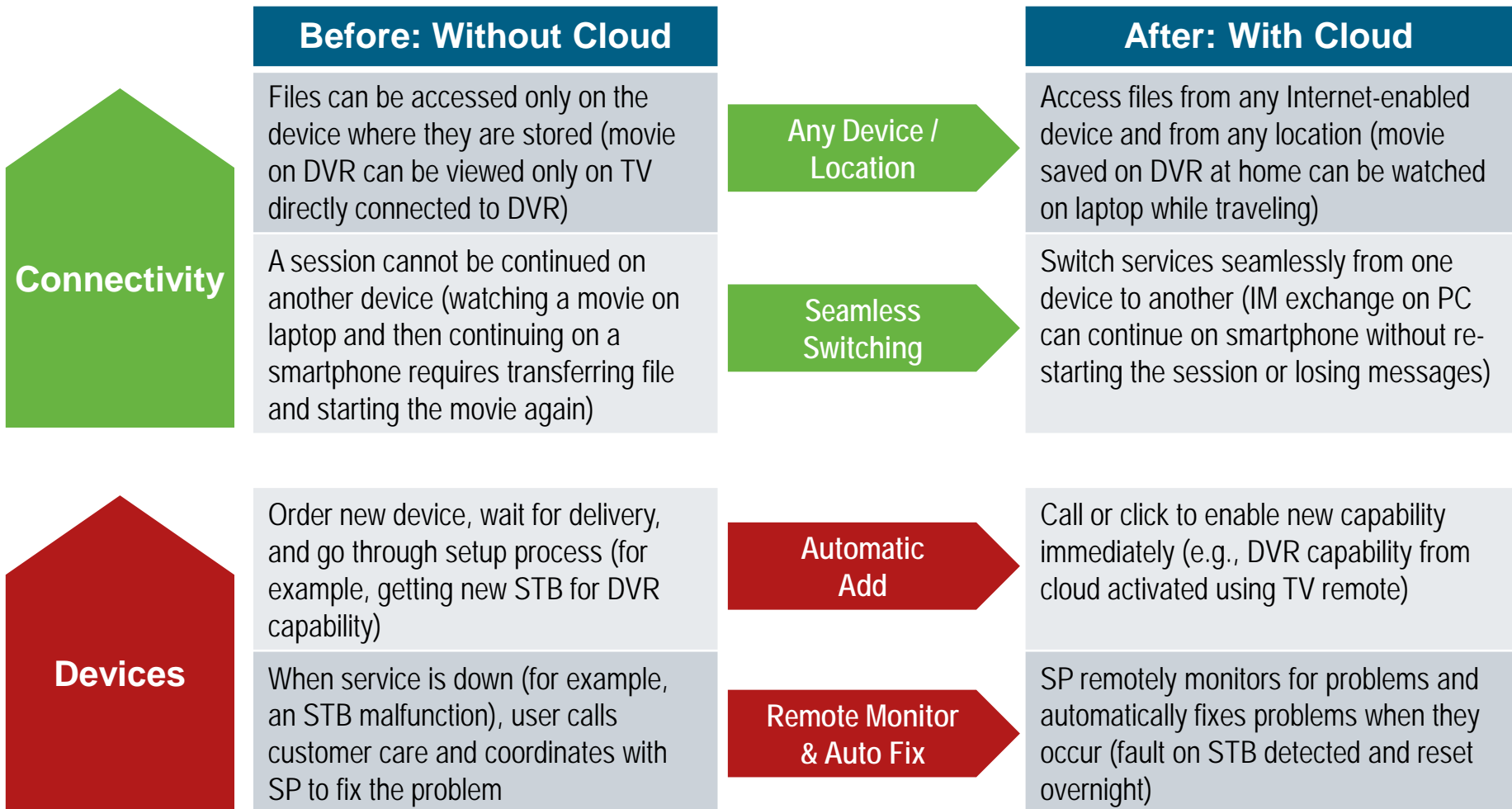
Source: Cisco IBSG, 2012

Cloud Enhancements for Services: A More Detailed Look



Source: Cisco IBSG, 2012

Cloud Enhancements for Connectivity and Devices: A More Detailed Look



Source: Cisco IBSG, 2012

The Market Is Already Using Cloud To Help Resolve Consumers' Needs

Unified Data Management

Automatic Backup

Automatic Data Sync

Any Device / Location

Automatic Add

One-Time Payment

Single-Menu Access

Immediate Access

- In June 2011, **Apple** unveiled **iCloud**, a cloud-computing service that stores music, photos, and documents remotely, as well as eliminating the need to sync devices to a PC



iCloud

- **Comcast** announced initiatives in extending and integrating IP technology to improve the customer experience, accelerate new-product launches, and expand cross-platform experiences



- 55 members across industries form digital entertainment content ecosystem called **Ultra Violet**, developing an open "common file format" standard. Designed to play on any service or device, enabling "buy once, play anywhere."

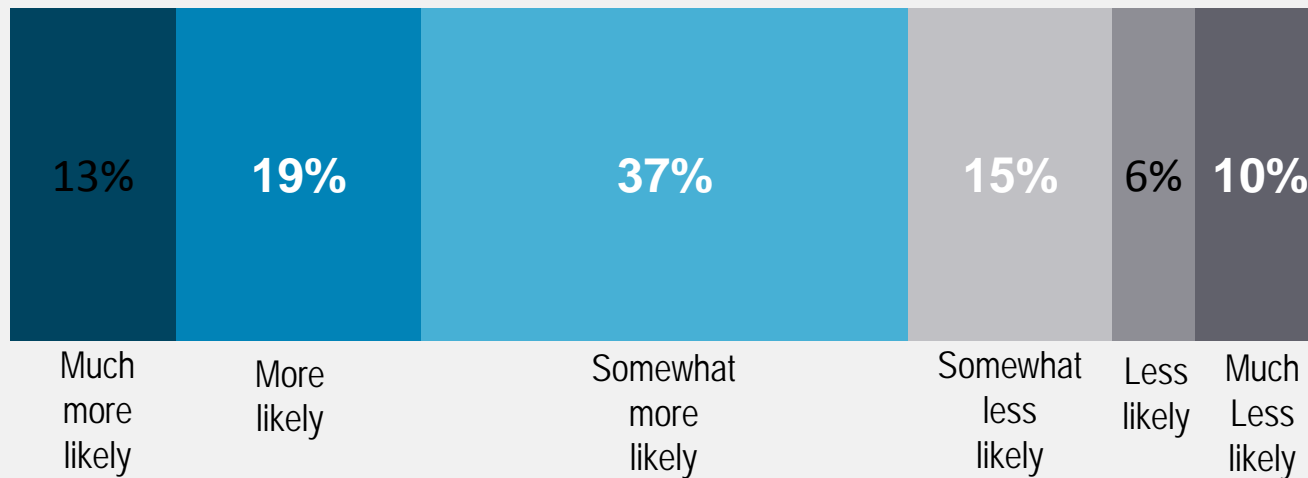


Sources: Company websites, DECE, 2011; Cisco IBSG, 2012

Cloud Enhancements Positively Impact Connected Life Service Buying Behavior

Impact of Cloud Enhancement on Consumer Purchase Likelihood (Average)

Percentage of respondents



On average, 68% of respondents are more likely to buy a Connected Life service if it has even **a single cloud enhancement**

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: U.S. broadband consumers



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Impact of Cloud Services on Buyer Behavior

How Does Cloud Impact Consumers' Actual Buying Behavior?

How Each Cloud Enhancement Influences Consumers' Assessment of a Connected Life Service

Consumer Attitude Toward a Particular Cloud Enhancement	Critical	Differentiating	Mandatory	Neutral	Negative
	Consumers are happy when it's present and dissatisfied when it's not	Consumers don't expect it to be included, but thrilled when it is	Consumer expect it to be there. Not thrilled when it is, but very displeased when it is not	Consumers are indifferent to its presence	Consumers are displeased when this enhancement is present
Enhancement included with your service?	Positive	Positive	Neutral	Neutral	Negative
Enhancement NOT included with your service?	Negative	Neutral	Negative	Neutral	Neutral

Source: ASQ, 2005; Cisco IBSG, 2012

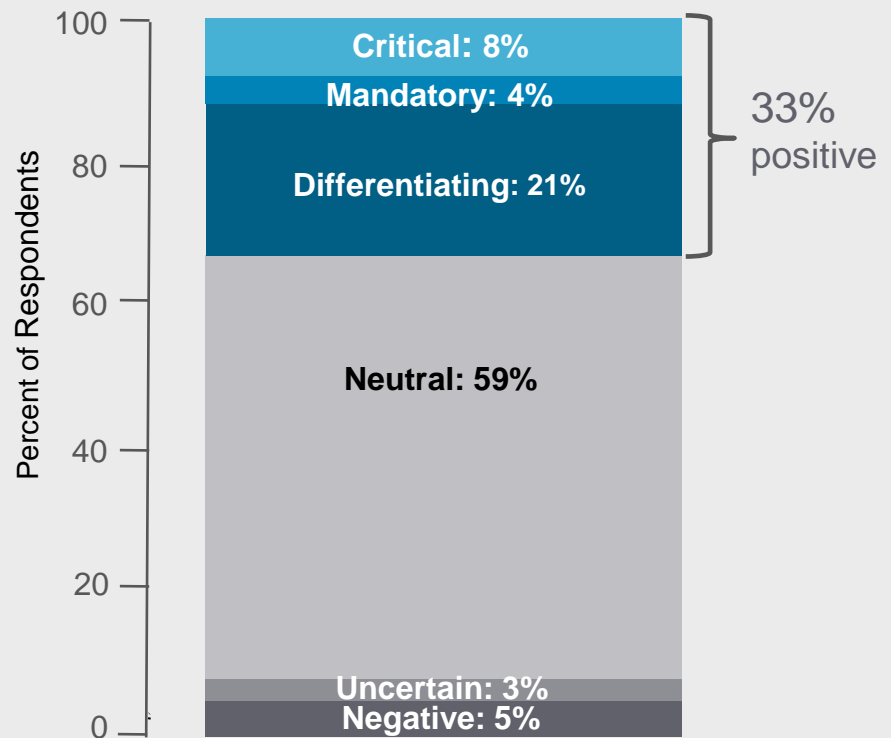
Cloud Enhancements Impact Consumers' Reaction to Connected Life

- Each cloud enhancement positively impacts **one out of three** respondents' reaction to Connected Life services

33% is based on average per single cloud enhancement

- Different people value different enhancements; more impact when enhancements combined
- Some enhancements have stronger consumer interest than others

Average Response to Individual Cloud Enhancements



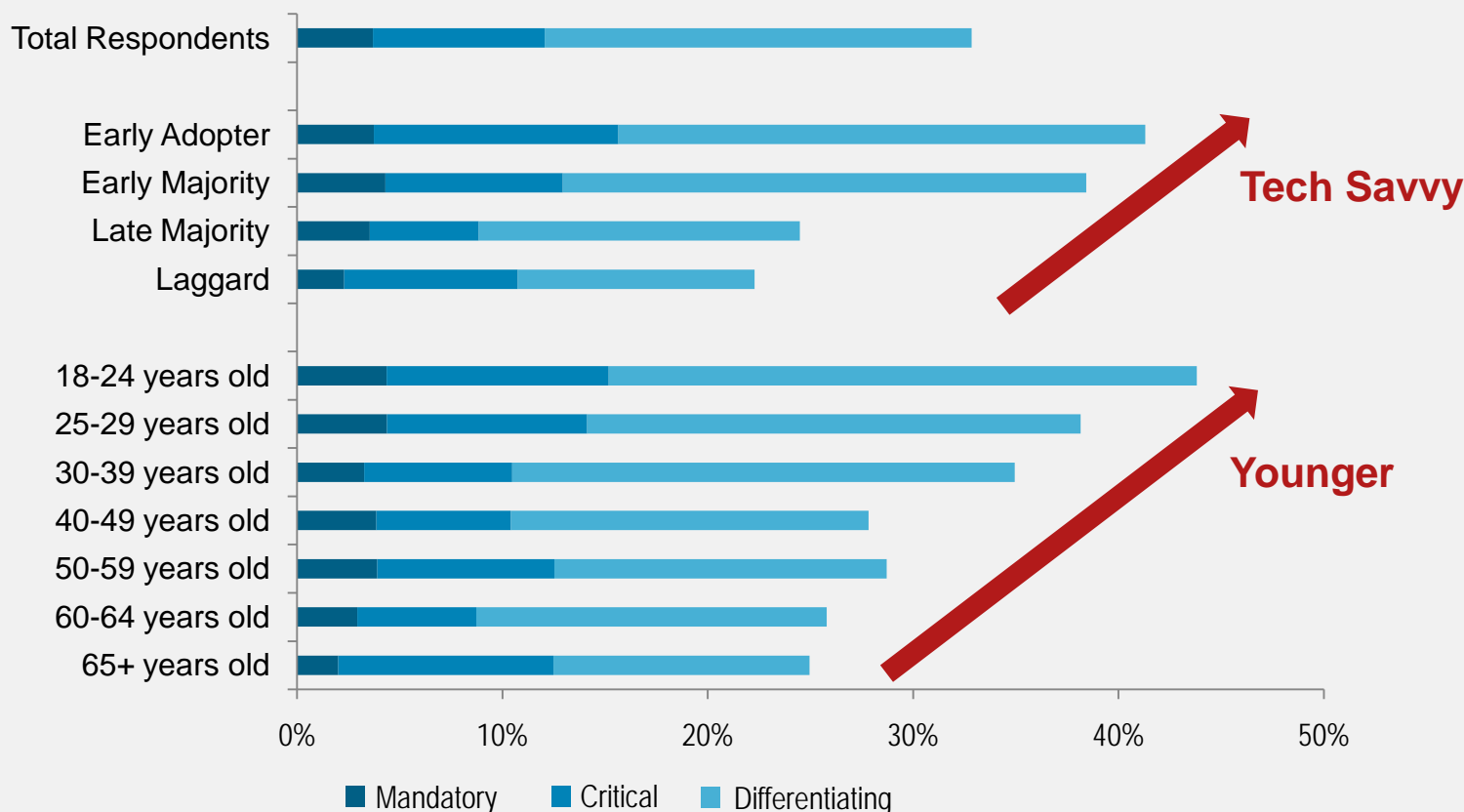
Source: Cisco IBSG, based on Kano methodology, 2011

Base: U.S. broadband consumers

Demand for Cloud Enhancements Is Expected To Increase

Average Cloud Enhancement Impact on Connected Life Services

Percentage of respondents



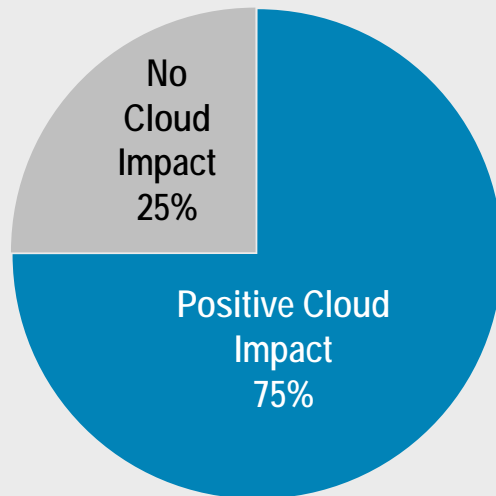
Source: Cisco IBSG Connected Life Market Watch, 2011

Base: U.S. broadband consumers

Cloud Is More Powerful as Complete Experience vs. Single Enhancement

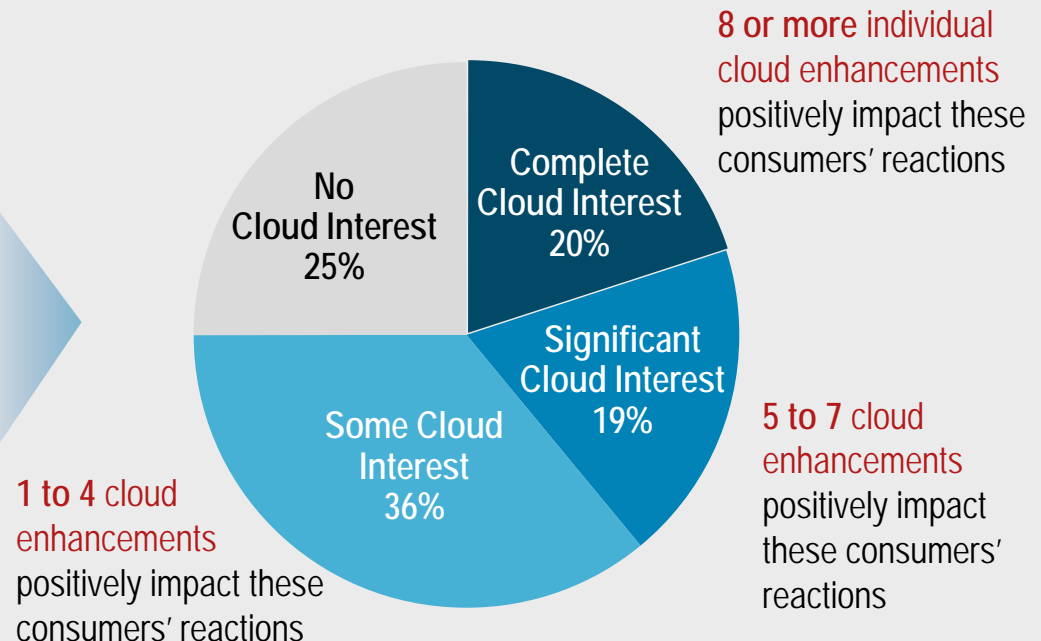
Consumer Response Across All Consumer Cloud Enhancements

Percentage of respondents



Consumer Segmentation Based on Extensiveness of Cloud Reaction

Percentage of respondents



75% of consumers see at least one cloud enhancement as *critical, mandatory, or differentiating* to Connected Life services

Most consumers are influenced by more than one cloud enhancement. For **1 out of 5 respondents**, a **complete cloud experience** is key to meeting their Connected Life needs.

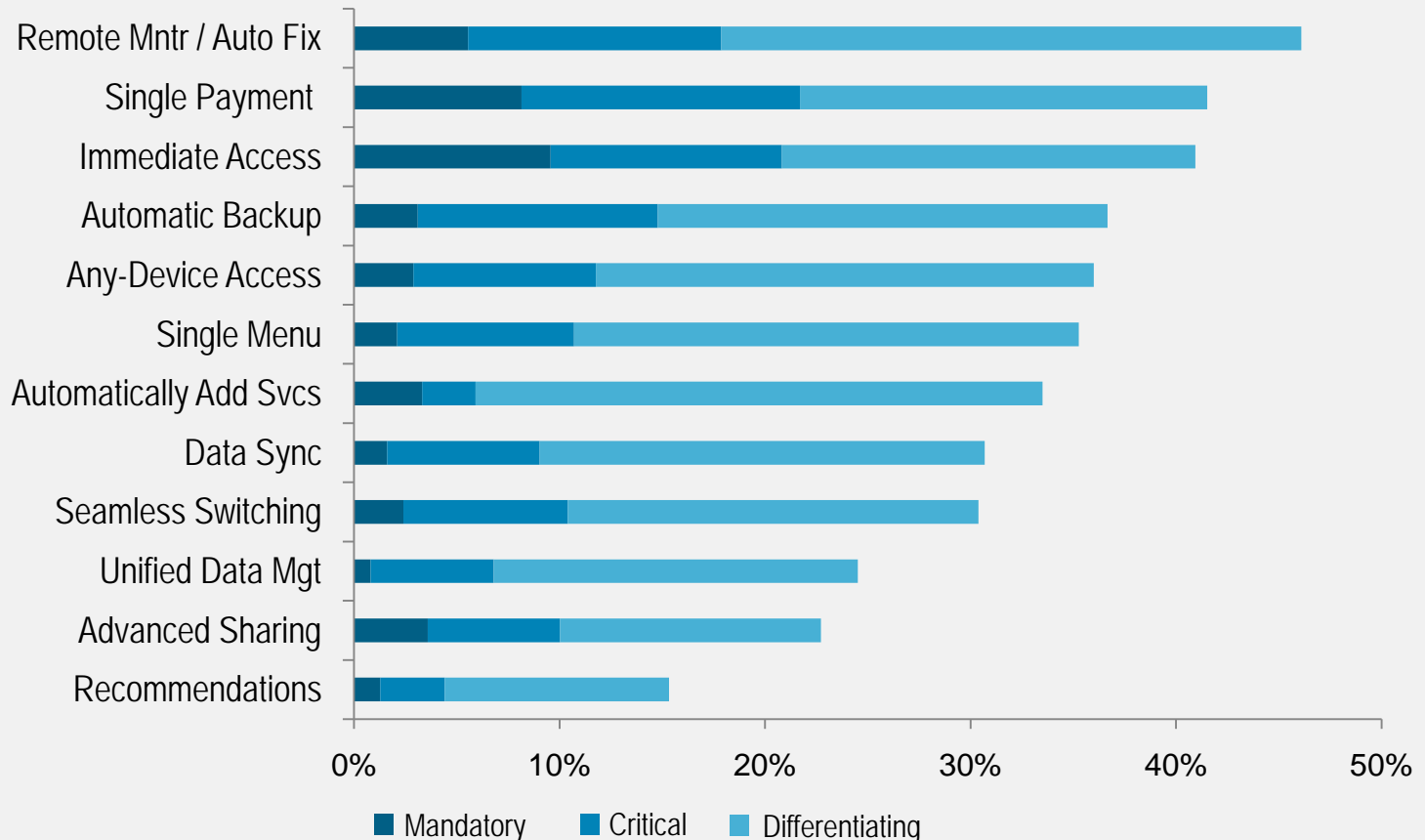
Source: Cisco IBSG Connected Life Market Watch, 2011

Base: U.S. broadband consumers

Some Cloud Experiences Have Stronger Impact than Others

Cloud Enhancement Impact on Connected Life Services

Percentage of respondents

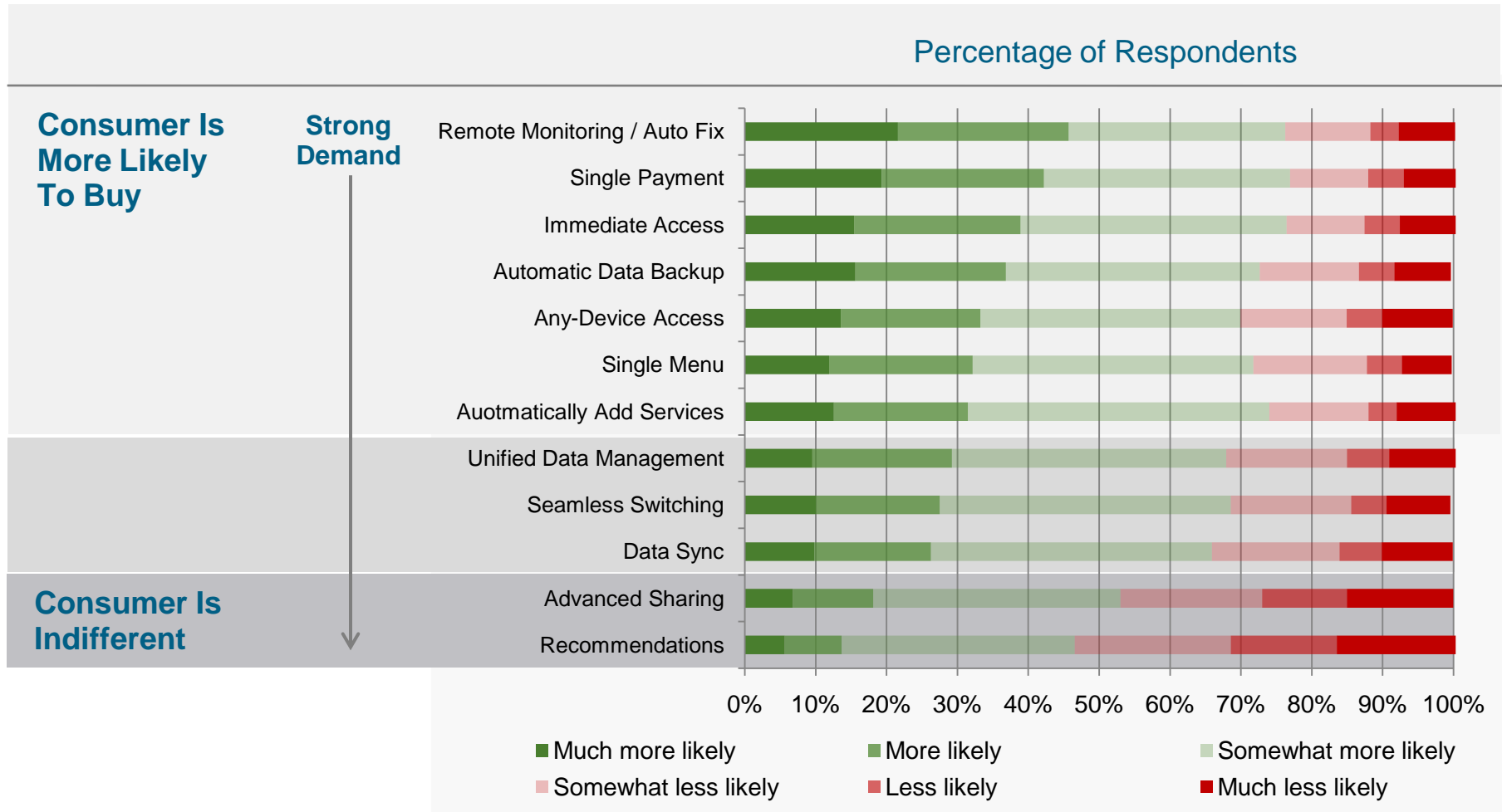


Source: Cisco IBSG Connected Life Market Watch, 2011

Base: U.S. broadband consumers

Cloud Enhancements Impact Buying Behavior

Consumers More Likely To Buy When Cloud Enhancements Are Included



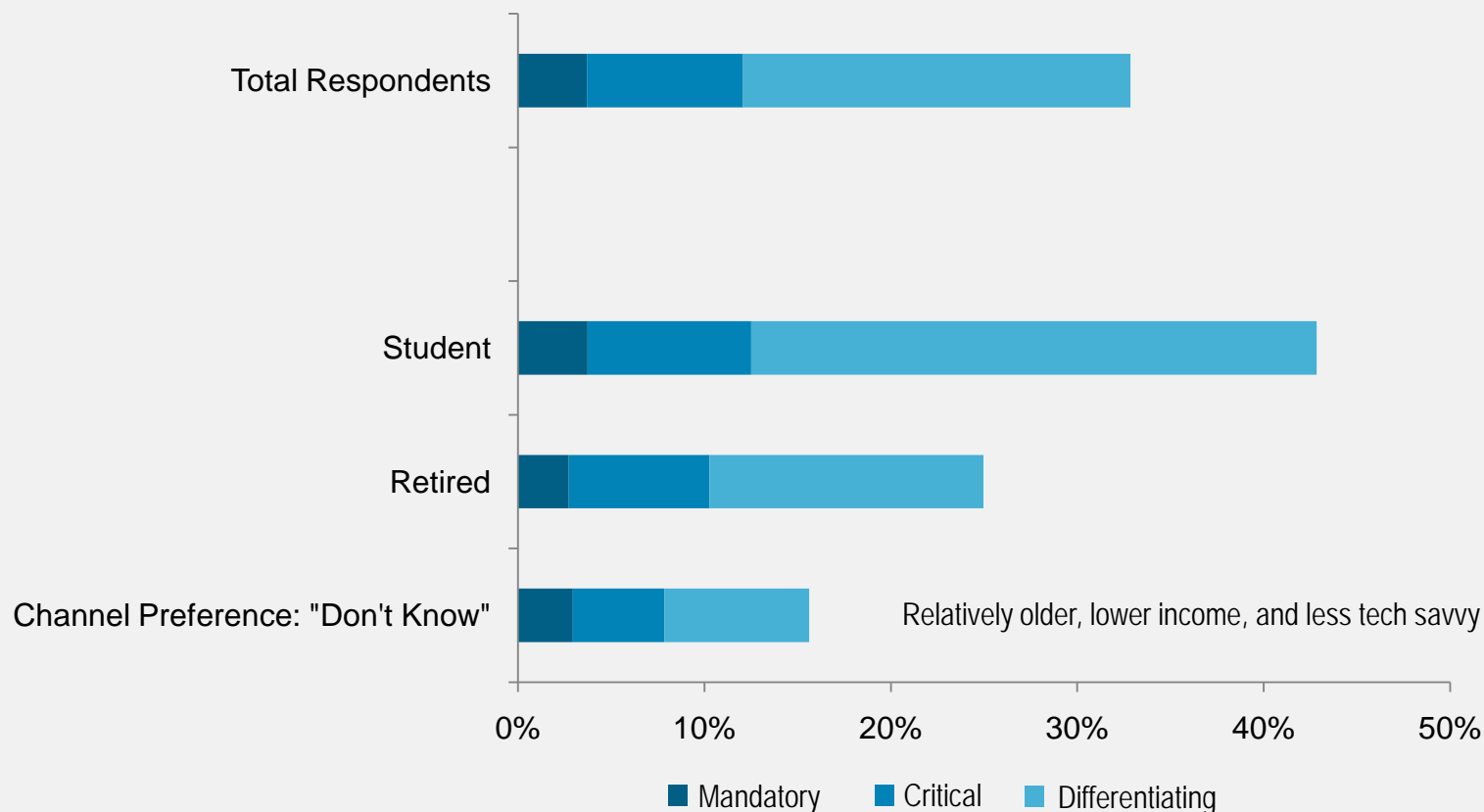
Source: Cisco IBSG Connected Life Market Watch, 2011

Base: U.S. broadband consumers

Positive Impact of Cloud Enhancements Varies by Targeted Segments

Average Cloud Enhancement Impact on Connected Life Services

Percentage of respondents



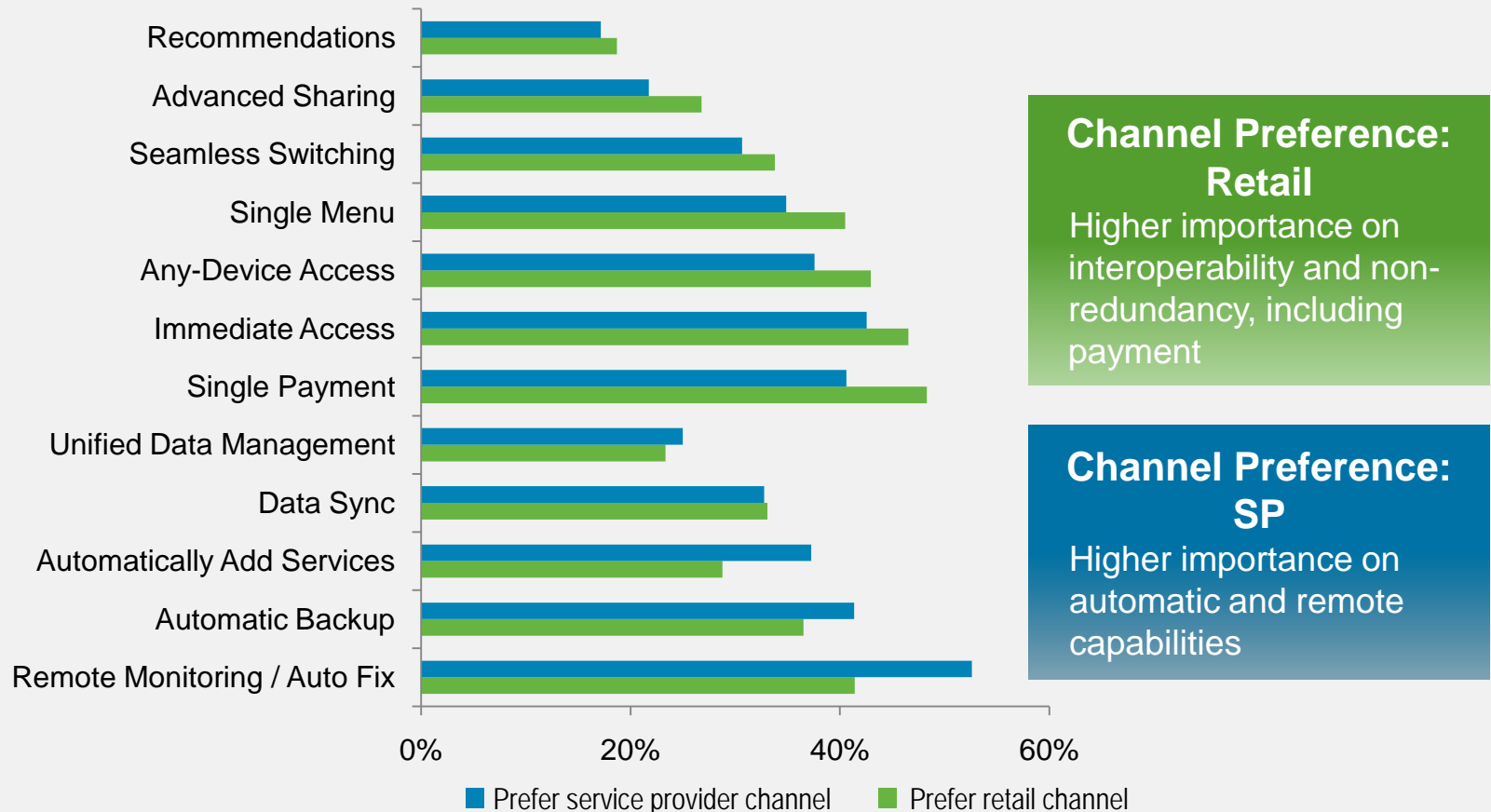
Source: Cisco IBSG Connected Life Market Watch, 2011

Base: U.S. broadband consumers

Differences in Enhancement Priority Also Exist by Segments

Cloud Enhancement Positive Impact on Connected Life Services

Percentage of respondents



Source: Cisco IBSG Connected Life Market Watch, 2011

Base: U.S. broadband consumers



3

Developing a Strategy for Consumer Cloud Services

Implications for Service Providers

- To increase adoption potential for Connected Life services, SPs should strategically include cloud enhancements with their offerings

- However,

**Different people
value different
enhancements**

**Level of consumer
interest varies by
enhancement**

**More impact when
enhancements are
combined**

**Different enhancements
have stronger impact
than others**

- Therefore, prioritize the enhancements consumers are beginning to expect and strategically add enhancements that can differentiate the services

- Then,

How much is enough?

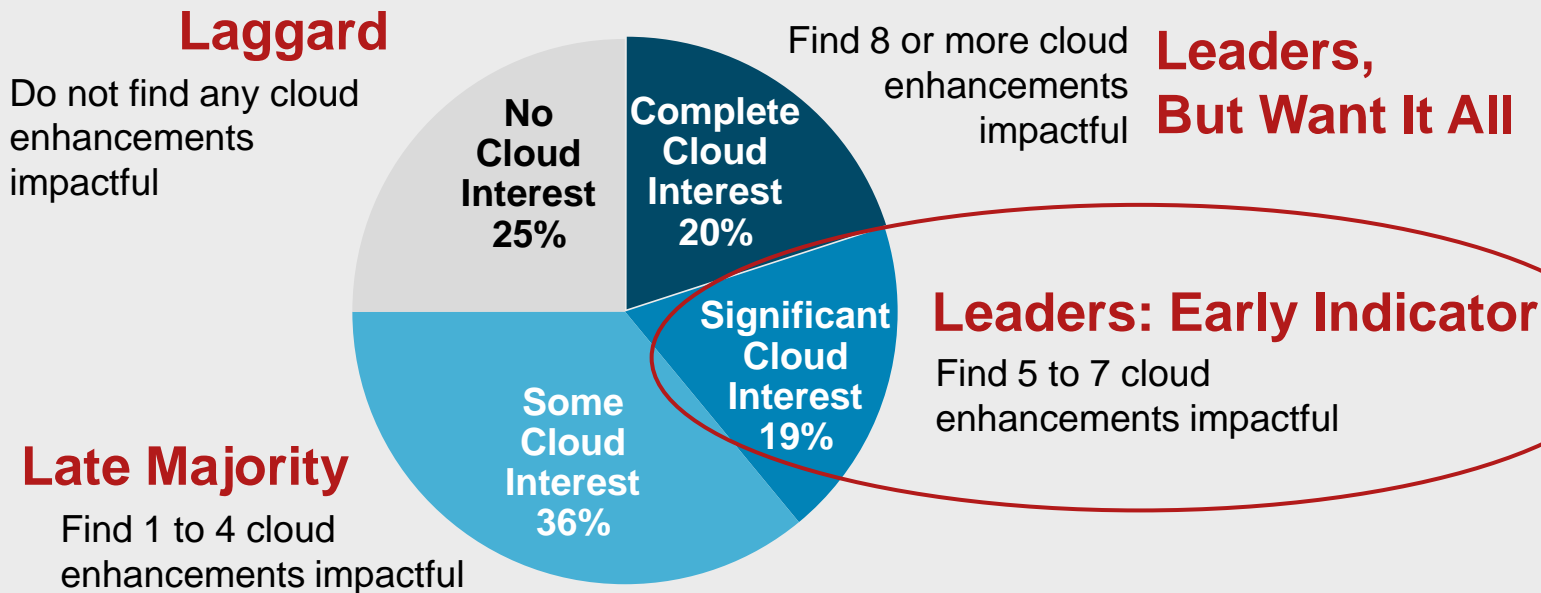
How to prioritize?

Source: Cisco IBSG, 2012

Cloud Segmentation Can Help Target and Prioritize Enhancements

Consumer Segmentation Based on Number of Cloud Enhancements Seen as Critical, Mandatory, or Differentiating

Percentage of respondents



Source: Cisco IBSG Connected Life Market Watch, 2011

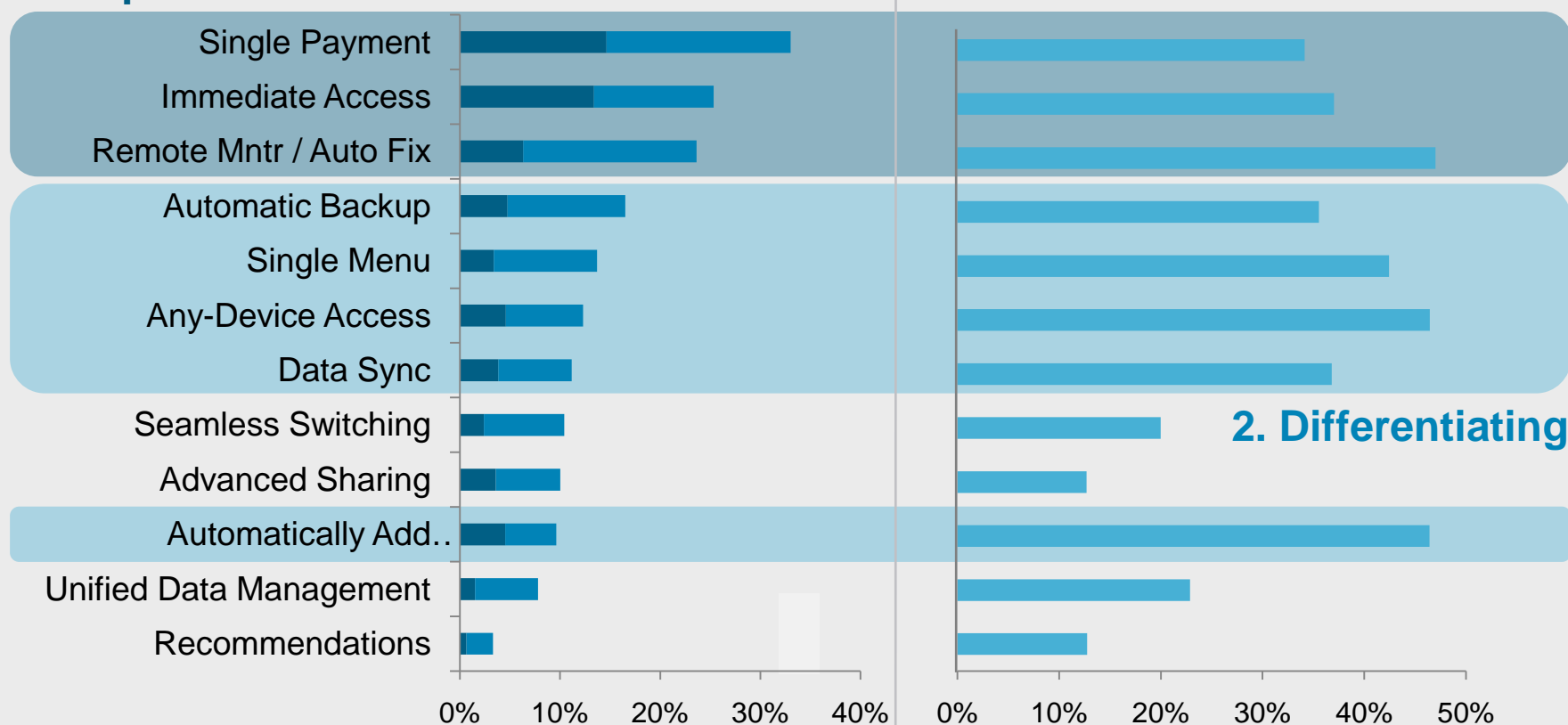
“Significant Cloud Interest” Segment Provides High-Priority Enhancement Prospects

Impact on Connected Life Services for Those with Significant Interest in Cloud

1. Expected

■ Mandatory ■ Critical

■ Differentiating



2. Differentiating

Source: Cisco IBSG Connected Life Market Watch, 2011 Base: U.S. broadband consumers, “significant interest” segment

Key Strategic Considerations

- Prioritizing enhancements to balance coverage / impact and cost (optimization)
- Aligning enhancements to company strategy
 - Expected features vs. differentiation
 - Target segmentation
 - Brand alignment
 - Technology capability
 - Investment requirements



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