Service Delivery and Consumer Cloud (Germany)

A Connected Life Market Watch Perspective

Cisco Internet Business Solutions Group

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Agenda

- Methodology
- Respondent Profiles and Demographics
- Key Findings (Germany)
- Topics
  1. Technology Usage
  2. Buying Behavior
  3. Pricing
  4. Service Provider Wi-Fi
  5. Consumer Cloud and Connected Life
  6. How To Expand Customer Potential

Methodology

Connected Life Market Watch
Service Delivery and Consumer Cloud (Germany)

Approach

Connected Life Market Watch (CLMW) Program

- Cisco IBSG's recurring primary research program
- Monitors changing consumer behavior to identify key market transitions
- Topics include mobile (2009), video (2008, 2010)
- 2011 focus: Service Delivery & Cloud Experiences

Methodology

- Broadband consumers
- 20-minute online survey, representative sample (500-1,000 respondents/country)
- Multiple segmentations (demographic, tech affinity)
- Germany field work: November 2011

Scope: 2011

Canada

France

Germany

Italy

United Kingdom

United States

Source: Cisco IBSG Connected Life Market Watch, 2011

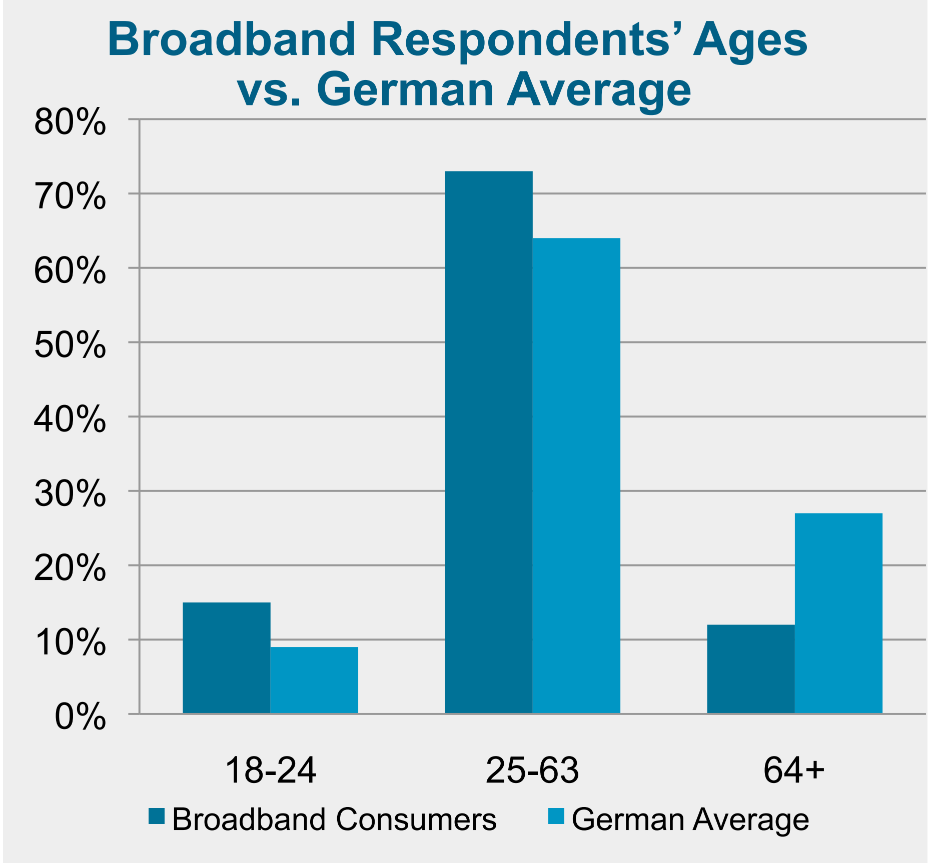
Respondent Profiles and Demographics

Survey Respondents Compared to Average German Population

Respondents Have Higher Income & Higher Level of Employment

Broadband Respondents vs. German Average

	Broadband Consumers	German Average
Gender: male / female	57% / 43%	50% / 50%
Avg. household income	€48.000	€41.000
Have children in the home	26%	43%
Employed	65%	53%



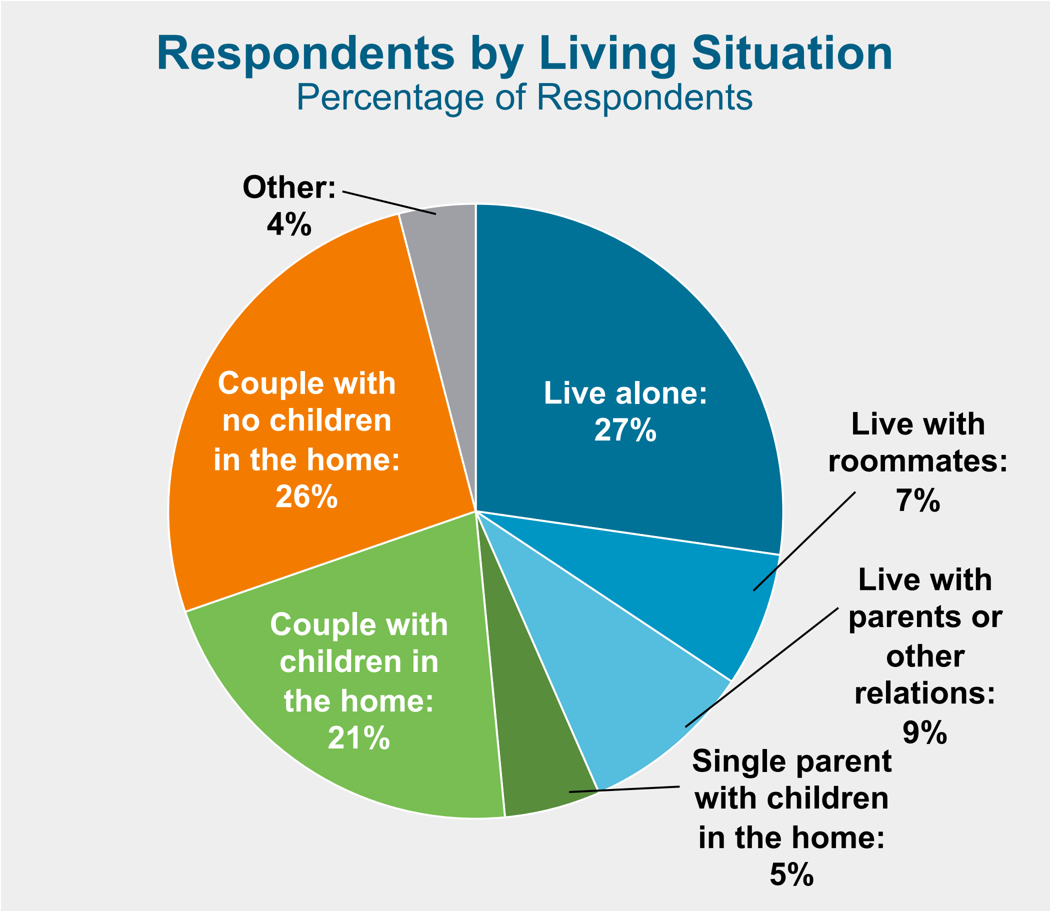
Sources: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

Respondents Represent a Variety of Living Situations

Include Couples, Roommates, Families

- Single-person households make up 27% of respondents
- 35% of respondents live in multi-generational households
- 47% are in a married / couple situation



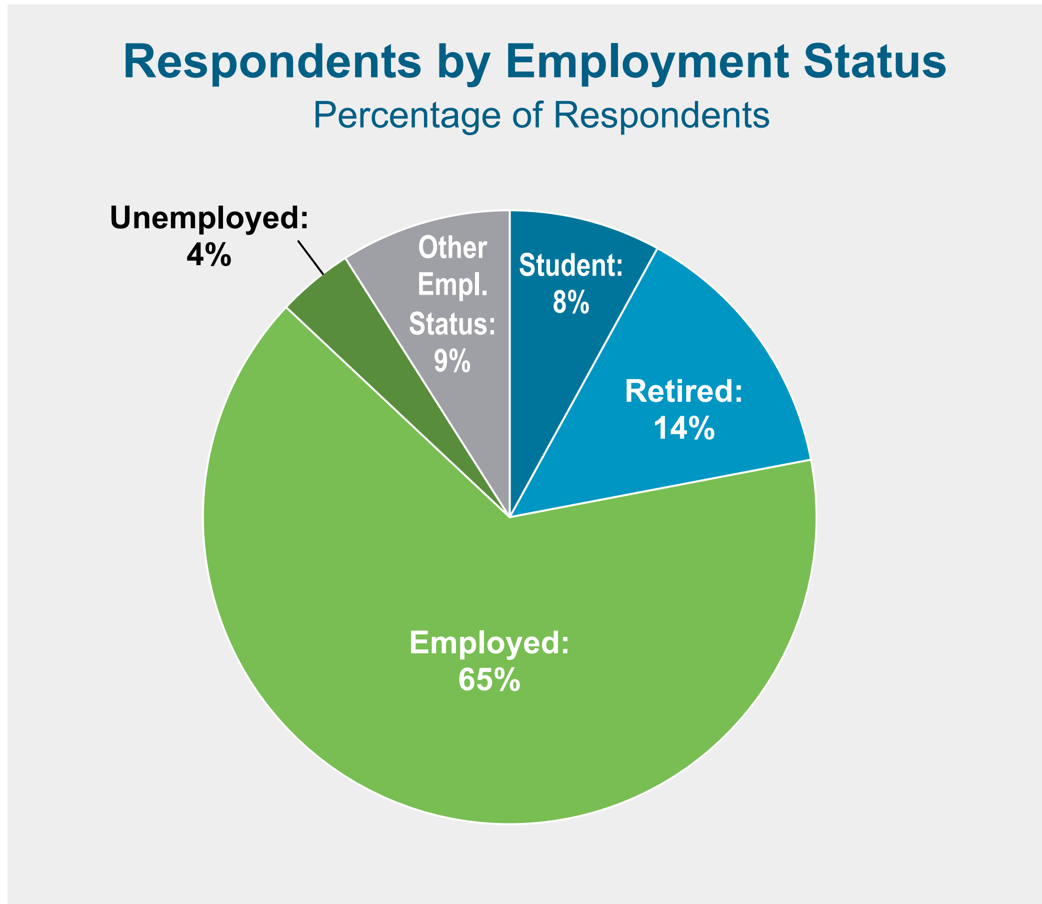
Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

Respondents by Employment Status

Include Working, Nonworking, and Student Populations

- 65% of respondents are currently employed
- Only 4% are currently unemployed



Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

Key Findings (Germany)

Key Findings: Germany

Topics	Emerging Findings
Technology Use	▪ Consumers increasingly embrace Connected Life services ▪ Mobile video use rising; mobile data use mostly in fixed locations ▪ Smartphones have hit the mass market
Buying Behavior	▪ Cost and reliability are strongest drivers of consumer SP preference ▪ Broadband connection is the “anchor service” ▪ SP have a clear lead in most important decision criteria
Pricing	• Consumers do not want to move away from flat rates • There is no single strategy to mitigate resistance to tiered pricing
SP Wi-Fi	▪ High acceptance of Wi-Fi for wireless web browsing ▪ Users wait for Wi-Fi coverage for heavy data use ▪ Users ready to accept compromises on quality and immediacy
Consumer Cloud & Connected Life	• “Hassle-free” features are most popular • Experience *bundles* drive purchasing
Expanding Customer Potential	• SPs should target “In Play” consumers • “In Play” segment’s priority buying factors favor the SP channel

Source: Cisco IBSG Connected Life Market Watch, 2011

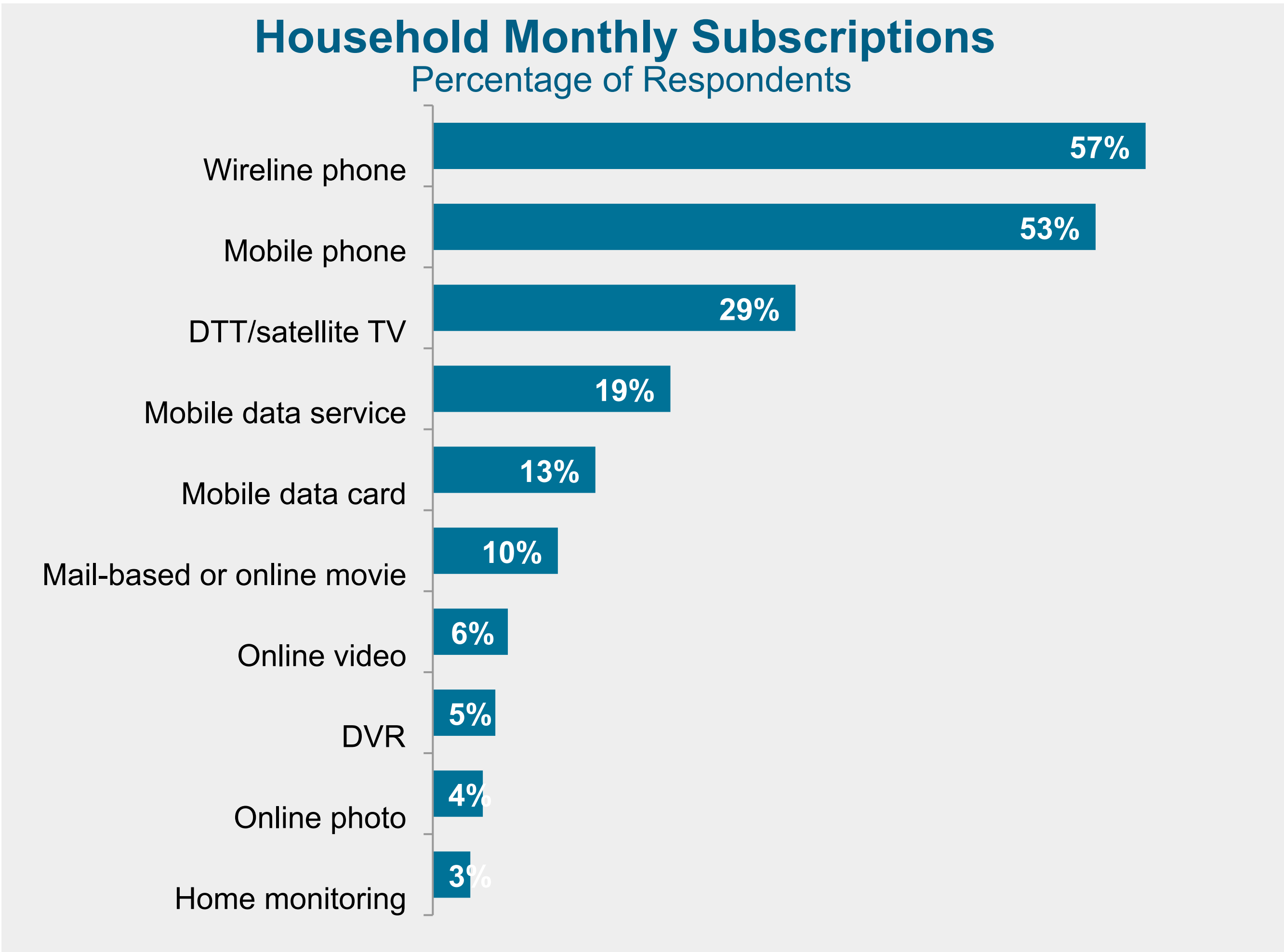
1 Technology Use

Technology Use: Key Takeaways

- Traditional landline is still the anchor telecommunications service
- Broadband consumers widely use portable devices: mobile phones are now standard and smartphones have hit the mass market
- Most mobile Internet and mobile video activity takes place in fixed locations, and they have different trends
- Mobile video users are no longer just early adopters; however, mobile video is still a “snacking” experience
- VoIP solutions, mobile replacement, and TV-over-Internet challenge landlines and pay TV, while mobile data suffers from expensive tariff plans

Source: Cisco IBSG Connected Life Market Watch, 2011

Traditional Landline Is Still the Anchor Telecommunications Service



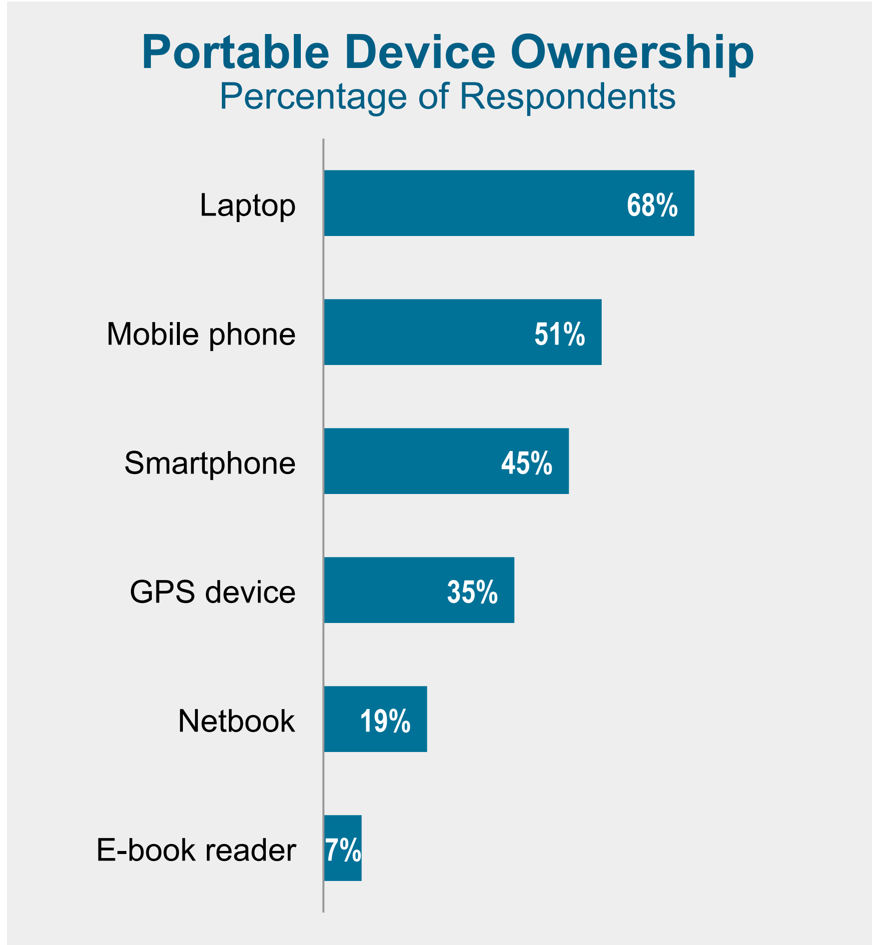
- Mobile data services increasingly relevant
- 57% of BB subscribers have wireline phone, vs. German average of 76%
- Online value-added services show limited adoption

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

Broadband Consumers Widely Use Portable Devices

- Average broadband consumer owns 2.4 electronic portable devices
- Average early adopter owns 3.3 electronic portable devices



Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

Sample of 503 BB Consumers Represents All Technology Segments

Early Adopters Are Younger, More Likely To Be Male, Currently Employed, and Have Higher Income than Other Respondents

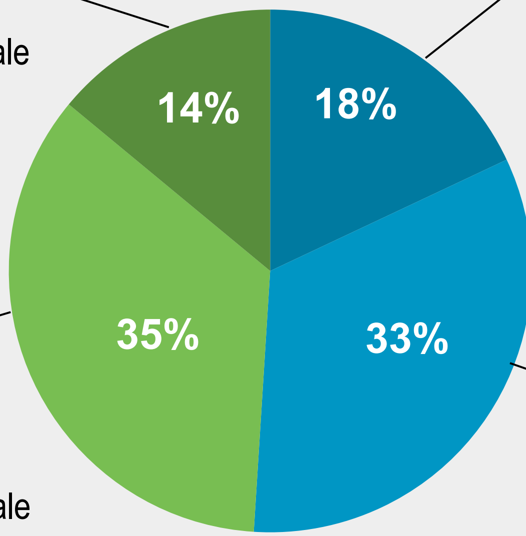
Average Across Base

Age:	42
Male / Female:	57% / 43%
Income:	€48K
Employed:	65%

Consumer Segmentation Based on Technology Profile

Laggard
52 years old (avg.)
48% male / 52% female
€35K HH income
51% employed

Early Adopter
35 years old (avg.)
69% male / 31% female
€64K HH income
83% employed



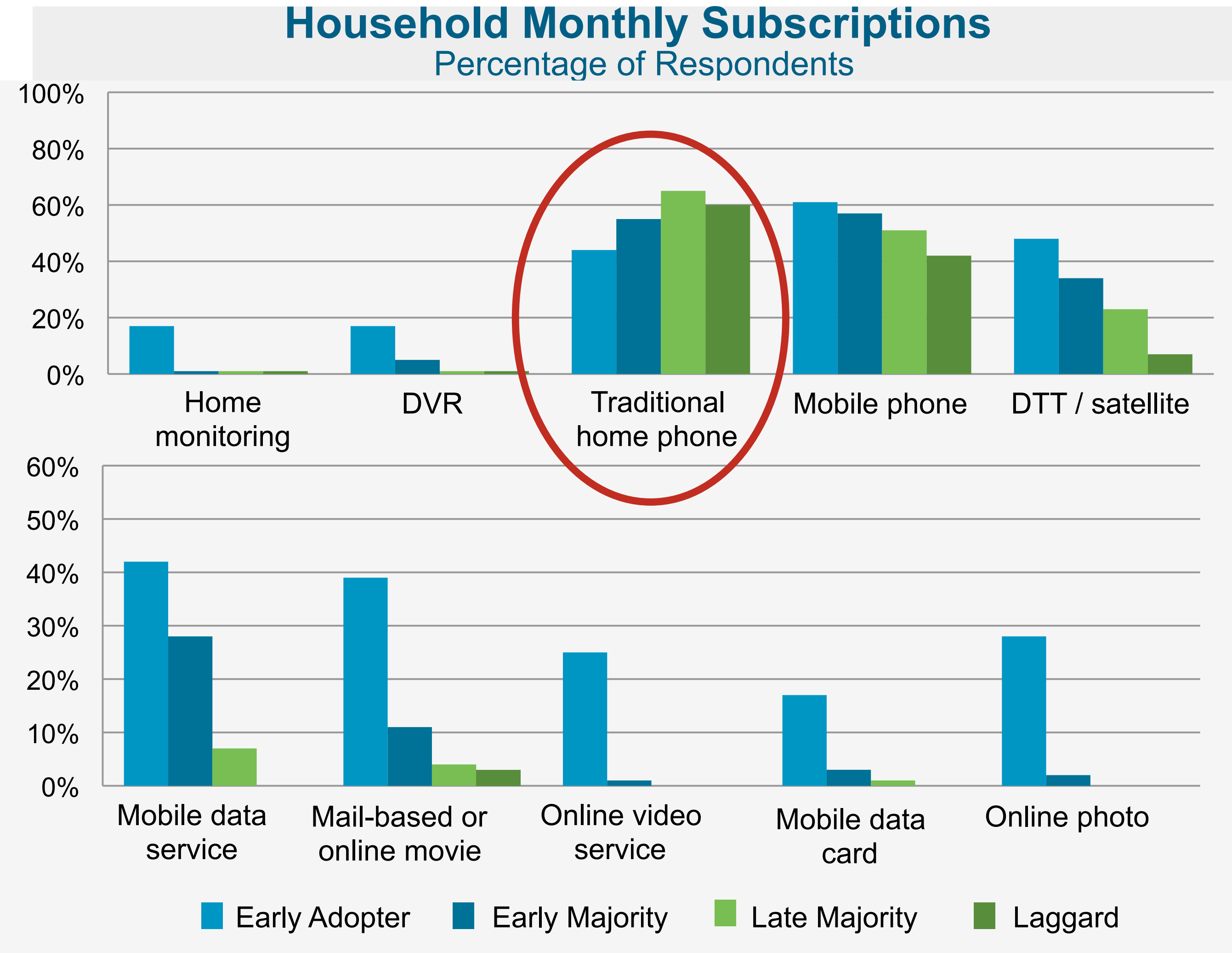
Late Majority
47 years old (avg.)
50% male / 50% female
€43K HH income
60% employed

Early Majority
41 years old (avg.)
61% male / 39% female
€50K HH income
67% employed

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

Service Adoption by Segment Provides Insight into Lifecycle Stage

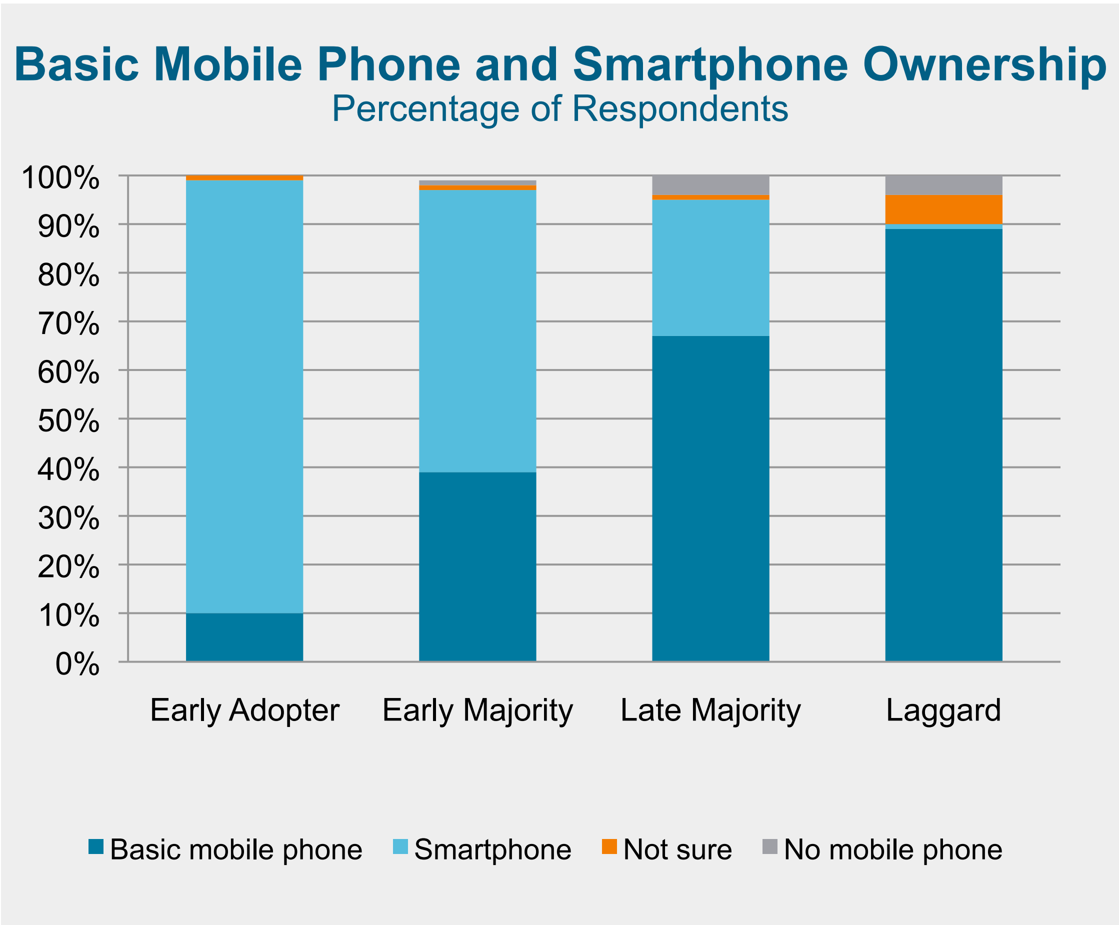


- Traditional home phone shows lower penetration among tech-savvy, indicating it is in decline
- Mobile data services have similar overall adoption rates
- Online services are still in early-adopter phase, at beginning of product lifecycle

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

Smartphones Soon To Become the Standard Mobile Phone

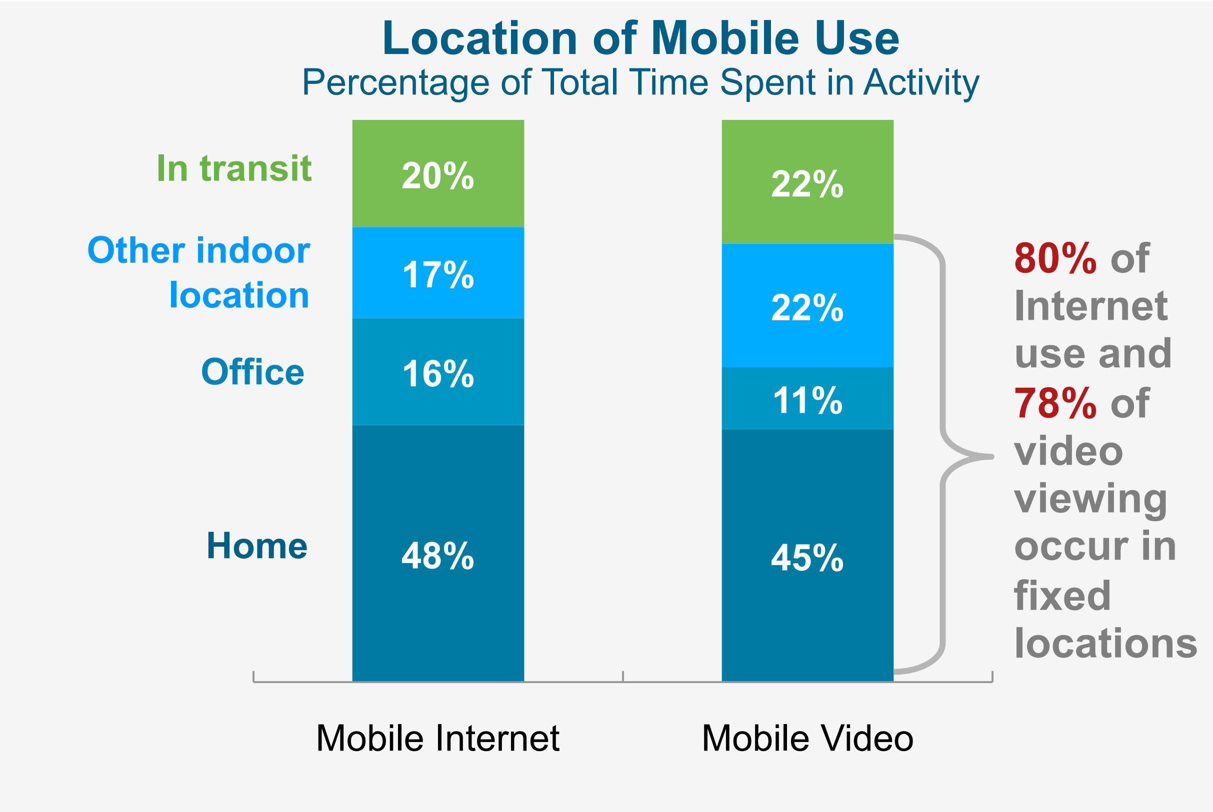


- Smartphones have moved beyond early adopters and early majority; they are starting to penetrate the late-majority and laggard segments

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

Most Mobile Internet & Mobile Video Activity Takes Place in Fixed Locations

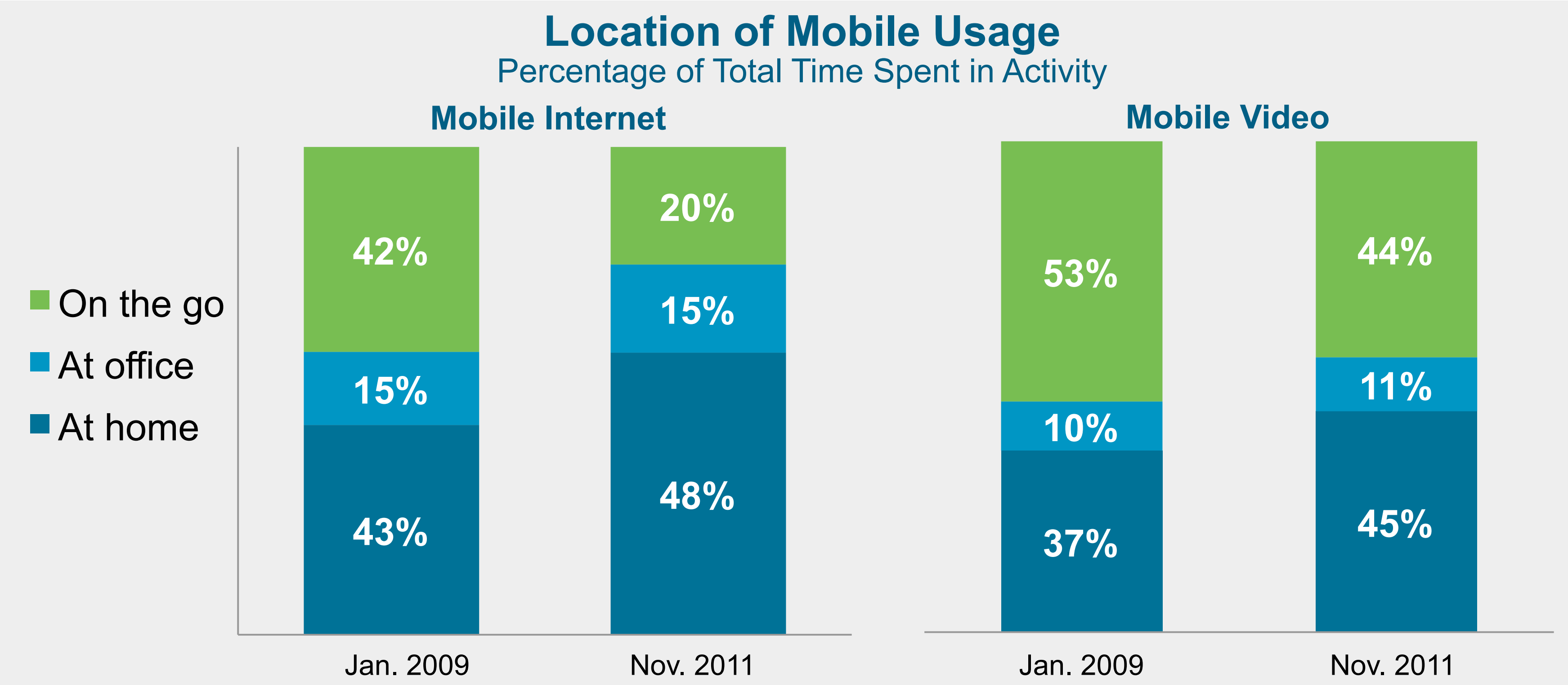


- About 80% of mobile video and mobile Internet use (via mobile device) is not mobile
- Hypothesis: Technological advances such as seamless Wi-Fi, LTE, and small-cell solutions will further increase the use of mobile data services across locations

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: Respondents engaged in activity

Mobile Internet & Mobile Video Have Different Trends at Home



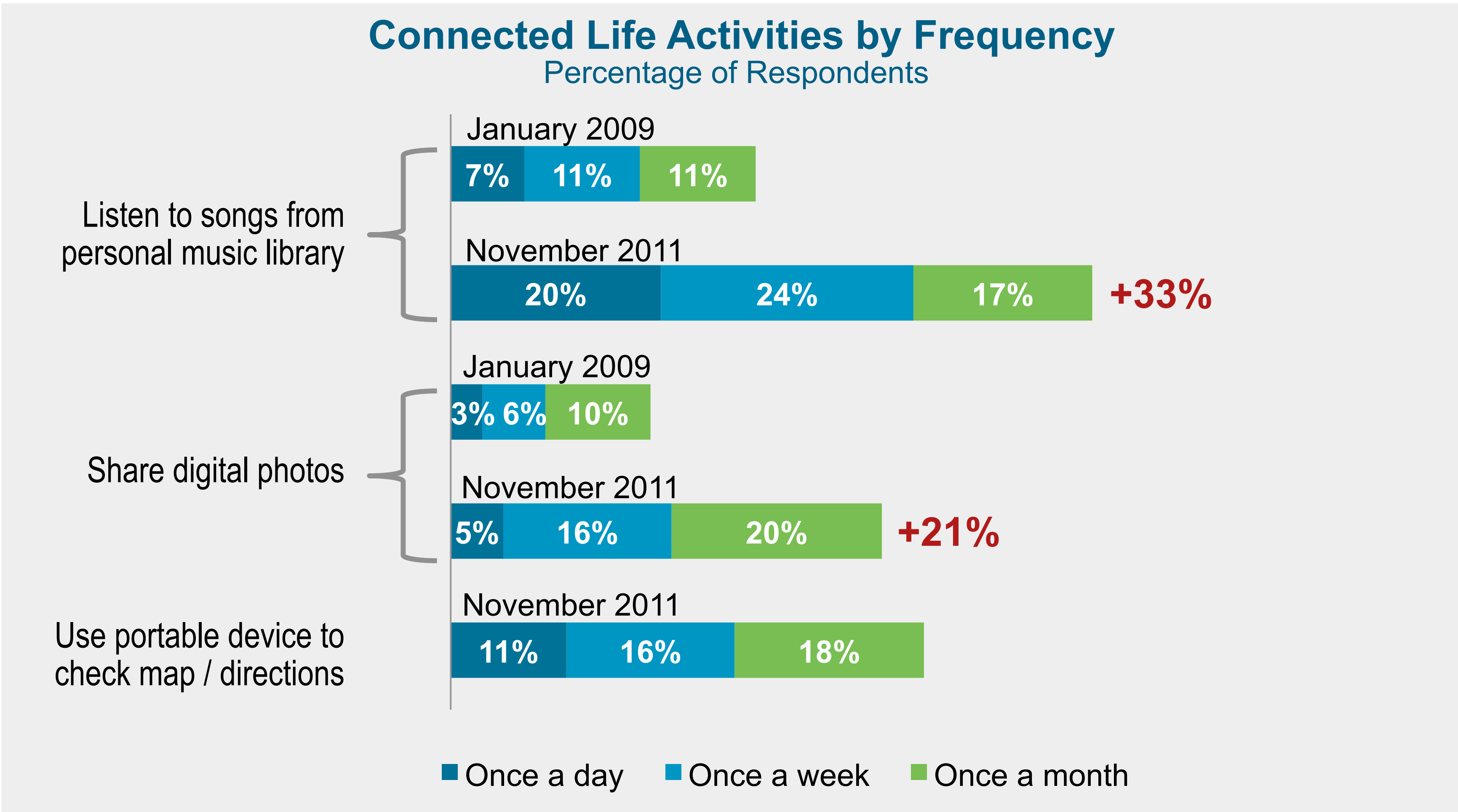
Mobile data usage (Internet and/or video):

- Decrease in mobile Internet usage at home
- Increase in mobile video usage at home vs. decrease in on-the-go mobile video usage

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: Respondents engaged in activity

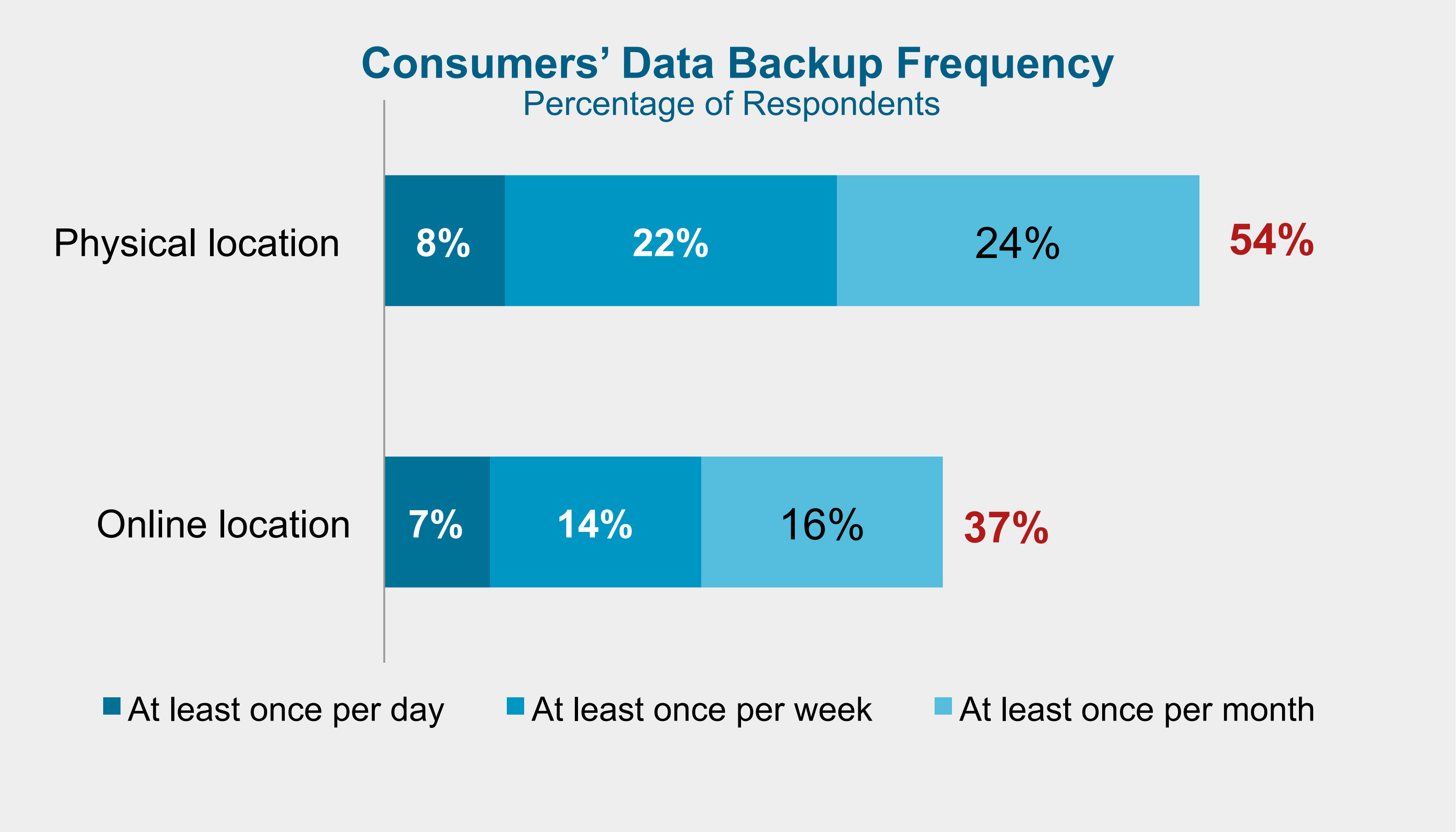
Consumers Show Significant Increase in Connected Life Activities



Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

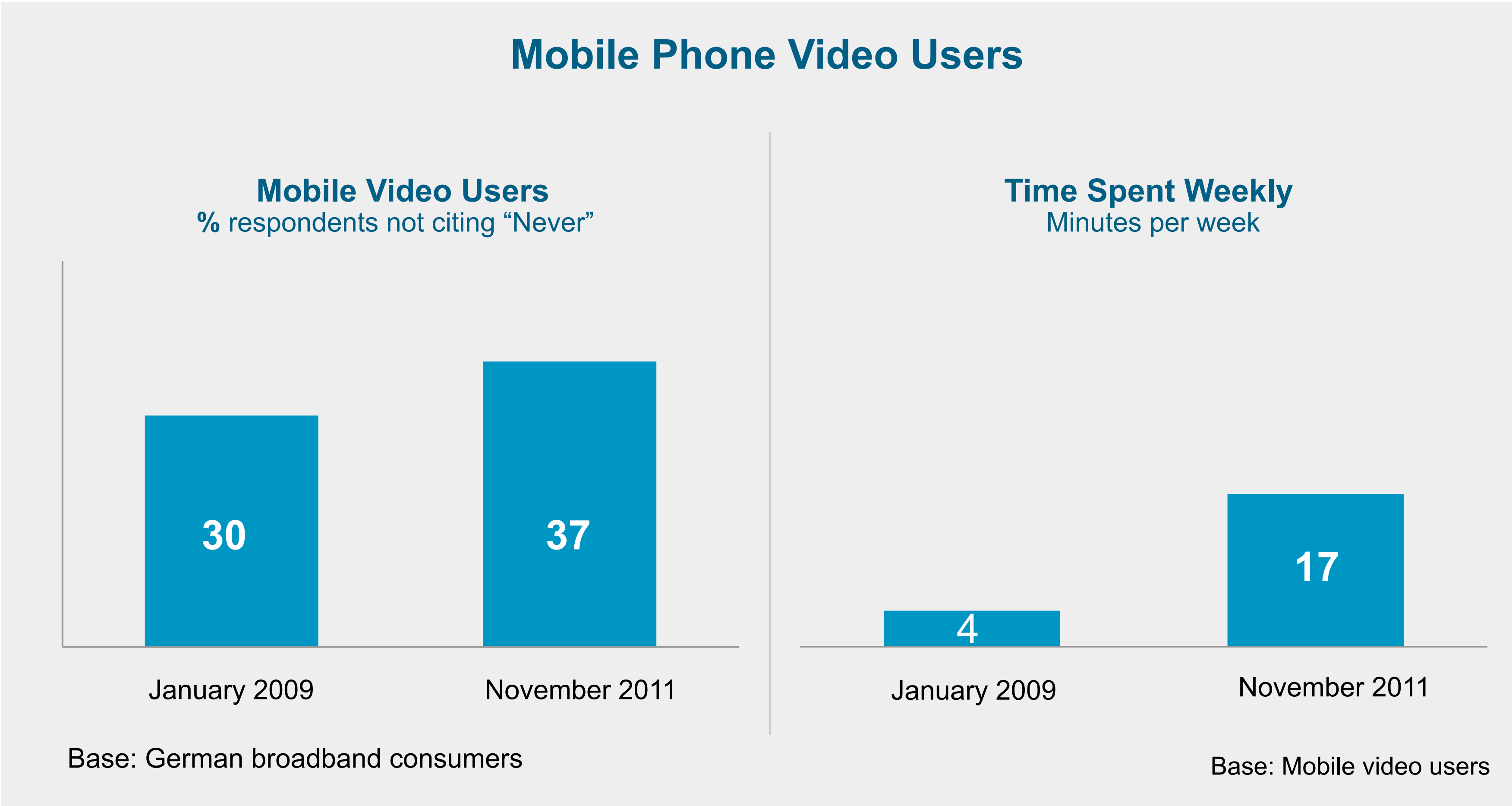
Not All Consumers Have a Diligent Practice for Data Protection



Source: Cisco IBSG Connected Life Market Watch, 2011

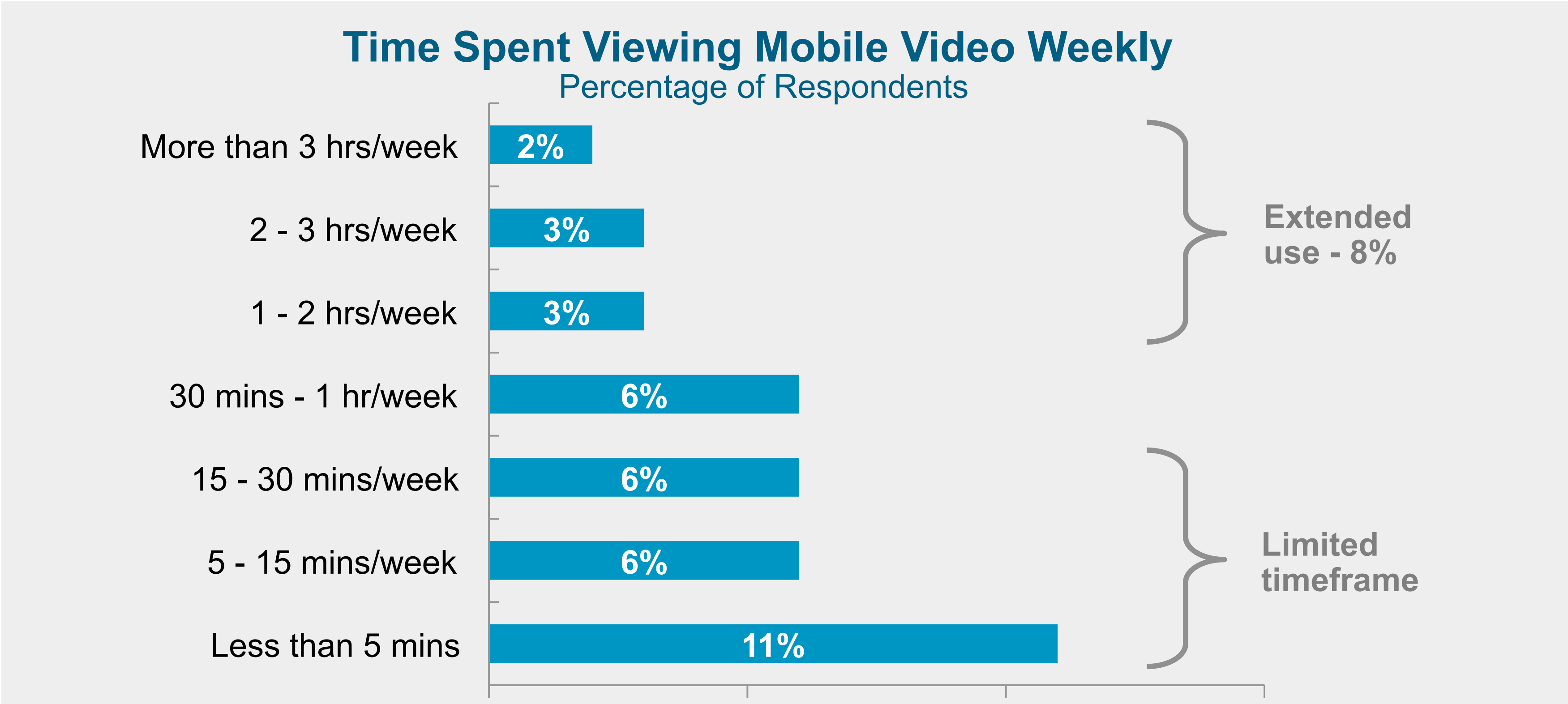
Base: German broadband consumers

Mobile Video Users Are Not Just Early Adopters: Usage Is Growing



Source: Cisco IBSG Connected Life Market Watch, 2011

Only 8% of Respondents Watch More than 1 Hour of Mobile Video per Week



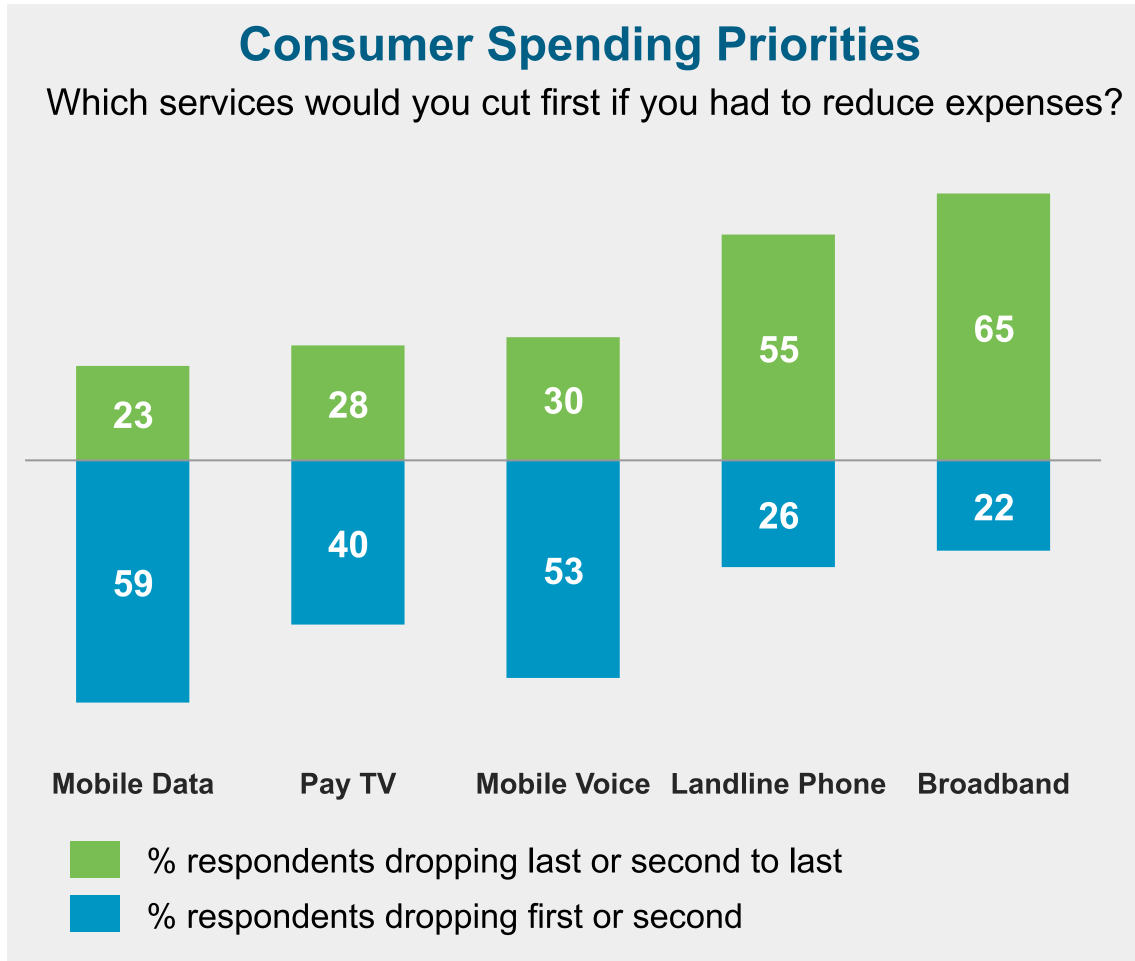
- On average, users spend 17 minutes per week watching videos on mobile phone
- But 63% of BB consumers **never** use the mobile phone to watch videos

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German mobile video users

Consumer Spending Priorities: Broadband Is Most Critical

- Broadband and wireline phone are top priorities for broadband consumers in Germany
- Mobile data suffers from expensive tariff plans and is expendable



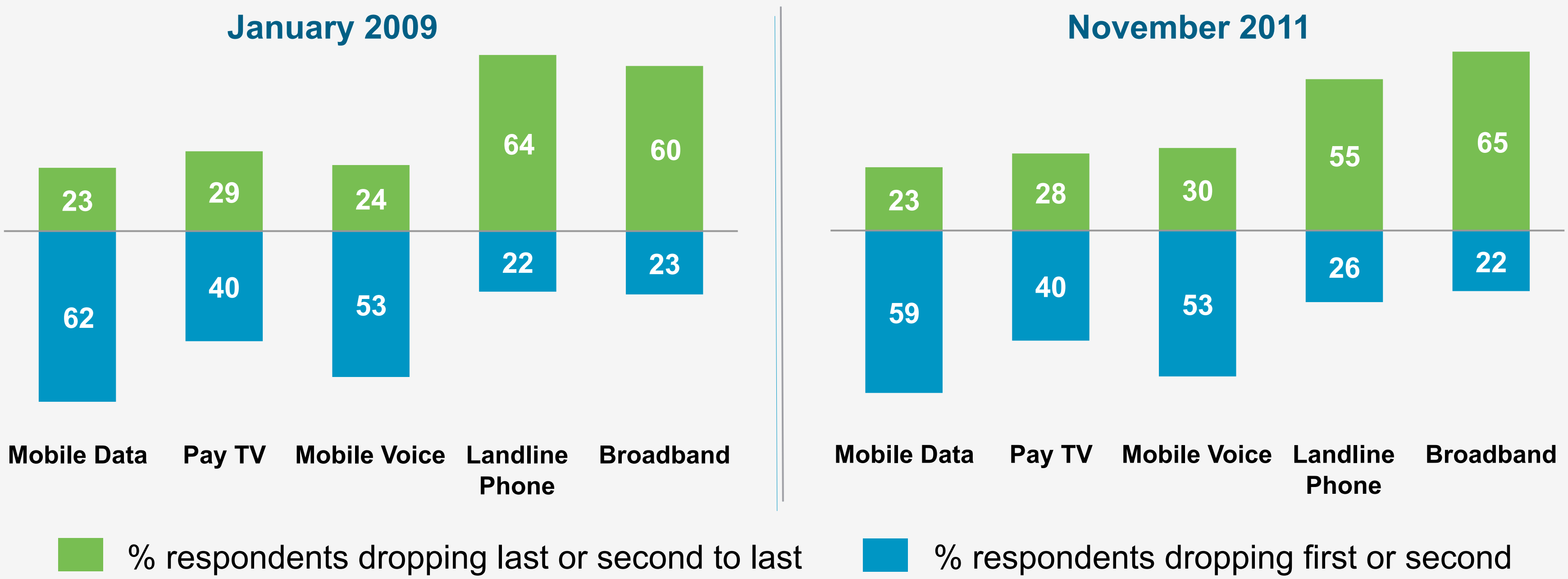
Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

Broadband Has Increased and Landline Phone Has Decreased in Importance

Consumer Spending Priorities over Time

Which services would you cut first if you had to reduce expenses?



- Broadband has increased in importance; landline phone has significantly decreased
- Mobile data and pay TV remain less important

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

2

Consumer Buying Behavior

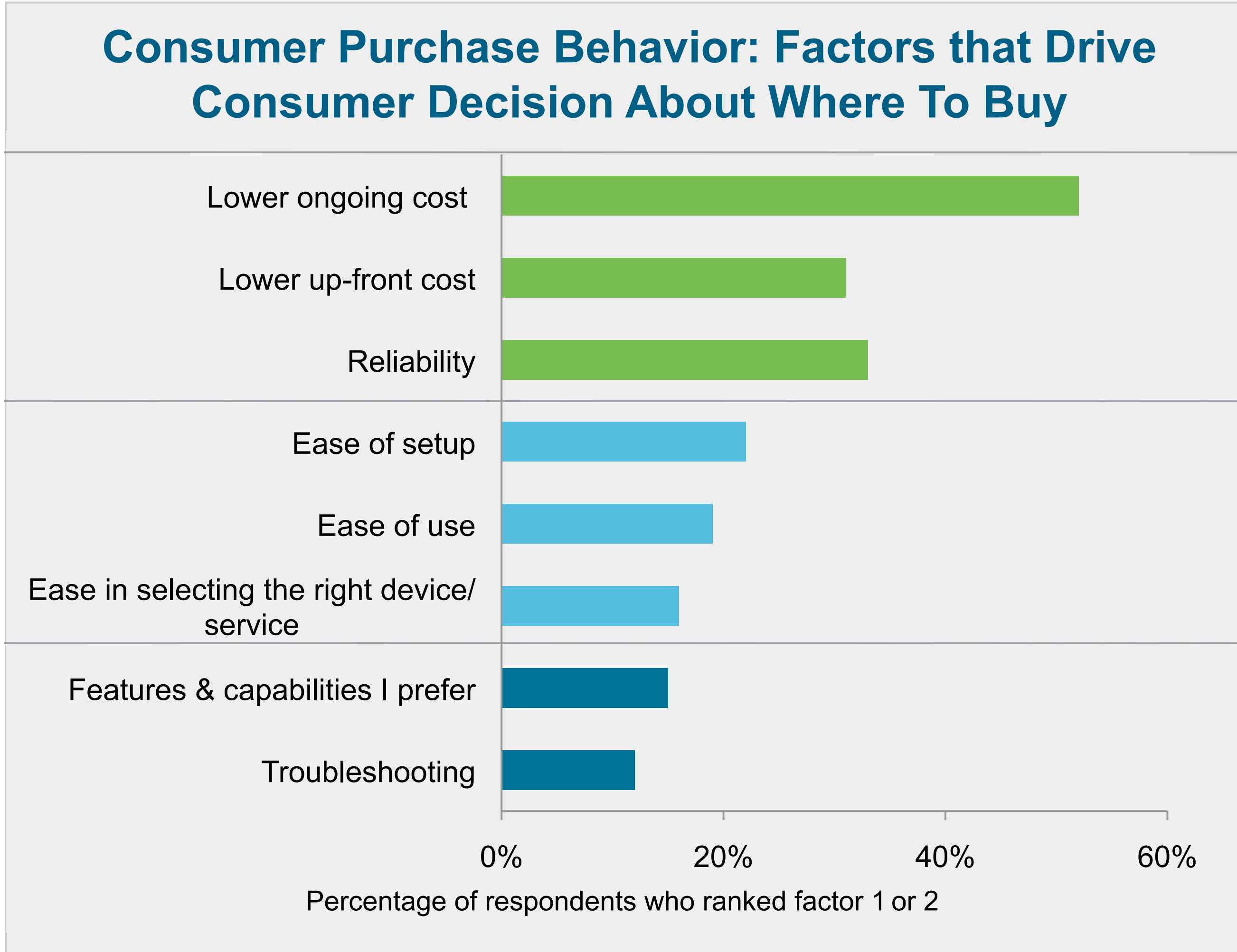
Factors Driving Where To Buy

Buying Behavior: Key Takeaways

- Cost and reliability are the most important factors in where to buy
- Ongoing cost concerns far outweigh concerns about up-front cost
- SPs are consumers' preferred provider for Internet-to-TV solutions
- Channel preference does not strongly influence buying decisions
- Purchase criteria varies somewhat by employment status and age group
- Early adopters have slightly different purchase criteria

Source: Cisco IBSG Connected Life Market Watch, 2011

Cost and Reliability Are the Most Important Factors in *Where To Buy*



Top considerations are cost and reliability

Time-saving factors are an important part of the evaluation

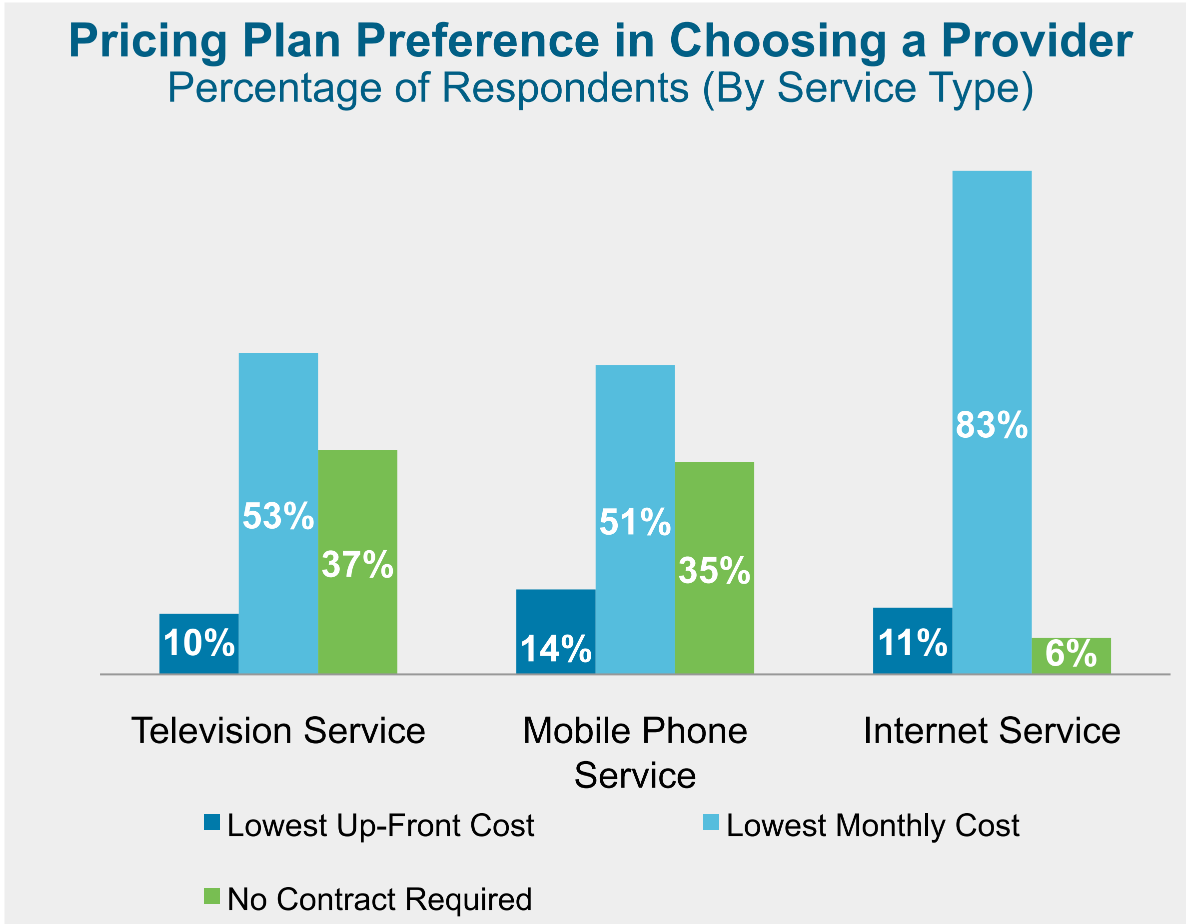
Features, support, and buying guidance do not play a major role in consumers' decision about where to buy

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

Ongoing Cost Concerns Far Outweigh Worries About Up-Front Cost

- When pricing factors are isolated, concern about monthly cost **far exceeds** worries about up-front cost in all services
- For television and mobile services, **contract concerns** are very important



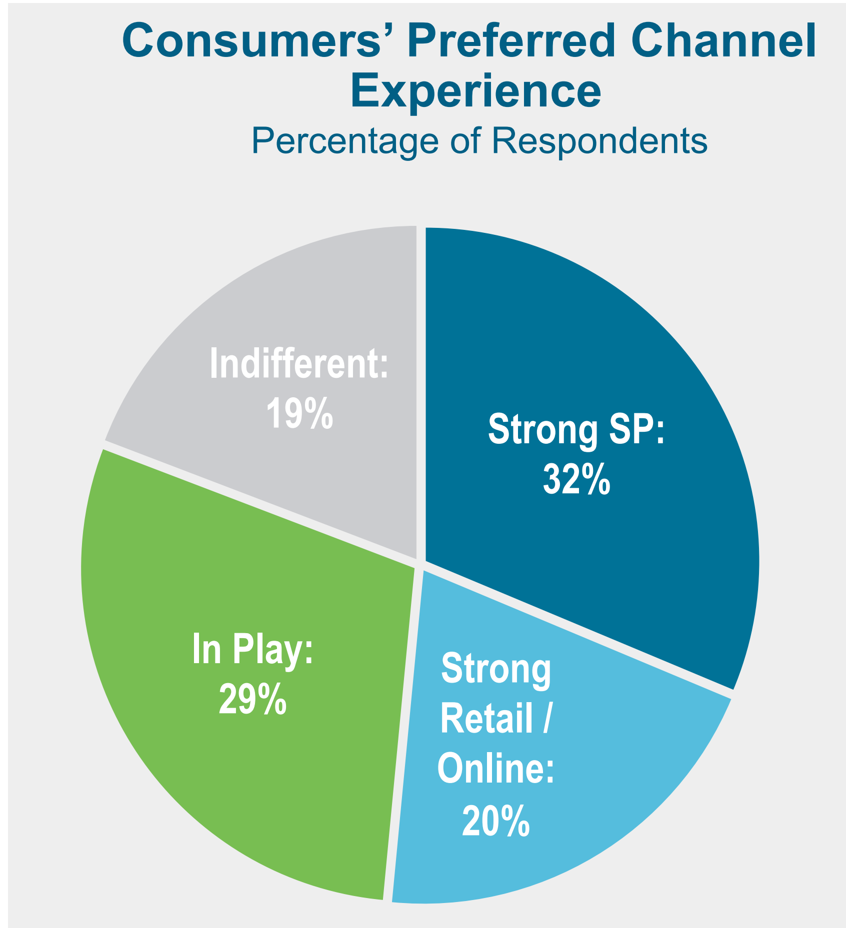
Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

SPs Are Consumers' Preferred Provider for Internet-to-TV Solutions

For 8 different factors in the purchase process—from up-front cost to ease of use—consumers were asked which channel option best met their needs:

- **Strong SP:** These consumers believe SP provides a better experience in ALL factors
- **Strong Retail / Online:** These consumers believe retail / online provides a better experience in ALL factors
- **In Play:** These consumers' channel preference shifts from factor to factor; SP prevails in 3 areas, Retail in 2, and the remaining areas are quite balanced
- **Indifferent**: These consumers selected "don't know" for all 8 factors, likely due to lack of interest in Internet-to-TV solutions

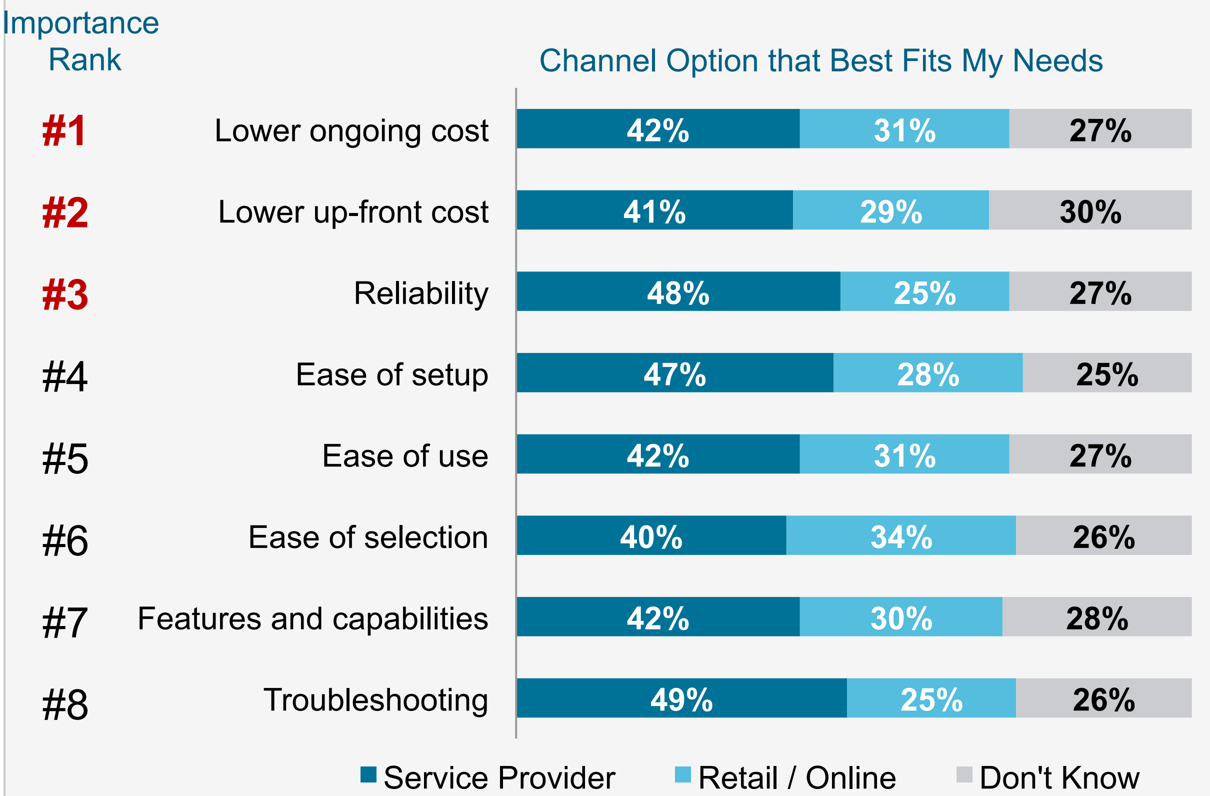


Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

SPs Have Clear Lead in Most Important Decision Criteria

Consumer Channel Preference: Individual Factors in Order of Importance



- Ongoing cost is the most important decision criterion for most consumers
- SPs also have commanding lead in troubleshooting, ease of setup, reliability

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

Employment Status Has Little Impact on Buying Criteria

Factors that Drive Decision of *Where to Buy,* by Employment Status

Average		Employed		Student		Retired	
#1	Ongoing Cost (52%)	#1	Ongoing Cost (52%)	#1	Ongoing Cost (53%)	#1	Ongoing Cost (48%)
#2	Reliability (33%)	#2	Up-front Cost (32%)	#2	Reliability (42%)	#2	Reliability (43%)
#3	Up-front Cost (31%)	#3	Reliability (31%)	#3	Up-front Cost (31%)	#3	Ease of Setup (32%)
#4	Ease of Setup (22%)	#4	Ease of Setup (21%)	#4	Ease of Use (20%)	#4	Up-front Cost (21%)
#5	Ease of Use (19%)	#5	Ease of Use (19%)	#5	Features (19%)	#5	Ease of Use (17%)
#6	Ease of Selection (16%)	#6	Ease of Selection (17%)	#6	Ease of Selection 15%)	#5	Ease of Selection (15%)
#7	Features (15%)	#7	Features (16%)	#7	Troubleshooting (12%)	#7	Troubleshooting (14%)
#8	Troubleshooting (12%)	#8	Troubleshooting (12%)	#7	Ease of Setup (12%)	#8	Features (10%)

Percentage of people who ranked each attribute as most important or second-most-important.

- Cost and reliability dominate decisions, independent of employment status
- Troubleshooting and features might offer a strong opportunity for improvement, through either better communication or new offerings

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

Purchase Decision Factors Do Not Vary Much by Age Group

Factors that Drive Decision of *Where to Buy,* by Age Group

Average		Age 30-39		Age 40-59		Age 60+	
#1	Ongoing Cost (52%)	#1	Ongoing Cost (50%)	#1	Ongoing Cost (50%)	#1	Ongoing Cost (53%)
#2	Reliability (33%)	#2	Reliability (34%)	#2	Up-front Cost (32%)	#2	Reliability (36%)
#3	Up-front Cost (31%)	#3	Up-front Cost (29%)	#3	Reliability (27%)	#3	Ease of Setup (29%)
#4	Ease of Setup (22%)	#4	Ease of Use (24%)	#4	Ease of Setup (23%)	#4	Ease of Use (22%)
#5	Ease of Use (19%)	#5	Ease of Setup (21%)	#5	Ease of Selection (19%)	#5	Up-front Cost (21%)
#6	Ease of Selection (16%)	#6	Ease of Selection (19%)	#6	Ease of Use (18%)	#5	Ease of Selection (21%)
#7	Features (15%)	#7	Troubleshooting (15%)	#6	Features (18%)	#7	Troubleshooting (12%)
#8	Troubleshooting (12%)	#8	Features (9%)	#8	Troubleshooting (12%)	#8	Features (6%)

Percentage of people who ranked each attribute as most important or second-most-important.

- For **people 60 and older,** ease of setup and ease of use are greater concerns than up-front cost
- Cost and reliability are the most relevant factors for all age groups

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

Early Adopters Have Slightly Different Purchase Criteria

Factors that Drive Decision of *Where to Buy* for Early Adopters

Average		Early Adopter	
#1	Ongoing Cost (52%)	#1	Ongoing Cost (42%)
#2	Reliability (33%)	#2	Reliability (35%)
#3	Up-front Cost (31%)	#3	Up-front Cost (31%)
#4	Ease of Setup (22%)	#4	Ease of Selection (19%)
#5	Ease of Use (19%)	#5	Features (19%)
#6	Ease of Selection (16%)	#5	Ease of Setup (19%)
#7	Features (15%)	#7	Ease of Use (18%)
#8	Troubleshooting (12%)	#8	Troubleshooting (17%)

Percentage of people who ranked each attribute as most important or second-most-important.

- **Early adopters** are more concerned with features and reliability
- Purchase criteria for the other technology segments — early majority, late majority, and laggards — closely follow those of the average consumer

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

Channel Preference Does Not Strongly Influence Buying Decisions

Factors that Drive Decision of *Where to Buy* by Channel Preference

	Total	**SP** Believe SP provides a better experience	**Retail** Believe retail provides a better experience	**In Play** Shifts channel preference from factor to factor	**Indifferent** Lack of interest
#1	Ongoing Cost (52%)	Ongoing Cost (50%)	Ongoing Cost (49%)	Ongoing Cost (49%)	Ongoing Cost (61%)
#2	Reliability (33%)	Reliability (33%)	Up-front Cost (34%)	Reliability (35%)	Up-front Cost (28%)
#3	Up-front Cost (31%)	Up-front Cost (31%)	Reliability (34%)	Up-front Cost (29%)	Reliability (28%)
#4	Ease of Setup (22%)	Ease of Setup (24%)	Ease of Selection (24%)	Ease of Setup (22%)	Ease of Use (22%)
#5	Ease of Use (19%)	Ease of Use (22%)	Ease of Setup (22%)	Ease of Use (19%)	Ease of Setup (21%)
#6	Ease of Selection (16%)	Features (16%)	Features (16%)	Features (18%)	Ease of Selection (15%)
#7	Features (15%)	Ease of Selection (13%)	Troubleshooting (12%)	Ease of Selection (17%)	Troubleshooting (12%)
#8	Troubleshooting (12%)	Troubleshooting (11%)	Ease of Use (11%)	Troubleshooting (13%)	Features (10%)

Attributes rated as most important or second-most-important.

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

3 Pricing

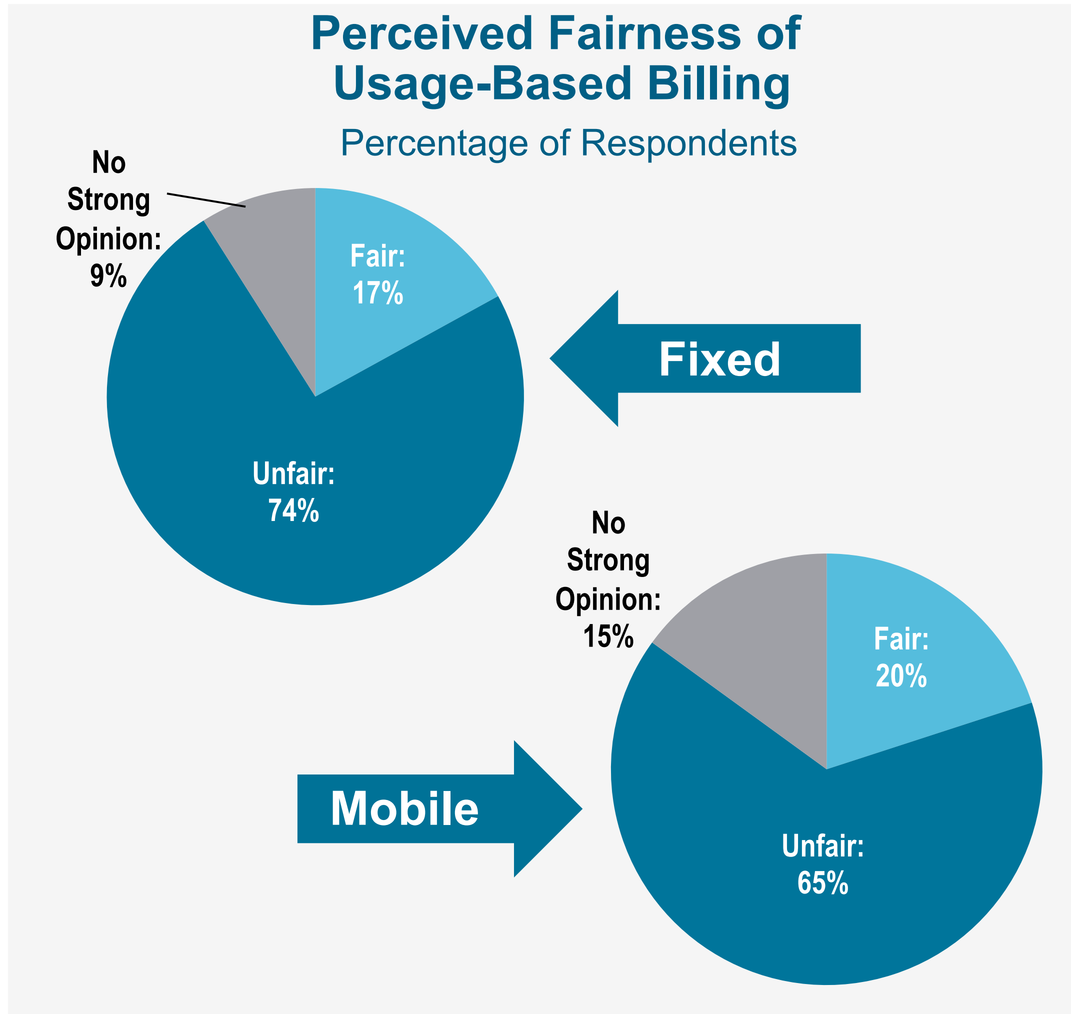
Pricing: Key Takeaways

- Consumers are most comfortable with flat rates
- Consumers feel it is unfair to pay for broadband services based on use
- Only early adopters are more likely to view both wireline and mobile usage-based billing as fair

Source: Cisco IBSG Connected Life Market Watch, 2011

Consumers Feel It Is Unfair To Pay for Broadband Services Based on Use

- **Flat pricing** turns out to be a typical **comfort zone** for consumers—even more for fixed than mobile usage
- SPs have adopted tiered mobile broadband pricing for years

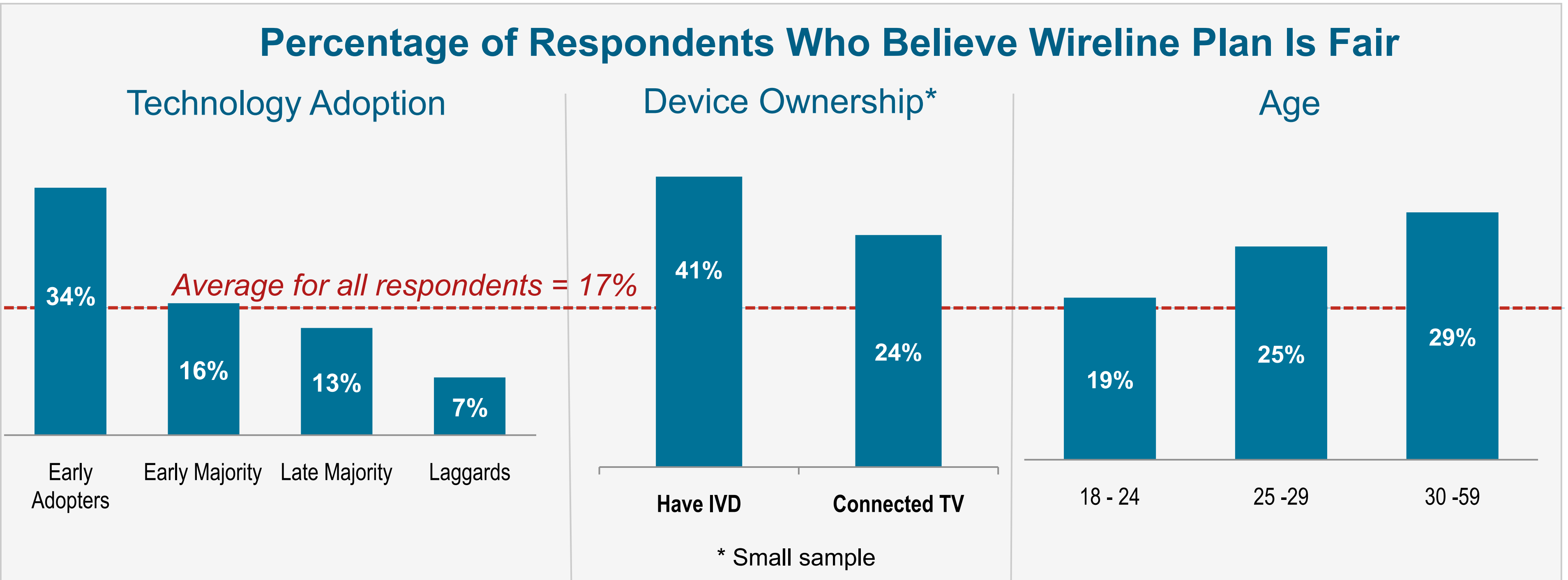


Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

Early Adopters Are More Likely To View Wireline Usage-Based Billing as Fair

Perceived Fairness of Wireline Usage-Based Billing, by Customer Segment



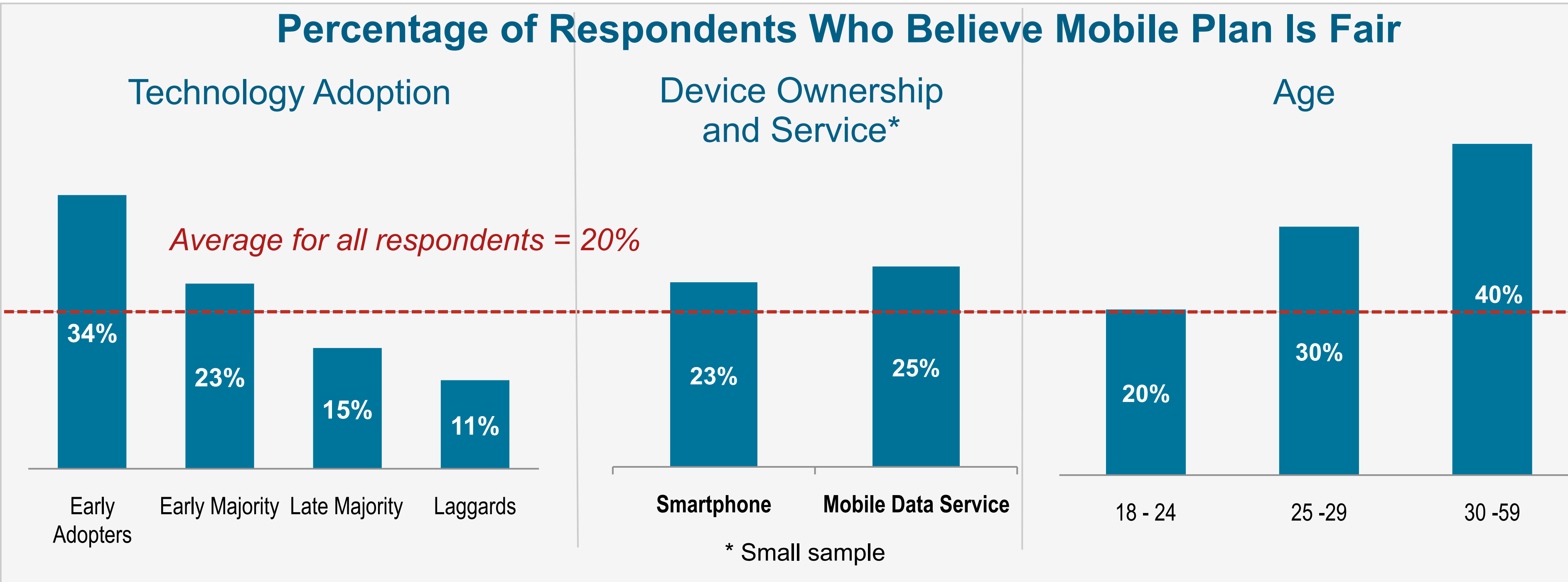
- Early adopters and connected TV or Internet video device (IVD) owners are **more likely** to consider usage-based billing fair
- Younger consumers are **less likely** to consider usage-based billing fair

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: Respondents believing usage-based billing is fair

Early Adopters Are More Likely To View Mobile Usage-Based Billing as Fair

Perceived Fairness of Mobile Usage-based Billing, by Customer Segment



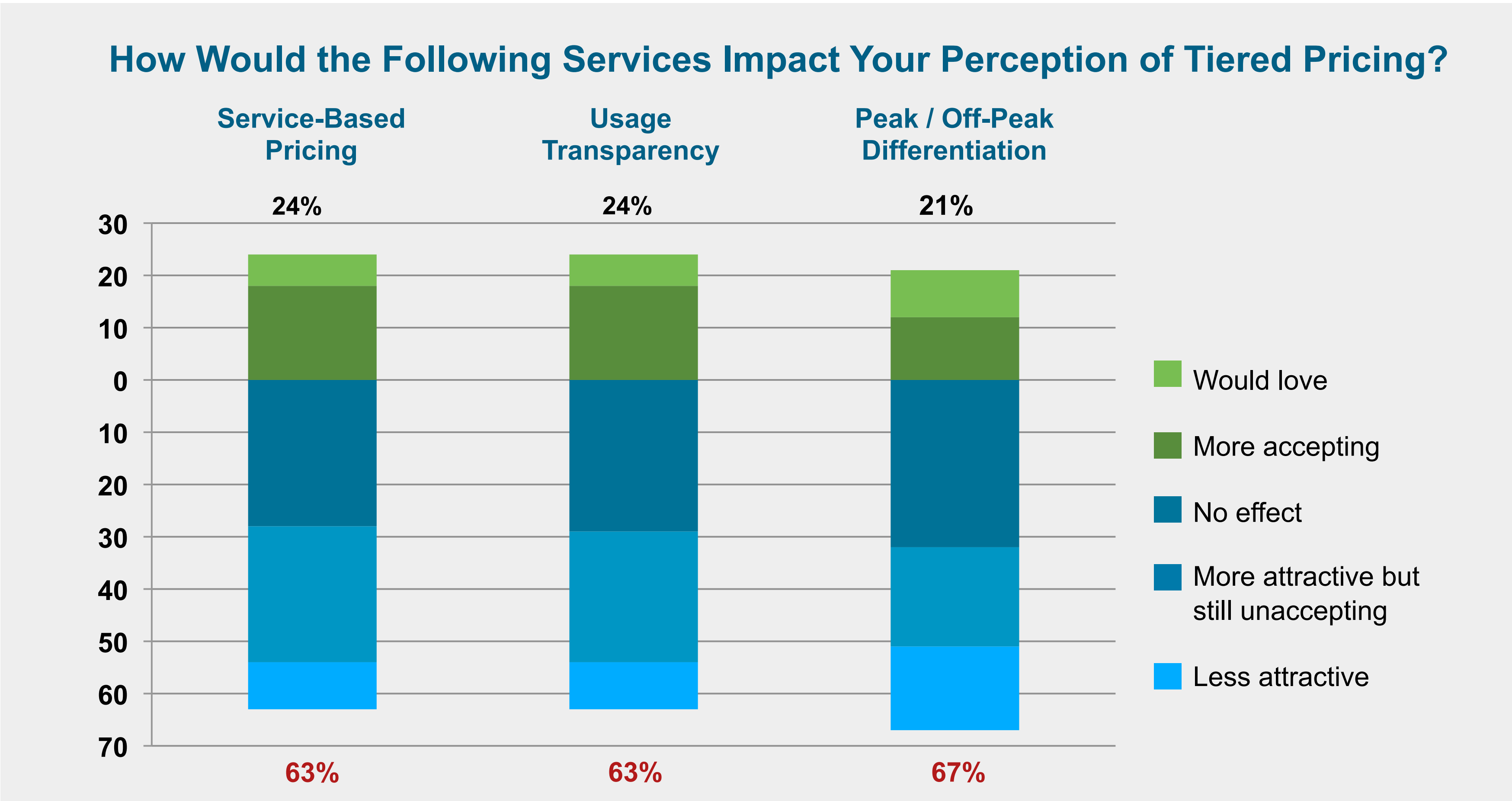
- Early adopters and smartphone users are **more likely** to consider mobile usage-based billing fair
- Consumers aged 30-59 are **more likely** to consider mobile usage-based billing fair

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: Respondents believing usage-based billing is fair

SP Strategies To Drive Tiered Pricing Are Underwhelming

Consumers Hate the Move Away from Flat Rates



Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers (not including "don't know")

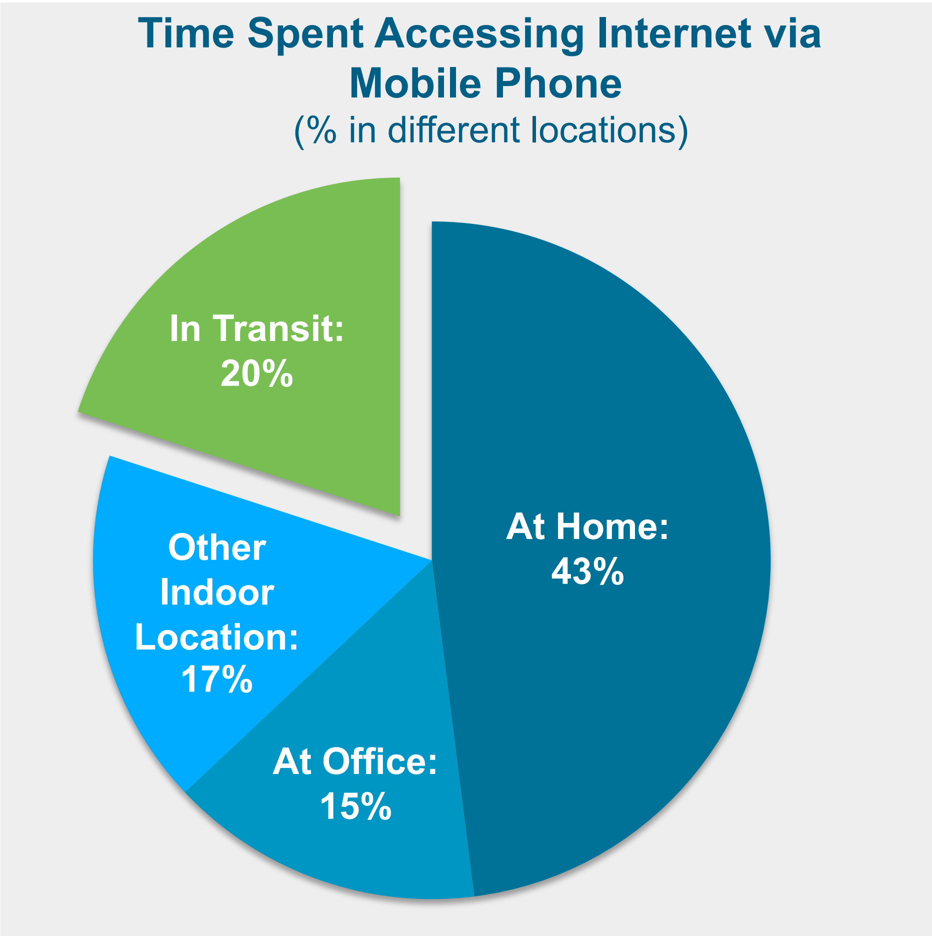
4 Service Provider Wi-Fi

Service Provider Wi-Fi: Key Takeaways

- Mobile users are more *nomadic* than truly mobile in the ways they access mobile data and Internet video
- Most mobile Internet and mobile video activity takes place in fixed locations, but we notice different trends at home
- Mobile video is still a “snacking” experience
- Wi-Fi is becoming pervasive among smartphone users; they would like to take better advantage of Wi-Fi for coverage and cheaper service
- Users are willing to compromise on mobile network benefits in favor of lower cost and higher performance of Wi-Fi
- Usage of Wi-Fi instead of cellular network is more common for heavy data usage

Source: Cisco IBSG Connected Life Market Watch, 2011

Mobile Data Access Is More Nomadic than Truly Mobile

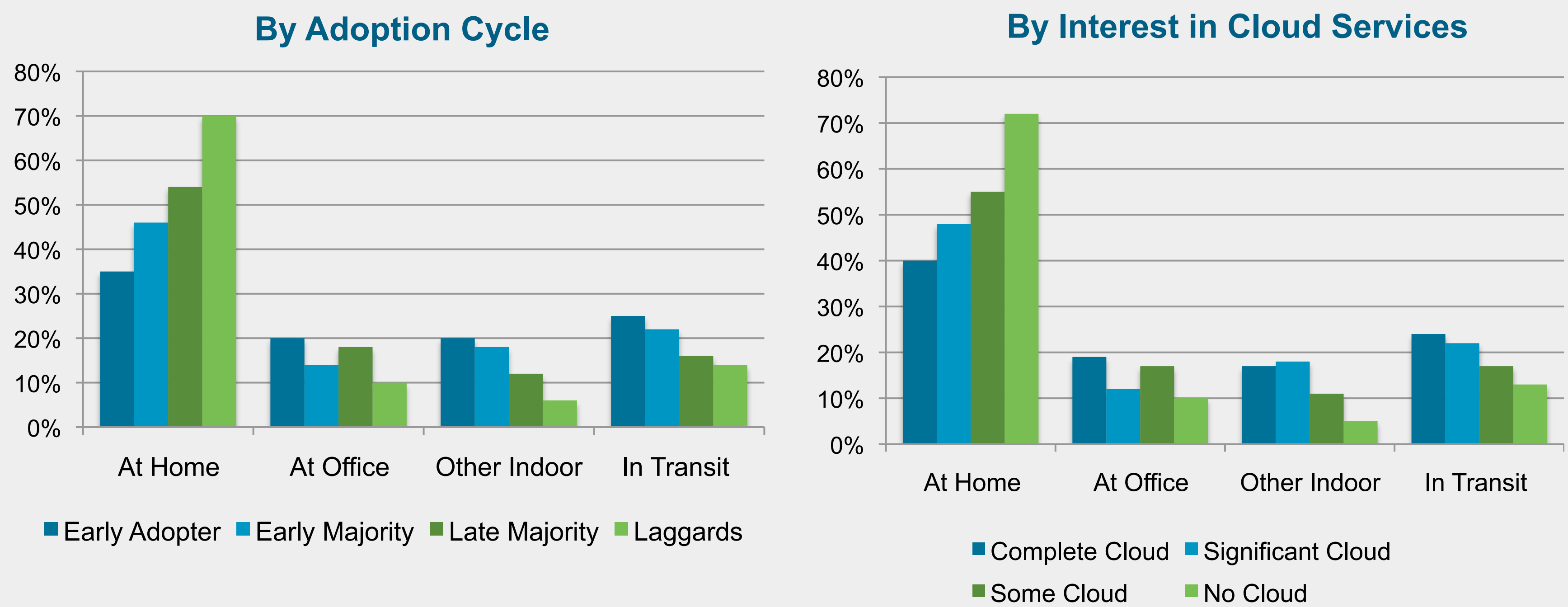


- 43% of broadband consumers do NOT access mobile data via mobile phone
- Hypothesis: Technological advancements such as seamless Wi-Fi, LTE, and small cells will further increase the use of mobile data services across locations

Source: Cisco IBSG Connected Life Market Watch, 2011 Base: German respondents who access mobile data (n=226)

Nomadic Attitude About **Mobile Internet** Varies by Technology Segment . . .

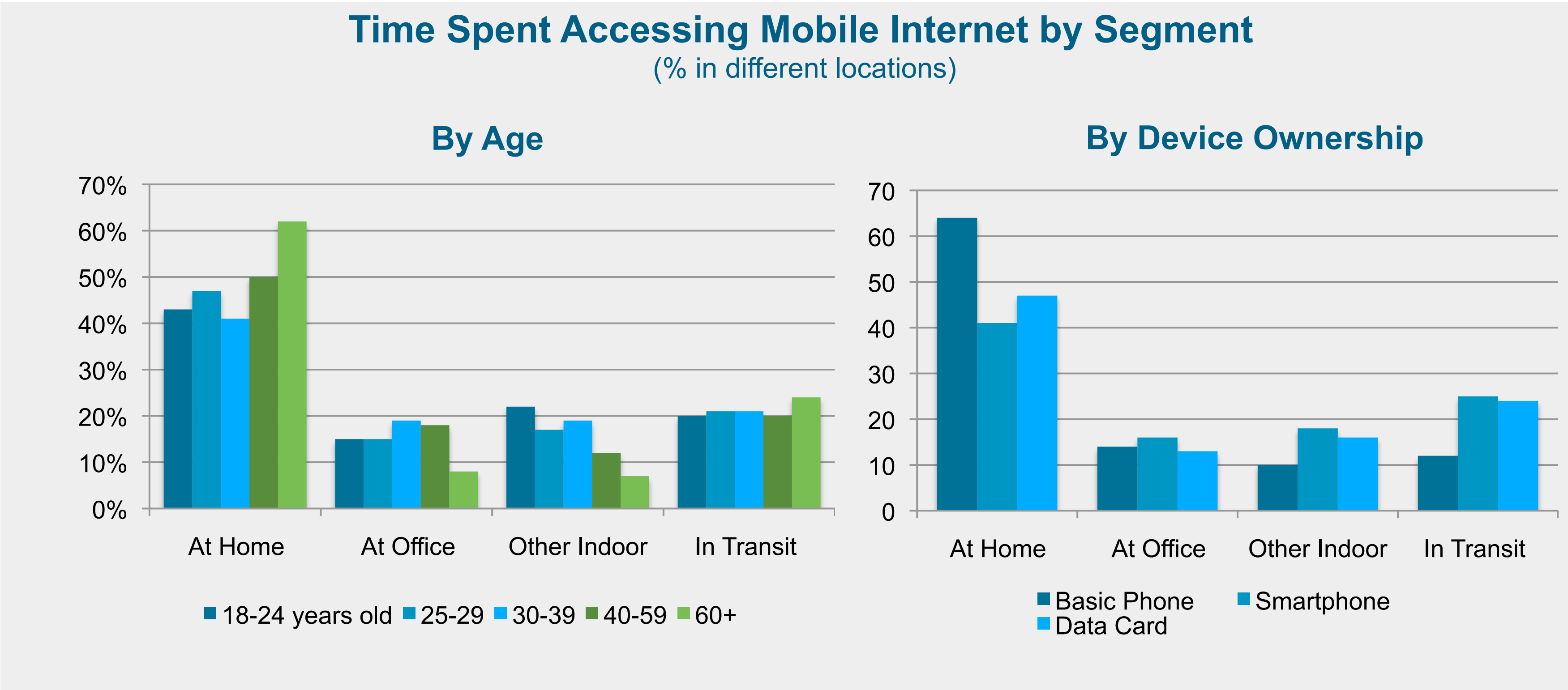
Time Spent Accessing Mobile Internet by Segment
(% in different locations)



Consider: 12% of Early Adopters, 32% of Early Majority, 59% of Late Majority, and 75% of Laggards do not access mobile Internet via mobile phones

Source: Cisco IBSG Connected Life Market Watch, 2011 Base: German respondents who access mobile data (n=226)

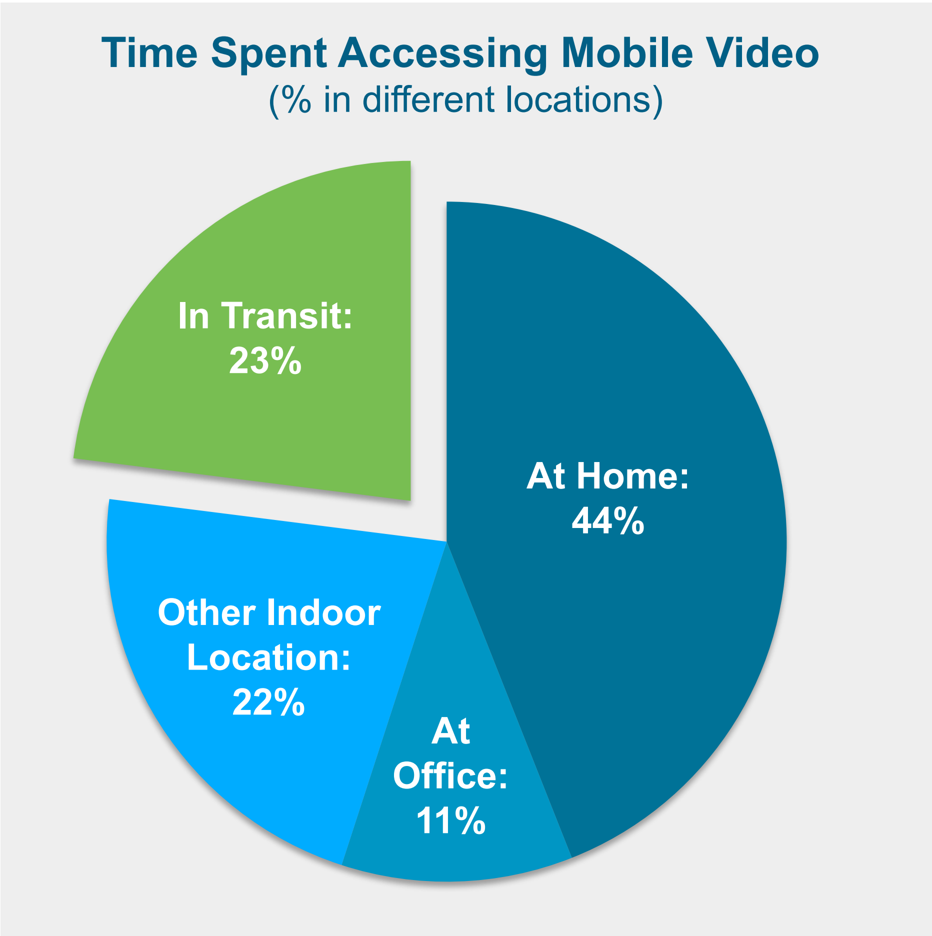
. . .And by Age and Device Adoption



Consider: 66% of basic mobile phone users do not access mobile Internet via mobile phones

Source: Cisco IBSG Connected Life Market Watch, 2011 Base: German respondents who access mobile data (n=226)

About Half of Broadband Consumers Access Mobile Video at Home

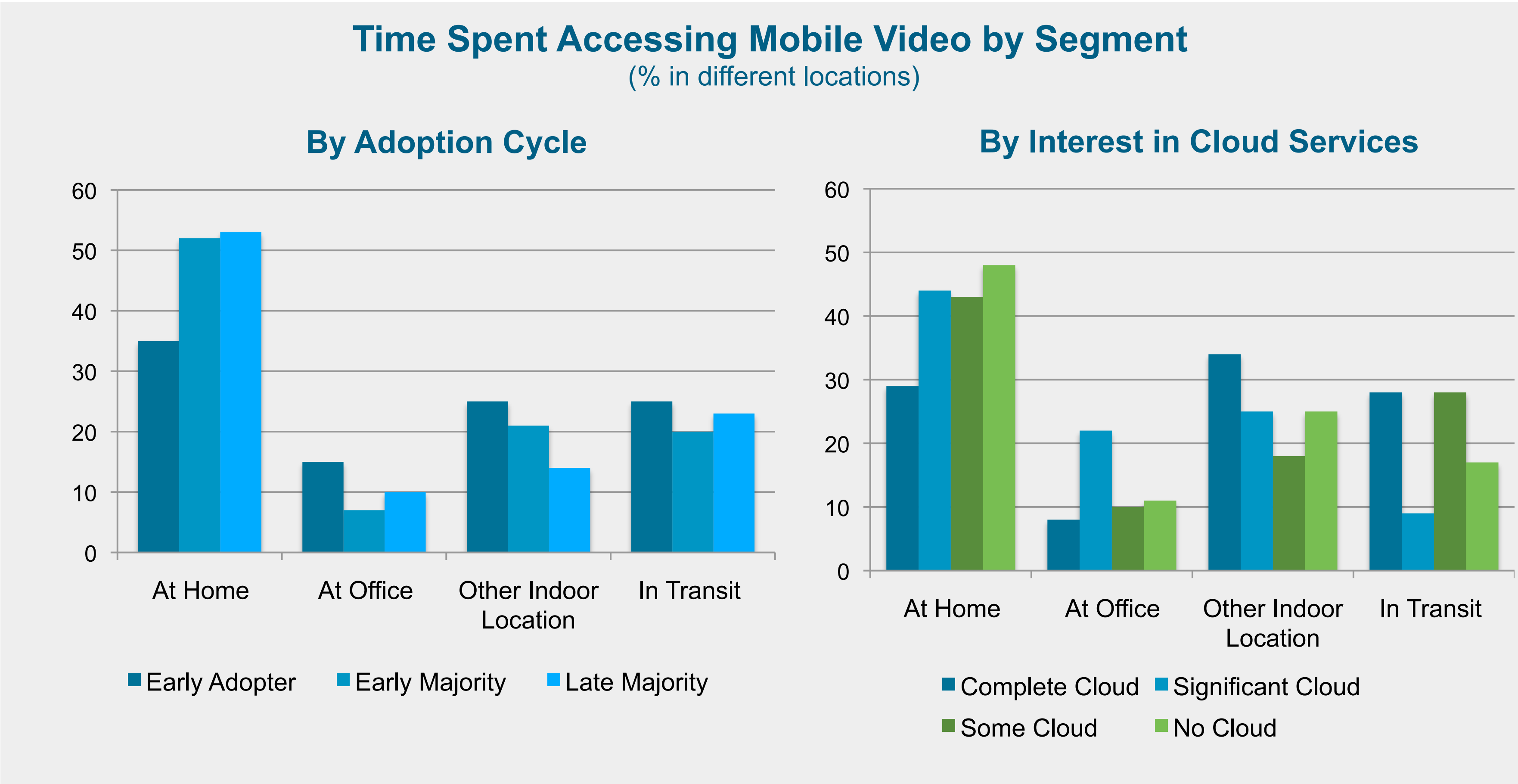


- The nomadic attitude is even clearer among German broadband consumers accessing mobile video services

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German respondents who use the service (n=226)

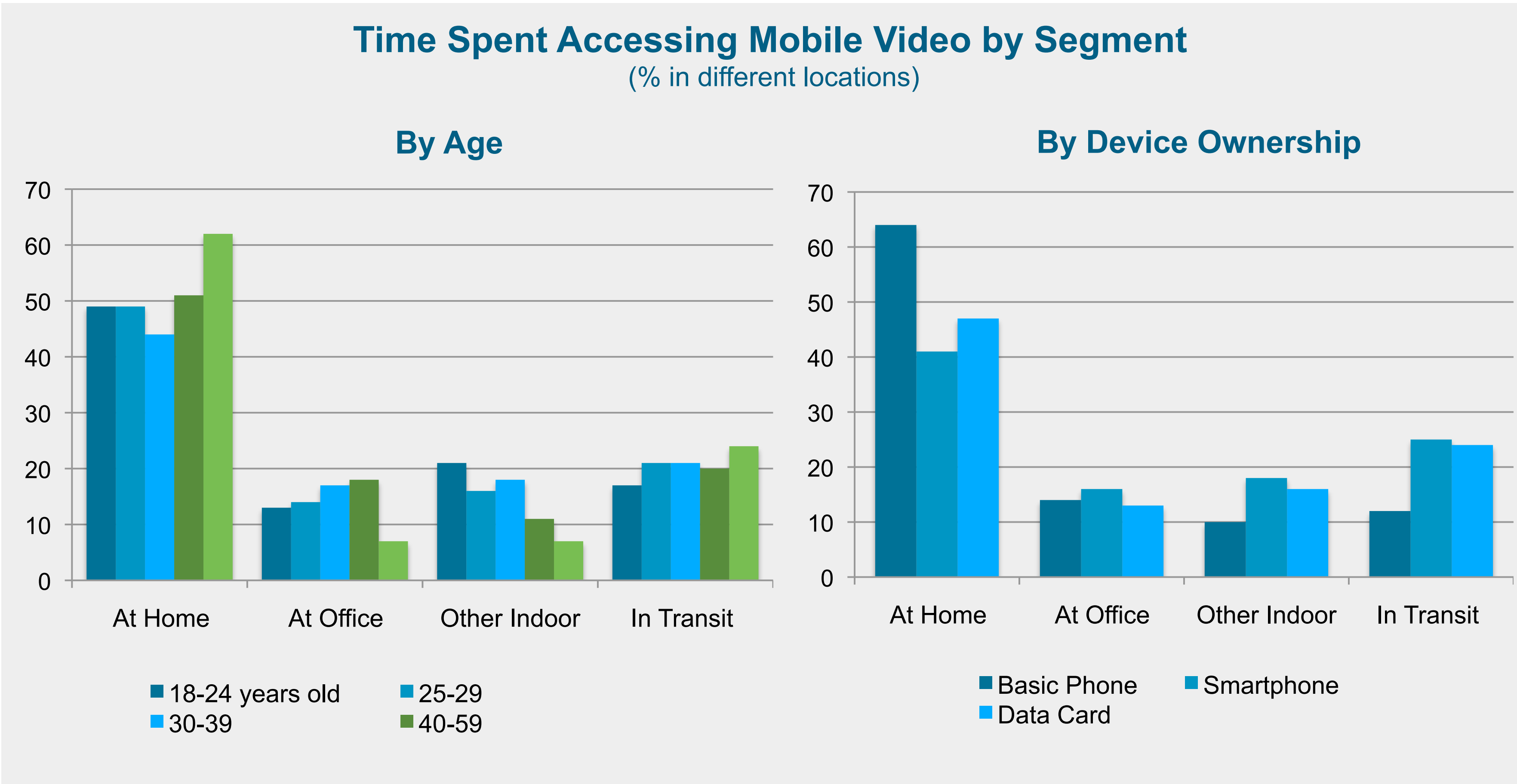
Nomadic Attitude about Mobile Video Varies by Technology Segment . . .



Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German respondents who use the service (n=180)

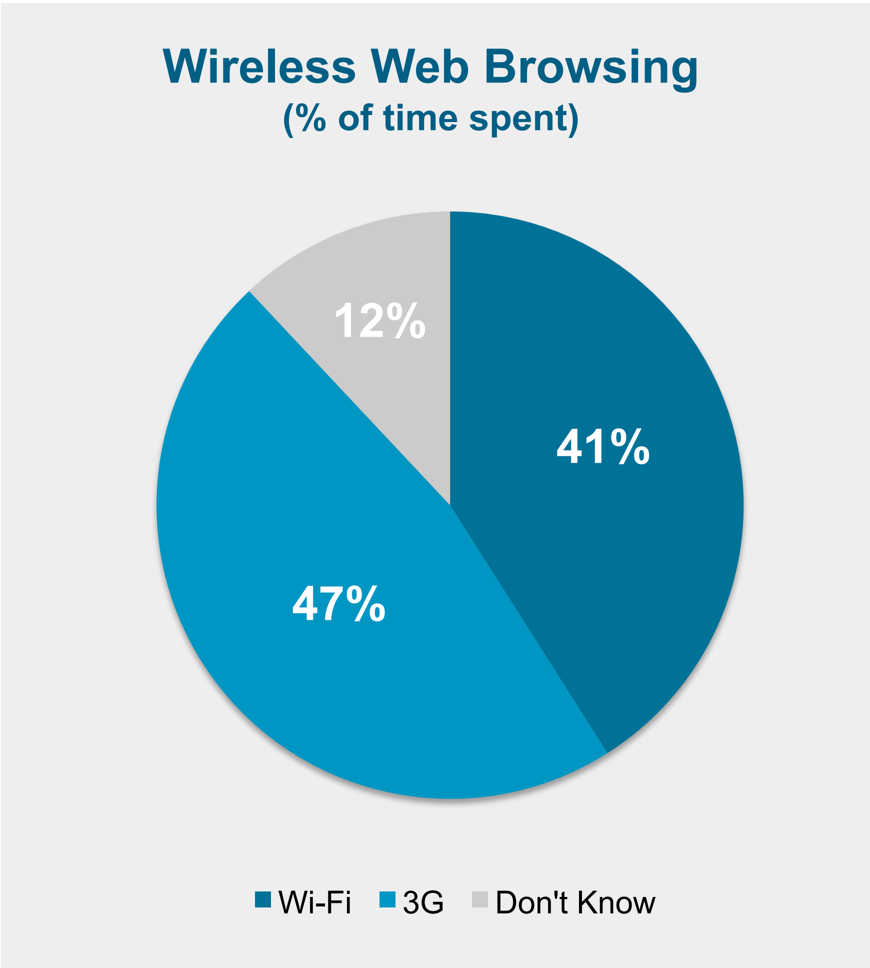
. . .And also Varies by Age and Device Adoption



Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German respondents who use the service (n=180)

High Acceptance of Wi-Fi for Wireless Web Browsing

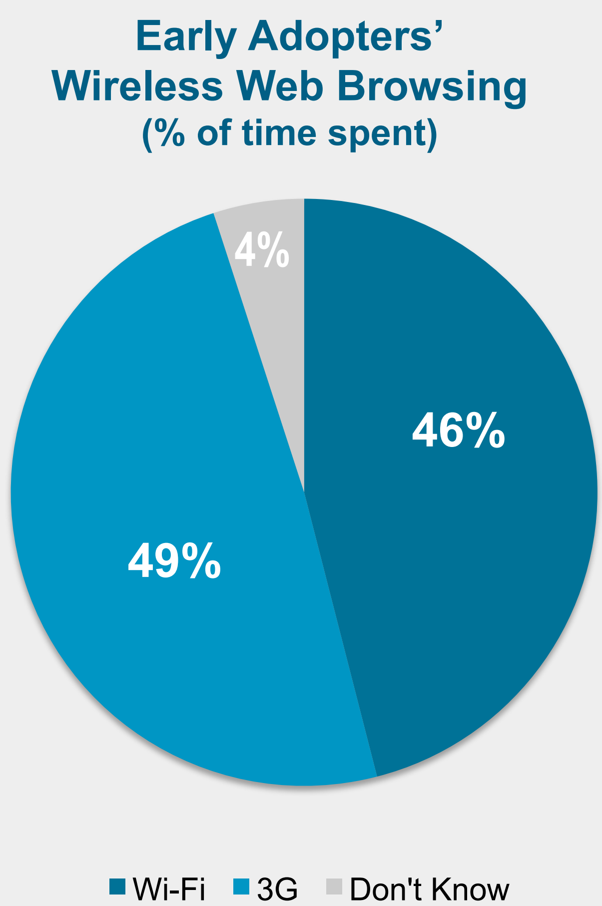


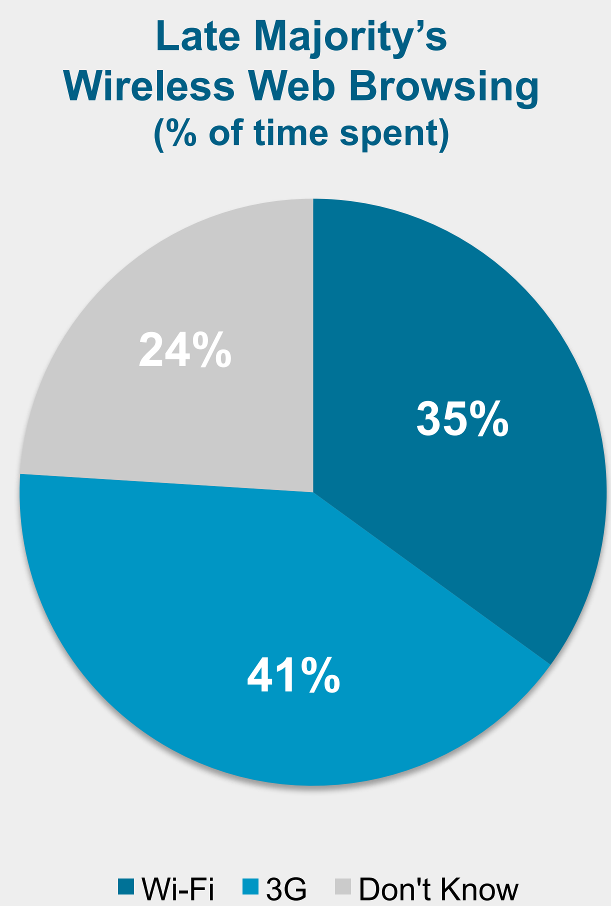
- Wi-Fi has become pervasive among smartphone users, who want to take better advantage of Wi-Fi for coverage and cheaper service
- We see market opportunities for mobile operators who can develop subscriber-friendly services that drive mobile data offload
- Use of Wi-Fi:
  - Can increase loyalty by addressing in-building coverage and increasing data offload
  - Can improve application performance (particularly video)
  - Can eliminate expensive international roaming fees

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German respondents using smartphones (n=226)

Easier GUI / Solutions Extend Heavy Smartphone Wi-Fi Use to Late Majority



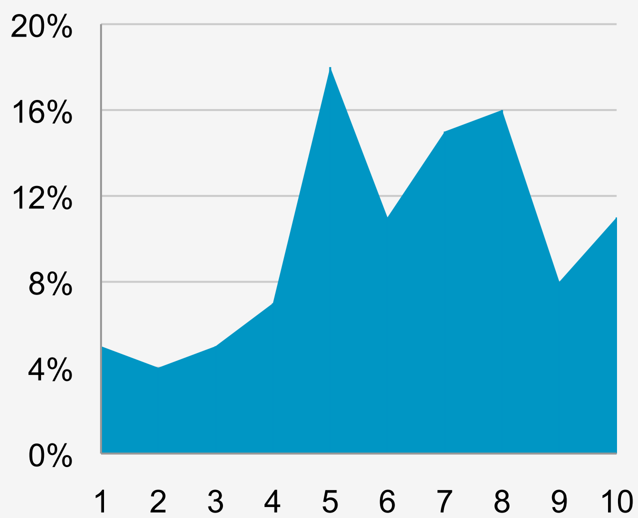


Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers from each segment

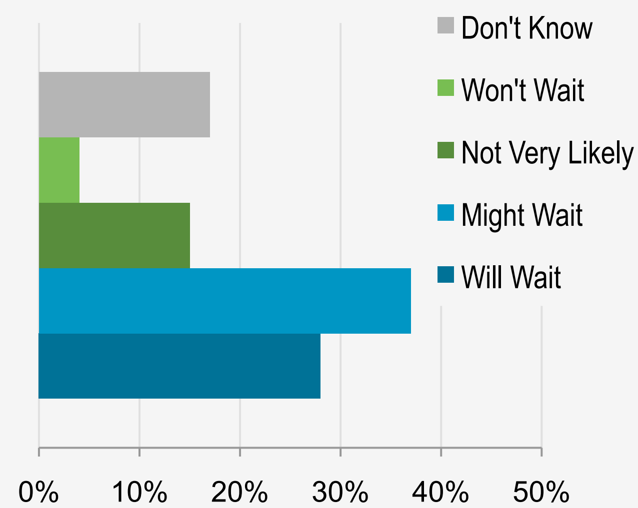
Users Willing To Compromise on Mobile Benefits for Lower Wi-Fi Cost

Willingness To Compromise On Quality To Avoid Mobile Data Charges
(% of vote of mobile data users)



1 is "not at all willing" and
10 is "extremely willing"

Willingness To Compromise on Immediacy
(% of mobile data users)

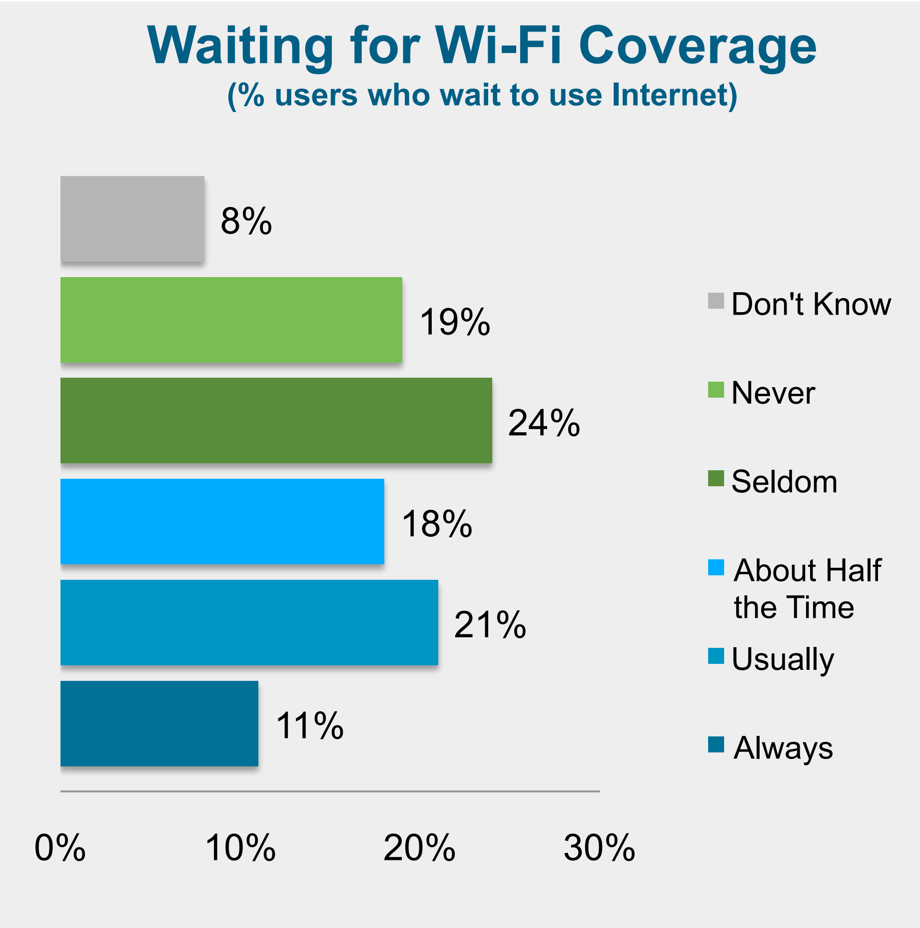


- Price reduction is top priority for broadband consumers; they will accept compromises to avoid breaking tiered plans and to keep low bills
- They will embrace innovative solutions for traffic offload at reasonable prices

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German respondents using smartphones (n=226)

Smartphone Users Wait for Wi-Fi Availability To Access Internet

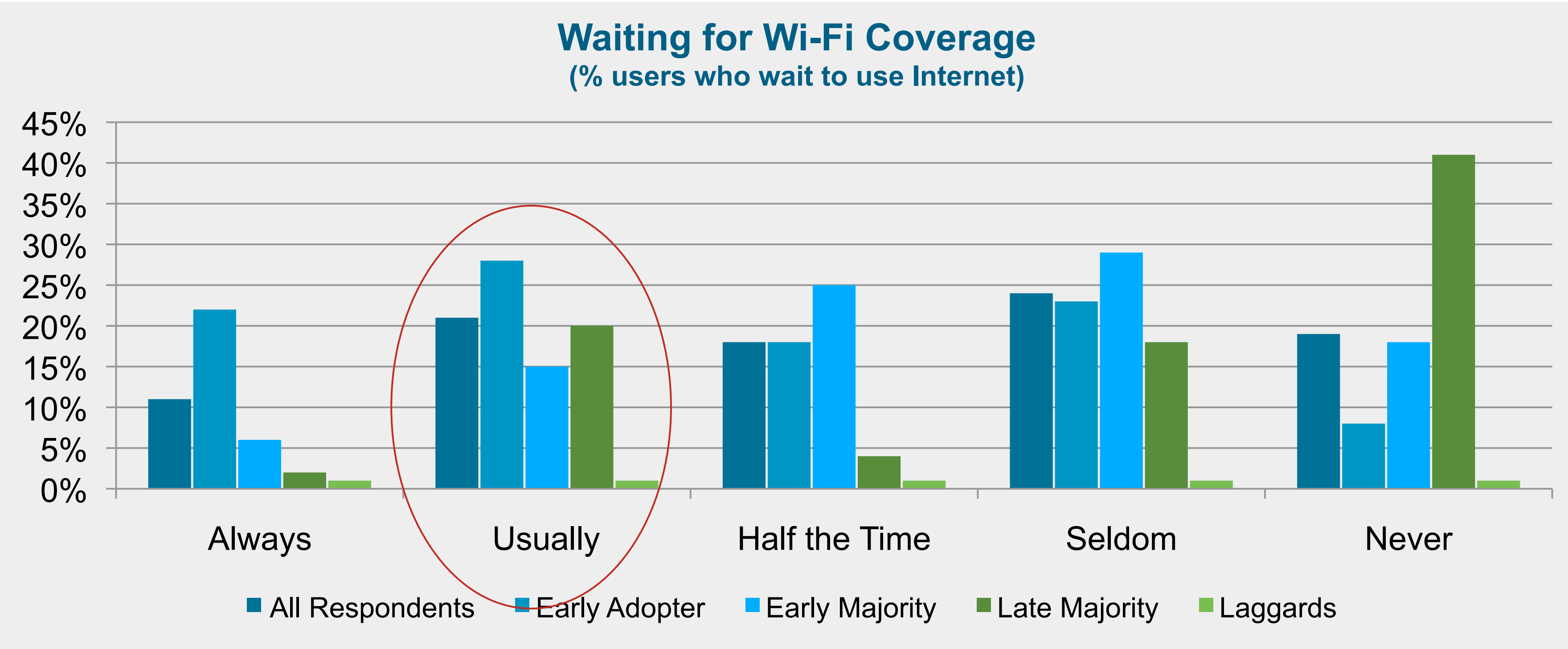


- Heavy data users will likely start limiting their use of expensive 3G data packages with tiered pricing models in favor of Wi-Fi networks providing unlimited access
- Smartphone users plan their access to data-heavy, media-rich programs via Wi-Fi

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German respondents using smartphones (n=226)

Easier GUI Boosts the Wi-Fi Waiting Phenomenon



Smartphone interfaces have become easier to navigate for non-tech-savvy users, making the process of locating and logging on to Wi-Fi much simpler; this is boosting willingness to wait for Wi-Fi coverage

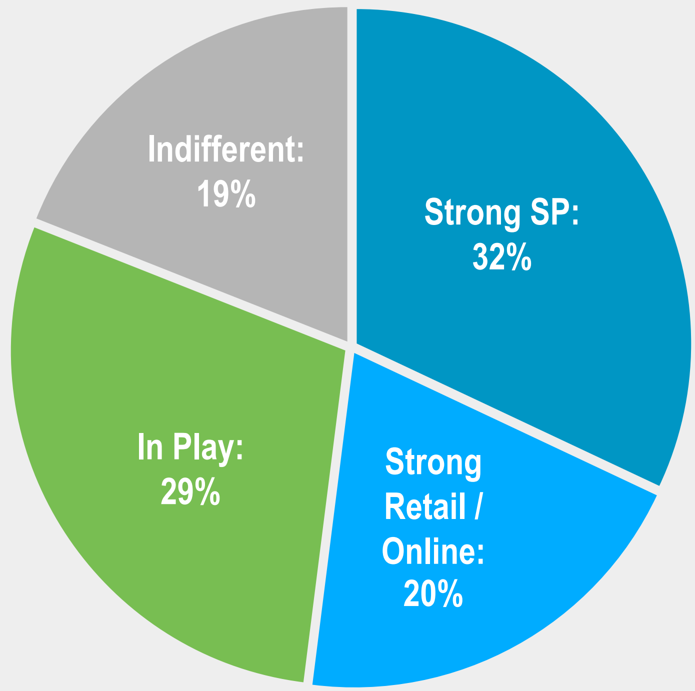
Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German respondents using smartphones (n=226)

SPs Are Consumers' Preferred Provider for Internet-to-TV Solution

For 8 different factors in the purchase process—from up-front cost to ease of use—consumers were asked which channel option best met their needs:

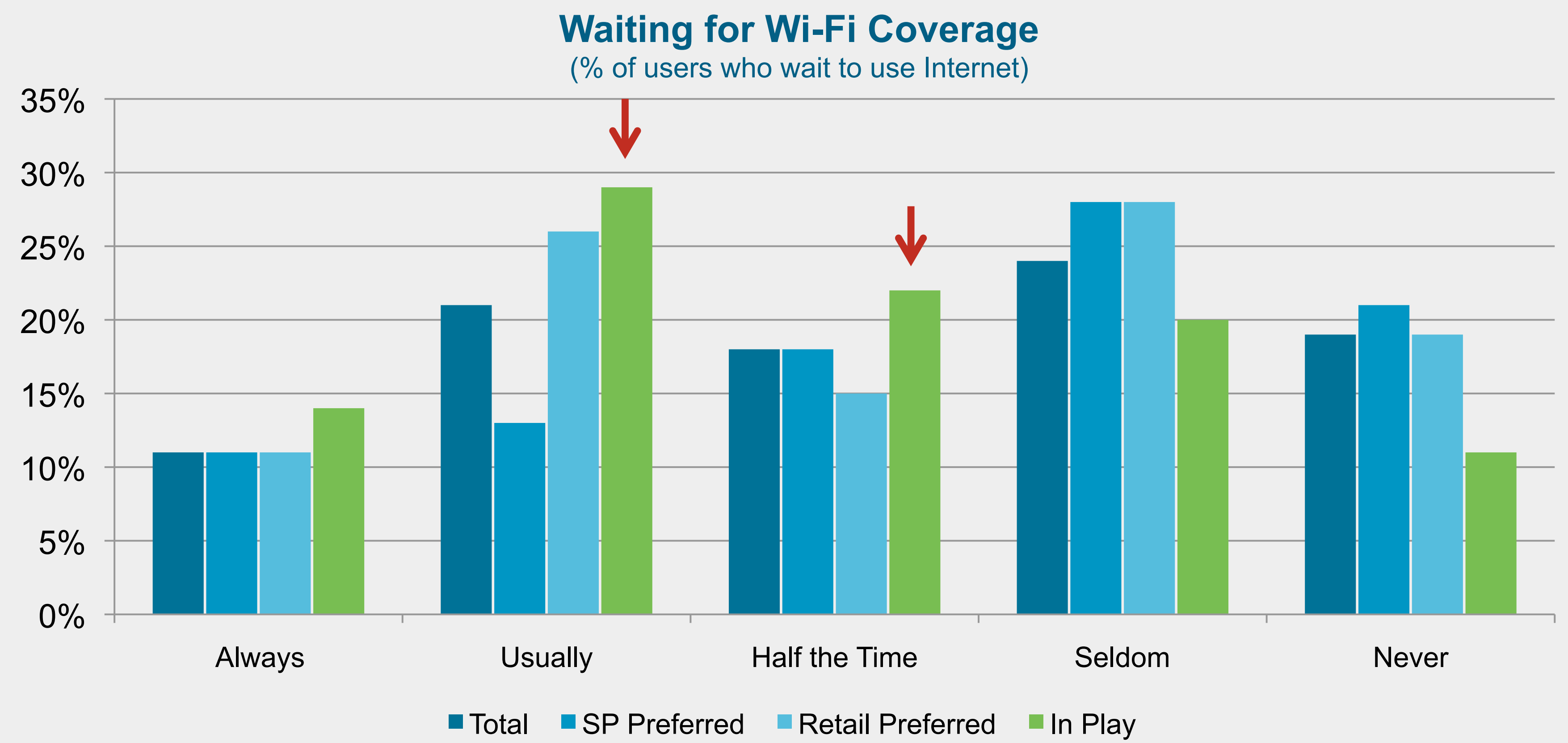
- **Strong SP:** These consumers believe SP provides a better experience in 6 or more factors
- **Strong Retail / Online:** These consumers believe retail / online provides a better experience in 6 or more factors
- **In Play:** These consumers' channel preference shifted significantly from factor to factor
- **Indifferent**: These consumers selected "don't know" for all 8 factors, likely due to lack of interest in Internet-to-TV solutions



Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

"In Play" Consumers Show Stronger Orientation To Wait for Wi-Fi Coverage

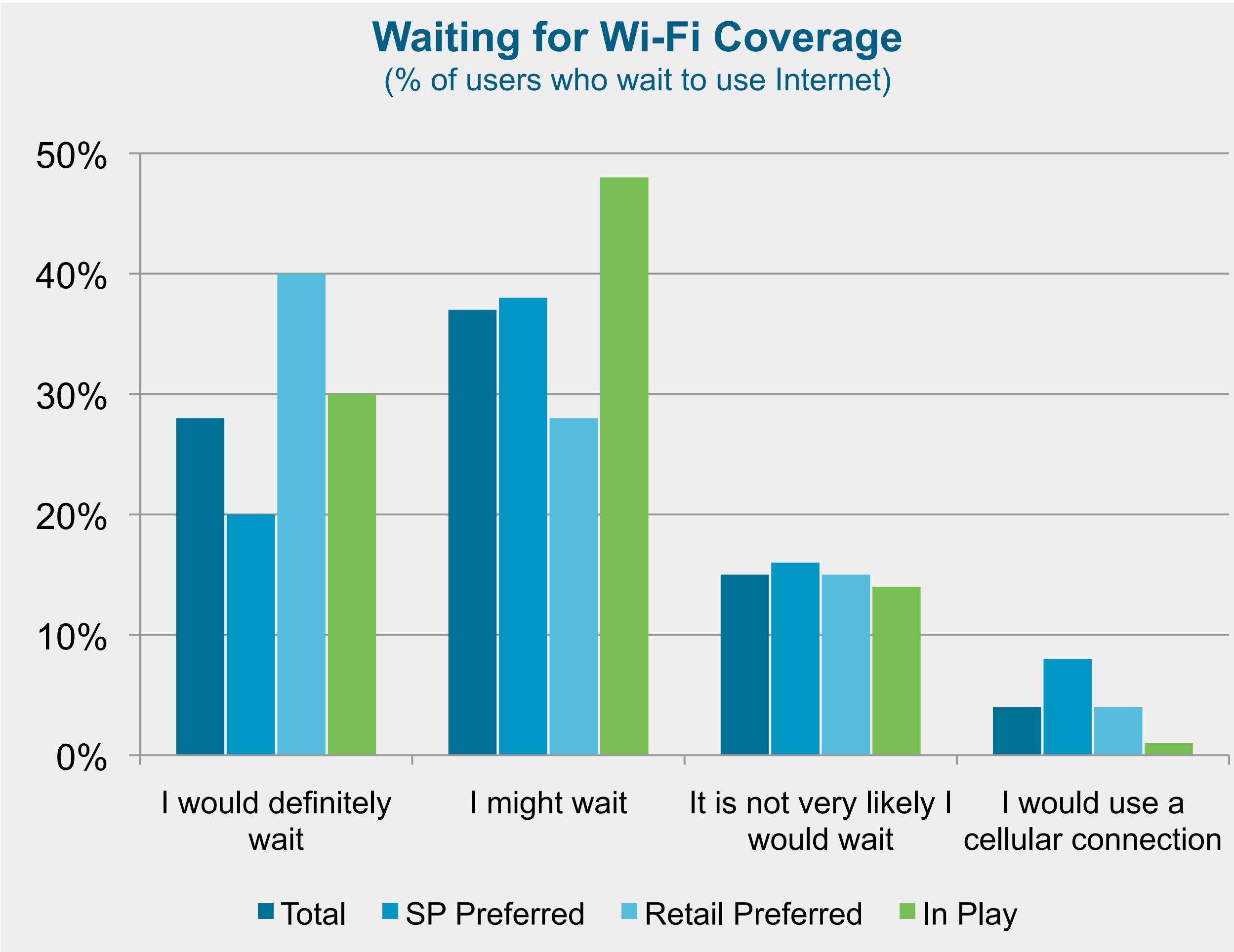


The "In Play" segment represents 29% of the market who are open to considering both SP and retail / online solutions

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German respondents using smartphones (n=226)

Planning Mobile Data Activities Is Even More Common for "In Play" Segment

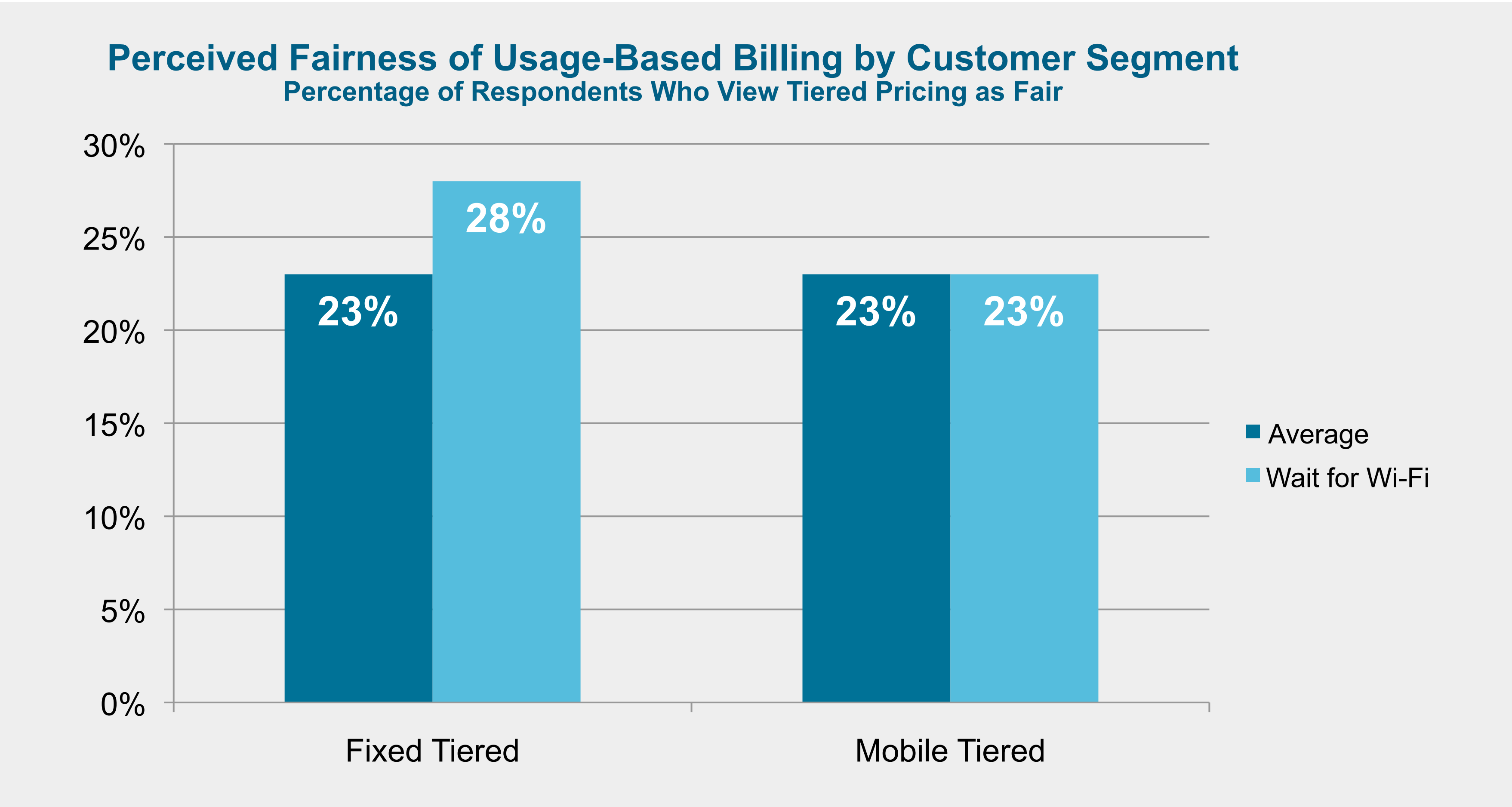


- Planning to use Wi-Fi instead of a cellular network is more common for heavy data users on their smartphones (for example, downloading a video file)
- "In Play" consumers show higher tendency to do so

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German respondents using mobile data (n=226)

“Wi-Fi Waiters” Are More Likely To View Tiered Pricing as Fair



Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German respondents waiting for Wi-Fi (n=111)

5 Consumer Cloud and Connected Life

Consumer Cloud and Connected Life: Key Takeaways

- Cloud services offer consumers an enhanced Connected Life experience
- Cloud-enabled enhancements are spread uniformly across consumer needs; however, some cloud experiences have stronger impact than others
- Cloud enhancements do not have broad appeal with German consumers; more German consumers (5% to 6%) expect "immediate access" and "single payment" than other cloud enhancements, and will react negatively if they are not present
- Cloud enhancements impact Connected Life buying behavior: consumers are more likely to buy when cloud enhancements are included

Source: Cisco IBSG Connected Life Market Watch, 2011

Cloud Offers Consumers an Enhanced Connected Life Experience

Cloud-Enabled Enhancements Can Be Applied Horizontally Across Connected Life Services

Connected Life

Cloud Enhancements	Answer Consumer Needs
▪ Unified data management ▪ Automatic backup ▪ Automatic data sync	Make my data management easy
▪ Any device / location ▪ Immediate access ▪ Seamless switching	Let me access and move my stuff easily across my devices, from anywhere
▪ One-time payment ▪ Single-menu access ▪ Intelligent personalization	Let me choose what I want across all services, but pay only once
▪ Add new capabilities automatically ▪ Remote monitor / automatic fix	Make it easy for me to get Connected Life services
▪ Advanced sharing ▪ See peer recommendations ▪ Companion device	Help me match my online social behavior to my real-life social behavior

Source: Cisco IBSG Connected Life Market Watch, 2011

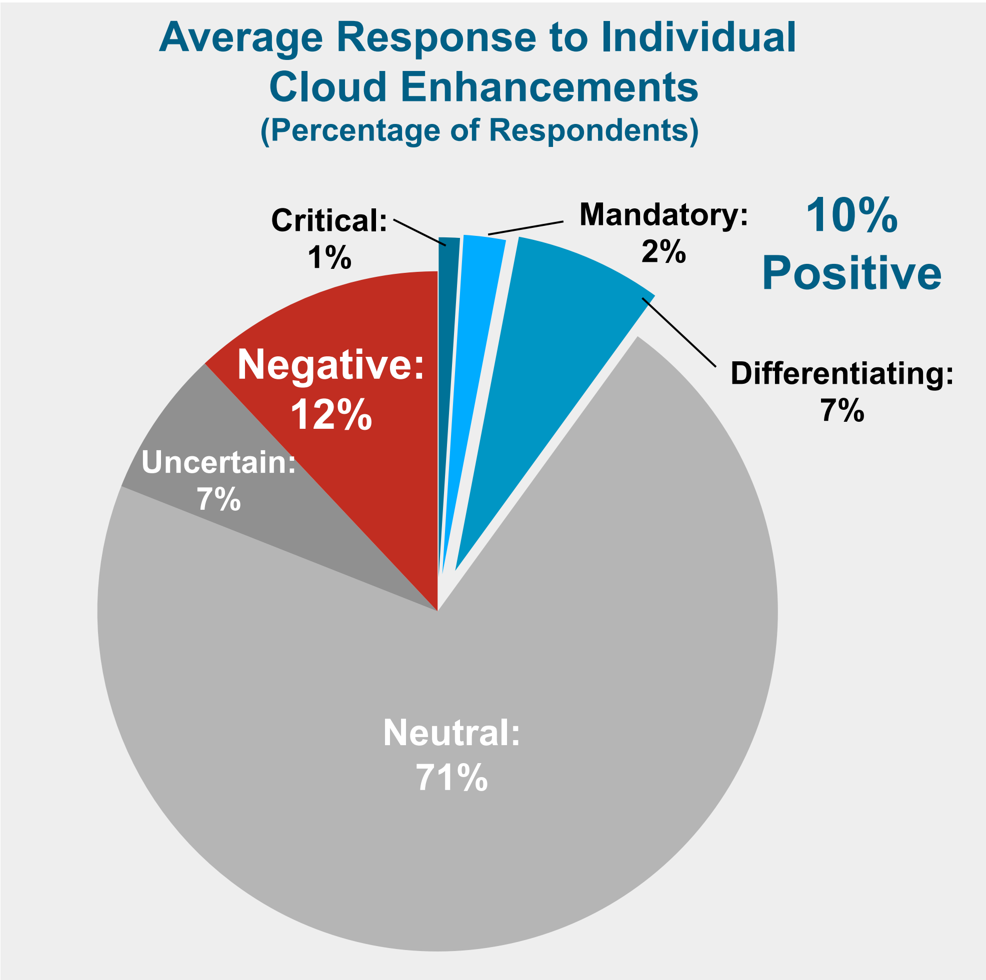
Cloud Impact on Consumers' Buying Behavior Using Kano Methodology

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	Consumers 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

Sources: ASQ, 2005; Cisco IBSG, 2012

Fewer React Positively than Negatively to Cloud Enhancements



Kano methodology shows how each enhancement influences consumers' assessment of the Connected Life service:

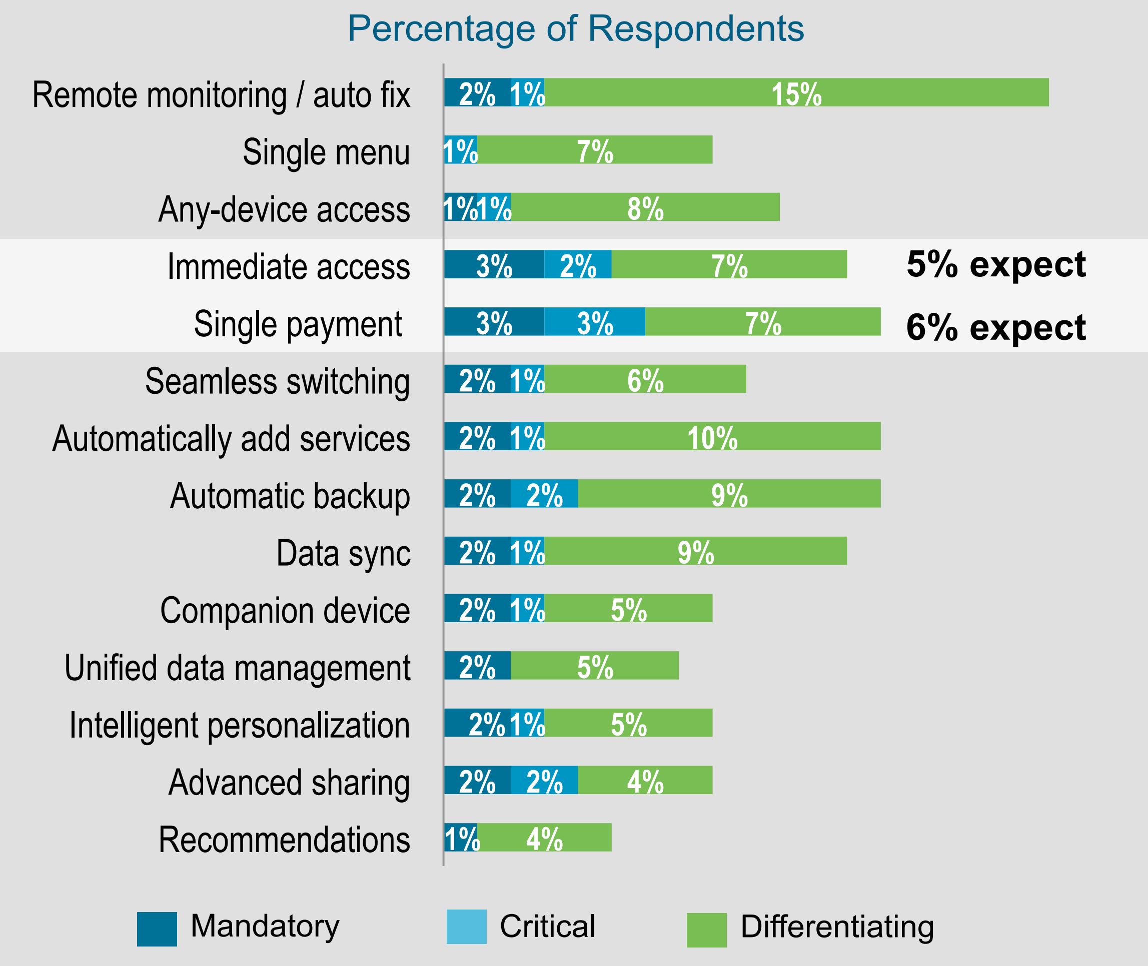
- **10% react positively**
  - **Differentiating:** 7% are surprised and delighted when cloud enhancements are present
  - **Critical:** 1% react very positively when the attribute is present and react negatively when it's not
  - **Mandatory:** 2% already expect cloud enhancements as an integral part of the experience
- **12% react negatively**
  - Happier when enhancement is not present

Sources: Cisco IBSG, based on Kano methodology, 2011

Base: German broadband consumers

Very Few Consumers Already Expect Cloud Enhancements with Their Service

More Enhancements Are Differentiating than Mandatory or Critical



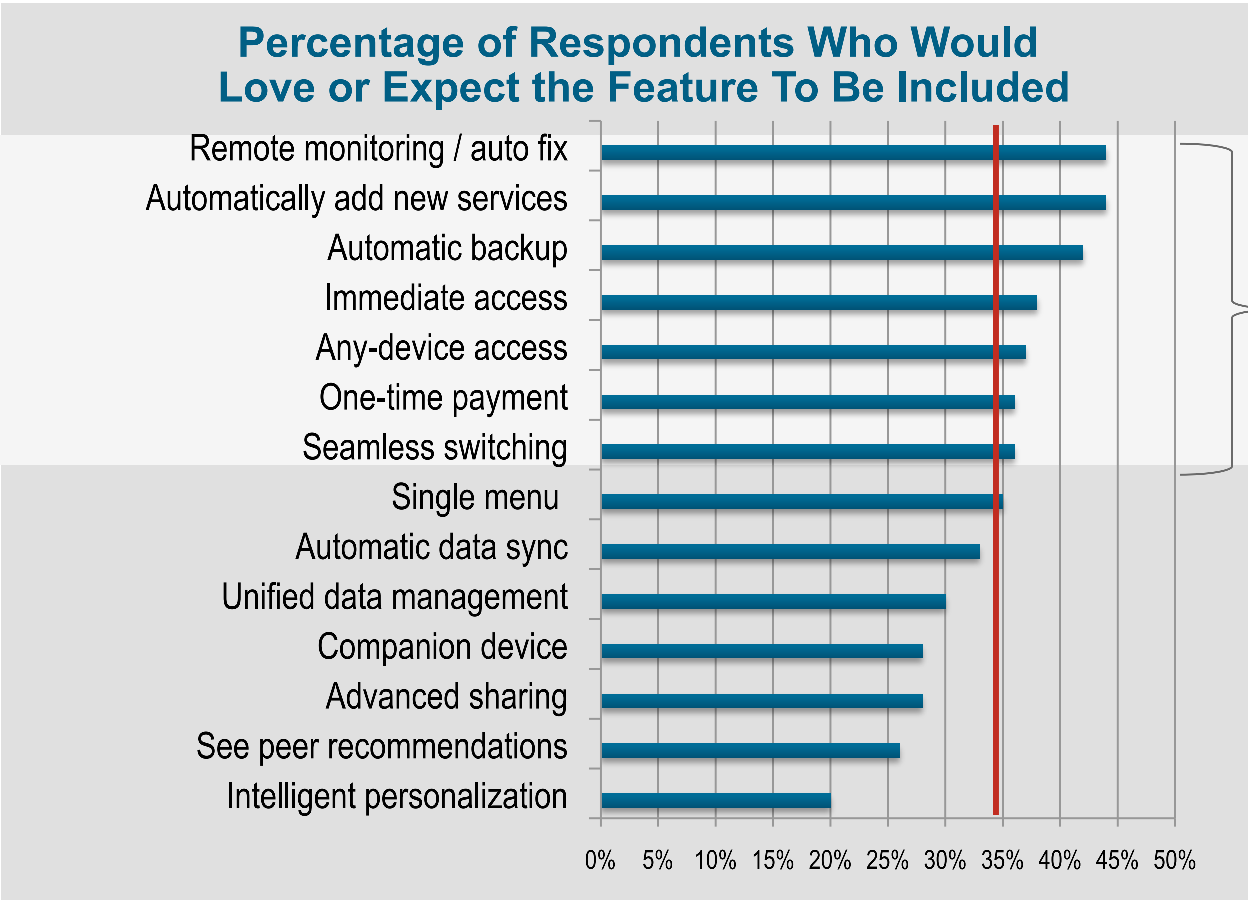
- More consumers (5% to 6%) expect "immediate access" and "single payment" than other cloud enhancements
  - These consumers will react negatively to a Connected Life service if these cloud enhancements are not present
- More consumers (10% to 15%) will be surprised and delighted by "remote monitoring" and the ability to "automatically add services"

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

Cloud Enhancements Have Some Appeal with Consumers

On Average, 37% of Broadband Consumers Expressed Interest in Individual Cloud Enhancements

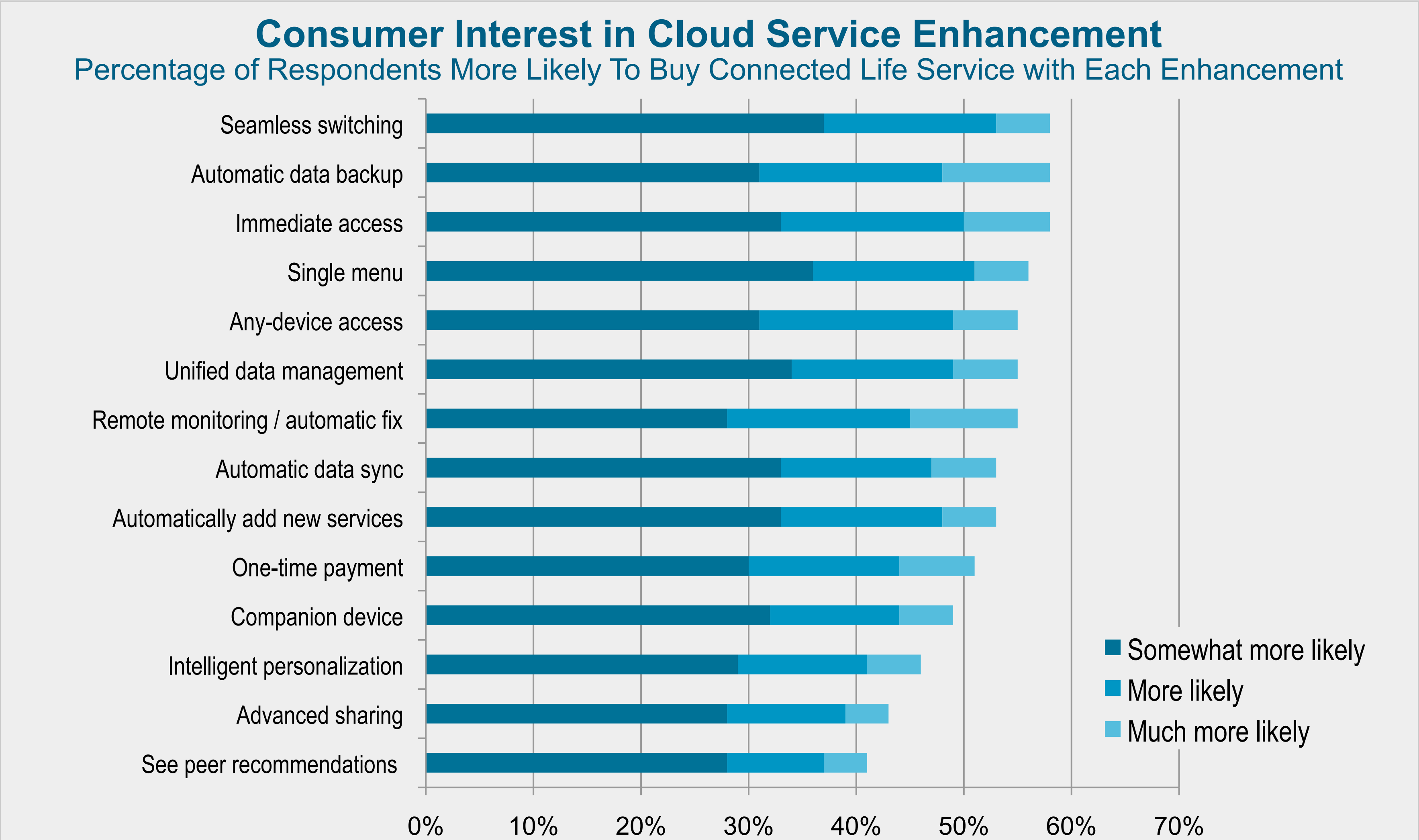


- Cloud-based, "hassle-free" features further enhance the experience
- For 7 of 14 cloud enhancements, more than 35% of German broadband consumers expressed strong interest

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

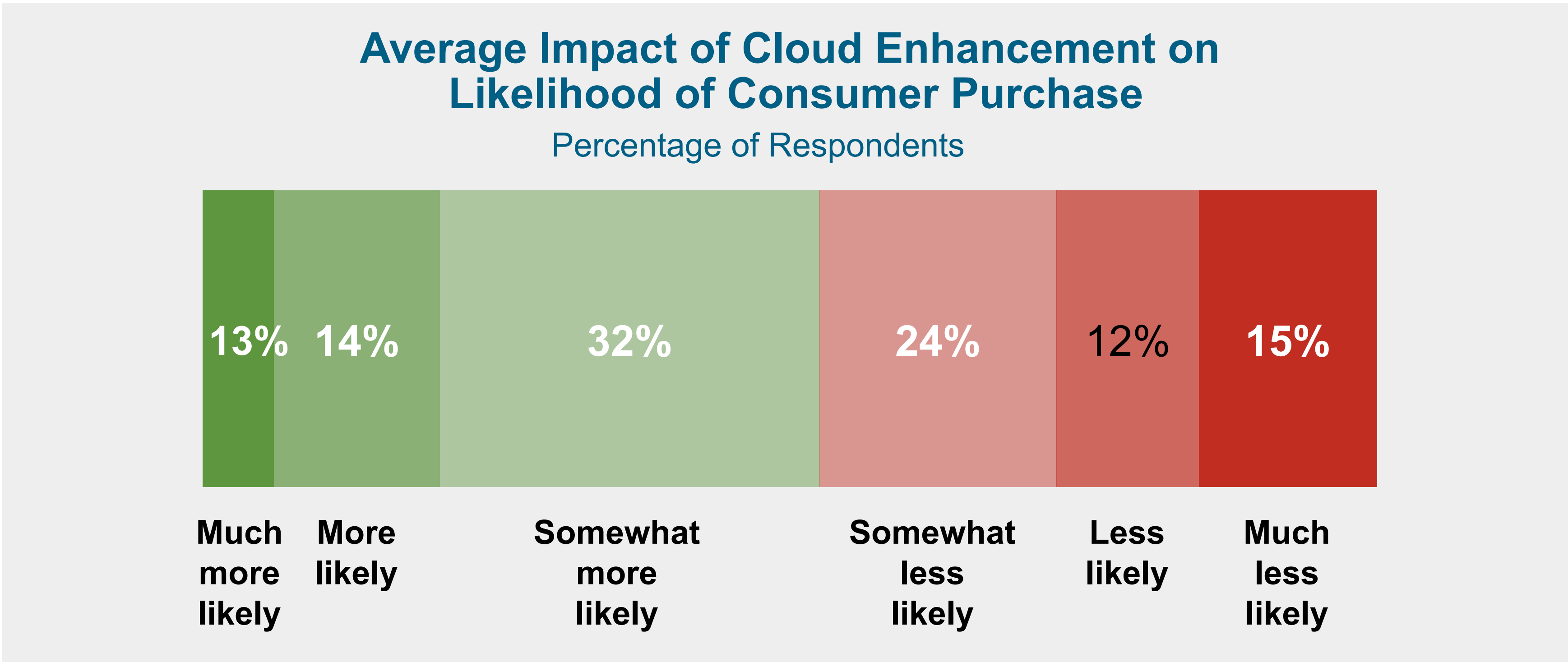
Cloud Experience Is Mostly Undifferentiated



Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

Cloud Enhancements Impact Buying Decisions Both Positively & Negatively

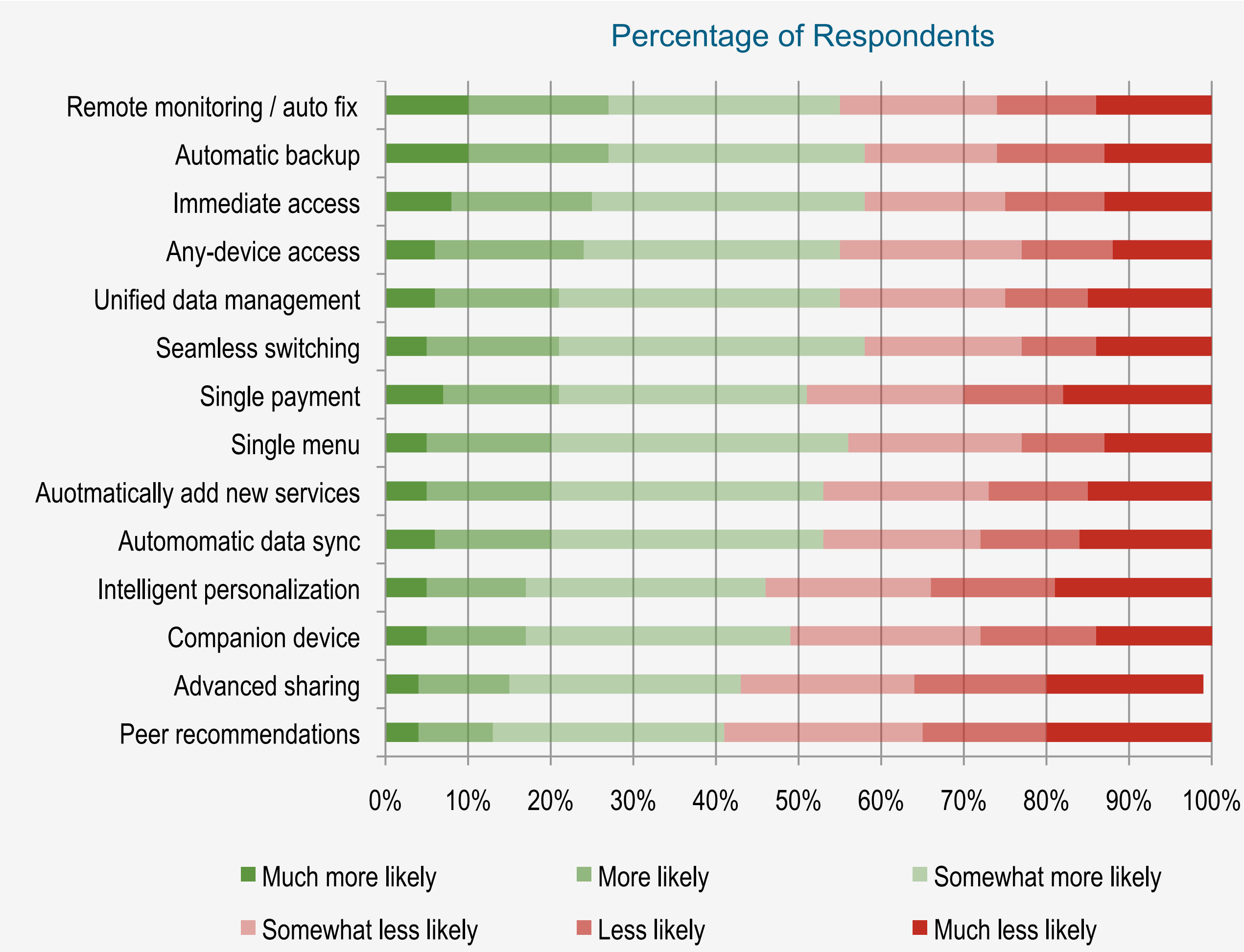


- On average, 52% of respondents have increased likelihood of buying Connected Life service if it has a single cloud enhancement
- 27% are "less likely" or "much less likely" to buy a cloud-enhanced service

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

German Consumers Are Wary of Cloud Enhancements



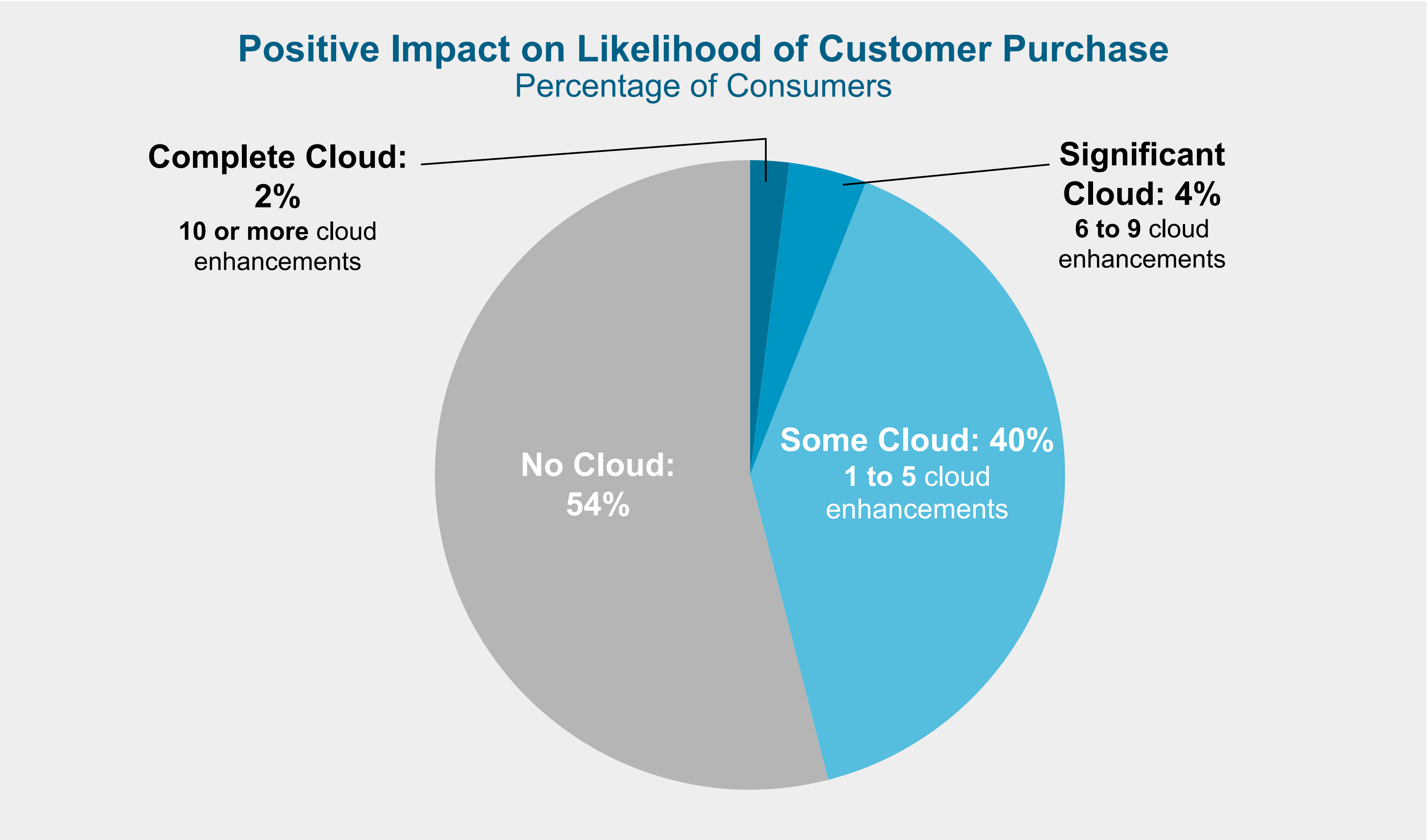
- 13% to 27% of respondents are more or much more likely to buy when the cloud enhancement is present
- This is counterbalanced by 23% to 35% who are less or much less likely to buy when the cloud enhancement is present

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

46% of Consumers React Positively to at Least One Cloud Experience

Majority Is Looking for Few or No Enhancements



Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

6

How To Expand Customer Potential

How To Expand Customer Potential: Key Takeaways

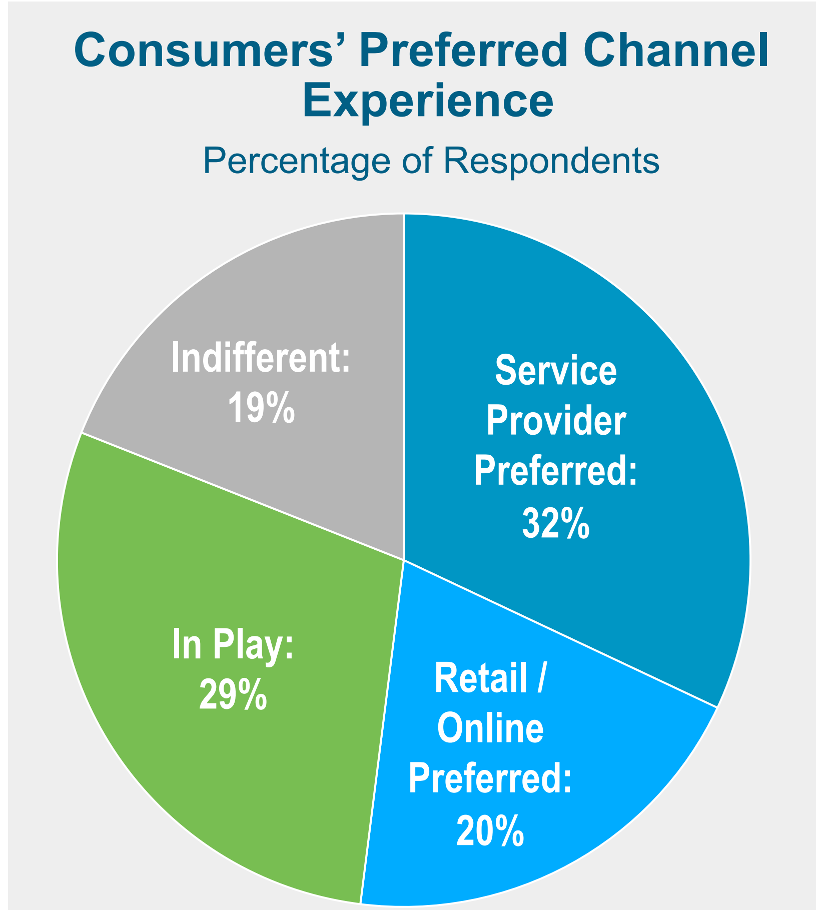
- To expand customer potential, SPs in Germany should target "In Play" consumers
- "In Play" segment's priority buying factors favor SP channel
- "In Play" segment: young, tech-savvy, with significant / some cloud interest

Source: Cisco IBSG Connected Life Market Watch, 2011

"In Play" Consumers Represent Best Segment To Target

To increase SPs' customer potential, "In Play" consumers represent best segment to target:

- 19% of consumers are highly indifferent and will be difficult to draw into any Internet / TV purchase
- Another 20% show a strong preference for retail / online experience and may be difficult to attract
- However, a sizable 29% of the market shows openness to considering both SP and retail / online solutions

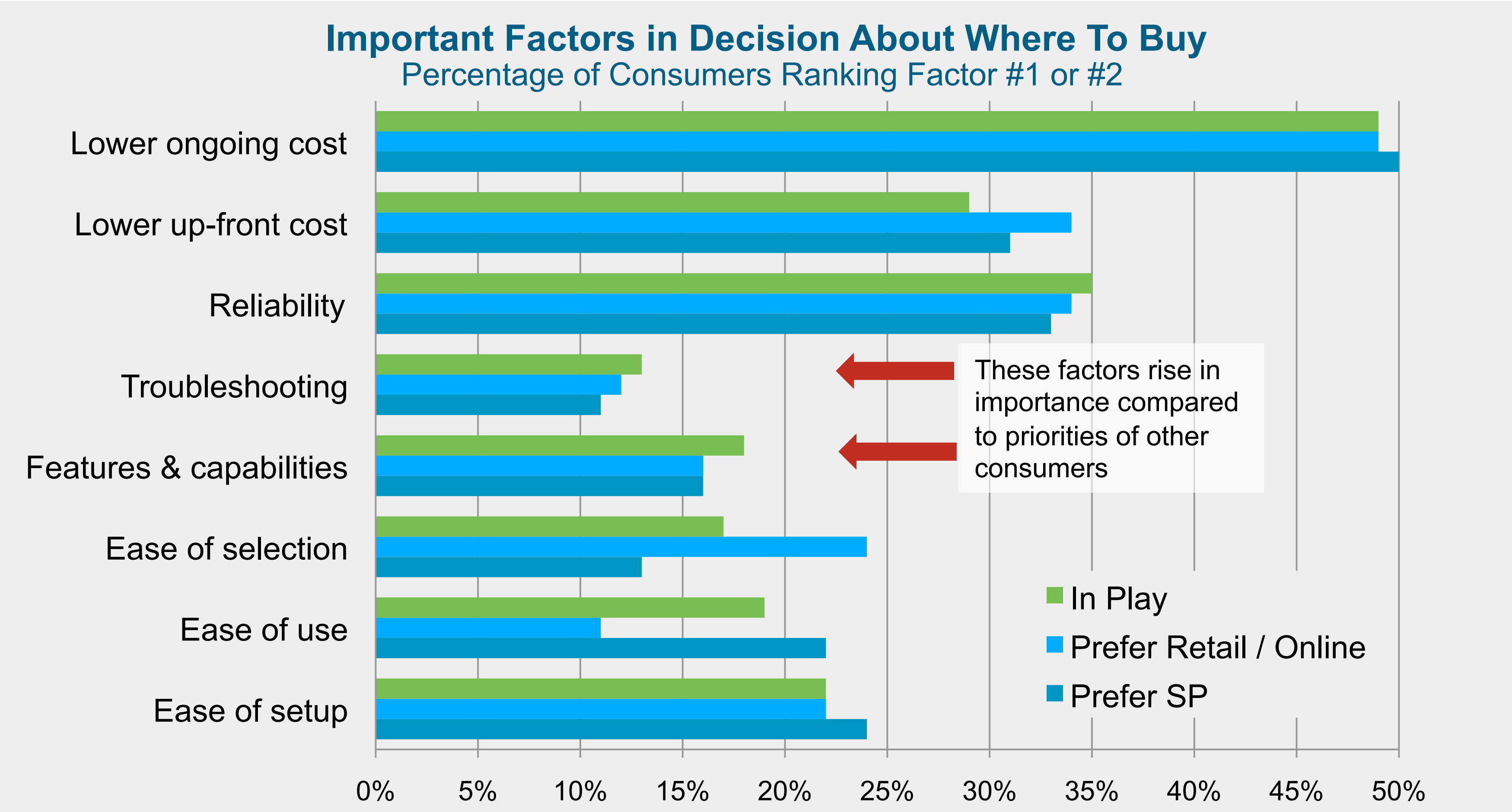


Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

For "In Play" Segment, *Features* and *Troubleshooting* Rise in Importance

Top Factors—Cost & Reliability—Are Similar to Other Consumer Segments

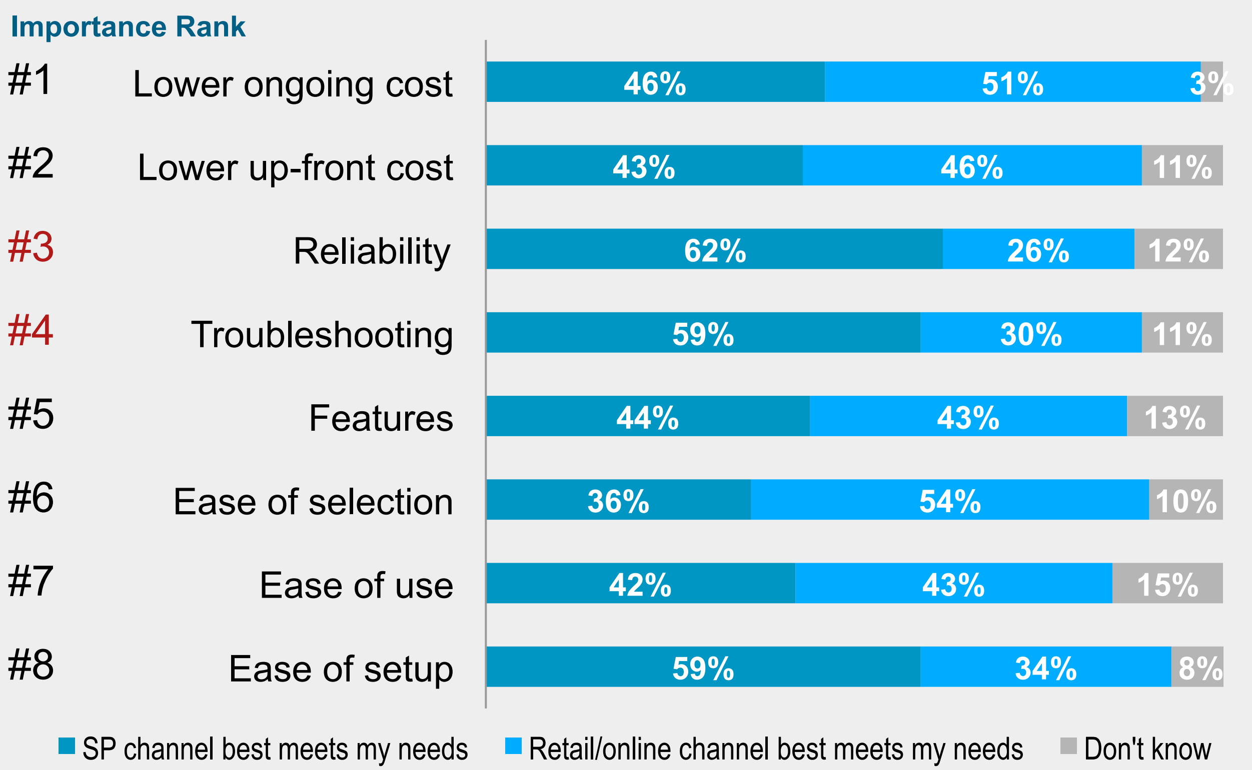


Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German broadband consumers

“In Play” Segment’s Priority Buying Factors Favor the SP Channel

Channel Preference of “In Play” Consumers
Based on Individual Factors in Consumers’ End-to-End Experience



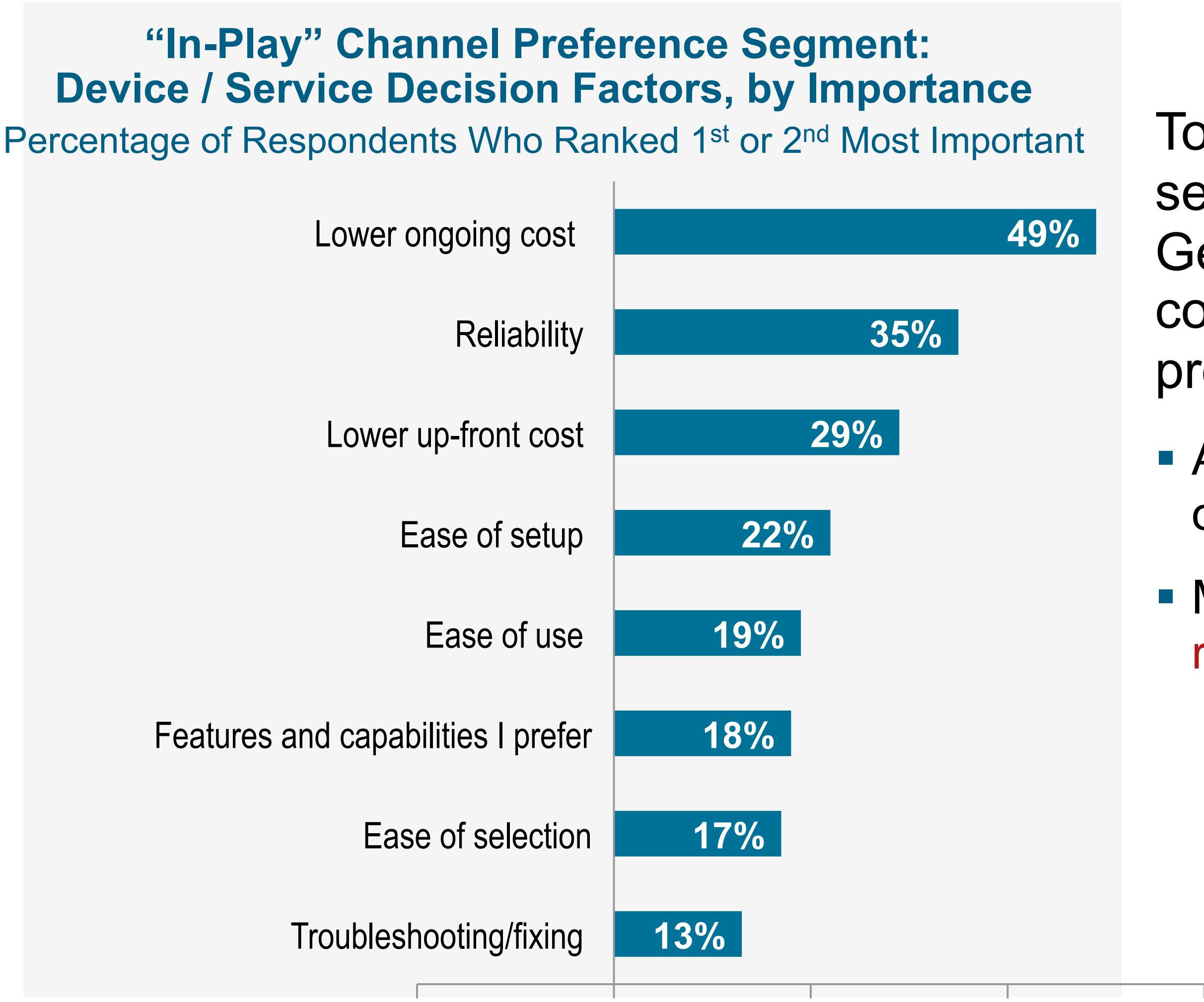
Red: Criteria ranked higher than for average consumer

- SP and Retail channels demonstrate similar strength on cost factors
- SPs have strong lead in Reliability, Ease of Setup, and Troubleshooting
- Retail can take advantage of lead in Ease of Selection, Ongoing Cost, and Up-front Cost

Source: Cisco IBSG Connected Life Market Watch, 2011

Base: “In Play” German broadband consumers

How To Capture the 29% of "In Play" Consumers Who Are Up for Grabs



To win over the "In Play" segment (29% of German broadband consumers), service providers need to:

- Attend to the key basics of cost
- Maintain leadership in reliability

Source: Cisco IBSG Connected Life Market Watch, 2011

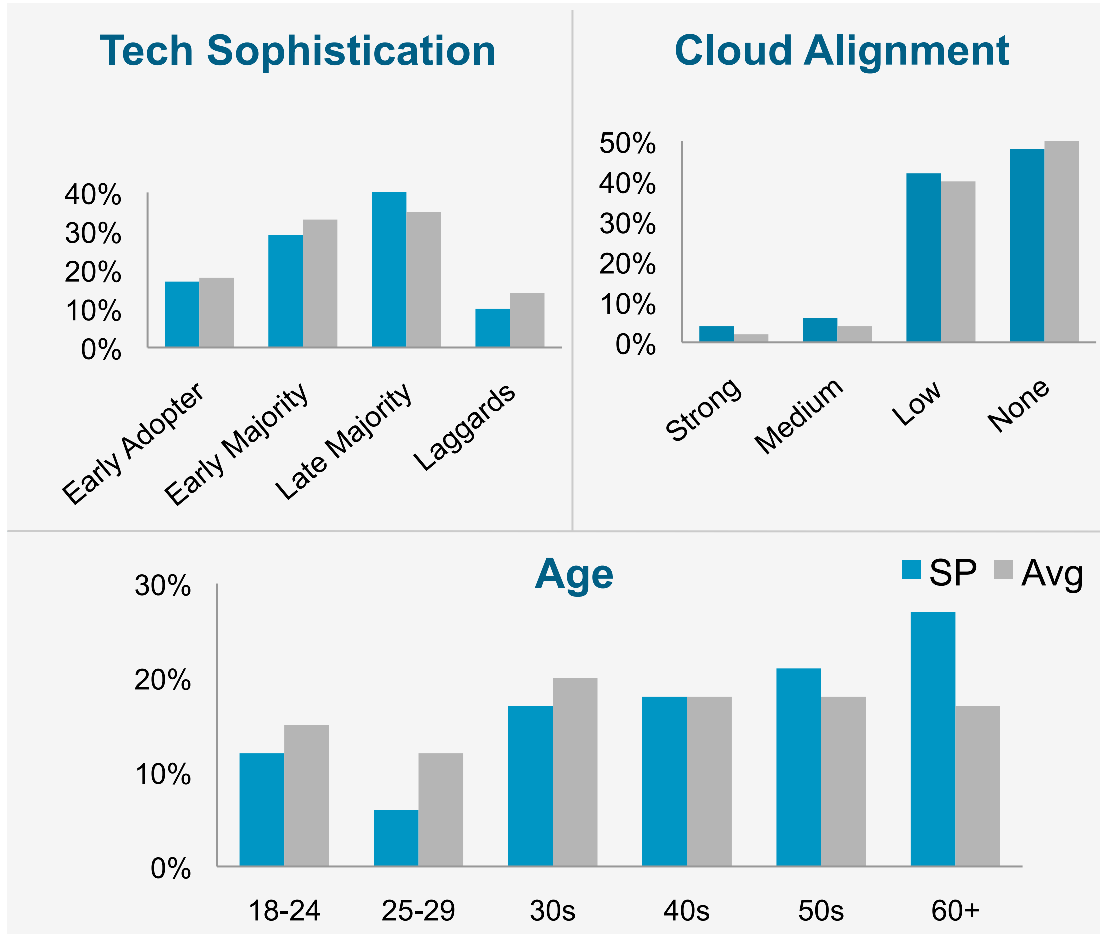
Base: "In Play" German broadband consumers

SP Segment: Older, Technology-Aligned, Attracted to Cloud

SP Segment: 32% of Respondents Who Show Strong Preference for SPs

The SP segment:

- Is older
- Aligned with average in technology adoption



Source: Cisco IBSG Connected Life Market Watch, 2011

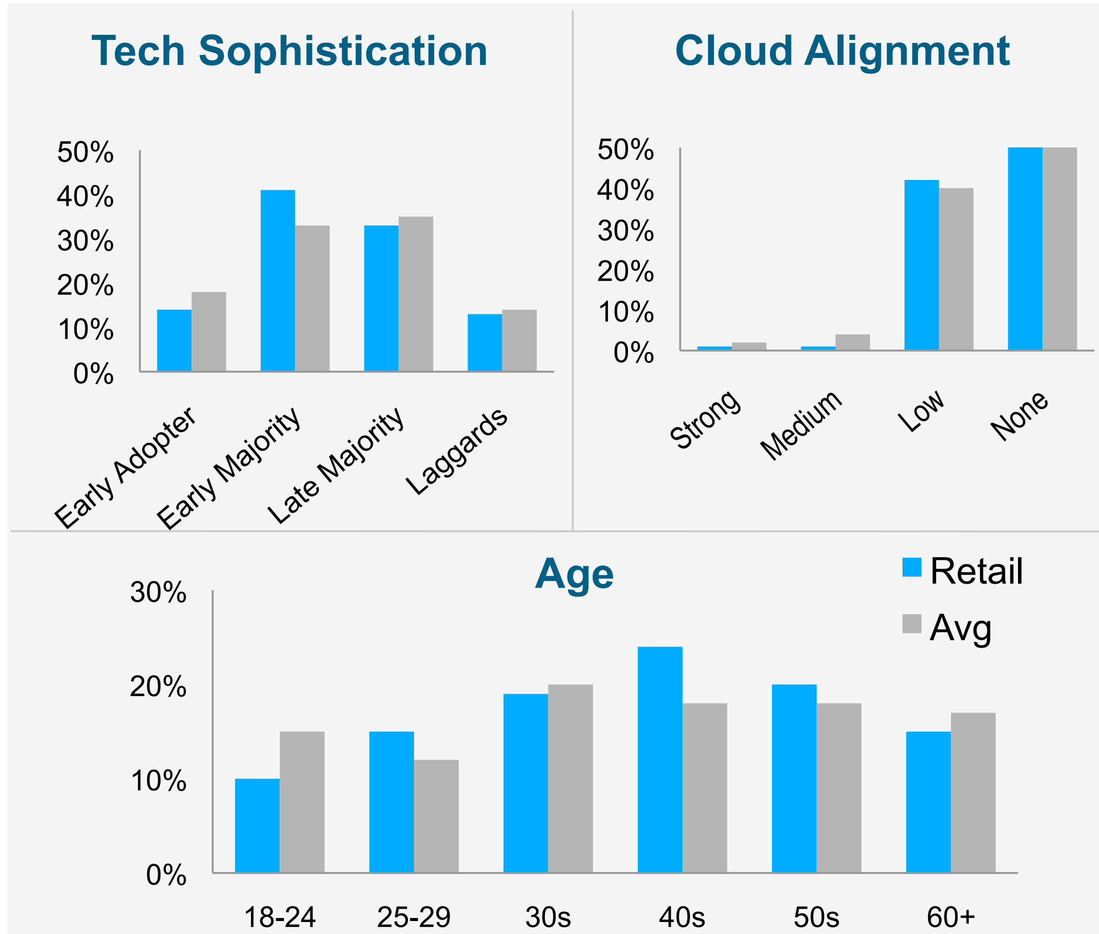
Base: German consumers with strong SP preference

Retail Segment: Slightly More Mature, Little Cloud, Overall Tech Alignment

Retail Segment: 20% Respondents Who Show Strong Preference for Retail

The Retail segment:

- Is slightly over-indexed among respondents in their late 20s, 30s, and 40s
- Has strong Tech Sophistication alignment



Source: Cisco IBSG Connected Life Market Watch, 2011

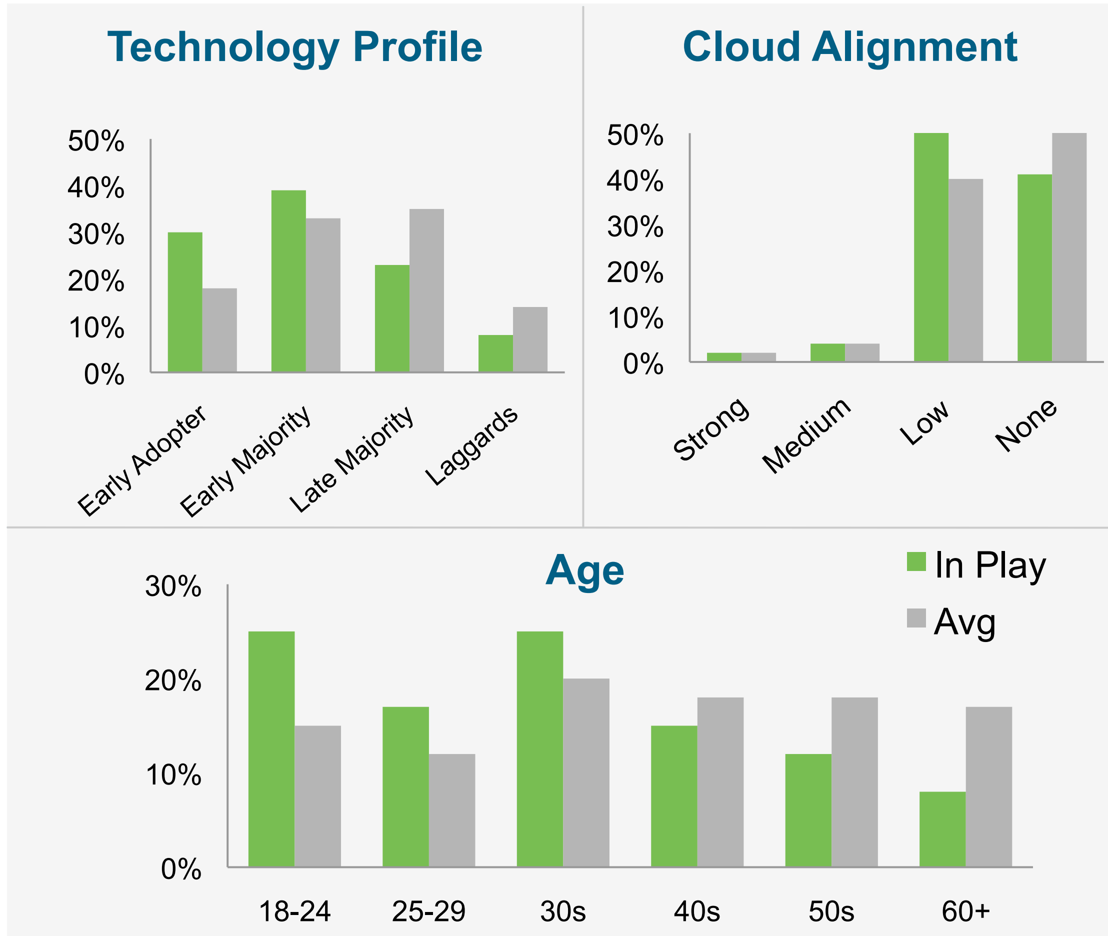
Base: German consumers with strong retail preference

"In Play" Segment: Young, Tech-Savvy, with Little Cloud Interest

"In Play" Segment: 29% of Respondents Who Show No Strong Channel Preference

The "In Play" segment:

- Is younger
- Has greatest proportion of early adopters
- Is over-indexed on DVR, online video service, Internet video device, mobile data card, and connected TV



Source: Cisco IBSG Connected Life Market Watch, 2011

Base: German consumers with strong retail preference

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