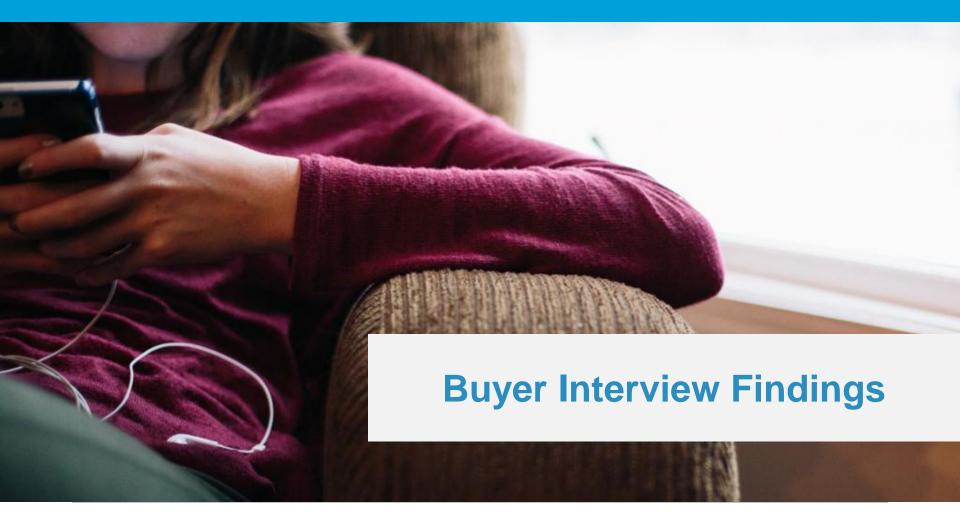
XFINITY WiFi Product Research





Agenda

- Project Overview
- Research Methodology
 - Screener Survey
 - Participants
- Themes & Considerations
- Findings by Topic
 - Attitudes Towards Technology
 - Service History & Alternatives
 - Initial Service Use
 - Purchase Behaviors
 - New Screen Evaluations

- Next Steps
- Appendix: Survey Open Question



Goals & Objectives

The primary goal for this product research is to leverage insights into **who** PPU WiFi users are, **why** they use the product, and **how** they use it to make substantive improvements to the service's user experience and messaging.

We are using standard user-centered design methods to achieve project goals.

Phase One - Research

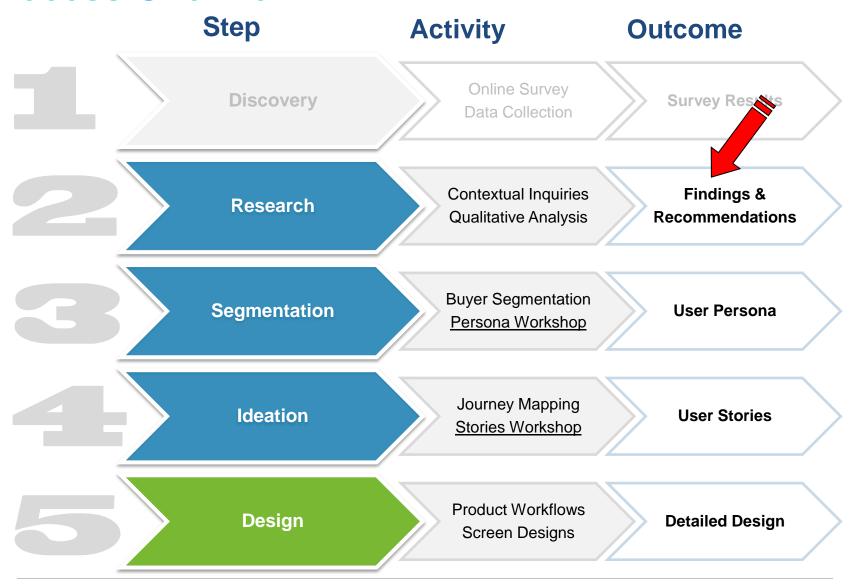
- Evaluate current product
- Conduct targeted user research
- Develop a set of user persona for buyers
- Use persona set to develop key user stories (journey mapping)

Phase Two – Design

- Define product workflows from user stories
- Create content/messaging strategy
- Design wireframes and branded screens
- Conduct user testing to validate product design and messaging



Process Overview



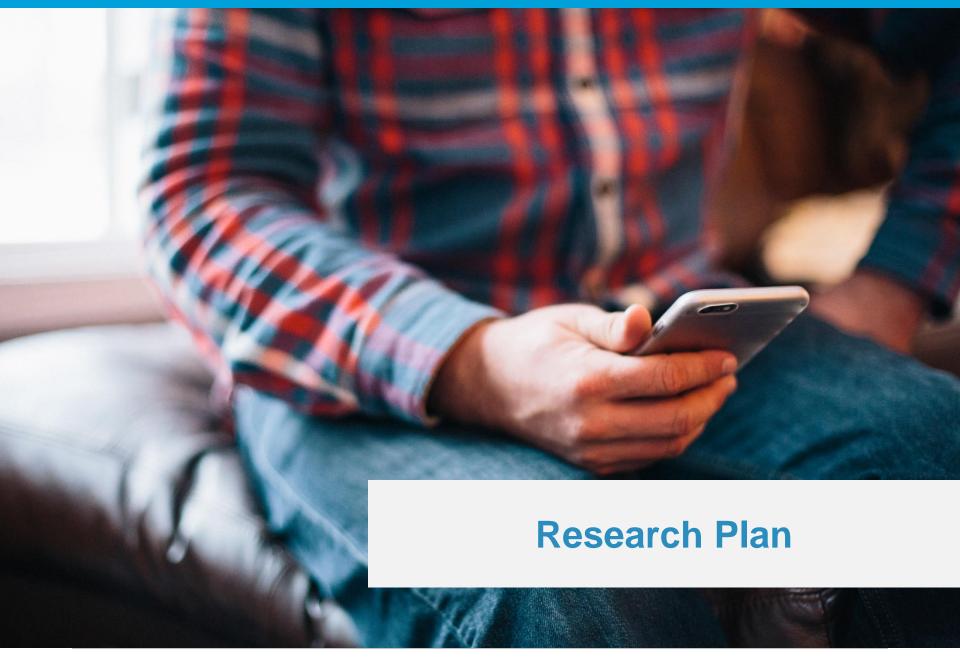
Product Team Questions Answered

- ✓ How many devices do people tend to use WiFi passes for?
- ✓ What is their level of satisfaction?
- ✓ What has their experience been with the product?
- ✓ What are typical user purchase scenarios?
- ✓ What drives pass type choice?
- ✓ What are the reasons people purchase WiFi? ← PPU WiFi
- ✓ What are the reasons people try free WiFi?
- ✓ Are some needs predictable and steady?
- ✓ Why would a consumer purchase WiFi over using carrier-based service?
- ✓ Are there situations where an access pass is more desirable than HSD?
- ✓ Under what scenarios would people renew shortly after a pass expires?
- ✓ Why do we see monthly recurring passes purchased in military zip codes?

Remaining Open Questions...

- Why are sales higher on weekends, and the beginning of the month?
- Why is the 1st half of the year flat for pass purchases and then increases in the 2nd half of the year?

Given the methodology and sampling limits, answering these specific questions fall out of the reach of this round of research.



Methodology

- **Screener Survey** An online survey via email invitation sent directly after a pass purchase was conducted received 14,479 respondents from 48 states. Respondents uncovered a range of demographics and behaviors.
- **Buyer Interviews** 18 pass buyers were interviewed. This included ten hour-long phone interviews, two in office hour sessions, and six 90 minute contextual inquiries in participants' homes to understand their experiences.

Recruitment

- Out of 14,479 qualified surveys, 6617 were access pass buyers, of which 3102 agreed to participate in follow-up interviews with 1970 willing to meet in person.
- Study used purposive sampling, recruitment goals were driven by screener survey results and other population characteristics
- The remote interviews had a high no-show rate; at one point 50% of the respondents scheduled for participation did not call in.
- Remote participants were offered a \$75-\$100 honorarium for their time. Inperson participants received \$200



Methodology

Purposive Sampling

A purposive sample is a non-probability sample commonly used in UX research
where participants are selected based on characteristics of a population and the
objective of the study. It is a sampling technique in which a researcher relies on his or
her own judgment when choosing members of population to participate in the study.

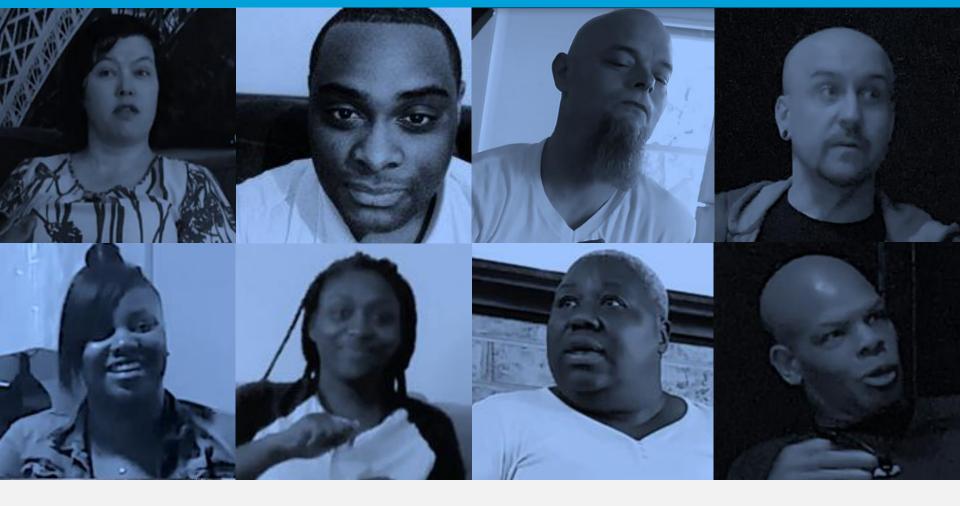
Effects of Purposive Sampling

- 1. Interviews were focused only on **buyers**, while 54% of screener survey respondents were complimentary pass only users
- 2. While the majority (61%) of access pass buyers indicated highly or somewhat satisfied, half of the participants interviewed had indicated **low** satisfaction so we could better understand issues.
- **3. Typical** and **extreme case** sampling of purchasing behaviors and service use
- 4. Participants selected for being highly **communicative**, **responsive**, and **available** during the study schedule. In-person participants were located within travel distance of the selected study locations.



Interview Discussion

- Attitudes Towards Technology Clarify screener responses, ask participants about their technology use and connectivity options.
- Service History & Alternatives Collect brief history of past Internet services and what led up to them to using the Xfinity Access Pass product. Discuss current alternatives including the pros and cons.
- Initial Product Use Ask participants to recall their introduction to WiFi Access Passes and have them describe the scenario.
- Purchase Behaviors Ask participants to describe different pass-types
 they've used and why they chose each. Gather insight into how different
 passes have been used, when they buy, and how frequently they renew
- **Usage Scenarios** Ask participants to describe how they usually use the product. Probe for insight into potential unmet needs and experience.
- **Purchase Observation** Ask participants to walk through purchasing an access pass. Have participants evaluate flat images of new screen designs.



Participants



Locations

Participants from 14 different US cities

- 1. Boston, MA
- 2. Sacramento, CA
- 3. Alexandria, VA
- 4. Groton, CT
- 5. Minneapolis, MN
- 6. Camden, NJ
- 7. Philadelphia, PA
- 8. Colorado Springs, CO
- 9. Washington, DC
- 10.Tacoma, WA



- 11. Taunton, MA
- 12. Jamaica Plains, MA
- 13. Chicago, IL
- 14. Nashville, TN

Demographics

- We spoke with 10 women (54%) and 8 men (45%).
- Participants were from a range of lifestyles; 12 were urban (64%), 5 were suburban • (29%), 1 was on a military base. We did not speak with rural customers (5%.)
- Participant ethnicity includes; 8 Caucasian, 8 African American, 1 Hispanic, and 1 person of Multiracial descent.
- Three of the six participants we met with in person lived in subsidized housing.

Income

- Under \$10,000, 2 (21%) 25 to 34, 1 (27%)
- \$10,000 \$19,000, 7 (14%) 35 to 44, 8 (19%)
- \$20,000 \$29,000 , 4 (14%) 1A8 to 24, 4 (17%)
- \$30,000 \$39,000, 3 45 to 54, 4
- \$40,000 49,000, 1
- 100.000 \$150,000 ,1

Age Range

- 55 to 64, 1

Education Level

- Some College, 4 (25%)
- High School, 1 (25%)
- Bachelor's Degree, 1 (14%)
- Some Postgraduate, 1
- Master's Degree, 1
- Completed Some High School, 1

Orange% = Percent of population from screener survey.

Product Usage

Product Use

- Service Reasons Participants were selected based on a range of service use reasons indicated in their screener survey responses.
 - 7 participants said the service was their only connectivity option, 6 indicated unpredictable income, 5 used the service because they have Internet at work but not at home, 5 indicated they were in a temporary living environment, 4 said they had a cellular data cap, 2 used it with a WiFi only device, 1 only needed a limited amount of data and 1 used it due to travel.
- Pass Type In the past six months13 participants has used at least one complimentary pass, 11 had a daily pass, 9 an hourly pass, 8 a weekly pass, and 8 had used a monthly pass
 - 2 were recurring monthly pass users, 14 were pay as they go.
 - 4 regularly take advantage of complimentary pass each month
- Extreme use 6 participants used 3 or more different pass types in a 6 month period
- Device Use 12 use a laptop/desktop, 10 a mobile device with cell plan, 6 a mobile device with no plan, and 6 a WiFi only device
- Satisfaction 9 participants indicated low satisfaction, 6 medium/neutral, and 3 high

Product Use

- Home Internet 14 participants did not currently have home internet while the remaining 4 participants did...
 - One participant has had EarthLink DSL for many years
 - One participant has free Google Fiber offered to the entire apartment complex
 - One participant has FIOS for his "streaming home"
 - One participant had Xfinity as subscription service
- Former Customers 10 of the customers we spoke with had formerly been Xfinity Internet subscribers, 5 had never been Xfinity customers, 2 were currently Xfinity customers, and 1 had a Comcast service but did not have Xfinity Internet

Professions

- Retail Store Auditor
- Graphic Designer
- Navy Submarine
 Electronics Technician
- Public Library Worker
- Communications Worker
- Special Education (Autism)

- Nonprofit, Music Education
- Photographer
- Disc Jockey
- Nonprofit, Founder
- Chef de Partie
- Home Health Aid

- Technical Support Representative
- Student / Wal-Mart
- 3 participants were on disability/SSI





Molly recently moved to Chicago to expand the reach her grassroots organization. Having been a single mom on welfare, Molly was inspired to start a charity providing donated cars to welfare dependant mothers who want to get back to work. Passionate and articulate, Molly is focused on growing her organization. This is the primary need for her home online access. She lives in a nicely decorated basement apartment downtown where she and her boyfriend often work online via an Access Pass. She first discovered the passes when her landlord decided to stop paying for Internet without telling her. Molly's income is unpredictable due to fundraising, but she is looking into a subscription Internet service.



35-44 year old woman

- Lives in a brownstone basement apartment in Chicago, IL
- Makes between \$30-39k a year self employed
- Her income is unpredictable (fundraising)
- Access Pass Use: Complimentary, 30 day
- Used service for 6 months to a year
- Somewhat satisfied
- Pays for passes as she used them
- Uses laptop all passes on one device
- Does not have home internet—was never an Xfinity customer

"Renewing is a bit cumbersome and I wish it was a bit less expensive."

Pay bills
Shopping
Movie/Videos
Music
Read Articles
Social Media (Twitter)
Check Email



Gerald is an effervescent young man living at Marshall Field Garden Apartments, a 628 unit subsidized housing complex in downtown Chicago. An area in the process of gentrification, he and his mother moved there 2 years ago from the "bad side of town with all the violence." Once a job corps student, he currently works as a home health aid to his mom. Gerald and his mom live below the poverty level. Their apartment had no furniture and minimal lighting so we sat in a circle on the floor during our session. He showed us the corner of the room where he sits and uses the Access Pass on his tablet. A big fan of Beyonce and Rihanna, Gerald loves to sing and has auditioned for America's Got Talent multiple times.

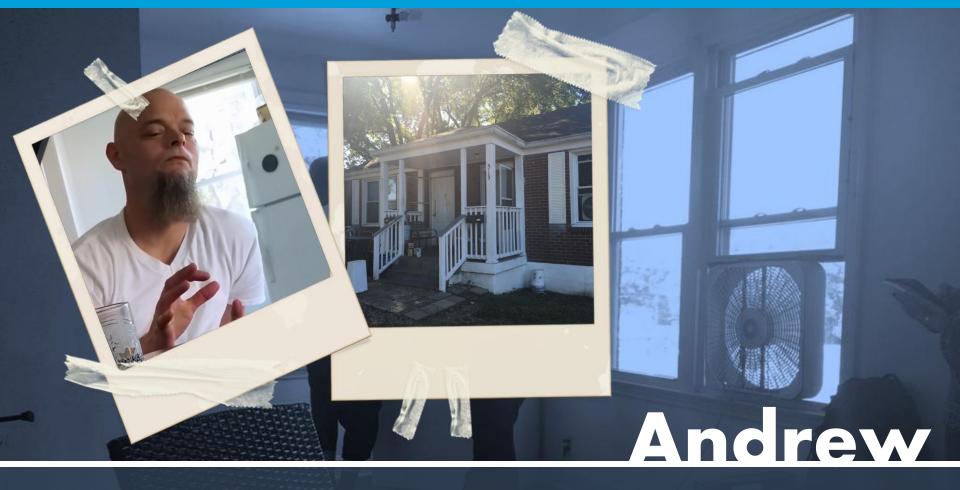


"My connection is weak every month!"

Gerad

- 18-24 year old man
- Lives in subsidized housing in Chicago, IL
- Makes under \$10k a year as a home health aid
- Was in job corps, wants to work in building
- Access Pass Use: Complimentary, 30 day
- Used for almost a year and a half
- Not at all satisfied (was actually fairly satisfied)
- Pays for passes as he uses them (wasn't aware you could setup auto-pay)
- Uses tablet
 used passes on two devices
- Does not have home internet
- Used to be a Comcast subscriber service shut off

School work
Pay bills
Movie/Videos
Music
Social Media (FaceBook)
Check Email



Andrew is a line chef at Flyte, a highly rated restaurant in downtown Nashville. He recently moved to work there after closing down a restaurant where he was chef-owner. Andrew lives in a rental duplex he is still setting up. In addition to being passionate about food, Andrew enjoys technology. He just got a new portable game console. A somewhat tough-looking guy, Andrew unexpectedly owns a child's tablet because, as he explains... "it has great hardware." He hasn't paid a cell phone bill in 3 years, because "communication should be free." Andrew uses a "burner phone" with Google voice for emergencies. Sometimes he'll go to his friend's apartment down the street when the WiFi isn't working, he is looking into Google Fiber.

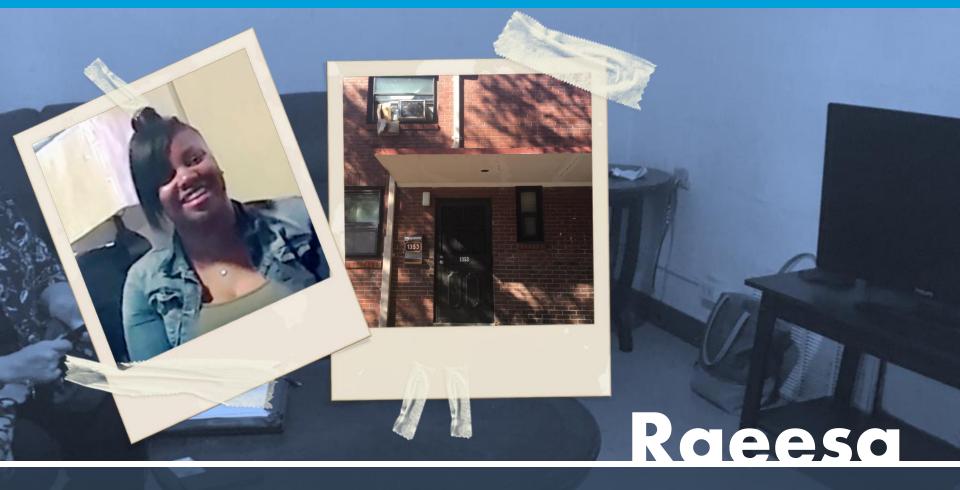


"If it was a reliable service, I wouldn't have to bother with the infrastructure of buying a router and modem."

Andrew

- 35-44 year old man
- Lives in duplex rental home in Nashville, TN
- Makes \$20-29k a year as a Chef de Partie.
- Access Pass Use: Complimentary, 30 day
- Used for two months
- Not at all satisfied (connectivity)
- Pays for passes as he uses them
- Uses tablet, just got a new gaming device.
- Does not have home internet.
- Used to have "wired cable" before moving to Nashville. Owns a modem and router

On-line shopping
Movie/Video streaming/downloading
Music streaming/downloading
Read articles
Check email
Gaming



Raeesa is a young single mom who moved to Nashville from Michigan two years ago with her three kids to "start from the ground up." When she arrived she had no contacts, no job and little money. She used the access passes very sparingly; mostly for phone calls to keep in touch with family and look for work. The service is so weak in her area Raeesa often had to stand outside on the street to get a signal. There were times money was so tight she had to choose a day pass over the week pass. Today, however, Raeesa works as 1st tier tech support representative. She has Google fiber is in her apartment complex. Google offered free monthly service for a .01 cent setup fee. She still uses complimentary passes while out.



"Technology is part of everyday life, every second. You can't do anything without it."

Raeesa

- 18-24 year old woman
- Lives in subsidized housing in Nashville, TN
- Makes between \$20-29k a year as a tier one technical support representative
- Access Pass Use: Complimentary, Hourly
- Used for between one and three years
- Somewhat Satisfied (poor connectivity)
- Pays for passes as she uses them
- Uses mobile phone used passes on two devices
- Has home Internet, Google Fiber recently offered it free for one cent installation.
- Used to be a Comcast subscriber service shut off, still owes money on account.

Pay bills Social Media Working Remotely



Kaire is a young woman in school to become a Medical Assistant. Half of her class work is online so she needs to be connected for school. She also works part time at Wal-Mart. They offer free WiFi but she finds it too slow. Two months ago Kaire moved into her first apartment with her boyfriend who pays for the Xfinity Triple Play package. Before this, however, she had started using access passes while she was staying with her grandmother who did not any Internet. She learned about the service after her younger sister in high school told her about it. Kaire is learning how to budget her money for what must get paid—like rent—and what can be put off if needed…like Internet or cell phone service. She recently rescued a kitten.



"Tech is life, honestly, ...that's the first thing you pull out, your cell phone."

Kaire

- 18-24 year old woman
- Lives in an apartment complex in Baltimore,
 MD with her boyfriend.
- Has a household income of \$30-39k a year, she works part time at Wal-Mart.
- Access Pass Use: Complimentary, Hourly
- Used for almost a year and a half
- Not at all satisfied (actually was fairly satisfied)
- Pays for passes as he uses them
- Uses on mobile and laptop
- Has Xfinity Triple Play, paid by her boyfriend.
- First apartment, never has Xfinity before.

On-line shopping
Movie/Video streaming/downloading
Music streaming/downloading
Read articles
Social Media



A well spoken and affable woman, Arlene was in the process of moving into her new apartment after three years of "roughing it" on the streets. She had decided not to go to shelters and spent most of her days in libraries and coffee shops. Arlene began using access passes—particularly free passes—as a way to keep in touch with family and friends while homeless. Arlene pieces together her Internet access across multiple devices. She has a tablet, a WiFi only smart phone, and an inexpensive Wal-Mart smart phone with cellular service. Enthusiastic about technology, Arlene has been using computers since the 80s. We met with Arlene in the lobby since there wasn't anything in her apartment yet.

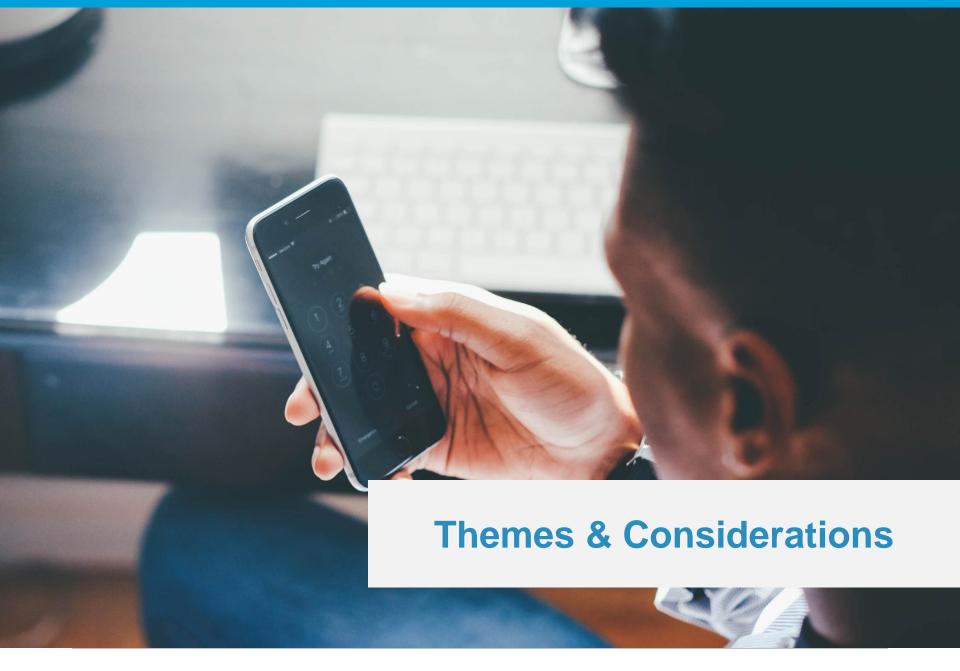


'For me [Internet] is a necessity. Everything I do is online."

Arlene

- Woman age 45-54
- Lives in subsidized housing in Baltimore, MD
- Makes \$10-19k a year on disability, recently gained access to subsidized housing
- Access Pass Use: Complimentary, Hourly
- Used for one to three years
- Not at all satisfied (actually was fairly satisfied)
- Pays for passes as he uses them (wasn't aware you could setup auto-pay)
- Uses mobile, tablet and desktop 4 devices
- Does not have home internet
- Used to be a Comcast subscriber

Pay bills
Read articles
Social Media
Check email
Working remotely



66

I just did it monthly because every month is different because I don't know how long I'm going to be living here.

- Brittany, Living with a roommate

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Lives in Transition

Lives in Transition

- At least half (9) of the participants we spoke with indicated lives that were recently or currently in some form of significant transition. These changes played part in making the WiFi access pass service attractive. In some cases, initial use was to find a solution to an immediate need vs. a pre-planned decision.
 - 1. A woman who recently became disabled on SSI who likes the flexibility of being able to not have to pay a month, or pay later in the month, if needed.
 - A non-profit founder who moved to Chicago to expand her grassroots organization. Initially, her landlord paid for Internet service but decided not to offer it anymore without telling her.
 - 3. A woman who was homeless for 3 years who occasionally used the service but is now using it while she finally settles into new housing.
 - 4. A student who started using the service at her grandmother's house who had no Wifi. She recently moved into her first apartment and is a Xfinity home Internet subscriber.



Lives in Transition

Lives in Transition

- 5. A chef owner of a restaurant that closed who moved to Nashville for work. He is still getting his apartment setup, looking into home Internet options but using the service in the interim.
- 6. A woman currently living with roommate who doesn't have or want Internet. She is looking for work and planning on moving in the near term (if possible) but using the service for now.
- 7. A single mom, initially unemployed, started using the service when she moved to Nashville "by herself" and did not have enough money for service. She now works as a technical support and occasionally uses the complimentary passes while out.
- 8. A non-profit founder of a music education organization who travels frequently to Africa. She currently lives with her mother and uses the service when she is home
- 9. A Navy submarine electronics engineer who lives in the barracks while not on a mission or at home on leave. He like not having a modem setup and using the pass in other locations.

In some cases, (student, chef) the participants transition period is short-term after which the need for the PPU access pass decreases or disappears. In others, (disabled, roommate, engineer) the transition reflects a recurring situation for the mid or long term. 66

The reason I use [access passes] is to get extra bandwidth. I'm a graphic designer and take work home a lot so I use the extra bandwidth to upload files.

- Tony



High Bandwidth Need

High Bandwidth Needs

- While most participants we spoke with indicated an about average data use (email, social media, surfing the web), at least 5 participants indicated a specific high-bandwidth use. For these customers, speed and reliability was a critical factor as these individuals also had alternative options available to them.
 - A Navy submarine electronics engineer who uses the service as a luxury, "solely for my entertainment" and almost exclusively for streaming video.
 - An auditor who uses the service mostly for business to upload photos of retail location's display shelve stocking of brand products.
 - A photographer who uses it to upload and download large image files as a supplement to his home FIOS service while out and about.
 - A DJ who uses the service to upload and download large audio files while using cloudconnected music software he uses for shows.
 - A Graphic Designer who has EarthLink Hyperlink (DSL) as his home Internet but uses access passes when on a project to transfer files and use Creative Cloud.



High Bandwidth Need

High Bandwidth Need

- As expected, high-bandwidth users did not prefer the 100 MB complementary pass option when presented it as an alternative to the one hour "all you can eat" pass.
 - "I see no reason to go through the sign up and only get the 100MB. It wouldn't work for me. [I would purchase] if I really needed it- it has the same amount of sign up time maybe an extra minute to put in my credit card..."
 - o "I think it would just be better to give people an hour. It's like a set thing you can plan for. If I'm using the complimentary service and I'm half way through the video and it just cuts out and says oh you went over I'm going to be disappointed."
 - o "I worry about that because I don't know how long it would take to burn through that and if I'm uploading and downloading I feel like id burn through that in 2 minutes... There's a lot of stuff in the background with ads and behind the scenes its transferring a lot of data."
- At least 3 of the participants who expressing a strong preference for the hourly complimentary pass also indicated that 100MB would likely be enough data to evaluate the speed and quality of the service.
- In general, with the participants we spoke with, the need for a reliable high bandwidth service was discussed much more frequently than the mobility aspects of service.



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I could either be at home and buy an access pass or go to a coffee shop and buy coffee... so I might as well be at home.

- Lisa G.



There's No Place Like Home

There's No Place Like Home

The majority, (14 of the 18) participants are or were using the Xfinity WiFi access
pass as a temporary or long term home internet alternative. Instead of it being viewed
as an "access anywhere" service, many customers indicated that the convenience of
the service was in not have home equipment and/or not having to leave the home to
access a free public WiFi service.

"It's nice being at home and using the Internet" - Brittany

- Of the 4 customers who had home internet, one still used access passes almost exclusively at home (the graphic designer) as a bandwidth supplement.
- At least 2 customers who used the pass on their laptop indicated that they did not consider the laptop mobile as they would not take them out with them.
- In addition to primary home Internet use, a few survey respondents indicted a need for the passes in a second or vacation home situation where "wired" Internet would be impractical or too costly. For example, the family only visits the property at specific time frames throughout the year.

How I choose is considering my financial budget, also for how long I need it. I want to make sure I'm getting the best for my money.

- Lisa



Income Drives Use-Case

Use cases highly driven by income level...

1. Will-be Subscribers — A loose grouping emerged from the participants of customers who are or were experiencing specific, potentially short term, financial difficulties that they were actively working to resolve. These individuals would prefer home internet but they are in situations—often based on a significant life change—that makes it impractical. This group is likely to have an unpaid balance with a subscription service. There's a high likelihood these customers will once again get a subscription service when their lives have settled.

"It helps me out in a jam." - Dana

2. Stable Low Income – Another group to emerged are people in situations with somewhat longer term need for budget flexibility. There is not an immediate issue to resolve, like a move or business loss, but an ongoing living "hand to mouth" with unplanned expenses being able to throw off their monthly budgets. These customers are making careful budget choices and need flexibility to potentially stop and start service based on when they get paid or unanticipated expenses.

"If I don't have the money to pay for the next month I'm not going to get penalized" - Jennifer

Income Drives Use-Case

Use cases highly driven by income level...

3. Middle Class – Fits My Lifestyle: This group, while not necessarily wealthy, generally has enough to make ends meet and enjoy relatively stable lifestyles. These customers have a specific situational needs (high bandwidth, on the go) and/or have made vendor choices making the Xfinity PPU Wi-Fi service attractive. This group is most likely to view the service as a true "On the Go" option, vs. a home Internet alternative. They are also the group with the most competitive options.

"I have FIOS right now because its faster than Comcast... but they don't have hotspots" – Lewis

4. Below Poverty Line – Roughly 20% of survey respondents fell well below the poverty line in the under \$10k annual income range. These customers will likely be on various entitlements; subsidized housing, SSI benefits, SNAP, etc. Piecing together a solution for Internet between free WiFi options, other customer's subscriptions, and Access Passes. These customers should probably be on a subsidized program like Internet Essentials. This group is most likely to exclusively use free passes.

"It's well known because a lot of them feel like they should get an extra [complimentary pass]" – Gerald

Growing the Service

I'm under the assumption that \$55 a month is enough to get unlimited data to do what I want on my tablet...I feel cheated that it doesn't

- Crystal



It's irritating because I'm not getting what I paid for...but I realize that's part of the risk of using something like an access pass

- Jennifer



Sold "As-Is"

Currently a number of customers seem to view the service is something they discovered, somewhat serendipitously. This "skunk-works," "as-is" feel to the service, combined with serving customers' immediate "emergency" needs are likely to contribute to higher satisfaction levels despite some significant connectivity issues.

At least two participants indicated they didn't consider calling customer support after prolonged lack of connectivity because they assumed it was the nature of WiFi and nothing could be done. Another assumed the service does not come with support.

As the service becomes more defined, formalized, and advertised it will feel more like a mainstream Xfinity service. Customers will be progressivity less tolerant of connectivity issues and UI difficulties. Over the long term, the service will need to "up its game" as it broadens its reach to reduce the risk of being a brand liability.

Consider... In addition to connectivity improvements, careful messaging, and pricing changes, a potential way to keep customer satisfaction high during growth stages would be some type of data/speed guarantee. For example, letting customers know that if a session falls below a predetermined guaranteed threshold they will either be reimbursed in comparable session time or receive their money back. In addition, only time spent online with a reasonable service speed should count toward pass time.

Hello Customer, My Old Friend...

While understanding that *technically*, they are customers, most participants did not feel like Xfinity customers. There are multiple reasons for this in addition to its reinforcement in the captive portal. Ongoing use as a home Internet alternative is common with 43% of buyers using over 6 month and 72% not having home Internet. The lines between pass users and subscribers are blurred with 42% having had Xfinity subscription services.

Consider... The messaging, the UI workflows, service experience, and associated customer support of the PPU WiFi service should all make it clear to users that they are though of as full-fledged, valued customers.

A Path Back to Subscription

Former subscribers now using access passes does not seem to be direct cannibalization in a traditional sense. Many of these users can no longer afford a subscription and/or have past debt with Comcast. For some, a formal path to a low-cost subscription would be a way to reinforce brand loyalty and get more steady revenue from these customers.

Consider... Framing access pass service as a way of re-establishing "credit" with the company for consistent payments, or, some other agreement.

What's in a Name?

Another potential underlying reason for customers not identifying as a "Xfinity Customer," is the lack of branded naming for the service that resonates. The term "Access Pass" makes sense as the thing they bought—not as a brand name. There are online references to 'Wireless Internet on the Go" but "on the go" is not necessarily the way the majority of the customers are commonly using the passes. The naming "Xfinity WiFi" alone does differentiate the access pass service from use by subscribers.

Consider... Naming the product to better reinforce both the flexibility aspects of the service (vs. just the mobility aspects) and further affirm that buying the service constitutes "customer with account" status to the buyer whether currently active or inactive.

Brand/naming is out the scope of this study and its recommendations. However, naming that indicates concepts such as... "Xfinity WiFi Your Way," "Xfinity Pay as you Go" or "Xfinity Prepaid WiFi" would emphasize the control the customer has more than the assumed "on the go" usage of WiFi. Customers are clear on the "on the go" aspect of WiFi, but that is considered generically, not directly associated with Comcast/Xfinity



A Rebel Brand (Sort of)

As expected for this type of consumer service, there is relatively low loyalty when compared to consumer goods. Historic "Xfinity" and Comcast brand issues also contribute to lower loyalty. However, the nature of a portion of this population is somewhat unique in its relationship with corporations and brands.

It's likely many consider themselves "cord cutters" or otherwise averse to ongoing commitments with corporations. While messaging to a population like this can be a challenge, it can also be an opportunity to speak in a more natural and targeted way.

Consider... Ways to positively acknowledge alternative choices (i.e. Dr Pepper & marching to the beat of your own drum,) lifestyles, and mindsets of these customers. This approach—if done authentically—is likely to resonate.



Pricing

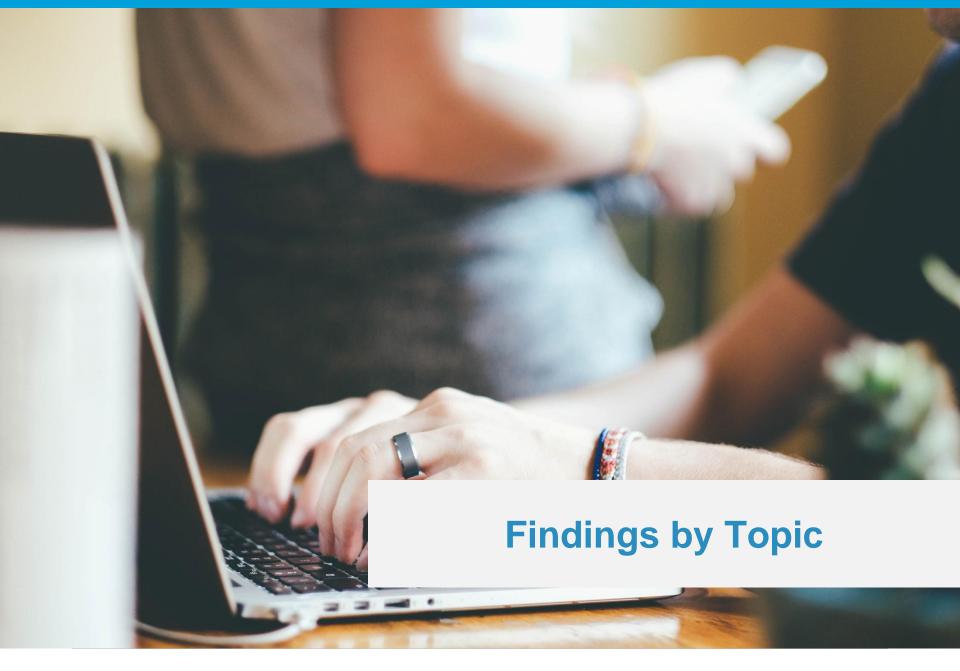
"Its fast, it's handy, but most of all its pricy." - survey respondent

When viewed in the context of a supplemental, high convenience, "on the go" service premium pricing of the shorter pass types makes sense. However, when viewed as an "a la cart" service option for lower income people who have limited alternatives, combined with often spotty connectivity current pricing could be viewed as exploitative relative to subscription pricing.

The 30 day pass, if the service quality is good, was considered somewhat high, but acceptable pricing relative to other options. Customers who discussed price had a range from \$20-60 as a monthly comfort level. Most were comfortable around \$45-55.

Connective is a hurdle to flat pricing, customers used terms like "a gamble" and "a 50/50 chance" to describe connectivity. Over 50% of survey respondents chose to use the open question to complain about connectivity.

Consider... Given the current quality level of the service, the costs of non-monthly (i.e. 30 day) passes should be lowered and re-evaluated slightly to be more appropriate for service level and coverage.



I'm an expert at doing regular tasks.

- Lisa G.

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I don't need a bundle. I just need fast Internet and I'll take care of the rest.

- Andrew

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Attitudes Towards Technology

- Generally, participants' technology experience was comparable similar broad consumer studies. Participants showed a range of technical experience, and online usage was in line with age-ranges. While participants were not tested on technical knowledge, only one would be considered to have particularly low technical literacy (Dana), while two worked in technical fields.
- While there was a range of technical experience, it was common for participants to say they were online many hours in the day and that technology (most commonly considered as synonymous with "Internet" is an integrated part of everyday life.
 - "I use my phone every day, all the time. I literally have it in my hand." Molly
- Relative to the general population, participants seemed less likely to have a paid TV service—more likely to be "cord cutters." (83% of US population has paid TV service*) Participants indicated streaming video or watching Netflix as their primary source of TV entertainment. Part of the draw of the PPU access pass is a lack of interest in any "bundled" services.
- Consider... Testing messaging that would be attractive to "cord cutters." Whether with intention or by financial constraints these customers are making an "a la carte" choice. Make people feel good about this "alternative" choice that promotes their sense of ownership. "You know what you want, use what you need."



Attitudes Towards Technology

Connectivity Options – Participants were fairly consistent in how they viewed connectivity options and their respective benefits and constraints.

Cellular

Positive

- Can be used in the car, since it is satellite
- It is the easiest to access anywhere, and often more reliable than Wi-Fi

Negative

- It's the most expensive option, it has limits and slows down after limit
- It's usually on a small screen, and there are often dead zones

Home Internet

Positive

- Internet & Wi-Fi bigger screen than Cellular
- Home Internet is the most reliable, strongest, best service

Negative

- You have to plug in; needs installation and equipment
- Can be too expensive, sometimes requiring a contract
- Not mobile

Wifi

Positive

 WiFi – Everywhere, portable, take your gadget and go outside

Negative

- Service in and out, not as reliable as other options,, potential security issues,
- Public Wifi Free. Too busy makes it slow, often a time limit, limits on allowed sites i.e. no social media, possibly not secure, have to leave home, have to buy coffee

Attitudes Towards Technology

Need or Luxury?

- A number of participants were asked if Internet was a need or a luxury—in some cases with a follow-up of the same question for the Xfinity Access Pass service.
- Most participants asked were not quite ready to call Internet a necessity (like housing, food, water), but it was not quite a luxury either... Most put it somewhere between—like a telephone—you can get by without it, but not easily.
- Generally, the access pass was considered more of a luxury, a convenience, because of the higher price and because there are free alternatives (coffee shop, library) available.

Consider... Investigating the impact of messaging that downplays the convenience aspect of the service and more closely links it to the needs and benefits of always being connected.



(i.e. this thinking is already apparent in the captive portal language switch from "Getting on is easy" to "keeps you connected.")

They wanted me to do a whole bundle and I didn't want that so I got rid of that service.

- Keita

99

I was thinking about getting Xfinity. I think I saw \$69 online—because of what I do I need the top one.

- Arlene

99

Service History & Alternatives

Overall participants were aware of various service alternatives...

- Verizon was noted as having become too expensive was \$20 per month, customers now pays \$15-\$40 for passes each month
- AT&T DSL ...was noted as too complicated
- Frontier "sucks" (is it too slow,) CenturyLink was mentioned
- **GoWiFi** is used with the Navy in the barracks, they offer 24 hours free each month but it is much too slow
- One customer has used Earthlink DSL for years, it's too slow for some things but only cost him \$20 per month
- Many customers mentioned the library, this was considered a good option but most "don't feel like walking over there." Other free options included; work, shared office space, a friend's house, Target, Subway, and Starbucks.
- Despite most participants being lower income, they were generally willing to pay for a higher speed service even when a slower free service was available.
- Consider... Eight participants mentioned having used **Starbucks** for free Wifi. Investigate as an advertizing, marketing channel.

















My first impression was I'm not going to be able to use this. I think I clicked I'm an Xfinity customer first and it asked for a username and password so I clicked back, but...I almost clicked out.

- Brian



Initial Access Pass Use

Most participants found the PPU service simply by looking in their WiFI list and seeing the Xfinity hotspot available. Sometimes it was after seeing the network name multiple times, other times it was from actively looking for an open network. A few indicated they clicked the hot spot simply because it was unlocked.

- At least 14 participants, regardless of income or other behaviors, started out using a complimentary pass. "It didn't ask for much and it was free"
- At least two participants indicated some hesitation on first seeing the Xfinity option in their WiFi network list. Molly thought it might be a "scam" like freecreditreport.com.
 Brian didn't think it applied to him so he almost didn't click it.
- At least three of the participants found the service because it "popped up" on their device. There was a general sense of it being an accidental "discovery," a serendipitous find vs. via advertisement or sales effort. One had seen the service advertised (in the subway) before using it.
 - "It kept popping up on my device, so I was like hmm, I wonder what this is. And like I said I like to explore new options so I explored it some more." – Lisa
 - "It seemed like some kind of mistake." "I didn't find it; it found me." Dana



Initial Access Pass Use

UI Issues

- Most participants described signup as simple and easy. In most cases, initial pass use was complimentary so required minimal input.
- Complimentary pass specifically didn't ask for credit card information. One participant indicated she might have still signed up if she really needed it, but it would have given her pause. Another participant indicated he wouldn't have signed up if asked.
- Some participants were not aware of an admin area, they were only familiar with the captive portal. Some frustration managing account when captive portal not available.
 - These participants indicated confusion that they couldn't find sign up screen. They wanted to go to captive portal via their browser without accessing the WiFi panel.

Consider...

- Obvious, consistent access pass portal location. Notify if no available service.
- Allowing the pre-purchase of passes

Sometimes I know I only need an hourly pass, or, if I know I have a busy week. ...first is looking at my finances then it's looking at my needs.

- Lisa



Purchasing Behaviors

Pass Selection

- Most participants selected passes based on a combination of financial need plus how much estimated time on the Internet they would be needing. Because the access pass service is considered somewhat less of a necessity than WiFi in general (i.e. you can always go to the library), when pressed, there was no clear winner for need vs. budget. Final pass selection was a balancing act.
- In some cases, pass selection was primarily financially. i.e. the participant would have selected a monthly pass but did not have enough money for it. One participant could only afford an hourly pass at certain points since she did not have the additional \$4 for a weekly pass.
 - At least one participant ordered the wrong (shorter) pass type and felt he should have been able to upgrade, or get a discount for the longer pass.
- A number of screener survey participants indicated frustration with being billed for time they were not online.
- Consider... Measuring access pass time (60 min) as time online and connected with reasonable service speed instead of a linear hour.



At that moment I was out of money so that was very helpful I was able to get online...and as money came in I was able to budget more. I bought a month's worth and then more help came in...

- Dana, Xfinity Internet Subscriber



Purchasing Behaviors

Budget Insights

- At least three participants indicated \$50-\$55 as their upper limit for home Internet.
 Most indicate a budget in the \$30-60 range as comfortable for home Internet.
- A number of participants had a problem with "bundled" services. Some viewed a bundle as the only option to get Xfinity Internet as a subscription. Many indicated the lowest pricing option for Xfinity home Internet is \$80 \$100 after installation, router, modem and fees. That price range is too high for roughly 16 of the 18 participants.

A number of participants (at least 5) indicated a clear budget progression over time

BUNDLE

where the lower cost passes were needed to get

through a short-term issue.

 Consider... .Change the 30 day pass to be a monthly recurring pass. A number of survey respondents and at least one interview participant indicated that their can be a lapse of service for a day (31days) with the 30 day pass.



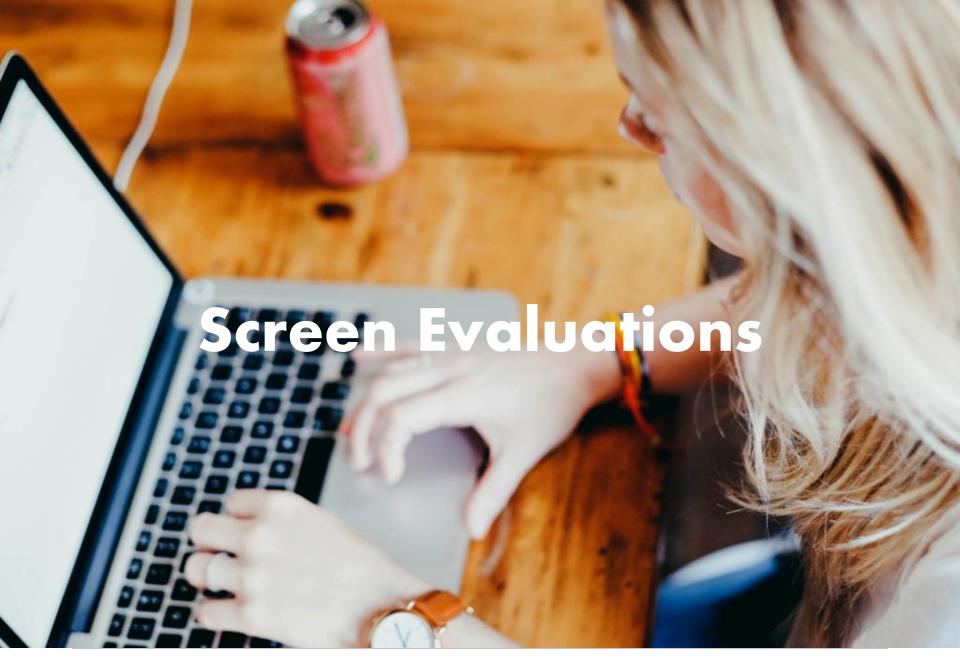
Complimentary Passes

- The complimentary pass is very successful in it's intended use as a "try before you buy" tool. There is also an unintended consequence to the free pass that customers are using it as an ongoing way to get online.
- One participant started writing down when she has a new free pass...Some are using
 it to fill gaps when they do not have money to pay for passes.
- Most participants initially used the complimentary pass. One participant first got a
 pass by buying a weekly pass during a move.
- Most customers has no concept of what a 100MB pass would allow them to do.
- A number of survey respondents had the impression that service was better during the complementary pass and then somehow slowed during the paid session. Others indicated the hour pass was shut down early—some assumed intentionally.
- This led to a higher level of dissatisfaction—they felt duped.
- Consider... Changing the "Complimentary Pass" into a limited 100mb "Free Trial" to
 evaluate the service along with time-based "reward point" passes for loyal pass
 customers. This will reduce free only users while still allowing service evaluation and
 keeping good customers relations. Add hotspot speed estimates, and potential
 warning information for home hotspots to let customers know before they buy.

Purchasing Behaviors

- Auto Pay Some use auto-pay, a few were not aware it is an option. One participant
 indicated she uses it but stops it if she thinks she will not have enough money that
 month. In general, most participants we spoke preferred not to have this type of
 service on auto-pay in case they weren't using it or needed to suspend service.
- Payment Type Pay with cc, some with prepaid gift or debit card. Pay with SSI payment card, can not return money. Cash didn't seem to be a big concern for payment.
- Retail Card Most participants did not see tremendous value in a retail card when
 they can buy the pass right from the device. Two participants indicated it would be a
 good idea to use and potentially give as a gift. Those asked to speculate,
 assumed the retail card would work like a
 Starbucks card that you "top off" as you
 need (vs pre-set pass prices)

Gift Card



User Interface Observation

Of the 18 sessions, 9 included a purchase observation and an evaluation of some new screen designs. All 18 participants were asked about 100mb complimentary pass.

- Generally, participants indicated an easy, uneventful signup. The signup process was considered a non-issue and participants felt they were quickly online.
- On reviewing the initial captive portal screen almost all participants who did a
 walkthrough admitted trying the "I am a customer" initially for one reason or another.
 The most common reason was they assumed, on a subsequent pass purchases, they
 would be considered customers.
 - At least two participants attempted to select the "I am a customer" option because they were previous Xfinity subscription Internet customers and thought the same account would apply.
 - One participant tried to get in via her old account login thinking "maybe they didn't catch on" that her service had been shut off. (Most likely she was curious what options were still available to her.)
- Once participants learned they were not considered customers they readily clicked the "I am not a customer" link without confusion and mostly then accepted this as appropriate. For most, it was only after pushing that they thought it was odd they were not considered customers.

• The disconnected login path (i.e. captive portal vs. off-network account area) is possibly the reason some participants (at least 2) indicated that they create new account logins each time they buy a pass because they can't remember their login credentials. It is possible some are attempting to login via the wrong screen.

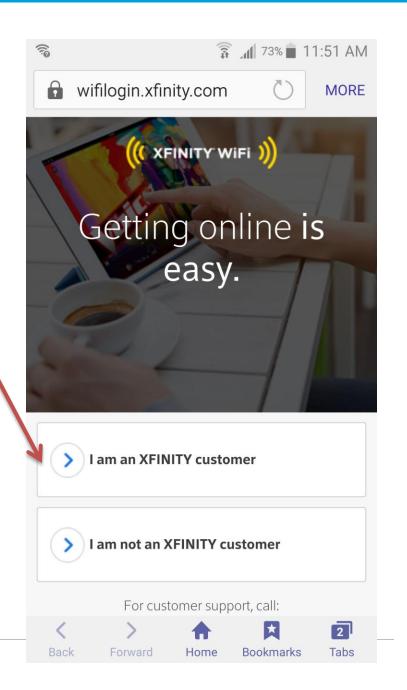
Consider... Creating one single login screen for both subscriber and access pass users. The Xfinity system, not the user, should do the "work" needed to determine the type of account based on supplied credentials. In addition, past subscription account holders should be recognized and these "accounts" should be linked.

Captive Portal Home

- Most participants initially identified as Xfinity customers, with the majority initially clicking the "I am an XFINITY Customer" when repurchasing after an initial signup.
- A few customers had difficulty finding access to their WiFi Access Pass account from a browser. I.e. they wanted to buy a pass or made an account change were not sure where to go.

"You have to be curious enough to click 'not customer'" – Lisa G,

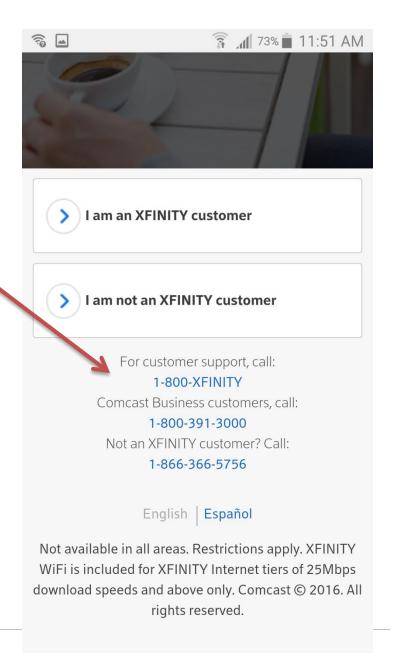
Consider... Identifying the user via the sign in credentials. i.e. The start page is the login or "I do not have an login."



Captive Portal Home: Phone Numbers

- Participants who were asked about calling support did not consider calling "Not an Xfinity customer?" number since that was probably sales.
- Of the participants who were asked about support phone numbers most indicated they would call the main customer support line.

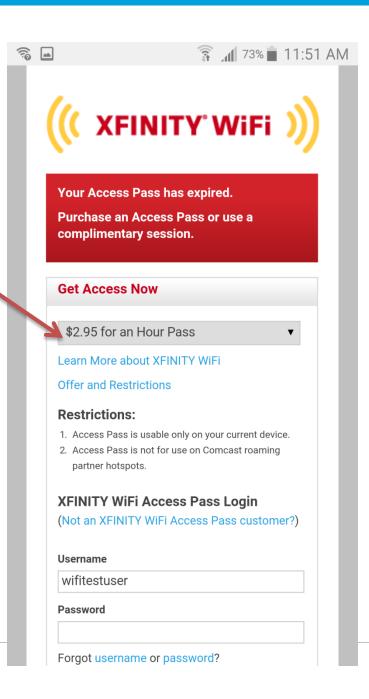
Consider... A dedicated access pass support line (already being considered)



Pass Selection

- Generally, there were no substantial issues with this screen.
- Most participants were aware the complementary pass was in the drop-down above the Hour Pass.
- A number of participants
 expressed frustration with
 forgetting their login information. At
 least two create a new account
 each time they get a pass since
 they do not remember their user
 name and password.
- At least two users observed clicked the link "Not an Xifnity Access pass customer' to setup a new account

Consider... Keep it lightweight, adding elements like requiring a CC for trial passes or more burdensome signup processes are likely to discourage this population more than other groups.

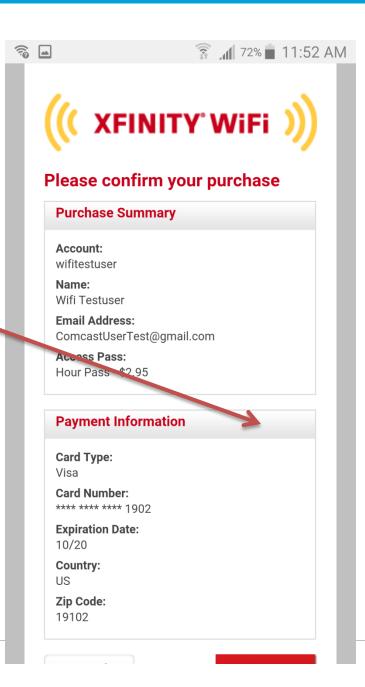




Purchase Observations

Purchase Confirmation

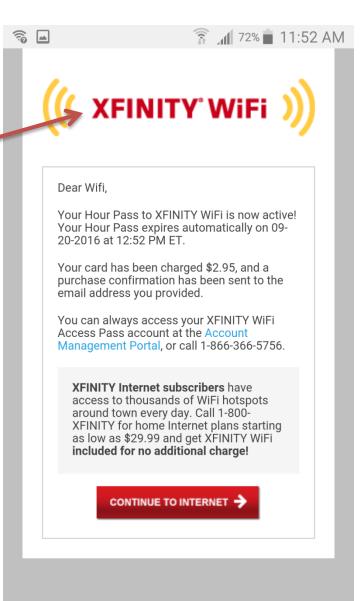
- This content made sense and did not present any significant problems
- A number of participants indicated it was very difficult to update payment information on file. At least one participant was adamant that you cannot do this and so created a new account.
- Users did not have issues with CC input (not shown) but at least one indicated this screen is where new payment type entry should be.
- Consider... Providing a more obvious method for changing payment type. Specifically, adding access to this in the captive portal.



Purchase Observations

Confirmation Screen

- This screen made sense and none of the participants indicated any issues with the content.
- At least two participants never accessed this page, the screen hung. Both were familiar enough with the issue that they assumed they were online and just pulled up a browser.



New Screen Evaluations

New Screen Evaluation

Participants were asked to view and comment on newly proposed screens. Short, specific targeted questions asked to develop a basic usability and messaging "gut check" for the proposed changes.

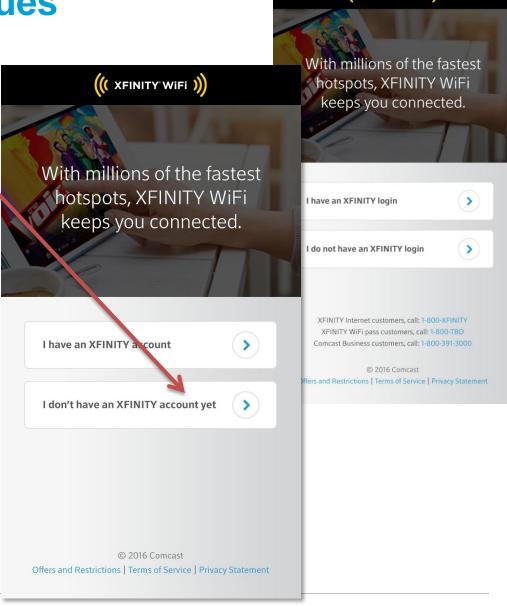
Participants were presented with flat images with no interaction. The screens were not representative of their final workflows. This approach, while satisfactory for gathering a general reaction is not sufficient to make formal usability recommendations.

- Screen evaluations are not intended to replace or compare to a formal user testing cycle
- Participants shown isolated screens, precluding any navigation or way-finding insights
- Interview session times were limited, new screen evaluations were lower priority than the main discussion. Roughly 10 minutes per session were spent on new screens.



New Screen Evaluation

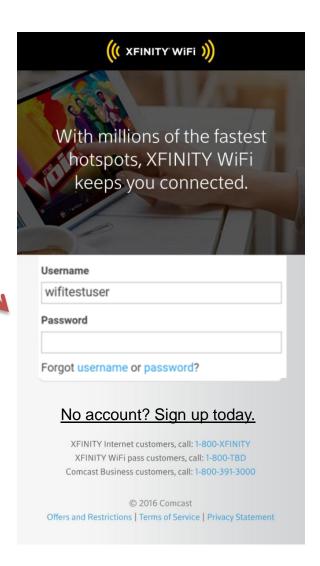
- The most common response to the word, yet, was ...
 "Yet? ... ah." As one person commented, it's a small word with a big change in meaning.
- A few participants (at least 3)
 were notably intrigued by the
 new "I am not an XFINITY
 customer, yet" option and
 indicated it as a preference.
- At least two preferred the more neutral language of the "I do not have an XFINITY account" option.
- One customer indicated that they would not click the "I am not an XFINITY customer, yet" option since it would "try to sell me home internet"



((XFINITY WIFI))

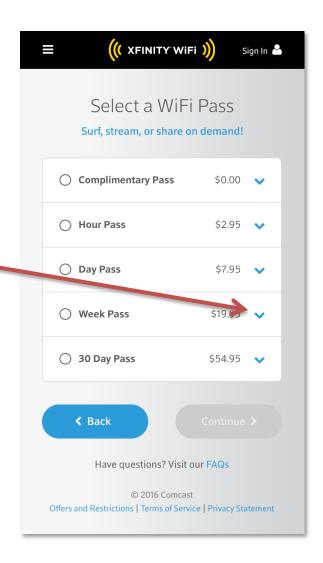
New Screen Evaluation

 Consider... One single login screen for both subscriber and access pass users.



New Screen Evaluation

- The "Select a WiFi Pass" screen was generally successful. Of the participants who were shown the new screen, most understood what they were looking at and how the screen would function.
- Two customers were not clear on how the down arrows interaction would work. This is in part because they were shown a flat image.
- A few participants indicated they were unsure what content might go under the down arrows. Complimentary Pass seemed clear but they were not sure about the others
- When asked "if you wanted to find out more about the pass types what would you do" most participants indicated they would click the FAQs.

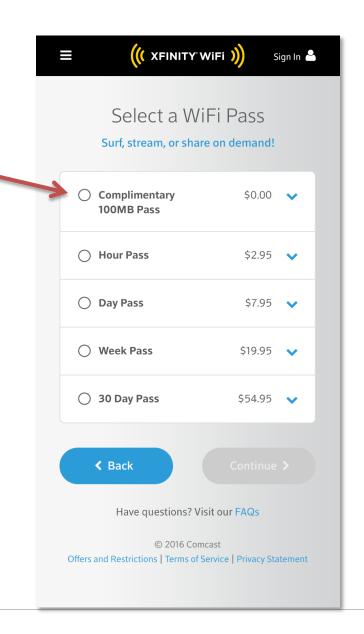


100 MB Pass

 Most participants were not sure how much they could do with 100mb. At least two has an idea of what they could do but still preferred the hourly pass.

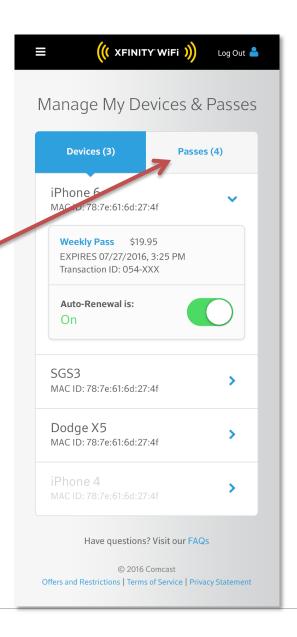
"I know what an hour is...I can get a lot done in and hour." - Lisa

 Generally, a negative assessment of the 100mb complementary pass was only when viewing it as a "courtesy" service and not a "free trial." When posed as a free trial intending to evaluate the speed of the service, participants said it was enough time.



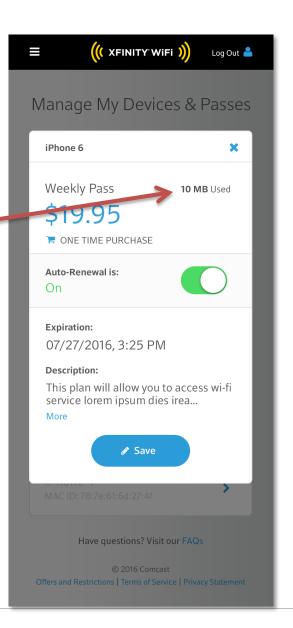
Manage My Devices & Passes

- This screen was generally well received, participants were clear on the IxD for how the screen might function.
- Some participants were not aware there are already account management functions available to them. This seems to be related to the disconnect between the captive portal and account management area.
- Participants were not entirely clear on why there was a passes tab—not sure why you would need this, some confusion
- Three users noticed and positively commented on "Dodge X5" in the list.
- Users generally knew how the screen worked from an interaction design perspective.



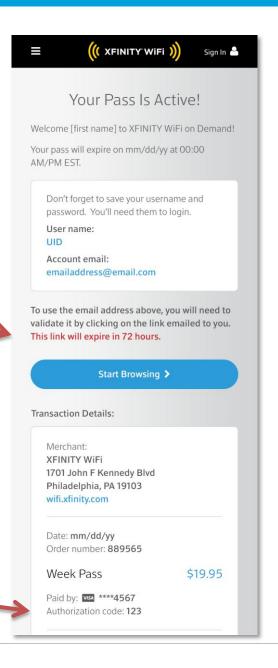
Manage My Devices & Passes - Alt

- Due to the way this test was performed, a number of participants thought this screen was a pop-up detail from the previous screen shown.
- Participants commented positively on the 10 MB Used data display.
 - When asked if they use this information in their lives they likened it to cellular data (which has limits.)
 - Generally, unless there are data limits, or possibly a problem with the service users are unlikely to really care about this number.
- Participants were clear on how this screen worked and generally aware they were in the "Manage My Devices & Passes" area



New Screen Evaluation

- The "Your Pass Is Active" screen was generally successful. Most participants were aware what screen this was and understood most of the screen's content.
- Most participants who viewed the screen had some level of confusion with the 'This link will expire in 72 hours" paragraph.
 - The confusion was specific to the language. Participants were not sure if they would be able to access the Internet (use the pass) if they did not validate the email.
 - This result is somewhat overstated.
 Most customers would just "skim" the information & respond to the email.
- Three participants assumed "Authorization code" was a Xfinity customer code, not CC related. Change the affordance of this to include the common code icon and change the label to "security code."





Next Steps

- Proto-Persona Workshop
- Persona Creation
- User Journey Mapping Workshop
- User Story Creation
- Phase Two → Design

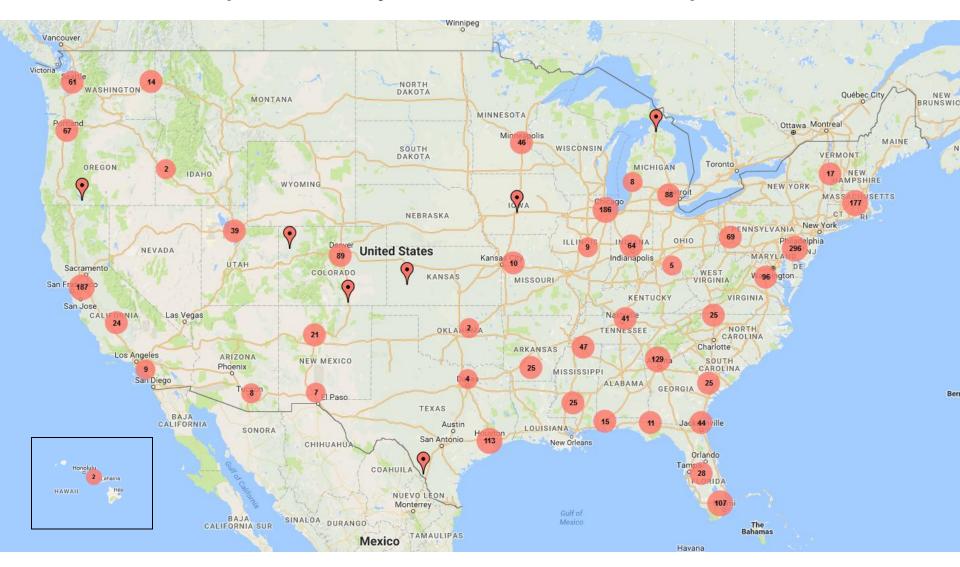


Appendix: Survey Open Question

Screener Survey Overview

- Approximately 20 questions; 1 open-ended, multiple open "Other"
 - Pass use, satisfaction level, devices, demographics
- Report Results
 - Over 4000 respondents, 2401 respondents meet the upper limit of a 99% confidence of a +/- 2% margin of error.
 - Avg. significance of a study of this type is +/- 4% error margin at 95%
 - About 50% of respondents were "Buyers" users who paid for the product in the past 6 months
 - About 50% of respondents were "Sponsored Only" users who only used complimentary passes in the past 6 months
 - Reasonable to assume Buyers are more likely to complete a survey about the product than Sponsored Only users

Responses by state based on zip code

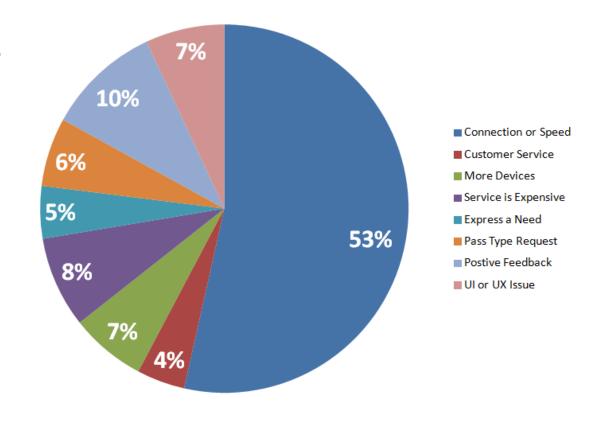


We Asked: Anything You Would Like to Share?

Open Answer

Is there anything you'd like to share about your most recent experience with the XFINITY WiFi Access Pass?

- Connection or Speed, 53%
- Positive Feedback, 10%
- Service is Expensive, 8%
- Allow Multiple Devices, 7%
- UI or UX Issue, 7%
- Pass Type Request, 6%
- Express a Need, 5%
- Customer Service, 4%



N = 2030

Connection or Speed

- "It can be spotty, and not work where it used to before."
- "The service is convenient, but the service is spotty at times and drops. I
 don't feel as if I get my full money's worth when it happens as often as it
 does."
- "The complimentary pass was wonderful. I used them up and chose to pay for 2 hours. As soon as I paid for the service, without moving an inch, the signal became nonexistent. For two hours I couldn't even connect..."
- "Ten minutes before time is up the service stops when the connection is strong. The connection kicks me off all the time and it ends 10 minutes early."



Positive Feedback

- "The complimentary pass has made me want to pay for Xfinity. If it weren't for it, then I probably wouldn't become a customer. I think it's a good method to try before you buy."
- "It works great, and when I read that a subscription would give me access to your hotspots I decided to sign up. You should advertise that! Everyone would use you as their primary ISP."
- "The customer service experience with the Access Pass service is far superior than other Xfinity services I've had in the past. Any problems I've had with the Access pass (connectivity, incorrect device/refund etc) have been quickly resolved by kind and professional reps."
- "Great idea. It fills a niche. That's pretty good coming from a person who believes you're one of the worst companies on the face of the earth. Can you tell I've had the Comcast experience once or twice :-)"

Service is Expensive

- "I think the service works well, but it is a bit pricey when compared with other internet options"
- "The passes are much too expensive, but I don't have other options."
- "The accessibility it offers is great. The price point for monthly access is a bit extreme. \$30/35 per month would be terrific! My home internet is extremely affordable but also extremely slow. To have this access as a backup (without having any one have to come into my home) would be a blessing."
- "The prices are kind of high in my opinion these should be the prices as stated below: 2 hour pass-\$1.99 Day Pass-\$5.99 Weekly pass-\$11.99 Monthly pass-\$35.99"
- "Its basically a scam. Paying full price for one device is insane!"

Allow Multiple Devices

- "If you are spending a certain amount of money, you should be able to connect more than one device."
- "I think it's ridiculous that when you buy an access pass for Wi-Fi that you can only use it on one device and have to pay for other devices. It never use to be that way. Customer service should tell u should tell you that when you're purchasing the Wi-Fi pass! Now I have it on a device that I don't even need it on and wasted the \$!!!"
- "My suggestion is that if you pay for any one of the access passes that you be able to use pass over multiple devices"
- "Cheaper price because you can only use it on one device. should be able to use it on different devices but not at the same time that would make it more fair
- "Very Satisfied but if you could transfer your access pass to another device if one certain device has it that would be great."

UI or UX Issues

- "I have to create new access pass username and password every time I want to renew my wifi service. Once I tried to renew the same access pass username and password I created the month before but I could not connect to the internet for 3 or 4 days. Then I had to call and ask for a refund."
- "Not easy to connect, I have to use NOT a customer to sign in for wifi pass although I have been using it with the same password. Thought I was a customer. Slow to start a new webpage."
- "There is no way to renew in your account details. Horrible revenue error."
- "Trying to enter the expiration date of my credit card was hellish. For some reason, it would not let me enter the numbers at all. Nothing else was wrong with the page, just that..."
- "When signing up and after entering payment the app timed out and wasn't responding so I thought it didn't go through. Got an email saying it did so I actually only was able to use it for 20 minutes"
- "It would be a nice feature for a reminder to appear so I know when my pass is about to run out."

 ecity interactive

Pass Type Request

- "It would be nice to see Xfinity offer two, or three day guest passes. Other then that I've been very satisfied.
- "Very easy to access. I'd like to see a multiple use discount, say three consecutive months get 10% off."
- "It would be nice to have another free option for wifi. I would be willing to watch an ad for 30-60 minutes of access."
- "I would like to get a deal since I spend so much every month for a pass at least and some discounts or a special for those who use it often."
- "I paid for the hourly pass & didn't use cause I fell asleep. I would like to be able to schedule when I want to use the hourly pass."
- "I think two and three week passes should be added as an option."
- "I think if a person buys and day pass and then decides on a week, the amount should be reduced..."



Expresses a Need

- "It comes in very handy. I hate contracts."
- "I love having the option to buy internet only when I need it."
- "I'm using this until I pay my outstanding bill of \$290.00 on tomorrow. It speeded up my phone a little."
- "The service is fast but I tried getting my own router for myself at my apartment but they were going to charge me 80 or more for installation. I saw the credit card option, I'm a college student so I depend on wifi 24/7 and this was a good choice for now but I still need my own wifi"
- "I appreciate this service very much. Currently I don't know if I'll be moving out or not or when so I don't want to commit to a monthly service and this pass is very convenient..."
- "It would be great if you had automatic deduction from your checking account for a pay as you go client"

Customer Service

- "Signal strength is constantly in flux. I've had to call customer service multiple times."
- "Weak signal and the one time I used 30 day pass I was charged twice for it and still couldn't sign in, customer service told me I didn't have an account yet charged my card twice..."
- "I couldn't log in on my iPhone or Kindle, and calling customer service was not helpful. I called on three different occasions and ended up on hold for 20-45 minutes each time. I finally used the leave a message about your issue and a representative will call you back shortly option, but nobody called me back. I've been trying for days and my issue is still not resolved."
- "I canceled my Xfinity account on 12 August. But today it again has been charged. Why? Very unethical! my user name is _____ and my cell number is _____ "