



**GRAND JUNCTION CITY COUNCIL
MONDAY, JANUARY 16, 2017**

**PRE-MEETING (DINNER) 4:30 P.M. ADMINISTRATION CONFERENCE ROOM
SPECIAL SESSION – EXECUTIVE SESSION, 5:00 P.M. (SEE SEPARATE AGENDA)
WORKSHOP, 5:30 P.M.
CITY HALL AUDITORIUM
250 N. 5TH STREET**

To become the most livable community west of the Rockies by 2025

- 1. [Broadband Feasibility Study](#)** - SiFi/Nokia and Think Agency, will present the results of milestone one of the exclusive negotiation agreement (ENA) which includes the demand survey results and the preliminary financial analysis for a commercially viable citywide broadband project.
[Supplemental Documents](#)
- 2. [Update on Palisade Plunge](#)** - Update on the proposed Palisade Plunge trail connecting the top elevation of the Grand Mesa to the valley floor in the town of Palisade.
- 3. Next Workshop Topics**
- 4. Other Business**



Grand Junction City Council

Workshop Session

Item #1

Meeting Date: January 16, 2017

Presented by: Greg Caton, City Manager

Submitted by: Scott Hockins, Project Manager

Department: Administration

Information

SUBJECT:

SiFi/Nokia and Think Agency, will present the results of milestone one of the exclusive negotiation agreement (ENA) which includes the demand survey results and the preliminary financial analysis for a commercially viable citywide broadband project.

EXECUTIVE SUMMARY:

As part of the City Council's Economic Development Plan, communication and technology infrastructure was identified as an essential tool for the development of commerce and industry leading to long-term economic competitiveness for the City of Grand Junction. As a result of a formal procurement process, City Council has directed the City Manager to enter into an ENA with SiFi/Nokia to complete a demand survey and preliminary engineering study to determine the financial viability of a city-wide fiber project that would meet the broadband goals established by City Council. The presentation of milestone one by SiFi/Nokia results will be presented to City Council for a potential broadband project.

Think Agency will present to Council the methodology and results of the independent survey, and SiFi/Nokia will present and explain how the survey results impact the business model and the financial viability of a citywide fiber optic network.

BACKGROUND OR DETAILED INFORMATION:

In April 2015, Grand Junction voters approved an override of Colorado Senate Bill 05-152 by a majority of 77% which allows the City to use City resources and infrastructure to provide broadband capabilities that compete with private providers. As a result of

that override, City Council directed staff to explore a public-private-partnership that would accomplish the following goals:

- The City would have substantial ownership of a fiber optic network that would pass every home and business within the City limits
- The City would partner with a company or multiple companies to provide broadband services
- Broadband services would be available to residences for \$50-80 per month and to businesses for under \$300 per month

The City of Grand Junction and the Downtown Development Authority (DDA) contracted with NEO Connect (formerly known as NEO Fiber) to assist with the development of a partnership to achieve those goals. Concurrent with completing a preliminary survey, conducting community engagement meetings and identifying existing conduit and fiber resources, the City and DDA released a Request for Proposal (RFP) in January, 2016 looking for parties interested in partnering with the City for a pilot broadband project within the DDA boundaries.

Eleven proposals were received from national, local and incumbent providers. The RFP was very open ended and allowed respondents to submit any and every option that would provide high speed broadband services, defined as capable of being expanded to gigabit speeds. It also asked the respondents to consider how their proposed solution could be rolled out to the City as a whole. The responses and in person interviews indicated that the DDA area might work for a broadband pilot, but that the service area was too small for most of the respondents to consider entering into a partnership with the City. Incumbent providers argued that broadband services are already available but that customers are unwilling to pay the required price.

After consultation with City Council, an addendum was issued to the respondents to the initial RFP that broadened the area to include the entire City and potentially the 201 Boundary. NEO Connect's team provided preliminary design, capital cost estimates and financial modeling of the areas to assist with the proposal evaluations. The revised proposals were evaluated and a recommendation presented to City Council on May 23, 2016. City Council directed staff to negotiate with one of the vendors.

After several rounds of unsuccessful negotiations that were reviewed with Council on July 5, 2016, City Council directed the broadband team to expand negotiations to include additional vendors.

Staff conducted individual meetings with CenturyLink, UPN/32Waves, Fujitsu, and Nokia/SiFi in August, which included a detailed review of financial models, assumptions for capital costs and operational responsibilities, along with potential deal structures. Updated responses were requested from each vendor. As a result of that process, staff recommended conducting exclusive negotiations with the SiFi/Nokia team.

On October 19, 2016, City Council authorized the City Manager to execute an ENA with SiFi/Nokia to determine the commercial viability of the project. The agreement contains three milestones, with the next phase being initiated only after the successful completion and acceptance of the prior phase by City Council. The milestones are as follows:

1. The first milestone includes a demand survey completed by an independent consultant paid for by SiFi/Nokia. The consultant will assess the broadband needs and price expectations of the community, develop a network desktop design, the network architecture and a financial analysis. The results of those studies will be presented to the City Council and if the results are positive and if Council supports moving forward we would develop an agreement to proceed with milestone two.
2. The second milestone would include detailed engineering reviews, physical surveys, and the development of preliminary construction documents, as well as securing letters of intent from service providers, identifying suitable backhaul, performing financial analysis and developing the required commercial structure necessary for the final round of negotiations. The results of those efforts will be presented to the City Council and a favorable outcome would result in final negotiations for full legal agreements to proceed.
3. The third milestone would be to finalize the legal agreements between all parties that would allow construction and management of a fiber network capable of meeting the needs of the objectives of the project. A successful negotiation would set the stage for network construction.

As explained in the SiFi/Nokia proposal, the purpose of the milestones is to create multiple risk-mitigated steps in the project under a partnership where the City is committed to working with SiFi/Nokia to bring the project to fruition. During each milestone, the cost to determine project viability is borne entirely by SiFi/Nokia Networks. Should it be concluded the project is not viable based on the terms of the signed Exclusive Negotiation Agreement, then there would be no cost to the City. Only if the milestones indicate the project is viable and the City Council elects not to proceed would the City pay for costs incurred up to an agreed upon cap. For milestone one, if the project is determined to be viable and the City Council elects not to proceed the City would pay for the actual costs incurred for milestone one up to a cap of \$50,000. The City, at any time during the process, may elect not to continue and work will cease and no further costs would be expended.

“Viability” is defined in the Exclusive Negotiation Agreement as: a FTTx project extending fiber to substantially every premise in the City with an initial retail rate of a 1 gigabit per second internet speed to residential subscribers not to exceed \$80 per month per subscriber and contended 1 gigabit per second internet speeds to business subscribers not to exceed \$300 per month per subscriber (slower speeds may be offered at lower retail rates) and by year 5 of the project, projections incur no cost to the City that cannot be covered through the revenues of the network and provide some revenue or quantifiable revenue potential to the City.

Think Agency will present to Council the methodology and results of the independent survey, and SiFi/Nokia will present and explain how the survey results impact the business model and the financial viability of a citywide fiber optic network.

City Council will be asked whether staff and SiFi/Nokia should continue and complete milestone two.

FISCAL IMPACT:

According to the terms of the Exclusive Negotiation Agreement, the City agrees to compensate SiFi for performance of work completed under this Agreement up to a cap of \$50,000 for quantified work completed during milestone one, and a cap of \$200,000 for milestone two if the project is deemed viable and City Council chooses not to proceed.

Based on the survey results and the business modeling, this project has been proven viable through milestone one.

SUGGESTED ACTION:

Provide direction to staff on whether or not to enter into milestone two of the Exclusive Negotiation Agreement presented and approved by City Council on October 19, 2016.

Attachments

ATTACHMENT 1 – Residential Survey Results

ATTACHMENT 2 – Business Survey Results



In Partnership with:



**Grand Junction Market Demand Study
Household Internet Service**

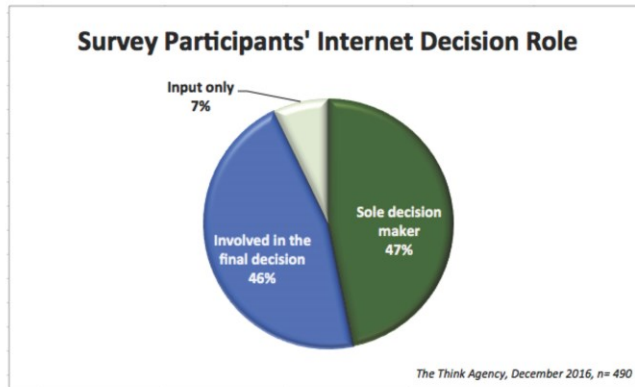
January 16, 2017

Background

The Think Agency was approached by SiFi Networks to conduct a market demand study within Grand Junction. A study needed to be fielded to uncover demand and potential price points for new, improved internet service. Additionally, the study needed to uncover the service(s) and attributes that would need to be included with a new internet service offering. In order to deliver the most scientific, methodologically sound study, Think engaged 360 Market Reach to solidify its own market research background. The New York firm assisted in the design of the survey and the acquisition of survey respondents through sampling firms. 360 also helped in the analysis of both the residential and business survey results.

Methodology

More than 11,000 residents were randomly invited to participate in the research study via email. The lists were purchased from an aggregator of opt-in email names and email addresses that include USPS verified postal addresses. 360 Market Reach was able to customize the list by emails marked as Grand Junction. The research did not allow for “self selection,” in that the sample was random and a link to the survey was not made public. In exchange for completing the ten-minute survey, participants were provided a \$10 gift card. Only individuals who are involved in the internet decision-making process either as the sole or joint decision maker or as an influencer on the decision were allowed to participate. If a respondent indicated that they were not part of the decision process, they were terminated out of the survey.



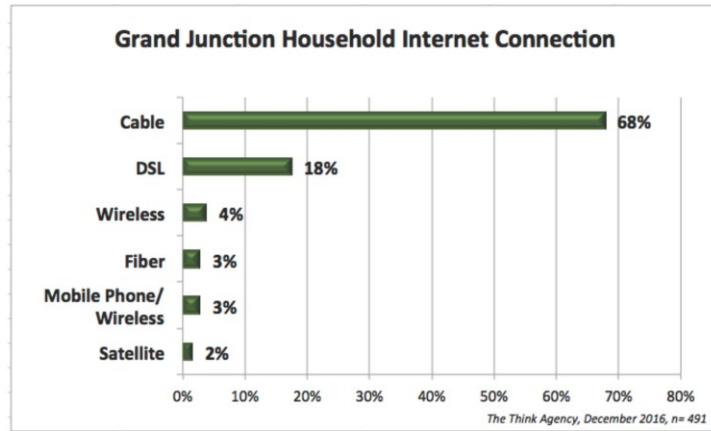
Potential survey participants were sent one initial invitation and two reminders, with 491 survey responses coming between approximately November 20th and December 8th. The nearly 500 completed surveys provides an accuracy of +/-4% and a 95% confidence level.

On average, each survey participant represented a household of 2.3 individuals, mirroring Grand Junction census results. As minors and on-campus students were not surveyed – they do not have internet decision-making power – the age was in line, albeit older than census numbers at an average of 55.74 years of age.

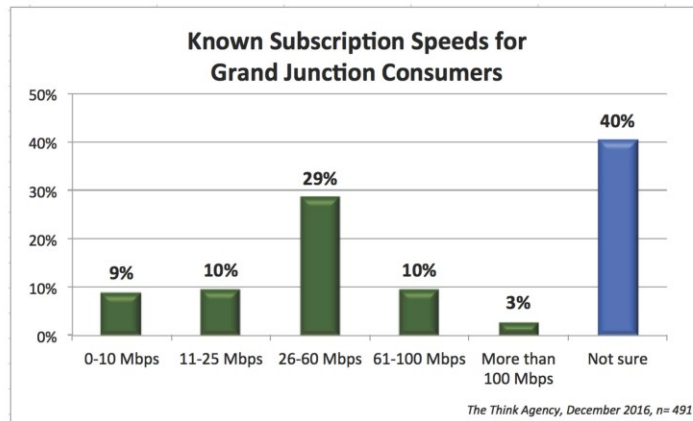


Respondent Overview

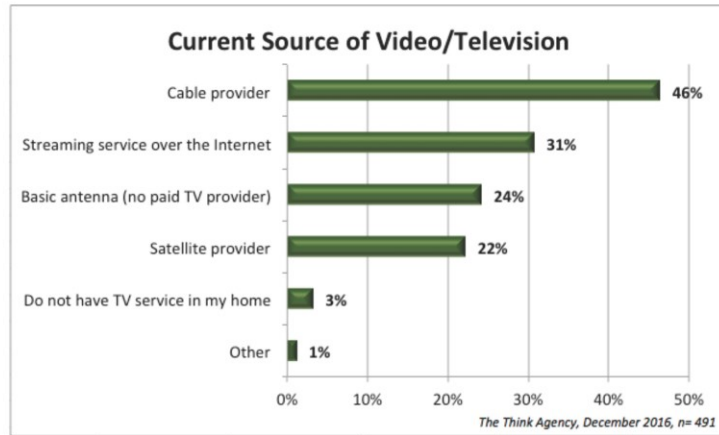
More than two-thirds of households receive their home internet connection via cable (68%) with lower capacity DSL serving 18% of survey respondents. This service needs to support what residents report to be, on average, **9.9 internet devices per household**.



While nearly half (48%) of households receive service less than 60 Mbps, what's perhaps more interesting is that 2 in 5 don't know their current level of connectivity. With any new offering, marketing messaging will need to focus on more than just speed levels that may seem arbitrary or impossible to understand for a large portion of the Grand Junction residential market.

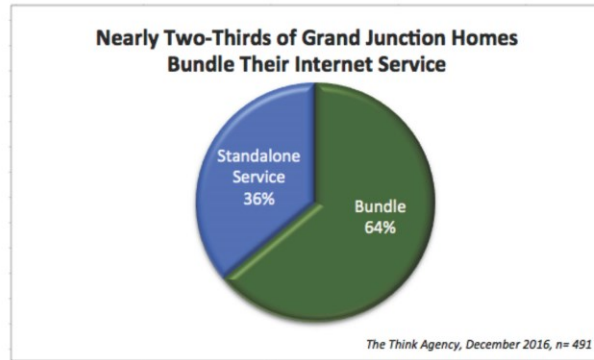


Whether or not to offer video service will be an important decision for the new carrier’s offerings. As such, we asked current residents how they are currently receiving their television service. The 46% who receive their television from the cable company is significantly less than cable internet subscribers (68%).

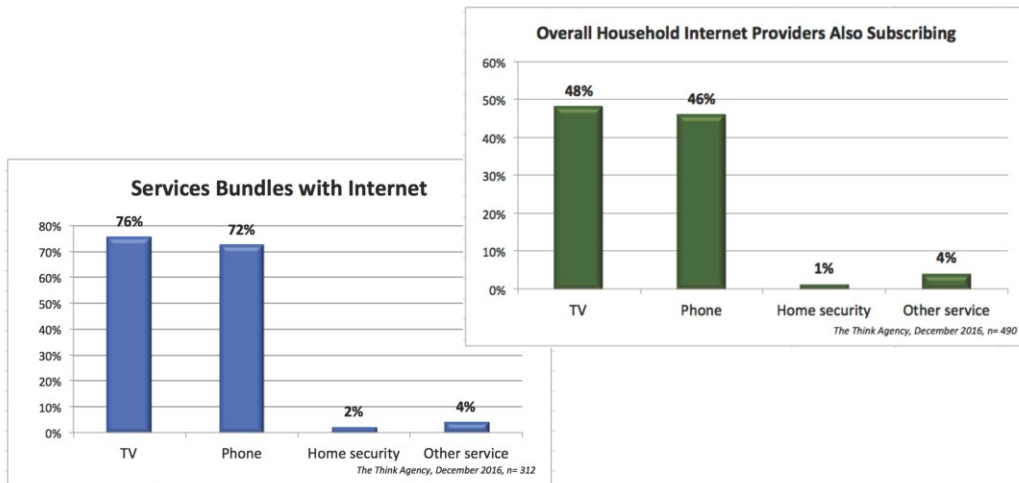


Bundling

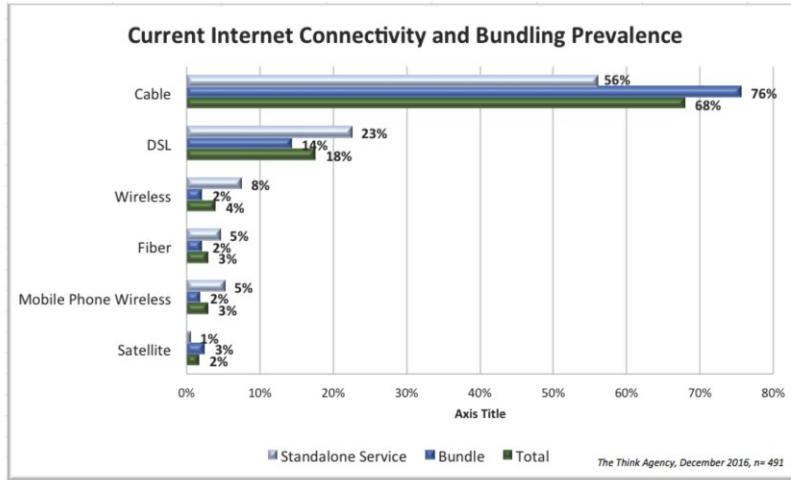
Nearly two-thirds of households bundle television, telephone, or both services with the internet service.



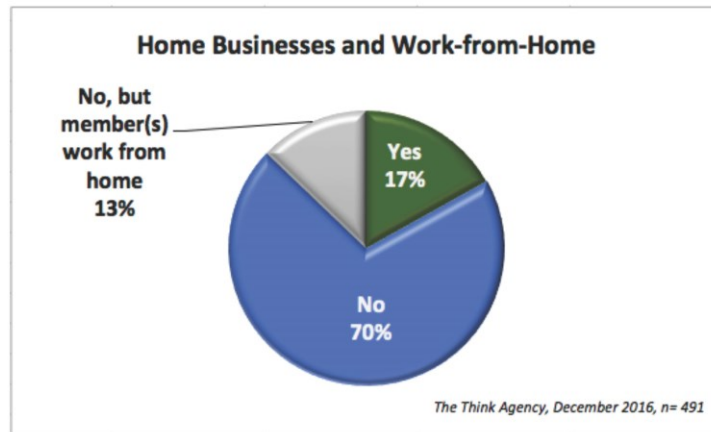
In terms of what bundlers are bundling – 3 in 4 (76%) bundle television and slightly less (72%) bundle telephone service with internet. Also reflected below is the overall total of internet subscribers who bundle television and telephone, slightly less than half for each.



Interestingly, the subscribers most likely to bundle TV or phone service are cable internet subscribers.



Finally, nearly a third of homes (30%) have someone either teleworking or running their own business from home.

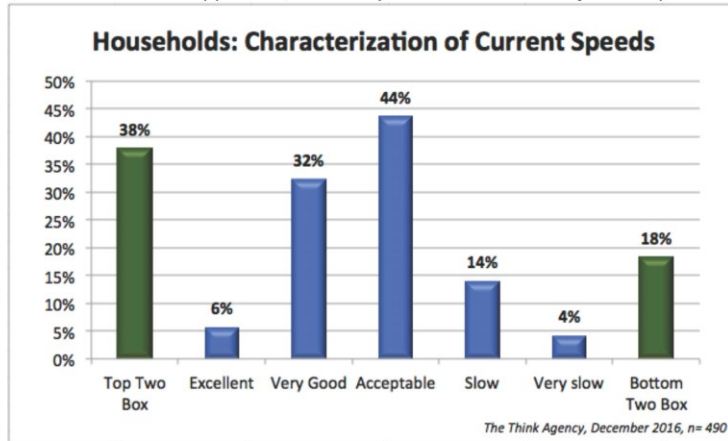


Home Internet Service: Current State

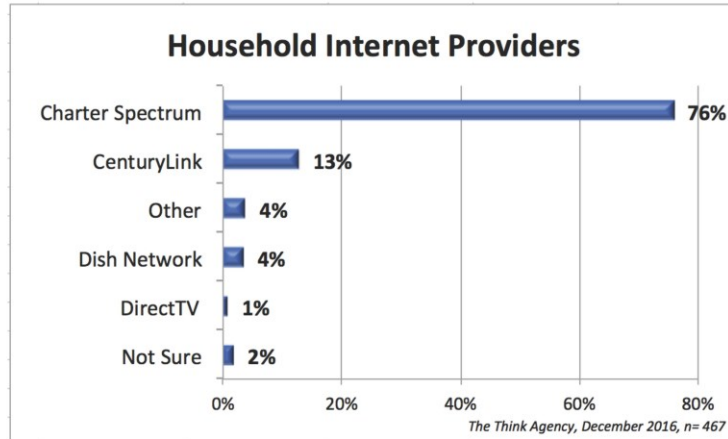
Respondents were asked a series of questions regarding their current internet service, including their satisfaction levels.

Current Service Satisfaction

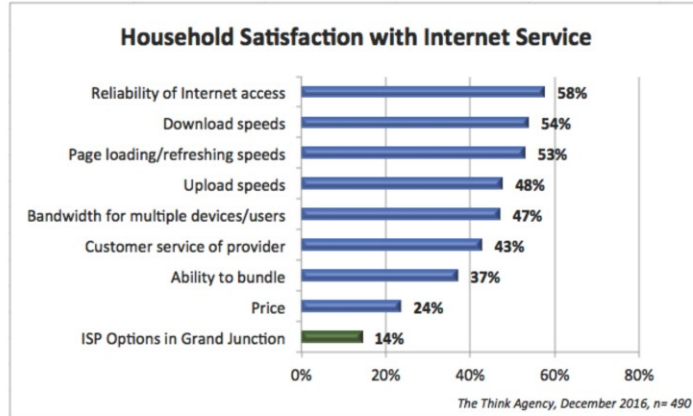
Overall, the “top 2 box” (a combination of the top two options) for describing current service came in at only 38% amongst households. In essence, less than two in five surveyed said their current speed is either “Excellent” or “Very Good.” Conversely, the “bottom 2 box” of “slow” or “very slow” answers is how 18% of households characterized their speed. The middle ground of “Acceptable” was the most common answer at 44%. The takeaway is that few are thrilled, even fewer are disappointed, and many think their service is just acceptable.



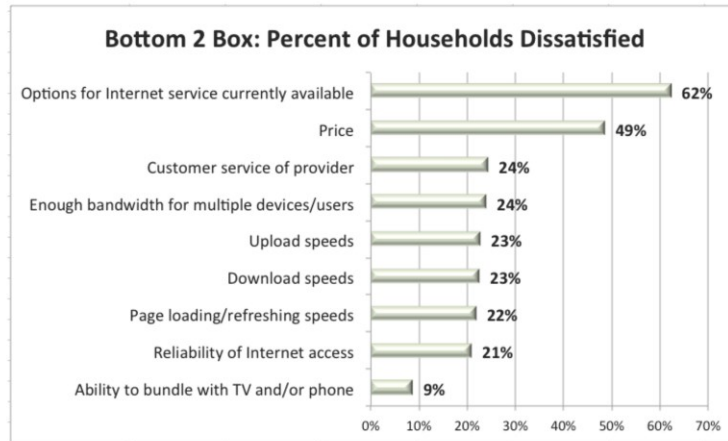
Looking at the carriers respondents currently receive service from, the majority receive service from Charter.



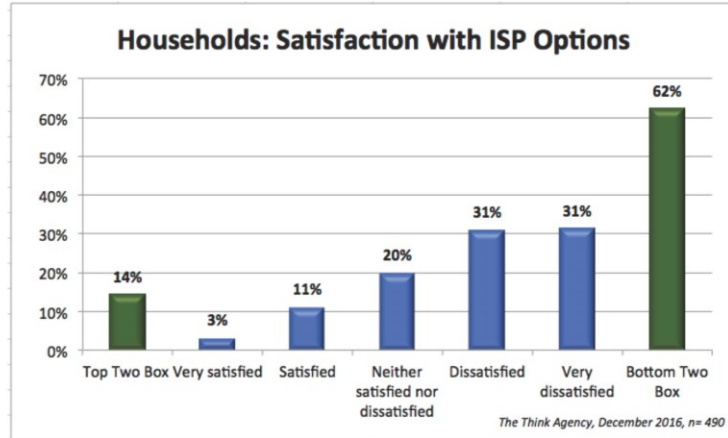
Delving deeper, when asked about satisfaction for individual attributes, the “Very Satisfied and “Satisfied” top 2 box is consistently middling – with satisfaction never topping 58% while it typically hovers in the mid-forties and mid fifties.



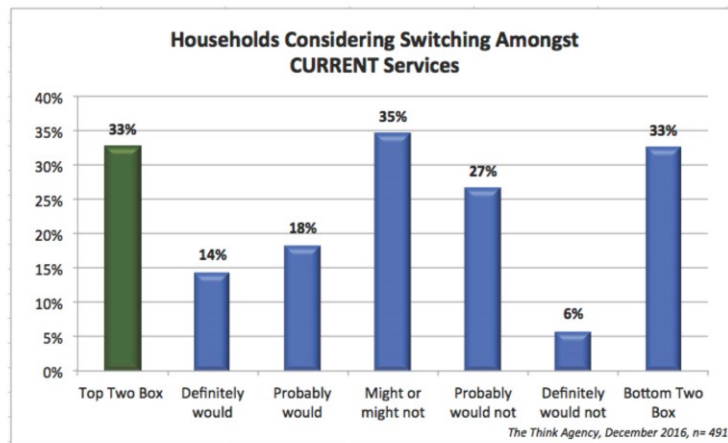
Just as illuminating, if not more so are the **bottom 2 box** scores for the same attributes. While high dissatisfaction is not uncommon for “price,” most every other attribute reflects 1 in 4 households being either “Dissatisfied” or “Very Dissatisfied.”



One exception for the consistent bottom 2 box scores is household satisfaction with the **options they have for internet service in Grand Junction**. Nearly two-thirds of respondents are not happy with their choices...



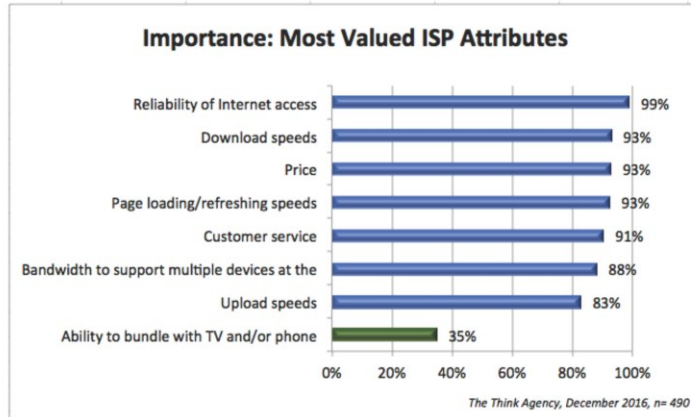
A full third are at least considering switching their internet service provider amongst current providers – that’s before a new potential service is introduced. Clearly Grand Junction households are open and in some cases even eager to switch.



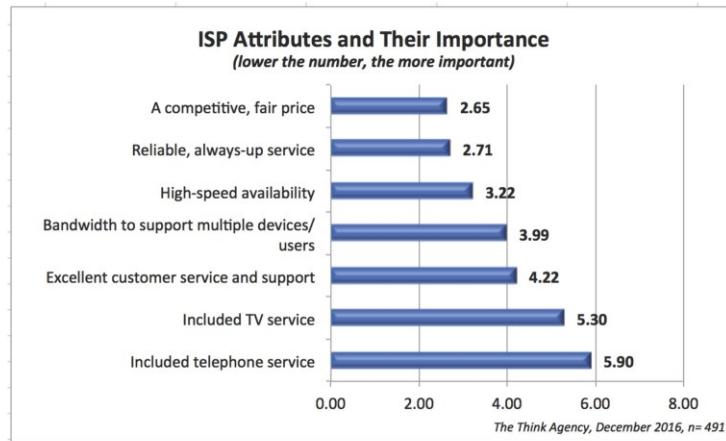
Home Internet Service: Preferences

Grand Junction households were asked a series of questions to uncover the important attributes and components of a potential internet service.

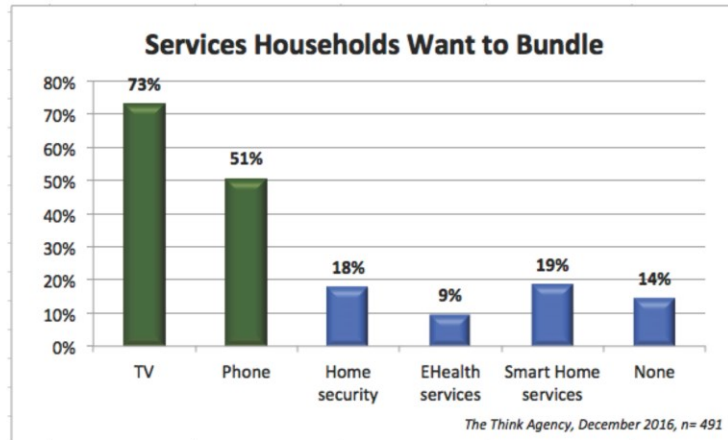
When asked what’s important, all attributes scored highly with “reliability” being the most important. The chart below reflects the top 2 box of importance. In short, everything is important to respondents except bundling.



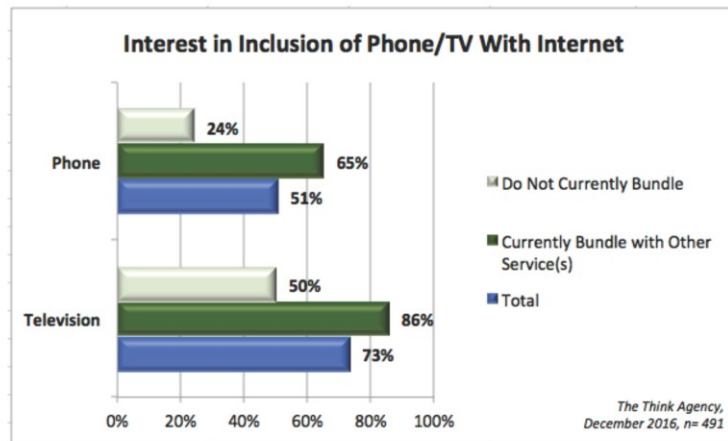
Digging deeper, respondents ranked 7 attributes, 1 to 7, in terms of which were most important. In this case price came out as most important with reliability not far behind. Interestingly, included TV and or phone service came in as the least important attributes for an internet service.



Yet, when asked, “which of the following options, if any, would you be interested in bundling with the internet service?” television was mentioned by nearly 3 in 4 (73%) respondents whole half (51%) were interested in bundling telephone service.

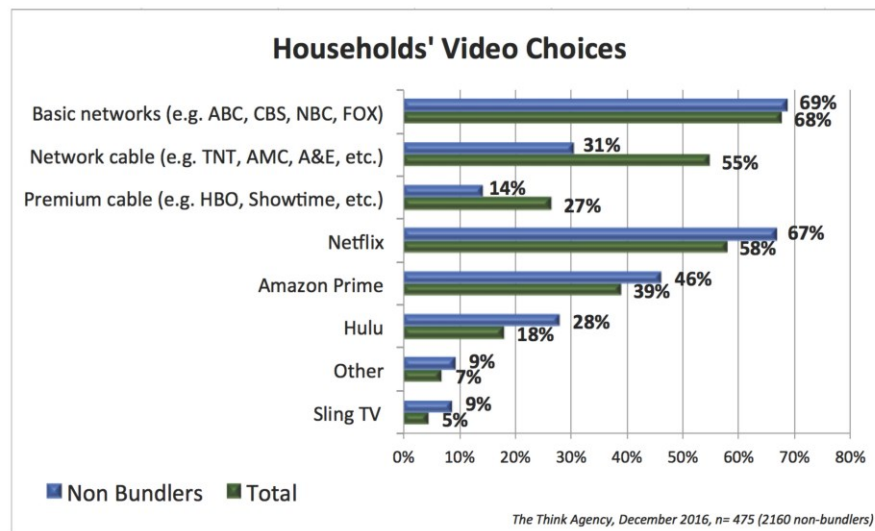


However, not all of current bundlers (green bars below) would be automatically interested in bundling television or telephone service with a new internet service. Television, however, is highly coveted by most (86%) of individuals who currently bundle TV with internet.



The survey also asked what platforms households used and watched. For the purpose of the chart below, we are additionally showing what platforms the “non bundlers” of television service are watching. This group would include the “cord cutters,” a growing demographic unsubscribing from cable TV services. While this is happening in the market, it is not happening as fast as may be perceived. Forecasters at eMarketer [estimate](#) that will take until 2019 before cord-cutting reaches 20% (1 in 5 homes)

In fact, rising subscriptions to “over-the-top” services like Netflix, Amazon, and Hulu shouldn’t lead analysts to assume that these subscribers are replacing their current television service. A [recent report](#) from J.D. Power reveals that only 13% of video streamers are doing it as part of “cord cutting.” Most streaming video customers are actually subscribing to supplement current television subscriptions, not replace them. This is evident in Grand Junction as well – as the numbers of subscribers for streaming video services are higher for the “non bundlers” than the total, but the groups subscription rates are within 10% of each other for each service.



What does seem evident from the number of households watching networks and basic cable channels that television/video availability will weigh heavily in any potential switch decision.



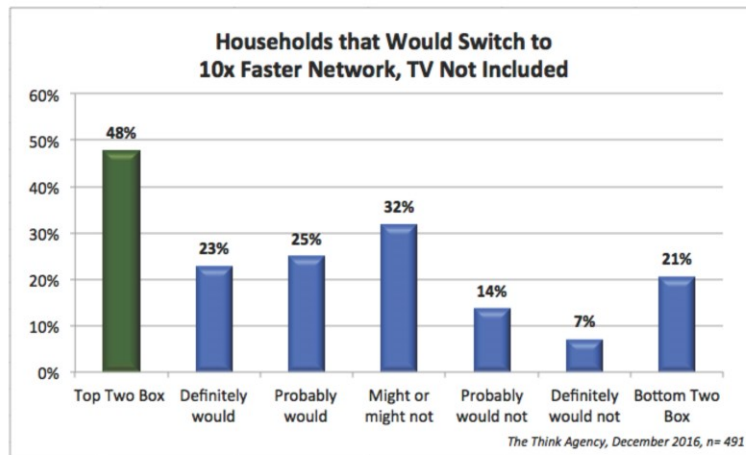
Potential for New Offering For Residential Market

Grand Junction households were asked the following:

At this time, we would like for you to consider the following scenario: If an internet service provider was to provide a NEW broadband internet service up to 10 times faster than ones available today and costs between \$50-\$80 per month, how likely would you be to switch to this potential offering in the next 12 months?

Please note: The costs referenced above do not include additional services like TV or phone. These are costs for internet service only.

Nearly half (48%) said they would “definitely” or “probably” switch to this service within the next 12 months. Although, 21% of households seem to be ruling themselves out as potential customers that would either “probably not” or “definitely not” switch. We explored some reasons why households would not consider switching later in the survey – but in this question it was made clear that television/telephone was not included, so this may deter some of the market from adoption.



Service Options: Not Bundled with TV/Telephone

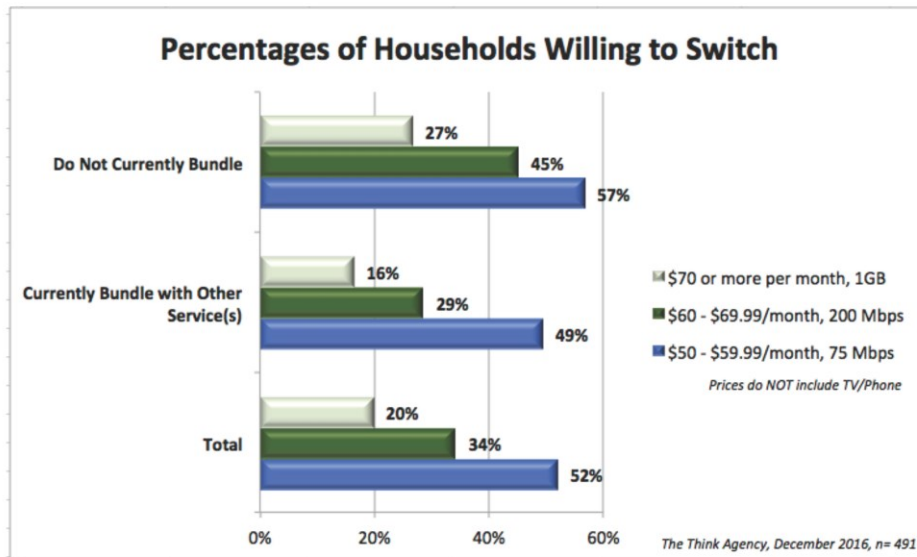
With service levels and pricing provided by SiFi, we examined three distinct pricing and service levels to see how many households definitely or probably would switch to each offering over the next 12 months. The service levels were as follows:

- \$70 or more per month for internet speeds of 1GB/second (upload and download)
- \$60 - \$69.99 per month for internet speeds of 200MB/second
- \$50 - \$59.99 per month for internet speeds of 75MB/second

How likely would you be to sign up for the following options? Please note: The costs below do not include additional services like TV or phone. These are costs for internet service only.

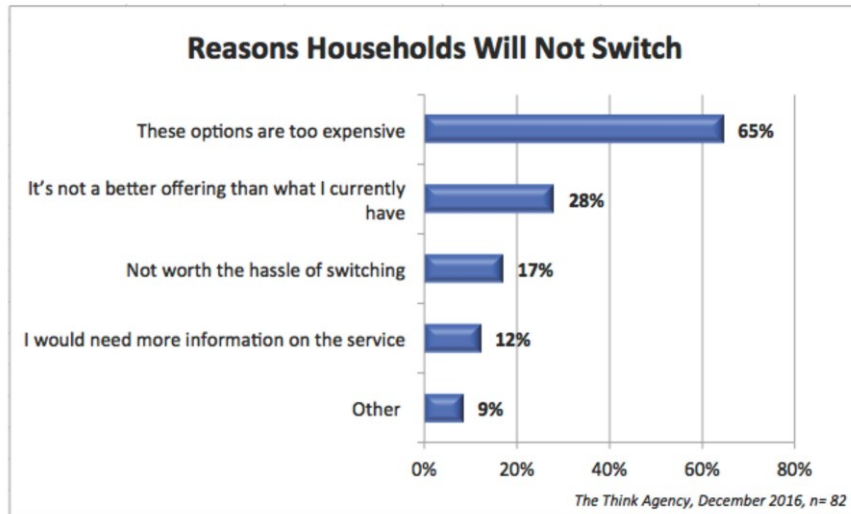
This question examines three different classifications –non-bundlers, bundlers, and the overall total. Not surprisingly, the \$50 price point is most popular amongst all three groups – but there is clear demand for all three services. Higher bandwidth/priced plans are clearly more attractive to non-bundlers as these individuals are more likely to be “cord cutting” and or streaming.

In summary, 52% of overall participants would likely switch at a price of \$50-\$59.99 for 75 Mbps. This drops to 34% when the price goes up to \$60-\$69.99 for 200 Mbps and then drops again to 20% at the highest price/speed point. The approximately half (52%) that would switch for the lowest priced offering matches the 48% previously mentioning they would definitely or probably switch to a network 10x as fast. In this case, we are providing specifics and 10x as fast may only apply to the upper two service levels (1 Gbps and 200 Mbps).



The Not Interested

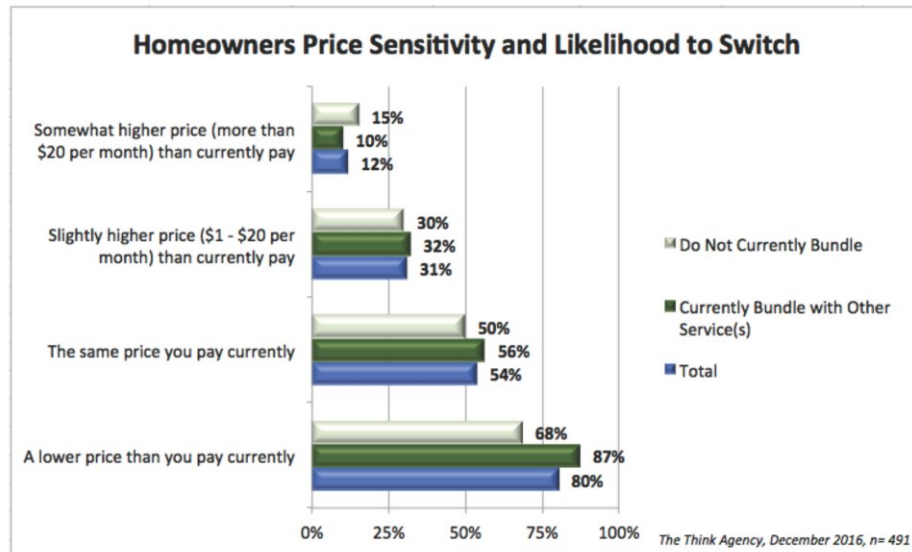
Only 16.7% of respondents expressed that they just were not interested in switching to any of the offerings presented. In spite of the relatively low prices quoted, prices being “too expensive” were most cited as the reason for not switching. Many also say it is not better than the current service/package they have. Any new service offering should have clear marketing and messaging making it clear what residents currently receive, typical price points, and the service levels and pricing of these new offerings.



Pricing Sensitivity: Bundling

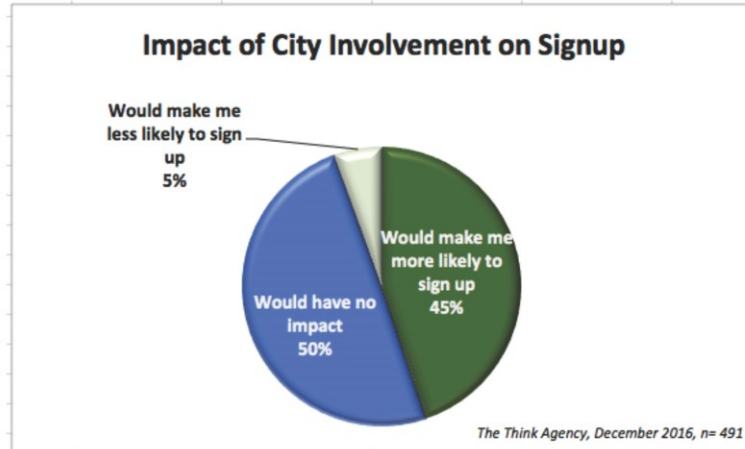
As service levels and subscription costs vary widely when it comes to video, we measured price sensitivity in relation to what households pay now. In general and not surprisingly when presented the option here, most consumers were willing to switch for the same price or a price point somewhat lower. Prices higher than households currently pay could significantly impact uptake rates.

Now, if an internet service provider was to provide a NEW broadband internet service up to 10 times faster than ones available today and could be bundled with additional services, such as TV, phone or other home services, how likely would you be to switch to this potential offering in the next 12 months? Please rate your likelihood to switch to this offering for each cost scenario below.



City Influence

A full 45% of businesses would be more likely to sign up for a service in which the city was involved with. All things being equal, this will help the offering compete and capture market share.



Take Rates

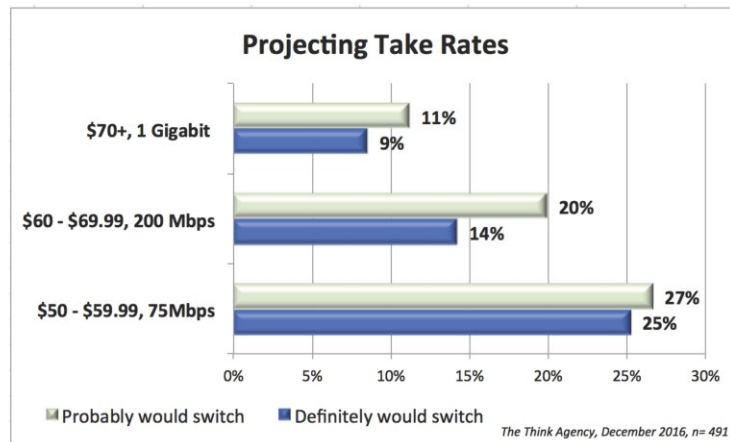
Projecting take rates in a vacuum is not an exact science. There are many variables that can impact take rates including but not limited to:

- Pricing for telephone and television service and its impact on the bundled price.
- Whether incumbents defend the market with offering their subscribers aggressive pricing deals and/or free premium channels for locking into long-term contracts.
- Plans for marketing the new network and how quickly it will be rolled out.
- Incumbent termination fees for early termination.
- Ability to offer comprehensive video channel lineups.
- Speed to market of services dictated by completion of network.

Regardless, the conservative forecast should exclude the “probably would switch” and only focus on households that say they “**definitely would switch**,” which is 25% for 75 Mbps; 14% for 200 Mbps; and 9% for 1 gigabit.

Analyzing the data shows that one third (32%) of respondents said “definitely would switch” to at least one of the three levels tested. **This gives a projected take rate of 32% in the first 12 months.** Additionally, take rate can increase significantly as respondents that said they “probably would switch” across all three options at a rate of 30%. In short, “definitely” and “probably” answers reflect a **potential** of a 62% take rate.

The research tells us that we can conservatively expect 40% - 45% to switch in year one of full operation with 15-20% more to come over the following years



Conclusion

More than two-thirds of Grand Junction households currently receive their internet connection via cable (68%) with lower capacity DSL serving 18% of survey respondents. This service needs to support what residents report to be, on average, 9.9 internet devices per household. The majority of respondents (76%) currently receive service from Charter.

Customer Satisfaction

- 62% of households are dissatisfied with options for Internet Service currently available.
- A full third are at least considering switching their internet service provider amongst current providers.

Potential for New Residential Offering

- Nearly half (48%) said they would “definitely” or “probably” switch to an Internet only service that would provide up to 10x as fast service for \$50-\$80 per month.
- 52% of overall participants would likely switch at a price of \$50-\$59.99 for 75 Mbps.
- This drops to 34% when the price goes up to \$60-\$69.99 for 200 Mbps and then drops again to 20% at the highest price/speed point (\$70+/month for gigabit service).
- The approximately half (52%) that would switch for the lowest priced offering matches the 48% previously mentioning they would definitely or probably switch to a network 10x as fast.
- Television availability will weigh heavily in any potential switch decision.

Marketing Message

- Marketing theory rightfully states that consumers purchase benefits, not features. While advertising and promoting improved speeds will indeed drive uptake, the network will not reach its full uptake potential without marketing the benefits that new, higher speeds will bring.
 - Speed levels can seem arbitrary or impossible to understand for a large portion of the Grand Junction residential market.
 - Offerings should include clear marketing and messaging making it clear what residents currently receive and the benefits they will obtain from new connectivity.
- Nearly half (45%) of residents say that Grand Junction’s involvement in this internet offering will make them more likely to sign up for the new service. Longmont, CO unapologetically used civic pride in its marketing message to successfully drive uptake – SiFi and Grand Junction should do the same.

Take Care of “The Base”

- One-third (32%) of households say they “**definitely would switch.**” SiFi/Grand Junction’s marketing, communications/PR, and customer service should take great care to be available, accommodating, and transparent to ensure this group remains in the “definitely” category.





In Partnership with:



**Grand Junction Market Demand Study
Business Internet Service**

January 16, 2017

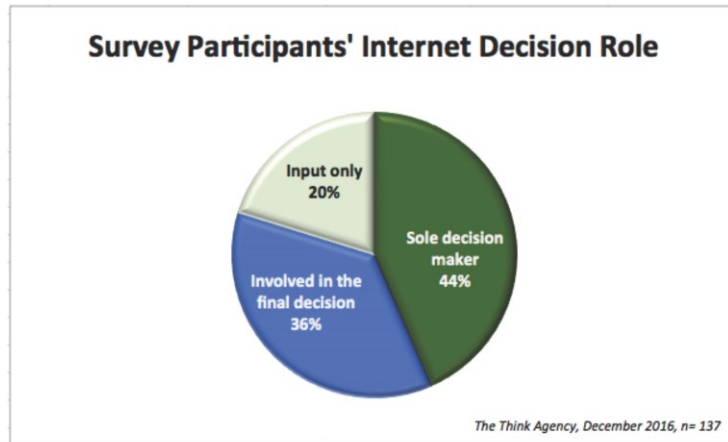
The Think Agency • www.thethinkagency.com
1657 South Riverbend Lane • Superior, CO 80027

Background: Business Market Demand

The Think Agency was approached by SiFi Networks to conduct a market demand study within Grand Junction. A study needed to be fielded to uncover demand and potential price points for new, improved internet service. Additionally, the study needed to uncover the service(s) and attributes that would need to be included with a new internet service offering. In order to deliver the most scientific, methodologically sound study, Think engaged 360 Market Reach to solidify its own market research background. The New York firm assisted in the design of the survey and the acquisition of survey respondents through sampling firms. 360 also helped in the analysis of both the residential and business survey results.

Methodology

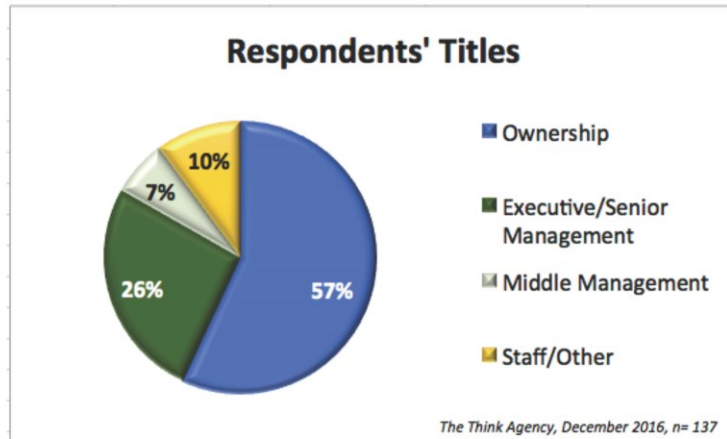
Businesses were invited to participate in the research study via email and through invitations from Grand Junction organizations. While the household survey did not rely on local entities for recruitment, the business study needed the assistance of invitations from local business groups including the Grand Junction Area Chamber of Commerce, Downtown Grand Junction, the Horizon Drive District, and the Grand Junction Economic Partnership. In all, we were able to secure 137 completes amongst Grand Junction businesses. In exchange for completing the ten-minute survey participants were provided a \$10 gift card. Only individuals who are involved in the decision-making process either as the sole or joint decision maker or as an influencer on the decision were allowed to participate. If a respondent indicated that they were not part of the decision process, they were terminated out of the survey.



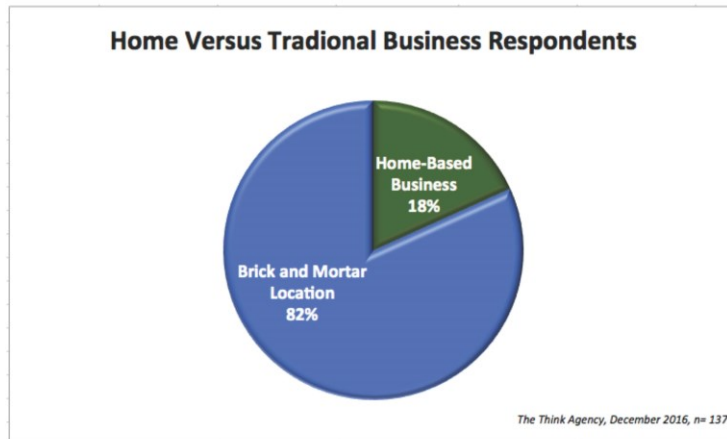
As businesses are more difficult to secure in completing surveys, 137 is a good number and barometer of what to expect in terms of network uptake. However, the margin of error falls between the +/- for 100 completes (10%) and 200 completes (7%). The estimate is that these results are +/- 8.4% at the 95% confidence level.



More than half (57%) of respondents to the business survey classified themselves as ownership with an additional fourth (26%) coming from senior management. These individuals represent businesses with a median employee size of 6 and an average employee size of 74 – meaning that a few individual respondents from large businesses are significantly impacting the average.

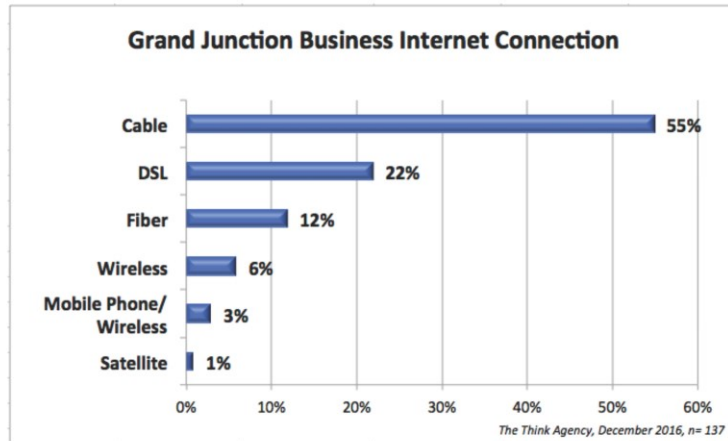


The survey did not exclude home-based businesses because some of the potential offerings will directly target this market segment. Eighteen percent of completes were home-based businesses.

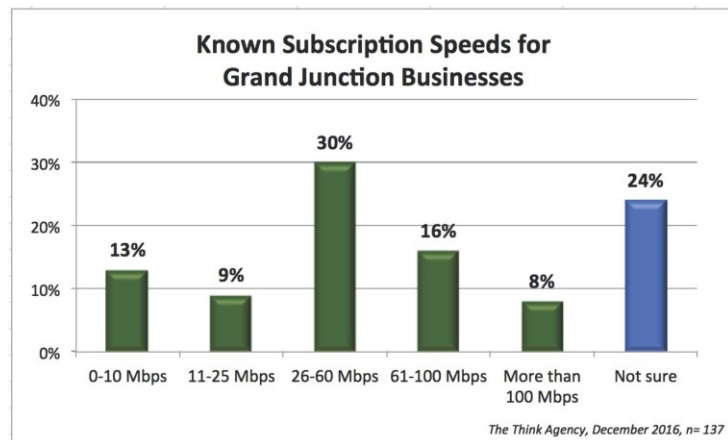


Respondent Overview

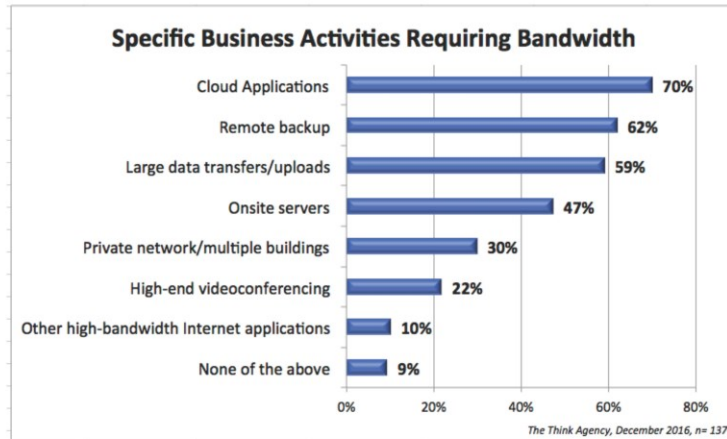
More than half (55%) of businesses' rely on a cable provider for their internet service while 22% are receiving internet from a traditionally slower DSL provider.



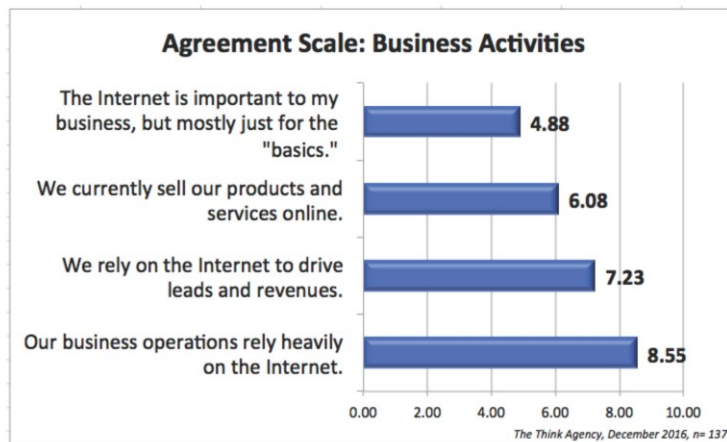
Slightly more than half (52%) of businesses have service levels less than 60 Mbps, which is surprising given the bandwidth requirements many business applications have today. Additionally, 1 in 4 (24%) do not know what service level they receive. This creates a challenge amongst these individuals to create meaning/understanding when advertising potential speed offerings.



Cloud applications, backups, and large uploads all require what could be described as “robust” internet service of at least 100 Mbps. In spite of relatively low speeds, local businesses are still performing the high-bandwidth applications below. One hypothesis would be that Grand Junction businesses are still conducting business online, but less effectively than they could be with faster internet speeds.

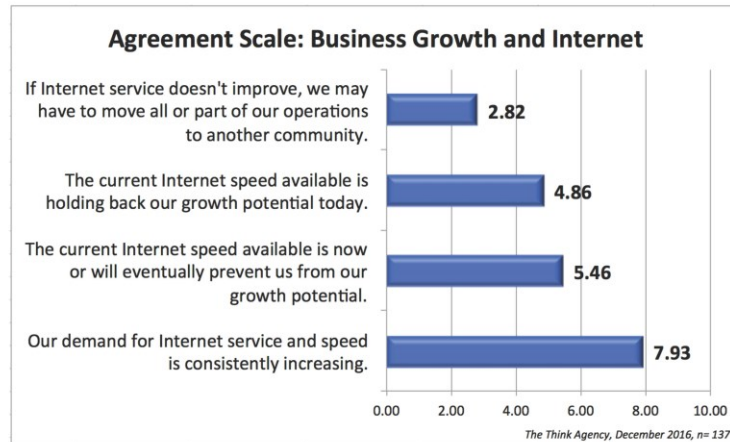


The survey presented businesses with a ten-point agreement scale for a number of statements where “1” equaled “strongly disagree” and “10” was strongly agree. The first group of attributes below shows just how many businesses in Grand Junction rely on the internet for lead and revenue generation as well as operations.



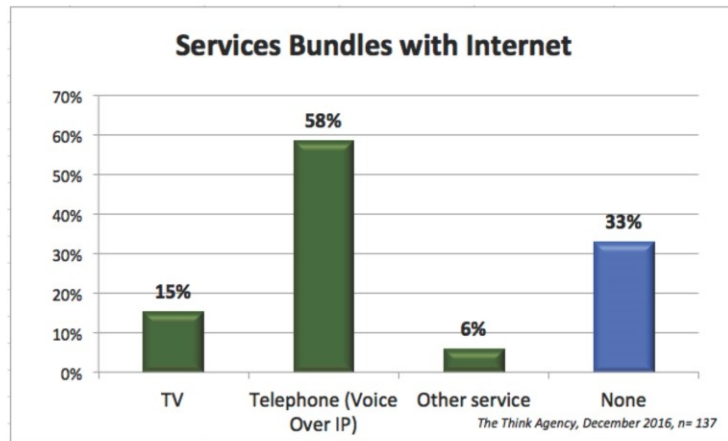
Within this portion of the survey we also examined the business implications of local internet service.

- Q: Would businesses actually leave Grand Junction without better service?
 - A: In general, not now.
- Q: Is the available internet service, given what it is, currently holding businesses back?
 - A: Sometimes, yes.
- Will present day speeds prevent future growth?
 - More businesses say yes.
- And finally, is the demand for bandwidth consistently increasing?
 - Definitely.



Bundling

As could be expected, bundling television service is far less prevalent amongst businesses as it is with households. In fact, about half of the 15% bundling television, accounts for the respondents who operate a home-based business. Telephone service is currently being bundled with Voice-over-IP services amongst more than half of respondents.

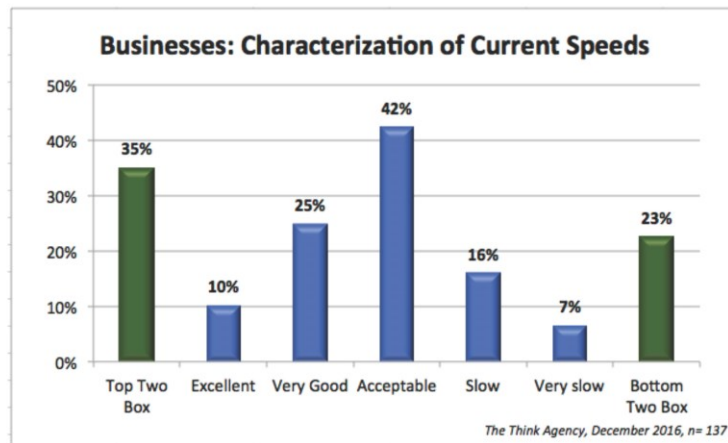


Businesses' Internet Service: Current State

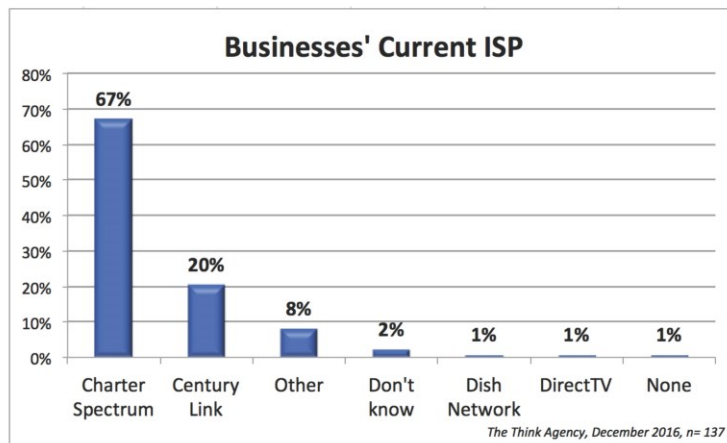
Respondents were asked a series of questions regarding their current internet service, including their satisfaction levels.

Current Service Satisfaction

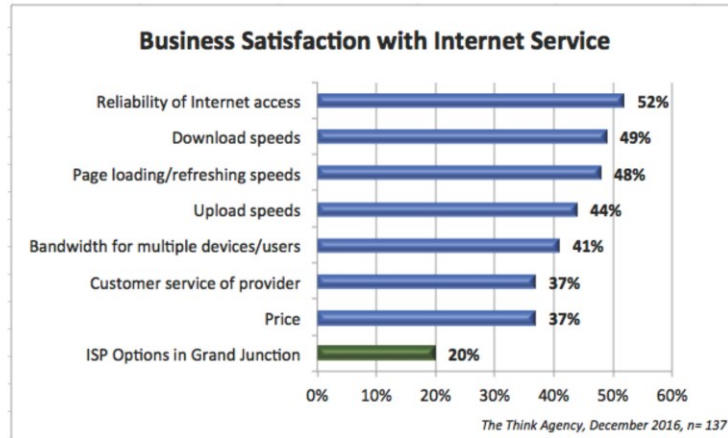
The "top 2 box" (a combination of the top two options "excellent" and "very good") for businesses describing current internet service speeds came in slightly lower than households (35% compared to 38%) while the "bottom 2 box" ("slow" or "very slow") was 5% higher than households, scoring a 23%. Businesses, like households most recently used "acceptable" to describe their current speeds.



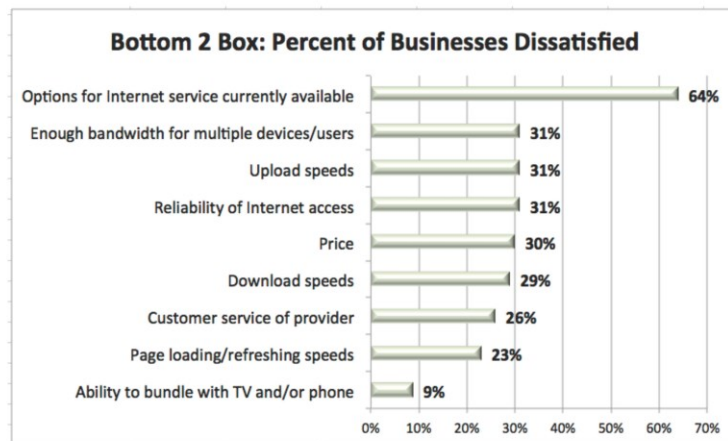
Charter (67%) and CenturyLink (20%) make up a majority of the business subscriptions.



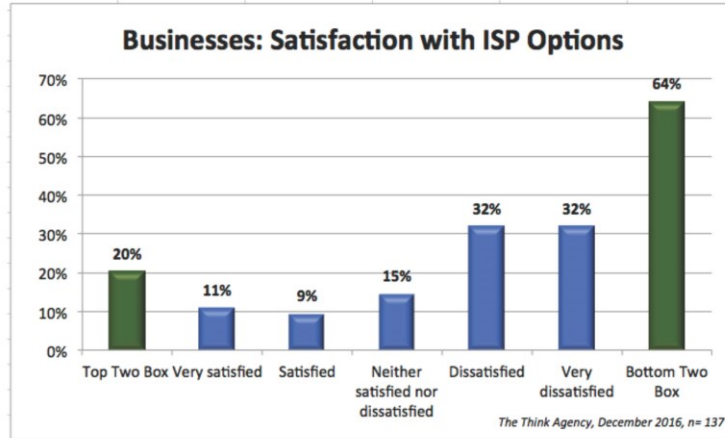
As with the residential study, businesses were asked their satisfaction with their internet service and its attributes. The scores are consistently low, with the highest ranked attribute, reliability, coming in only at 52%.



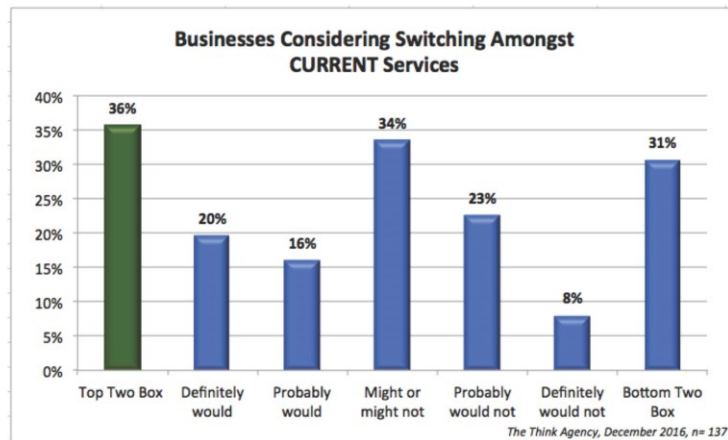
The percent of businesses dissatisfied is high as 64% of businesses are currently unhappy with the options for internet services currently available. Available bandwidth, upload speeds and reliability are also high.



It is clear from both the top 2 and bottom 2 box scores that “options for internet service” are lacking and desired.



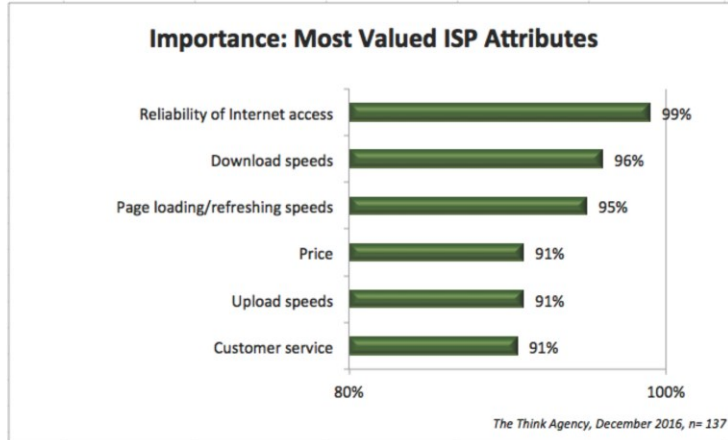
In spite of the fact that options are limited, more than a third are looking at their options to switch amongst what’s available now.



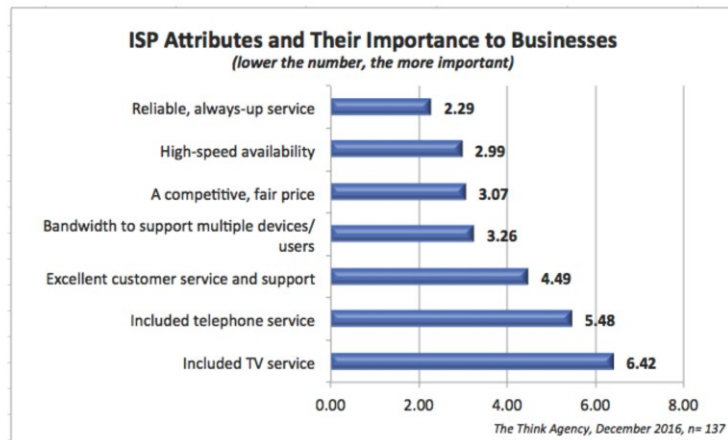
Business Internet Service: Preferences

Grand Junction businesses were asked a series of questions to uncover the important attributes and components of a potential internet service.

When asked what’s important, all attributes scored highly with “reliability” being the most important. All attributes are important to respondents at a more than 90% level.



Businesses were asked to rank 7 attributes, from 1 to 7, in terms of which were most important. TV and phone service were least important while reliability and high speeds were ranked most important.

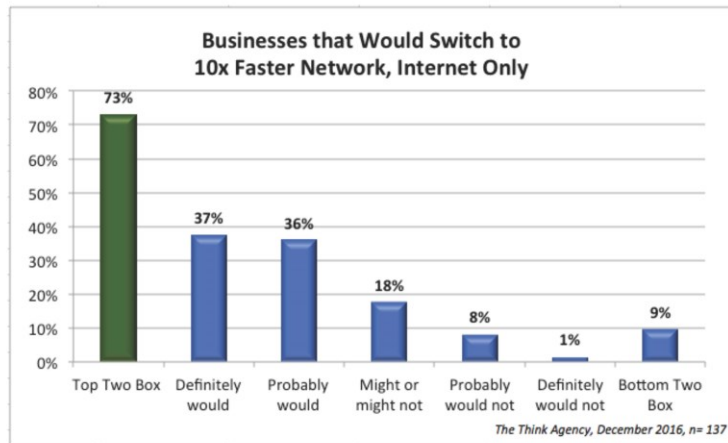


Potential for New Offering for Business Market

Grand Junction businesses were asked the following:

At this time, we would like for you to consider the following scenario: If an Internet service provider was to provide a NEW broadband Internet service up to 10 times faster than ones available today, how likely would you be to switch to this potential offering for your business in the next 12 months?

Nearly three in four (73%) said they would “definitely” or “probably” switch to this service within the next 12 months. The number of businesses that expressed that they would “probably not” or “definitely not” (9%) is less than half the percentage of businesses that showed reluctance.



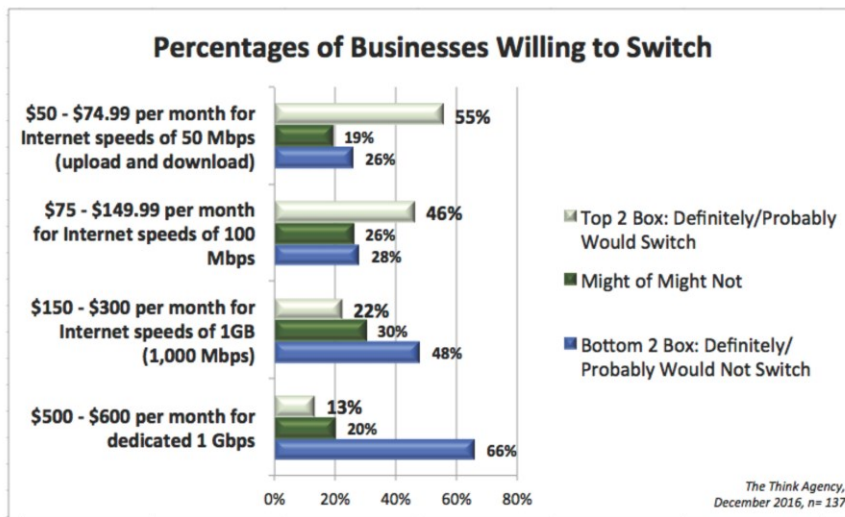
Service Options: Not Bundled with TV/Telephone

With service levels and pricing provided by SiFi, we examined three distinct pricing and service levels to see how many businesses definitely or probably would switch to each offering over the next 12 months. The service levels were as follows:

- \$50 - \$74.99 per month for internet speeds of 50 Mbps (upload and download)
- \$75 - \$149.99 per month for internet speeds of 100 Mbps
- \$150 - \$300 per month for internet speeds of 1GB (1,000 Mbps)
- \$500 - \$600 per month for dedicated 1 Gbps

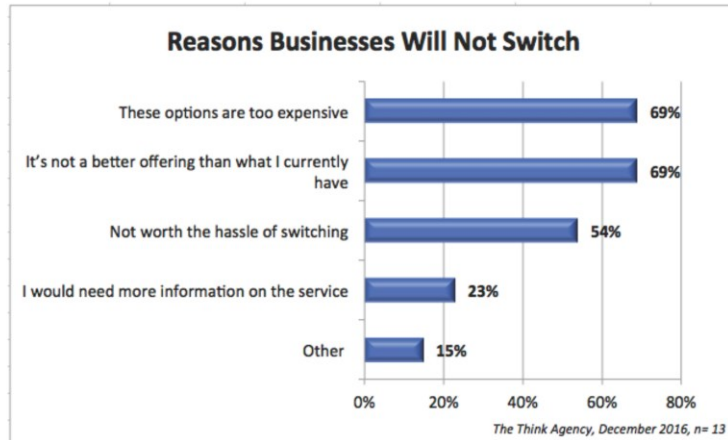
How likely would you be to sign up for the following options? Please note: The costs below do not include additional services like TV or phone. These are costs for internet service only.

The two lower-priced offerings of the four both received positive marks from approximately half (55% and 46% respectively) in terms of a service they would switch to in the next 12 months. The higher, gigabit-level; service is much lower suggesting either no need yet or just as likely, a lack of understanding as to how gigabit service can improve operations.



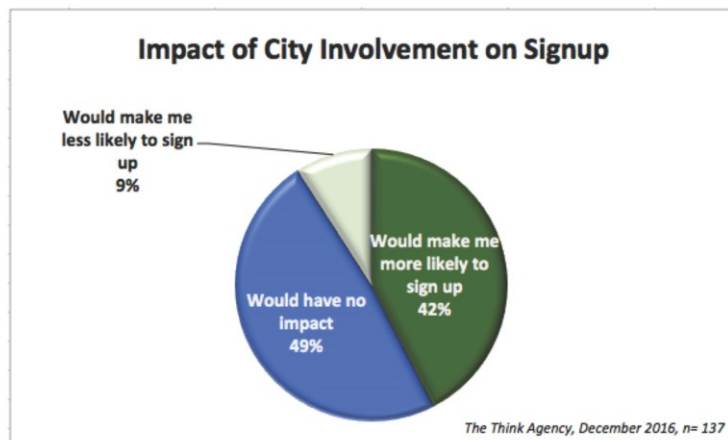
The Not Interested

Only 13 (9%) businesses stated that they were not interested in switching.



City Influence

Only 9% of businesses indicated that they would be less likely to sign up due to city involvement – mostly because of political views. More than 2 in 5 businesses would be more likely to sign up to a network that was part of Grand Junction’s efforts – giving this potential effort an edge in the market.



Take Rates

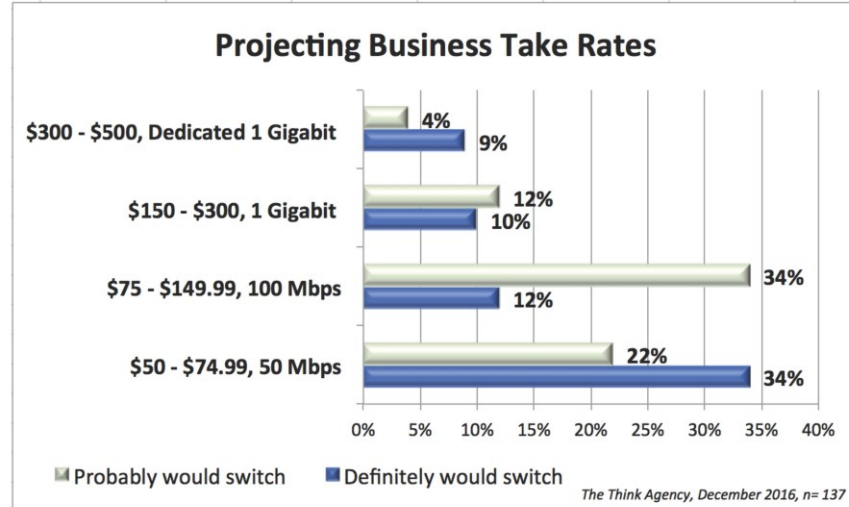
Projecting take rates in a vacuum is not an exact science. There are many variables that can impact take rates including but not limited to:

- Pricing for accompanying telephone/Voice-over-IP service.
- Whether incumbents defend the market with offering their subscribers aggressive pricing deals.
- Length of businesses current service contracts and incumbent termination fees.
- Translating high speeds into business benefits to drive uptake.
- Speed to market of services dictated by completion of network.

Regardless, the conservative forecast should exclude the “probably would switch” and only focus on businesses that say they “**definitely would switch**,” which is 34% for 50 Mbps; 12% for 100 Mbps; 10% for 1 gigabit and; 9% for 1 gigabit dedicated.

Analyzing the data shows that almost half (46%) of respondents said “definitely would switch” to at least one of the four levels tested. **This gives a projected take rate of 46% in the first 12 months.** Additionally, take rate can increase significantly as respondents that said they “probably would switch” across all three options at a rate of 27%. In short, “definitely” and “probably” answers reflect a **potential** of a 73% take rate.

The research tells us that we can conservatively expect half of Grand Junction businesses to switch in year one of full operation.



Conclusion

More than half (55%) of Grand Junction businesses currently receive their internet connection via cable with lower capacity DSL serving 22% of survey respondents. Two-thirds of respondents (67%) currently receive service from Charter.

Customer Satisfaction

- 64% of businesses are dissatisfied with options for Internet service.
- 52% of businesses have service less than 60 Mbps and 24% are unsure of current service speeds.
- More than a third (36%) are at least considering switching their internet service.

Potential for New Business Offering

- Nearly three-fourths (73%) said they would “definitely” or “probably” switch to an internet only service that would provide up to 10x as fast service.
- 55% of overall participants would likely switch at a price of \$50-\$74.99 for 50 Mbps.
- This drops to 46% when the price goes up to \$75-\$149.99 for 100 Mbps.
- One gigabit service draws switching interest of 22% for \$150-\$300 per month while a dedicated gigabit line for \$500-\$600 a month only interests 13%.
- Television availability is not as important for businesses, while telephone service will be important to a potential switch decision.

Marketing Message

- Marketing theory rightfully states that consumers purchase benefits, not features. While advertising and promoting improved speeds will indeed drive uptake, the network will not reach its full uptake potential without marketing the benefits that new, higher speeds will bring.
 - Speed levels can seem arbitrary or impossible to understand for a large portion of the Grand Junction commercial market.
 - Offerings should include clear marketing and messaging making it clear what businesses currently receive and the benefits they will obtain from new connectivity.
- Nearly half (42%) of businesses say that Grand Junction’s involvement in this internet offering will make them more likely to sign up for the new service. Longmont, CO unapologetically used civic pride in its marketing message to successfully drive uptake – SiFi and Grand Junction should do the same.

Take Care of “The Base”

- Nearly half (46%) of businesses say they “**definitely would switch.**” SiFi/Grand Junction’s marketing, communications/PR, and customer service should take great care to be available, accommodating, and transparent to ensure this group remains in the “definitely” category.



Supplemental Research: Business Focus Groups

As mentioned, obtaining approximately 500 business survey completes was an unachievable research challenge given the number of businesses in Grand Junction (approximately 3,000). As such, Think conducted two focus groups on Tuesday, November 29 at the county library. Twenty-three businesses and organizations were represented in two separate focus group sessions, each lasting 90 minutes.

Morning Session

The morning focus group had a mix of small, mid-size, and large businesses – as well as a few home-based businesses. This group spoke with an overwhelmingly frustrated voice – that internet service in Grand Junction was poor and impacting their business. The group was in consensus that the current state of internet in Grand Junction was hindering their ability to be productive and grow.

Participants brought their connection speeds to the session – speeds that consistently fell short of the FCC’s definition of broadband of 25 Mbps download, 3 Mbps upload.

The group made it clear that they would not move from Grand Junction for better internet service as this is their home, most often their long-term home. There was a concern amongst participants that businesses looking for a home might be more likely to go to Montrose.

Another participant with a real estate background made a salient point that many potential homebuyers don’t just ask about the quality of schools – but internet availability as well.

Asked to describe service today, these businesses said:

- Frustrating
- Slow
- Inconsistent
- Limited coverage
- Poor customer service
- Expensive

Additional business challenges these professionals face were also discussed and included:

- Service impacting productivity
- Too slow to support multimedia
- Collaborative platforms unusable
- Down service impacting sales, customer service, and ability to take payments
- Internet phone service goes down or is poor quality
- Working from home sometimes impossible
- Consistent outages

So what would professionals in the morning session like to see their internet service? The most important attribute in this group was reliability, followed by speed and price.



Afternoon Session

Completely randomly, the afternoon focus group had more large businesses represented. Also in attendance was the Grand Junction Economic Partnership.

A member of this session pulled out the Colorado broadband map, a map that is driven by ISPs' reported availability. In the case of Grand Junction, much of the city shows availability up to one gigabit. The confusion amongst some members of this session was apparent – what is availability? In Grand Junction many businesses *could have gigabit service*, with a five or six figure investment. Incumbents will build fiber, but not without passing along the rather sizable price tag to its business customer. So while service may be “available,” for most businesses the service they want is not affordable.

Members of this group's opinion of their service varied greatly, driven largely by where a business was geographically. Many businesses were okay with their speeds, but not with the exorbitant price they are paying. Others had service that was so bad that they literally could not take credit card charges on Friday nights between 9:30 and 10:30 as consistent outages would cause credit card payments to be lost.

Within the discussion of current service and what the City could/should do, a few participants suggested the City use its “leverage” with incumbents to force them to provide better service. When it was made clear that the City has indeed tried but been rebuffed, participants then suggested the City provide service to the businesses that had insufficient coverage. This was challenging as “sufficient” and “affordable” are not easily defined. One business in attendance is currently paying \$400/month for 10 Mbps service – is this sufficient or affordable service?

It was clear that within the group of businesses there was a huge disparity in what businesses have available and what they pay. Business challenges professionals at the afternoon session cited most often were:

- Consistently slowing down during peak times
- Poor quality associated with internet phone service
- Service too slow for collaboration platforms (GoTo Meeting, etc.)
- Unreliable service, too many outages
- Poor service makes companies look unprofessional and less attractive to potential clients, partners, and employees
- Speeds needed are cost prohibitive

Quality/Reliability and speed were the most important attributes a new service would need to deliver for this group to consider switching.



Service Offering

Members of each group were presented with the below potential service offerings provided by SiFi.

While interest varied for the different service levels, each and every business expressed interest in signing up for one of these services. This solidifies the likelihood that our take rate (46%) estimates for businesses are accurate, if not low.

Service	Residential & Micro Business* Shared	SMB Shared	Enterprise Dedicated
100MB Internet Non-Promotional	\$50.00	\$125.00	\$250.00
1000MB (1Gig) Internet Non-Promotional	\$70.00	\$150.00	\$500.00
Installation Fee (one Time) Non-Promotional	\$100.00	\$200.00	\$200.00
Voice - VOIP (Unlimited LD)	\$19.99	\$29.95	\$29.95
Voice - VOIP (Local Only)	\$9.99	\$19.95	\$19.95
Lifeline or Tribal Discount	40%	N/A	N/A
* Micro Business includes Sole Proprietorships, Small Retail, Restaurants, etc.			





**Grand Junction City Council
Workshop Session**

Item #2

Meeting Date: January 16, 2017

Presented by: Scott Winans

Department: Colorado Plateau
Mountain Bike Trail Association, Inc.

Submitted By: Rob Schoeber, Director
Parks and Recreation

Information

SUBJECT:

Update on the proposed Palisade Plunge trail connecting the top elevation of the Grand Mesa to the valley floor in the Town of Palisade.

EXECUTIVE SUMMARY:

The Town of Palisade and several private and public partners are in the planning stages of a high quality single track trail extending nearly thirty miles from the Grand Mesa to Palisade. The trail has the potential of drawing cycling enthusiasts from throughout the region and country. In January, 2016, Governor Hickenlooper announced 16 trail projects that are designated as highest priority projects for the State of Colorado. The proposed Palisade Plunge was one of the "16 in 16" designations.

BACKGROUND OR DETAILED INFORMATION:

The Town of Palisade and Colorado Plateau Mountain Bike Trail Association, Inc. (COPMOBA) have received grant funding from GOCO and DOLA in the amount of \$115,000 for project planning. These funds are targeted primarily to fund route evaluation studies. There are several private and public partners with interest in this project including, City of Grand Junction, Town of Palisade, COPMOBA, US Forest Service, Bureau of Land Management, Colorado Parks and Wildlife, Mesa County, and Powderhorn Mountain Resort.

Public meetings for this project will be held the week of January 16, 2017 in Palisade and Grand Junction. Future timeline includes environmental assessments and other studies to be completed in the spring and early summer of 2017. Construction funding

will be applied for beginning in August 2017 with construction slated to begin in the spring of 2018.

FISCAL IMPACT:

N/A

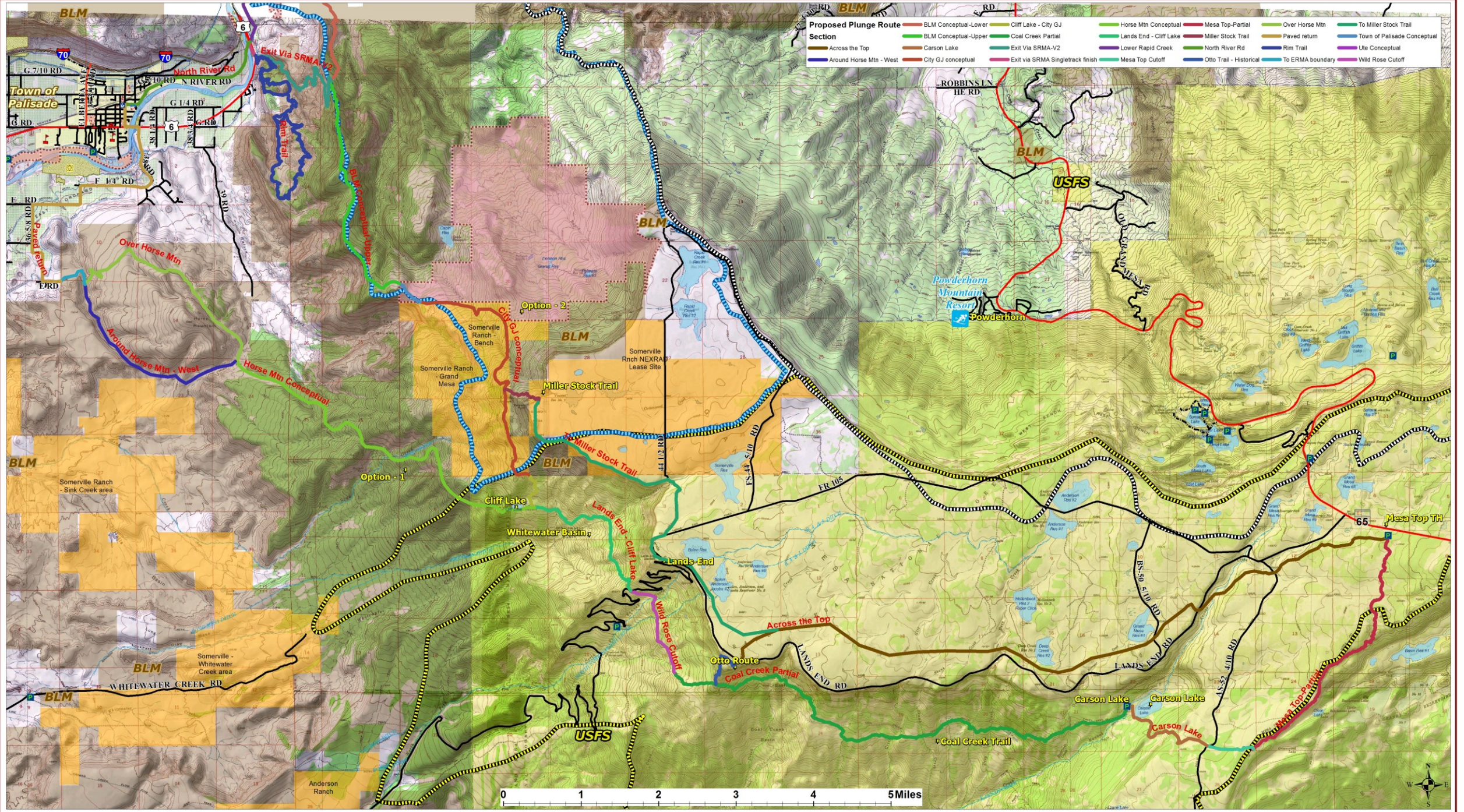
SUGGESTED ACTION:

Staff is seeking Council direction and feedback on the proposed trail alignments and their impacts to City ranch leases, hunting activities, and watershed.

Attachments

ATTACHMENT 1 – Site Map

Palisade Plunge



Proposed Plunge Route Section	
BLM Conceptual-Lower	Cliff Lake - City GJ
BLM Conceptual-Upper	Coal Creek Partial
Across the Top	Carson Lake
Around Horse Mtn - West	City GJ conceptual
Horse Mtn Conceptual	Lands End - Cliff Lake
Mesa Top-Partial	Miller Stock Trail
Over Horse Mtn	North River Rd
Over Horse Mtn	Otto Trail - Historical
To Miller Stock Trail	Ute Conceptual
Town of Palisade Conceptual	Wild Rose Cutoff
Paved return	
Rim Trail	
Exit Via SRMA-V2	
Exit via SRMA Singletrack finish	
Mesa Top Cutoff	

- Grand Junction Watershed Boundary
- Palisade Watershed Boundary
- Plateau Creek Watershed (Ute Water)
- Town of Palisade Property
- City of Grand Junction Property
- BLM
- USFS



FiberCity™ Grand Junction Milestone 1

- The City of Grand Junction has entered in to an Exclusive Negotiation Agreement with SiFi Networks to develop a FiberCity™ proposal. Milestone 1 includes:
 - Independent feasibility study to forecast likely take rate
 - Collection and initial assessment of GIS data
 - Initial design and network architecture
 - Construction/cost analysis
 - Identify likely demand points
 - Produce financial viability assessment
 - Present findings and seek approval for Milestone 2

Grand Junction Internet Service Market Demand Topline Results

Doug Adams

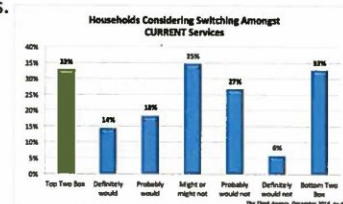
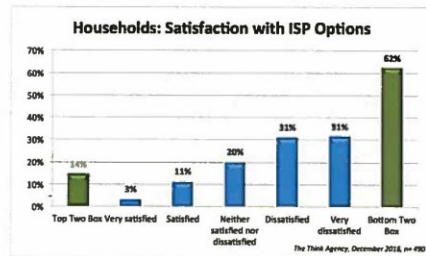


Research Methodology

- Research conducted with the assistance of New York research firm 360 Market Reach
- Household Study
 - 11,000 households randomly invited to participate in November, 2016
 - 491 completed survey
- Business Study
 - Limited emails available from sampling, but 200 invited through random invites
 - Additional businesses asked to participate through local organizations in November/December of 2016
 - 137 completed survey
 - Obtained “deeper-dive” feedback 23 additional businesses that attended two focus groups

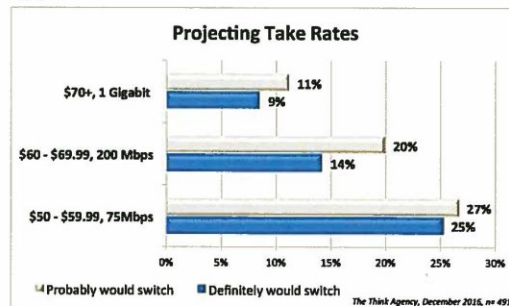
Key Findings: Household Survey

- Current Customer Satisfaction with Internet Service
 - 62% of households are dissatisfied with options for internet service currently available.
 - A full third are at least considering switching their internet service provider amongst current providers.



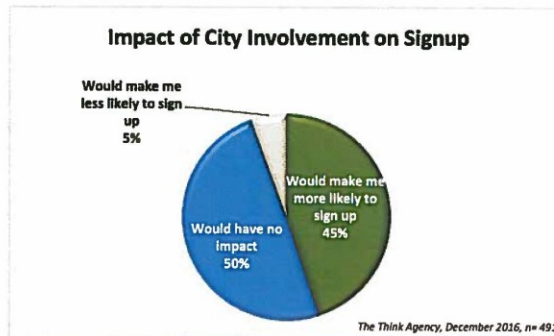
Take Rate for Households

- Definitely Would Switch: 32%
- Probably Would Switch: 30%
- The research tells us that we can conservatively expect 40% - 45% to switch in year one of full operation with 15-20% more to come over the following years



Impact of City Involvement

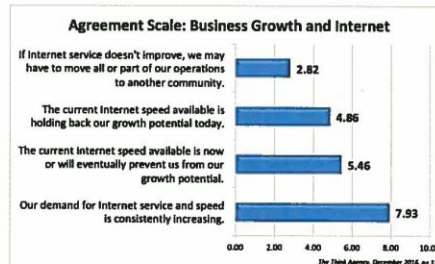
- A full 45% of households would be more likely to sign up for a service in which the city was involved with while only 5% would be less likely.



Business Results

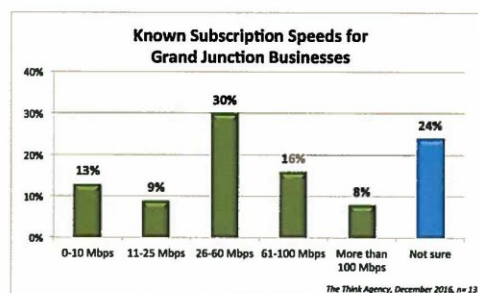
Key Questions Asked

- Q: Would businesses actually leave Grand Junction without better service?
 - A: In general, not now.
- Q: Is the available internet service, given what it is, currently holding businesses back?
 - A: Sometimes, yes.
- Will present day speeds prevent future growth?
 - A majority agree.
- And finally, is the demand for bandwidth consistently increasing?
 - Definitely.



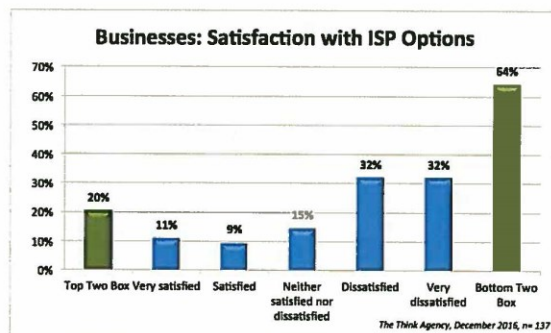
Key Findings: Business Survey

- Charter (67%) and CenturyLink (20%) make up a majority of the business subscriptions
 - Slightly more than half (52%) of businesses have service levels less than 60 Mbps while 1 in 4 (24%) do not know what service level they receive.
 - More than half (58%) of businesses bundle telephone service with their internet service.



Key Findings: Business Survey (cont.)

- **Current Customer Satisfaction with Internet Service**
 - 64% of businesses are currently unhappy with the options for internet services currently available
 - More than a third (35%) are at least considering switching their internet service provider amongst current providers.

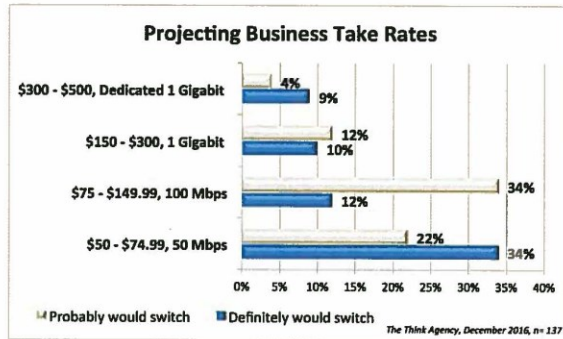


Key Findings: Business Survey (cont.)

- **Definitely Would Switch**
 - Almost half (46%) of online survey respondents said “definitely would switch within the next 12 months” to at least one of the service offerings tested.
 - Businesses represented in the focus groups overwhelmingly said they would switch to one of the offerings presented.
- **Probably Would Switch**
 - An additional 27% say they “probably would switch within the next 12 months” to one of the potential offerings presented to them.

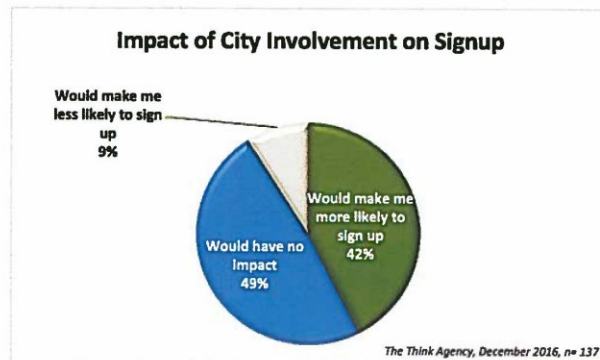
Take Rate for Businesses

- Definitely Would Switch: 46%
- Probably Would Switch: 27%
- The research tells us that we can conservatively expect more than half of Grand Junction businesses to switch in year one of full operation



Impact of City Involvement

- A full 42% of businesses would be more likely to sign up for a service in which the city was involved with while only 9% would be less likely.



Thank you

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www.thethinkagency.com

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FiberCity™ Grand Junction

Design Overview

- All business and municipal units fed diversely
 - ~28,000 residential units
 - 4,759 business units
 - 7,000+ municipal Smart City demand points
 - 3.6m ft of construction
 - 2-2.5 year build (winter = 1 month shut down = 48 week construction season)
 - Approximately 98% microtrenched 2% directional drilled
 - 100% underground solution (no aerial)
 - Ability to expand the network to neighboring areas
 - Conservative estimated cost of \$70m
-



FiberCity™ Grand Junction

Meeting City Goals

- Municipal ownership through long term lease
 - The City would ultimately own a fiber optic network that would pass every home and business within the City limits
 - Broadband services shall be available to residences for \$50-80 per month and to businesses for under \$300 per month
 - Cashflow positive position for the City
 - Breakeven for the City well below forecasted demand and contracted revenues
-



FiberCity™ Grand Junction

Exceeding City Goals

Assumptions:

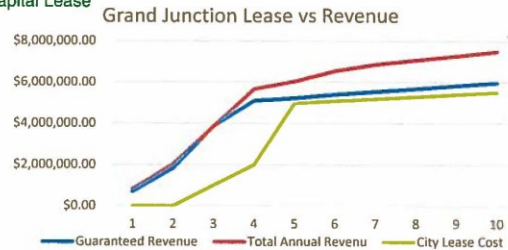
- Residential Retail rates between \$50-\$70
 - Wholesale rates within agreed LOI rates with ISPs
 - 2 year build schedule
 - SiFi Networks to pay for operational expense
 - 4 year ramp up to 36% take rate
 - Demand survey reflects a conservative 40% take rate 12 months from completion
 - SiFi Networks' model has allowed for 6 years slow ramp to 40%
 - 2-3 ISPs on the network from commencement
 - Triple play options to be available
-



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- **Business Model**

- Result – Survey results reveal adequate demand, and business modeling indicate long-term success
- City Capital Lease



- Payment is fixed and guaranteed by private sector ISPs accessing the network
- Projected cash flow positive position for the City



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Benefits

- All homes and business can access regardless of demographics
- Smart City infrastructure to increase efficiencies and reduce City costs
- No operational burden on the City – SiFi Networks shall take responsibility
- Increase in property values
- GDP growth possible 1.1% as the average in other communities
- Economic development and businesses attracted to the City
- A world leading network
- Take rate required to cover lease obligations (30%)
- Zero construction risk, development risk and all operations and maintenance risks
- ISPs signed on to cover revenue and demand generation risk
- Internet speed increase of between 20-100 times faster than current speeds
- New and more affordable services offered as the City and SiFi enable competition



FiberCity™ Grand Junction

Viability

- Based on our analysis SiFi Networks is confident that a viable business case for a FiberCity™ network in Grand Junction
- Creates significant growth and Quality of Life improvement for the City
- Potential to increase property values throughout the City
- GDP growth of 1.1% can be attributed to citywide Fiber networks vs cities without

BUT

- Timing is critical, capital markets have experienced increased cost of money over the last 12 months.



Conclusion

Conclusion

- Demand is well supported by The Think Agency's survey to levels well in excess of a breakeven position
 - Design shows favorable network architecture will exceed reliability required for institutions and public safety
 - Two/Three ISPs willing and able to guarantee the minimum revenue requirement
 - Operational efficiencies are achieved in Grand Junction through a citywide build
- Impact on property values, GDP growth, job creation and Smart City applications, City will have significant opportunity for economic development



Recommended Next Steps

- Give direction to SiFi Networks to proceed with Milestone 2:
 - Ratings analysis to finalize lease agreement
 - Authorize staff and attorneys to draft final agreements for council
 - ISP Agreements signed
 - Marketing strategies prepared for implementation
 - Construction schedule and engineering finalized
 - 6-8 weeks

