Report for Business Survey Findings

BROADBAND ADOPTION
MARKET RESEARCH

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EXECUTIVE SUMMARY

1. This survey was conducted with the primary decision maker or influencer for Internet services for companies with fewer than 50 employees.
   - Seventy-four percent of the respondents surveyed had fewer than 10 employees.
   - Sixty-six percent of the respondents reported sales revenue of less than $1 million.
   - Ninety-nine percent of these respondents use Internet in their office on a daily basis. One percent spent no time per day on the Internet.
   - Fifty-eight percent of respondents spend one to five hours on the Internet daily.
   - Forty-one percent spend more than six hours a day on the Internet.

2. The primary service provider for Internet service reported is Oceanic Time Warner Cable with 52 percent of the companies as subscribers. This is followed by Hawaiian Telcom with 31 percent. Businesses report that they pay $84 on average per month for the Internet service. The median is $65 per month.

3. Respondents use multiple devices to access the Internet: 33 percent use two devices, 23 percent use three and 17 percent use four devices. Twenty-seven percent of respondents access the Internet through just one device. The type of devices used are:
   - Desktop computers (77%)
   - Smartphones (68%)
   - Laptop computers (60%)
   - Tablets (32%)

4. There is a high level of satisfaction with their current Internet service: reliability had the highest rating of very and somewhat satisfied (92%), followed by customer service (82%). Cost had the lowest ratings of satisfaction (72%), followed by value for monthly plan (75%).

5. Fourteen percent of businesses have switched their Internet service provider over the past two years and the primary reasons were: cost (35%); reliability (17%); speed (15%); moved to a new location (7%); and customer service (5%).

6. The greatest sources of dissatisfaction with their Internet service is related to speed: too slow when too many staff members are using the Internet at the same time (28%); photos and videos take too long to upload (9%); files take too long to download (8%); and Internet is slower at certain times of the day (6%).
BACKGROUND

The Department of Commerce and Consumer Affairs (DCCA) was awarded a State Broadband Initiative (SBI) grant by the National Telecommunications & Information Administration (NTIA), which was funded through the American Recovery and Reinvestment Act of 2009 (ARRA). Grant activities include planning efforts to identify and develop policies and programs to advance digital literacy and to drive adoption of broadband service. To assist in formation and targeting of these efforts, DCCA seeks market research on broadband adoption and usage of high speed Internet services through the State of Hawaii.

Although Hawaii has a fairly high adoption rate, most Hawaii consumers subscribe to lower tiers, thus providing little business incentive for providers to invest in infrastructure that can support speeds comparable to that of the leading nations in the world. For this reason, increasing demand in the State for higher speed broadband services is important in the State’s efforts to foster deployment of broadband infrastructure that can support world class broadband services levels.

Accurate market data is necessary for DCCA to develop the optimum strategies to achieve the stated goals of increasing broadband usage in Hawaii. This data will help the State of Hawaii develop its plans and track performance.

OBJECTIVE

DCCA seeks market research to assist in the formation and targeting of strategies, policies, and programs to foster increased usage of higher speed broadband services among businesses in Hawaii with fewer than 50 employees. Therefore this market research project was undertaken with the following objectives:

1. To understand how broadband service is used currently
2. To determine satisfaction levels with speed and cost of subscribed service levels
3. To gauge consumer awareness of the uses and benefits of various tiers of high speed broadband services
4. To identify consumer motivations and obstacles to subscribing to various levels of service
5. To identify primary barriers to subscribing to various levels of service
6. To understand perceived benefits and value of higher speed services
7. To identify key demographic segments and growth opportunities
METHODOLOGY

The survey was administered October 24, 2013 to January 2, 2014 and 431 completed surveys were collected: 270 from Oahu; 65 from Maui; 78 from Hawaii Island and 18 from Kauai. Approximately half of these surveys were completed by telephone interviews and half by e-surveys.

Calls were made from the SMS Honolulu Call Center. The e-survey was administered via the Internet on a secured server using SSI Web 8.0 survey software. The sample used was an online panel procured from Research Now, and includes a list of over 5,000 verified businesses in the State of Hawaii with 50 or fewer employees.

Respondents were small business people and not necessarily technical experts on broadband services. Therefore questions were designed for the average person and open-ended questions had responses that were more general than would be expected from an expert. There were approximately 40 questions that asked respondents about technology and the Internet in the State Hawaii, preference, attitudes, and behaviors related to the Internet, and demographic questions for classification purchases. The data has been weighted to reflect the distribution of businesses throughout the State by County. SMS cleaned and recoded open-ended comments. Response frequencies are provided in Appendix A.

Data Analysis

SMS analyzed each question to determine if there were significant differences in responses based on office locations, years in business, sales revenue and industry. Those differences that are significant are described in the text.

Charts and graphs have also been included for ease of data interpretation. Sample sizes vary due to item non-response and skip patterns established in the survey to ask questions to certain respondents. In some questions respondents were able to provide more than one response; therefore these will have totals greater than 100 percent.

SURVEY FINDINGS

How Internet is Currently Used

Within the criteria of 50 or fewer employees the following was the breakout of respondent companies by industry.1

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1 Industries self-selected by respondent.
Thirty-seven percent of business decision makers access the Internet one to three hours a day, twenty-five percent access the Internet for four to six hours a day, and 37 percent do so for more than seven hours a day. One percent of respondents do not access it at all during their work day.

Seventy-four percent of the businesses surveyed have one to five employees who use the Internet in their offices, 11 percent have six to ten employees, and 10 percent have 11 or more employees. Five percent of the businesses surveyed have no employees.
Of the businesses surveyed, 28 percent have been using the Internet in their business for one to five years, 31 percent have been using it for six to ten years, and 34 percent have been using the Internet for 11 to 20 years. Five percent of respondents have been accessing the Internet for over 20 years.

Forty-three percent of business started with dial-up Internet service and 44 percent started with higher speed connections.

**Figure 3: Years Accessing the Internet**

![Pie chart showing the distribution of years that businesses have been accessing the Internet.](image)

Most business owners agree (66%) that the Internet service today is much better than it was when they first started using it both in terms of speed and service. Those who have been in business longer seem slightly more satisfied than newer businesses.

**Figure 4: Ratings of Service**

![Bar chart showing the ratings of service and speed.](image)
Subscription Data and How Internet is Currently Used

Oceanic Time Warner is the broadband service provider for the majority of the respondents (52%). Thirty-one percent of respondents use Hawaiian Telcom; seven percent of users have satellite broadband; and three percent have Clear.

On every island Oceanic Time Warner is the predominant provider for most businesses based upon respondents surveyed. Maui has a higher percentage of respondents using Satellite broadband (16%) than other counties, and 16 percent of respondents there use Hawaiian Telcom compared to 31 percent overall.

Figure 5: Service Providers

![Service Providers](image)

Figure 6: Service Providers by County

![Service Providers by County](image)

While the industry type follows the overall statewide pattern, some industries deviate from the averages: more entertainment companies (68%) utilize Oceanic Time Warner, more medical/insurance companies (44%) are using Hawaiian Telcom as their provider; and more transportation and utilities businesses (19%) are using a satellite broadband service.
Businesses report that they pay $84 per month on average for their Internet service. The median is $65 per month. The range of payment amounts is from $11 to over $200 per month.

Respondents were asked about what type of device they use to access the Internet, type of connectivity, and how long they use these devices each day. Ninety percent of respondents have used a desktop in the past and 77 percent are still using a desktop today. Seventy-six percent of respondents have used a laptop, and 60 percent of them are currently using one. The percent of business people using smart phones has stayed about the same, while the percent of business people reporting using tablets has dropped from 42 to 32 percent.
Most people spend less than five hours accessing the Internet on their devices: 61 percent access the Internet using a desktop; 78 percent on a laptop; 84 percent on a smart phone and 95 percent on a tablet. Those people spending more time on the Internet will likely do so on a desktop computer, 39 percent of desktop users spend more than five hours accessing the Internet. This compares with 22 percent of laptop users, 16% of smart phone users and six percent of Tablet users.

Business people use multiple devices to access the Internet: of the devices listed 33 percent have two devices, 23 percent have three devices, and 17 percent have four devices. Twenty-seven percent of respondents have one device that they use to access the Internet.
Most businesses believe that the Internet is very important to their business (84%). By industry, 93 percent of education-related businesses and businesses that work with government consider the Internet very important, and seventy-eight percent of transportation and utilities respondents rated the Internet as very important. Other business sectors surveyed include advertising, entertainment, health or medical services, and sales.

Figure 12: Internet Importance Rating

Satisfaction Levels with Speed and Cost of Subscribed Service Levels

Respondents were asked how satisfied they were with different aspects of their Internet service. Reliability had the highest satisfaction rating (92%), followed by customer service (82%). The factors with the lowest ratings of satisfaction (and highest ratings of dissatisfaction) were cost (72%), followed by no delays or freezing, value for monthly plan, and upload time for files (all at 75%).
Kauai was the most satisfied with the cost of their Internet service (83%). On Maui, 75 percent of respondents gave a satisfied rating. Offices located on Hawaii Island were the least satisfied with the cost of their Internet (26%).

**Figure 14: Cost Satisfaction by County**

Kauai businesses are completely satisfied with their Internet speed: 100 percent of respondents said they were satisfied. Maui and Oahu businesses are about equal in their satisfaction, 85 percent and 86 percent respectively. Most Hawaii Island respondents are satisfied with their Internet speed (81%), but they did express the highest dissatisfaction rate (17%).

**Figure 15: Speed Satisfaction by County**
Kauai has the most satisfied users with upload time. Ninety-four percent of users are satisfied, with six percent dissatisfied. Hawaii Island, Oahu, and Maui have more users who are dissatisfied: 29 percent, 17 percent, 16 percent and 21 percent respectively. The time needed to download files has very similar findings.

**Figure 16: Upload Time Satisfaction by County**

Fourteen percent of businesses have switched their Internet service provider in the last two years. The primary reasons to change providers are: cost (36%); reliability (17%); speed (15%); moved to a new location (7%); and customer service (5%).

**Figure 17: Reasons for Switching Services**
Fifty percent of respondents reported that they use a standard service Internet, 34 percent have a high speed Internet service and 16 percent are unsure of what they are using. High speed Internet access is more likely to be found in transportation and utilities companies (52%), government businesses (48%), and entertainment businesses (46%). Industries that primarily use a standard level of Internet service are advertising and marketing (67%), services (61%) and sales (55%) companies.

**Figure 18: Standard vs High Speed by Industry**

![Bar chart showing standard, high speed, and don't know Internet usage by industry.]

A large majority of businesses are aware of the government activities that can be done via the Internet: file general excise tax (87%), download business registration forms (86%), renew and find information on professional and vocational licenses (85%), and to register and apply for tax license to start a new business (75%).

**Figure 19: Awareness of Government Services Available on the Internet**
The majority of businesses (97%) agree and strongly agree that Hawaii should have high speed Internet infrastructure to be able to provide Internet service equal to that of the leading developed nations, with 66 percent of those businesses strongly agreeing. Eighty-nine percent of respondents agree and strongly agree that access to world class high speed Internet will create high quality jobs and help Hawaii diversify its economy.

Figure 20: Value of High Speed Internet to the State
Consumer Motivations to Subscribing to a Faster Internet Service

A majority of the businesses surveyed currently use the Internet for paying bills and online banking (70%); online training (60%); and maintaining a website (60%). Most of the respondents who are currently not using the Internet for these activities, expressed an interest in doing so in the future.

**Figure 21: Internet Uses**

Other things respondents use the Internet for are email and social networking (23%), research or news and information (18%), conducting business (12%), and ordering products or shopping (8%). Note that respondents were very general in responding to the open-ended “any other uses” part of this question.
Twenty-eight percent of businesses encounter issues with slower speeds when too many staff members are using the Internet at the same time (28%). Thirty percent of businesses responded that they did not encounter the issues surveyed, which were related to speed.

**Figure 22: Issues with the Internet**

![Bar chart showing issues with the Internet](chart1)

Fifty-four percent of business decision makers reported at least some time wasted daily waiting on a slow Internet.

**Figure 23: Time wasted on Slow Internet**

![Bar chart showing time wasted on slow Internet](chart2)
Forty-six percent of business decision makers believe that a similar amount of time is wasted by their employees.

**Figure 24: Employees Waste the Same Amount of Time**

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>46%</td>
</tr>
<tr>
<td>No</td>
<td>47%</td>
</tr>
<tr>
<td>Don't Know</td>
<td>7%</td>
</tr>
</tbody>
</table>

**Perceived Benefits and Value of Higher Speed Services**

Overall 60 percent of business decision makers are likely to upgrade if they could solve the issues they are currently experiencing with the Internet. Businesses with lower sales revenue (less than $500,000) are more likely to upgrade than businesses with higher sales revenue (over $500,000).

**Figure 25: Likelihood to Upgrade**

<table>
<thead>
<tr>
<th>Likelihood to Upgrade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Likely</td>
<td>19%</td>
</tr>
<tr>
<td>Somewhat Likely</td>
<td>41%</td>
</tr>
<tr>
<td>Somewhat Unlikely</td>
<td>18%</td>
</tr>
<tr>
<td>Very Unlikely</td>
<td>20%</td>
</tr>
</tbody>
</table>

The top reason to upgrade was to increase Internet speed (25%).
Forty-five percent of respondents said that a reasonable additional monthly cost to upgrade to a service level that would eliminate their Internet issues experienced would be less than $20. More specifically, 26 percent said that $0-10 would be reasonable, and 19 percent said that $11-20 would be reasonable. Those with larger sales revenue (greater than $5 million) believe that $41 to $50 dollars is a reasonable range to upgrade a monthly service.

Figure 27: Reasonable Monthly Incremental Cost to Upgrade

- 45% for $0-$20
- 14% for $20-$40
- 18% for $40-$60
- 5% for $60-$80
- 10% for $80-$100
- 3% for $100-$200
- 4% for $200 or more
The percentage of respondents that found a less than $20 monthly increase for this higher speed Internet service acceptable to them (33%), was less than the percentage that found this amount reasonable (45%). Fifteen percent of those making higher sales revenue believed that $71 to $80 monthly would be the maximum acceptable monthly additional cost for the higher speed Internet service.

Figure 28: Maximum Monthly Incremental Cost to Upgrade

The Appendix to this report contains a summary of the responses to the questions used in the survey, and in some instances includes more detailed information.
### BROADBAND BUSINESS SURVEY INSTRUMENT

Hello, I'm _________ from SMS Research, a professional market research firm in Honolulu. We're doing a quick survey among Hawaii businesses about technology and the Internet in the State of Hawaii. All your responses will remain confidential. Please be aware that the call may be monitored or recorded for quality purposes.

Q1. Am I talking to a business on (island)?
   - Yes ............................................................... 100%
   - No (TERMINATE) .................................................. 0%

Q2. Approximately how many people are employed by your company?
   - One ..................................................... 36%
   - Two .................................................... 10%
   - Three ............................................... 16%
   - Four .................................................... 4%
   - Five ................................................... 5%
   - Six .................................................... 3%
   - Seven ............................................... 2%
   - Eight ................................................ 3%
   - Nine .................................................. 2%
   - 10-19 ................................................. 9%
   - 20-29 ................................................ 5%
   - 30-39 ................................................ 4%
   - 40-49 ................................................ 3%
   - Mean ................................................. 7 people
   - Median ............................................. 4 people
   (IF OVER 50, TERMINATE AND THANK)

Q3. What type of industry is your company in?
   - Advertising ............................................. 8%
   - Entertainment ......................................... 8%
   - Government .......................................... 8%
   - Health or medical services ...................... 12%
   - Sales .................................................. 26%
   - Transportation ..................................... 8%
   - Services ............................................ 9%
   - Other ................................................ 21%

Q4. Are you the primary decision maker, influence the decision maker, or not involved in choosing Internet service for your company?
   - Primary decision maker (Skip to Q5) ........ 71%
   - Influences decision maker (Skip to Q5) .... 26%
   - Not involved ......................................... 2%

   [If “Not Involved”]: Can you please forward us to someone in your office who either is the primary decision-maker or who influences the decision-maker?

Q5. Approximately how many hours per day do you yourself use the Internet at your office?
   - Zero ...................................................... 1%
   - 1-3 ......................................................... 37%
   - 4-6 ......................................................... 25%
   - 7-9 ......................................................... 28%
   - 10-12 .................................................. 6%
   - 13+ ...................................................... 3%
   - Mean ................................................. 5 hours
   - Median ............................................. 5 hours

Q6. How many people in your office use the Internet regularly during working hours?
   - Zero ...................................................... 5%
   - 1-5 ......................................................... 74%
   - 6-10 ..................................................... 11%
   - 11+ ..................................................... 10%
   - Mean ................................................. 5 people
   - Median ............................................. 2 people

Q7. Do a majority of them use it most of the day?
   - Yes ..................................................... 69%
   - No .................................................... 40%

---

Q8. Now I would like to ask you some questions about your office Internet.
   Q8a. Have you ever used a (INSERT) to access the Internet from your office?
   Q8b. (FOR THOSE EVER USED) Do you currently use (INSERT) to access the Internet from the office?
Q8c. (FOR EACH ONE USED ASK) As far as you know, what type of connection or service do you currently have at the office for your (INSERT)?

Q8d. (FOR EACH ONE USED) approximately how many hours a day do you access the Internet using your (INSERT CURRENTLY USE)?

<table>
<thead>
<tr>
<th>Device</th>
<th>Q8a Ever Used (%)</th>
<th>Q8b Currently Use (%)</th>
<th>Q8c Type of Connectivity (Cable, telephone, etc)</th>
<th>Q8d # Hours Used per Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop computer</td>
<td>90%</td>
<td>77%</td>
<td>Oceanic Timewarner/Roadrunner: 51% DSL/Hightspeed: 17% Wireless/Will: 2% Hawaiian Telecom: 5% Cellphone Provider/Telephone: 15% Other: 8% Don’t Know: 2%</td>
<td>0-5 hours: 64% 6-10 hours: 31% 11-15 hours: 3% 16+ hours: 1% Mean: 5 hours Median: 4 hours</td>
</tr>
<tr>
<td>Laptop computer</td>
<td>76%</td>
<td>60%</td>
<td>Oceanic Timewarner/Roadrunner: 40% DSL/Hightspeed: 15% Wireless/Will: 15% Hawaiian Telecom: 7% Cellphone Provider: 11% Other: 12% Don’t Know: 0%</td>
<td>0-5 hours: 81% 6-10 hours: 14% 11-15 hours: 3% 16+ hours: 2% Mean: 4 days Median: 2 hours</td>
</tr>
<tr>
<td>Smart phone</td>
<td>67%</td>
<td>68%</td>
<td>Oceanic Timewarner/Roadrunner: 12% DSL/Hightspeed: 7% Wireless/Will: 32% Hawaiian Telecom: 2% Cellphone Provider: 38% Other: 9% Don’t Know: 0%</td>
<td>0-5 hours: 87% 6-10 hours: 10% 11-15 hours: 2% 16+ hours: 1% Mean: 4 hours Median: 1 hour</td>
</tr>
<tr>
<td>Tablet computer</td>
<td>42%</td>
<td>32%</td>
<td>Oceanic Timewarner/Roadrunner: 24% DSL/Hightspeed: 12% Wireless/Will: 41% Hawaiian Telecom: 2% Cellphone Provider: 17% Other: 1% Don’t Know: 0%</td>
<td>0-5 hours: 95% 6-10 hours: 4% 11-15 hours: 1% 16+ hours: 0% Mean: 3 hours Median: 1 hour</td>
</tr>
</tbody>
</table>

Q9. How many years have you been accessing the Internet at your current business for business use?
1-5 years: ..................28%
6-10 years: ..................31%
11-20 years: ..................34%
21+ years: ..................5%
Don’t know: .................................................................2%
Mean: .............................................................................. 9 years
Median: ........................................................................... 10 years

(For those who only use smart phone now, skip to demos)

Q10. How important is the Internet to your business today, would you say it is very important, somewhat important, etc.?
Very important: ...........................................64%
Somewhat important: ...............................10%
Neutral: .........................................................4%
Not important: ..............................................1%
Not at all important: ....................................1%

Q11. When you first started using the Internet at the office, were you using dial-up or broadband Internet services?
Dial-up: .................................................................43%
I would now like to ask you some questions referring only to your office Internet service.

<table>
<thead>
<tr>
<th>Question</th>
<th>Much better</th>
<th>Somewhat better</th>
<th>Worse</th>
<th>Much worse</th>
<th>No opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q12. Would you say your office Internet service today is much better, somewhat better, worse or much worse than it was when you first started ___ year(s) ago?</td>
<td>66%</td>
<td>23%</td>
<td>3%</td>
<td>0%</td>
<td>7%</td>
</tr>
<tr>
<td>Q13. Would you say the speed of your office Internet service today is much better, somewhat better, worse or much worse than it was when you first started ___ year(s) ago?</td>
<td>66%</td>
<td>24%</td>
<td>4%</td>
<td>0%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Q14. How would you rate your current business Internet service? Would you say you are very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied with (INSERT)?

<table>
<thead>
<tr>
<th>Reliability of Internet service</th>
<th>Very satisfied</th>
<th>Somewhat satisfied</th>
<th>Somewhat dissatisfied</th>
<th>Very dissatisfied</th>
<th>No opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>47%</td>
<td>45%</td>
<td>6%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Customer service</td>
<td>40%</td>
<td>42%</td>
<td>7%</td>
<td>2%</td>
<td>8%</td>
</tr>
<tr>
<td>Cost</td>
<td>25%</td>
<td>47%</td>
<td>19%</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>Speed of connectivity</td>
<td>39%</td>
<td>46%</td>
<td>12%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>No delays or freezing</td>
<td>29%</td>
<td>46%</td>
<td>19%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Value you get for your monthly plan</td>
<td>31%</td>
<td>44%</td>
<td>19%</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Upload time for files</td>
<td>31%</td>
<td>44%</td>
<td>19%</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Download time for files</td>
<td>31%</td>
<td>49%</td>
<td>16%</td>
<td>3%</td>
<td>2%</td>
</tr>
</tbody>
</table>
Q15. You stated that you are (INSERT) with your Internet speed, why do you say that?

**Very Satisfied**
- No delays/never had problems .............. 54%
- It could be faster/seems slow .............. 5%
- Fine for my uses ............................. 21%
- Paying too much ............................ 2%
- Poor connection .............................. 0%
- Other .......................................... 17%
- Don't Know .................................... 1%

**Somewhat Satisfied**
- No delays/never had problems .............. 10%
- It could be faster/seems slow .............. 37%
- Fine for my uses ............................. 19%
- Paying too much ............................ 2%
- Poor connection .............................. 8%
- Other .......................................... 23%
- Don't Know .................................... 0%

**Somewhat Dissatisfied**
- No delays/never had problems .............. 0%
- It could be faster/seems slow .............. 79%
- Fine for my uses ............................. 0%
- Paying too much ............................ 0%
- Poor connection .............................. 9%
- Other .......................................... 16%
- Don't Know .................................... 0%

**Very Dissatisfied**
- No delays/never had problems .............. 0%
- It could be faster/seems slow .............. 66%
- Fine for my uses ............................. 0%
- Paying too much ............................ 0%
- Poor connection .............................. 33%
- Other .......................................... 0%
- Don't Know .................................... 1%

Q16. You stated that you are (INSERT) with your Internet delays or freezes, why do you say that?

**Very Satisfied**
- No delays/never had problems .............. 65%
- Difficulty maintaining connection ........... 0%
- It freezes ...................................... 1%
- Inconsistent ................................... 0%
- Slow/Delayed ................................... 0%
- Doesn't happen often ......................... 12%
- Other .......................................... 20%
- Don't Know .................................... 2%

**Somewhat Satisfied**
- No delays/never had problems .............. 13%
- Difficulty maintaining connection ........... 5%
- It freezes ...................................... 5%
- Inconsistent ................................... 4%
- Slow/Delayed ................................... 14%
- Doesn't happen often ......................... 15%
- Other .......................................... 38%
- Don't Know .................................... 3%

**Somewhat Dissatisfied**
- No delays/never had problems .............. 0%
- Difficulty maintaining connection ........... 6%
- It freezes ...................................... 19%
- Inconsistent ................................... 32%
- Slow/Delayed ................................... 6%
Doesn't happen often ........................................3%
Other .........................................................32%
Don't Know ..................................................0%

**Very Dissatisfied**

- No delays/Never had problems ..................0%
- Difficulty maintaining connection ..............0%
- It freezes ..................................................25%
- Inconsistent ...............................................0%
- Slow/Delayed ...........................................50%
- Doesn't happen often ..................................0%
- Other .......................................................25%
- Don't Know ................................................0%

**Q17. What is the name of the company that provides your office's Internet service?**

- Oceanic Time Warner .....................................52%
- Hawaiian Telcom .........................................31%
- Earthlink ....................................................0%
- Lavanet .....................................................1%
- Aloha Broadband .........................................1%
- Clear ..........................................................3%
- Hawaii Broadband ........................................0%
- Hawaii Online (now part of Hawaiian Telcom) 7%
- Sandwich Isles ............................................0%
- Satellite broadband (specify: ____________) 7%

**Q18. Have you switched your office Internet service provider in the last two years?**

- Yes ................................................................14%
- No (SKIP to Q19) ..........................................86%

**Q18a. What was your primary reason for switching providers? (DO NOT READ OPTIONS)**

- Cost .................................................................36%
- Speed ..............................................................15%
- Reliability .....................................................17%
- Customer Service .......................................5%
- Moved to a different area ..........................7%
- Other ............................................................20%

**Q19. Is your office Internet service the standard type of Internet service or do you have a higher speed service?**

- Standard service ...........................................50%
- Higher speed service .....................................34%
- Don't know ....................................................16%

**Q20. There are various Internet connection speeds for different Internet services. These are often measured in Megabits per second or Mbps. If you know please tell us the speed of your current Internet office service?**

- 1-15 Mbps: ..................................................16%
- 16-30 Mbps: ..................................................4%
- 31-50 Mbps: ..................................................4%
- 51+ Mbps: ......................................................4%
- Don't know ..................................................76%

**Q21. Did you test your Internet connection speed yourself or is this the advertised speed of your Internet service provider?**

- Tested speed ................................................26%
- Advertised speed .........................................31%
- Don't know ..................................................44%
Q22. Can you tell us how much you pay per month for your office Internet service?

<table>
<thead>
<tr>
<th>Price Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0-10</td>
<td>0%</td>
</tr>
<tr>
<td>$11-20</td>
<td>3%</td>
</tr>
<tr>
<td>$21-30</td>
<td>7%</td>
</tr>
<tr>
<td>$31-40</td>
<td>11%</td>
</tr>
<tr>
<td>$41-50</td>
<td>15%</td>
</tr>
<tr>
<td>$51-60</td>
<td>10%</td>
</tr>
<tr>
<td>$61-70</td>
<td>5%</td>
</tr>
<tr>
<td>$71-80</td>
<td>7%</td>
</tr>
<tr>
<td>$81-90</td>
<td>7%</td>
</tr>
<tr>
<td>$91-100</td>
<td>14%</td>
</tr>
<tr>
<td>$101-150</td>
<td>11%</td>
</tr>
<tr>
<td>$151-200</td>
<td>2%</td>
</tr>
<tr>
<td>$201+</td>
<td>10%</td>
</tr>
<tr>
<td>Mean</td>
<td>$94</td>
</tr>
<tr>
<td>Median</td>
<td>$65</td>
</tr>
</tbody>
</table>

Q23. People use the office Internet for many different reasons. Can you tell me whether you yourself use the Internet at the office for (INSERT)?

Q24. You said that you do not use the Internet for (INSERT), how interested would you be in (INSERT) in the future?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Q23 Yes</th>
<th>Q23 No</th>
<th>Q24 (IF NO) How interested would you be to use it in the future?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paying bills, online banking</td>
<td>70%</td>
<td>27%</td>
<td>Very interested: 12%</td>
</tr>
<tr>
<td>Invoicing customers and receiving payments online</td>
<td>53%</td>
<td>46%</td>
<td>Very interested: 10%</td>
</tr>
<tr>
<td>Having a third party manage online purchasing and payments</td>
<td>33%</td>
<td>66%</td>
<td>Very interested: 5%</td>
</tr>
<tr>
<td>for physical goods (e.g., Amazon, Etsy)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conducting a multi-person audio and video conference call</td>
<td>35%</td>
<td>64%</td>
<td>Very interested: 5%</td>
</tr>
<tr>
<td>Receiving online training, education courses</td>
<td>60%</td>
<td>40%</td>
<td>Very interested: 13%</td>
</tr>
<tr>
<td>Maintaining a website</td>
<td>60%</td>
<td>40%</td>
<td>Very interested: 16%</td>
</tr>
<tr>
<td>Uploading product or service videos</td>
<td>46%</td>
<td>53%</td>
<td>Very interested: 7%</td>
</tr>
<tr>
<td>To enable employees to work at home instead of coming into</td>
<td>47%</td>
<td>53%</td>
<td>Very interested: 8%</td>
</tr>
<tr>
<td>the office</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q25. What else do you use the Internet for?

- Pay bills/Banking ...........................................1%
- Order products ..............................................8%
- Email/Social Networking ..................................23%
- Business/Work ..............................................12%
- Read/Research ..............................................16%
- Watch TV .....................................................1%
- Travel Purposes ...........................................1%
- Marketing/ Writing ........................................1%
- Other .........................................................26%
- Don’t Know ...................................................2%

Q26. Which of the following issues do you currently encounter when using the Internet? (MARK ALL THAT APPLY)

- Files take too long (10 minutes or more) to
download .............................................. 8%
Photo and video files take too long to upload .... 9%
Internet is slow when multiple staff in my
office are on at the same time .................... 28%
Internet is slow at certain times of the day ..... 6%
Other .................................................. 17%
None ................................................... 30%
Don’t Know .......................................... 2%

Q27. How many minutes a day do you feel you are wasting because you are waiting for the Internet to do what
you have asked of it?

<table>
<thead>
<tr>
<th>Minutes</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Time wasted</td>
<td>46%</td>
</tr>
<tr>
<td>1 to 30 minutes</td>
<td>37%</td>
</tr>
<tr>
<td>30 minutes to an hour</td>
<td>8%</td>
</tr>
<tr>
<td>1 to 2 hours</td>
<td>5%</td>
</tr>
<tr>
<td>2 to 3 hours</td>
<td>3%</td>
</tr>
<tr>
<td>3 to 4 hours</td>
<td>1%</td>
</tr>
<tr>
<td>Mean</td>
<td>20 minutes</td>
</tr>
<tr>
<td>Median</td>
<td>15 minutes</td>
</tr>
</tbody>
</table>

Q27a. Do you think other employees are also losing
the same amount of time per day?

| Yes    | 46% |
| No     | 47% |
| Don’t Know | 7% |

Q28. If you learned that you could overcome all the
issues you just mentioned, plus do all the
things you said you were interested in with an
upgrade, how likely would you be to upgrade
to a higher speed service?

| Very likely | 19% |
| Somewhat likely | 41% |
| Somewhat unlikely | 16% |
| Very unlikely | 20% |

Q28a. What would be your top two reasons to
upgrade to a higher internet speed?

| Faster/Speed | 48% |
| Costs Less   | 35% |
| Reliable and Consistent | 17% |

Q29. What would you consider a reasonable
monthly cost increase for this high speed
Internet office service?

<table>
<thead>
<tr>
<th>Cost Increase</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0-10</td>
<td>26%</td>
</tr>
<tr>
<td>$11-20</td>
<td>19%</td>
</tr>
<tr>
<td>$21-30</td>
<td>8%</td>
</tr>
<tr>
<td>$31-40</td>
<td>6%</td>
</tr>
<tr>
<td>$41-50</td>
<td>15%</td>
</tr>
<tr>
<td>$51-60</td>
<td>3%</td>
</tr>
<tr>
<td>$61-70</td>
<td>2%</td>
</tr>
<tr>
<td>$71-80</td>
<td>3%</td>
</tr>
<tr>
<td>$81-90</td>
<td>1%</td>
</tr>
<tr>
<td>$91-100</td>
<td>9%</td>
</tr>
<tr>
<td>$101-150</td>
<td>3%</td>
</tr>
<tr>
<td>$151-200</td>
<td>2%</td>
</tr>
<tr>
<td>$201+</td>
<td>4%</td>
</tr>
<tr>
<td>Mean</td>
<td>$44</td>
</tr>
<tr>
<td>Median</td>
<td>$25</td>
</tr>
</tbody>
</table>

Q30. What would be the maximum monthly
acceptable cost increase for this higher speed
Internet office service?

<table>
<thead>
<tr>
<th>Cost Increase</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0-10</td>
<td>20%</td>
</tr>
<tr>
<td>$11-20</td>
<td>13%</td>
</tr>
<tr>
<td>$21-30</td>
<td>12%</td>
</tr>
<tr>
<td>$31-40</td>
<td>7%</td>
</tr>
<tr>
<td>$41-50</td>
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<tr>
<td>$51-60</td>
<td>3%</td>
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<tr>
<td>$71-80</td>
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<tr>
<td>$81-90</td>
<td>0%</td>
</tr>
<tr>
<td>$91-100</td>
<td>10%</td>
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<tr>
<td>$101-150</td>
<td>5%</td>
</tr>
<tr>
<td>$151-200</td>
<td>3%</td>
</tr>
<tr>
<td>$201+</td>
<td>5%</td>
</tr>
<tr>
<td>Mean</td>
<td>$53</td>
</tr>
<tr>
<td>Median</td>
<td>$35</td>
</tr>
</tbody>
</table>
Q31. Did you know that you can (insert) via the Internet?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Register &amp; apply for tax licenses to start a new business</td>
<td>75%</td>
<td>23%</td>
</tr>
<tr>
<td>Get most business registration information</td>
<td>86%</td>
<td>14%</td>
</tr>
<tr>
<td>File your general excise tax</td>
<td>87%</td>
<td>13%</td>
</tr>
<tr>
<td>Renew and find information on professional &amp; vocational licenses</td>
<td>85%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Q32. Please tell us if you strongly agree, agree, disagree, or strongly disagree with the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hawaii should have high speed Internet infrastructure that can provide service equal to that of the leading developed nations</td>
<td>66%</td>
<td>31%</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>Access to world class high speed Internet will create high quality jobs and help Hawaii diversify its economy</td>
<td>49%</td>
<td>40%</td>
<td>7%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Q33. What is your job title or role?
- Chief financial officer ........................................................................ 2%
- Other financial/administrative position .............................................. 4%
- Proprietor/Owner .................................................................................. 33%
- President/CEO ...................................................................................... 14%
- Manager ................................................................................................. 24%
- Other ...................................................................................................... 24%

Q34. Where is your office(s) located? (SELECT ALL THAT APPLY)
- Oahu ........................................................................................................ 65%
- Maui ........................................................................................................ 11%
- Hawaii ..................................................................................................... 19%
- Kauai ................................................................................................. 18%
- Molokai .................................................................................................. 4%

Q35. Where is your company’s head office located?
- Oahu ........................................................................................................ 63%
- Maui ........................................................................................................ 10%
- Hawaii ..................................................................................................... 18%
- Kauai ................................................................................................. 4%
- Molokai .................................................................................................. 1%

Q36. How many business locations does your firm have?
- One ......................................................................................................... 79%
- Two ........................................................................................................ 10%
- Three ................................................................................................. 4%
- Four ...................................................................................................... 2%
- Five+ .................................................................................................... 5%
- Mean ..................................................................................................... 2
- Median .................................................................................................. 1

Q36a. How many of those locations are a private residence or remote site?
- One ......................................................................................................... 40%
- Two ........................................................................................................ 52%
- Three ................................................................................................. 5%
- Four ...................................................................................................... 1%
- Five+ .................................................................................................... 3%

Q37. Including yourself, approximately how many people are employed by your company in Hawaii?
- 1 to 4 .................................................................................................... 56%
- 5 to 9 .................................................................................................... 18%
- 10 to 19 .............................................................................................. 13%
- 20 to 50 ............................................................................................... 12%
- Don’t know ........................................................................................... 1%
- Mean ..................................................................................................... 6 people
- Median .................................................................................................. 3 people

Q38. Approximately how long have you been in business?
- Mean 20 years
- Median 12 years

Q39. About how many dollars in sales revenue did your company gross in 2012?
- Less than $500,000 ............................................................................... 51%
- $500,000 to $1 million ........................................................................... 15%
- $1 million to $5 million ....................................................................... 16%
- $5 million to $10 million ....................................................................... 2%
- More than $10 million ........................................................................... 2%
- Refused ................................................................................................ 14%
- Mean $1,123,000
- Median $400,000

Q40. What is your business location zipcode? 96□

Thank you and have a nice morning/afternoon/evening.