Strategic Analysis Report

Verizon Communications Inc. (VZ)

Kingsman

November 2021

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Executive Summary

Verizon is one of the world's largest telecommunication companies offering a range of services and products. Verizon operates in a highly saturated and competitive market dominated by three Fortune 100 companies. These factors afford buyers and suppliers high bargaining power. In addition, the industry requires high amounts of capital to continually develop and maintain infrastructure used to provide value to its customers. The industry is going through a technological change as advancements make widespread adoption of 5G technology viable for the first time. While this is happening government agencies are gearing up to revamp their infrastructure. We believe this presents a unique opportunity to provide next generation 5G technology to the government bodies looking to upgrade. We believe all aspects of government have the potential to benefit from this new technology. However, we want to focus specifically on the departments that utilize first responder units. We believe equipping first responders with potentially life saving equipment and technology will demonstrate Verizon's unmatched quality and professionalism to the government agencies it serves. Building trust and positive brand recognition with all parties involved. The objective of this report is to recommend that Verizon offers their new 5G technology to first responders. To improve response times and provide high quality assistance to people in need.

Verizon's current vision and mission, and strategy

Verizon announced its new mission and vision statements in 2017 and since then has continually delivered on its statements. Verizon states that its mission statement is to "Deliver the

promise of the digital world" (Company Overview & Mission Statement, 2021). We believe this means that Verizon is attempting to provide their customers with the most advanced technology currently available while continually improving their technology. We believe they are delivering on their promises since Verizon is one of the biggest communication technology companies in the world and will be providing the new 5G technology to all of their consumers in the near future. Verizon's vision statement is "to inspire tomorrow's creators to use technology to build brighter futures for themselves, their families, and the world" (Gregory, L, 2017). Verizon's vision statement relates directly to their mission statement by reminding consumers that they are attempting to improve their customers' lives with new technology.

Currently, Verizon is one of the world's largest providers of "technology, communications, information and entertainment products, and services." (Company Overview & Mission Statement, 2021). Verizon offers the 5G network, one of the fastest technologies in the world, to their customers in over 60 cities in the United States (Verizon 5G News and updates 2021). 5G technology has benefits ranging from public and personal safety to personal gain. An example of how 5G technology provides public safety is that "Verizon protects mission-critical communications even when commercial power is lost" (Verizon Frontline: First responder technologies, 2021) this protection keeps emergency services running in times of crisis. It also provides frontline workers the chance to stay connected in any situation. Verizon also provides its technology to cities to help conserve lights and improve traffic analytics by monitoring vehicle movement which helps to keep pedestrians and cyclists safe. Verizon's technology not only helps with public safety but also personal safety as well. Verizon is committed to keeping

its consumer's data safe. Verizon offers one of the largest global IP networks which provides Verizon access to valuable insight into cybersecurity threats. (Cybersecurity Management Solutions, 2021) This adds valuable protection to both personal and business consumers who are concerned about keeping their data safe. We believe this technology is in alignment with Verizon's vision statement of using technology to provide brighter futures while keeping people safe.

Another way we believe Verizon is living up to its mission statement is by continuing to improve its technology while providing the technology to a global area. Verizon's 4G LTE technology that launched in December of 2010 is available in a much wider area than the 5G technology. At the time of the 4G LTE launch, which replaced Verizon's 3G technology, the 4G LTE was groundbreaking with downloading speeds and quality of video streaming. By 2013, Verizon's 4G LTE was reaching 97% of the population (What is 4G LTE and why it matters, 2021). Verizon was one of the first major U.S. carriers to offer fiber-to-home services (Fios Fiber Optic Network, 2021). This service offered Verizon customers unparalleled internet speed and TV quality in 2005 and has only improved over time. Now Verizon is able to offer faster streaming and the ability to run smart homes because of their fiber-to-home services. Finally, Verizon's 5G technology has provided a more effective route to the digital world. For example, cloud gamers are able to use 5G technology to play online games more efficiently with less lag time. This technology is allowing people to connect faster than ever. Again, this relates to Verizon's mission statement by promising the digital world for personal use.

Verizon's development of 5G technology directly relates to its strategy of trying to provide consumers with the best and most updated technology available. Their current operations of expanding leadership in 5G adoption meet this strategy. While there is currently a race from different telecommunication industries to be the first to take the lead of 5G technology, Verizon is keen on taking that lead.

In 2020, Verizon's net income was $17.801 billion. While this was a 7.6% decline from 2019 when Verizon's net income was $19.265 billion (Verizon net income 2006-2021), it is still impressive Verizon was able to make a profit given the COVID-19 pandemic. While the pandemic affected many businesses in a negative way, Verizon was able to maintain pre-pandemic reliability levels even though there was a major spike in usage (Schulz, K, 2020). Based on Verizon's 2020 total revenue; $23.9 billion was made from consumers (357,000 retail postpaid net additions, including 163,000 phone net additions and 284,000 postpaid smartphone net additions. (Wilkens, E., & Ancin, K., 2021). $8.1 billion was made from the business, 346,000 retail postpaid net additions, including 116,000 phone net additions. (Wilkens, E., & Ancin, K., 2021). Lastly, the remaining $16.7 billion was made from Verizon's total wireless. 703,000 retail postpaid net additions, 279,000 phone net additions and 442,000 postpaid smartphone net additions. (Wilkens, E., & Ancin, K., 2021).

Overall, Verizon has been able to offer a magnitude of different products and services to their consumers over the last 40 years with their most groundbreaking services coming in the last decade. The company shows promises of continuing to grow and developing new technology.

Verizon's Company Analysis

Porter's Five Forces Analysis

The intensity of competitive rivalry in the industry is strong. Many factors make this threat strong for incumbent companies such as similarity of players, undifferentiated products, and competitors' size. The threat of substitute products is low and does not affect the industry. The substitute products are VoIP, data communication, and fixed-line phones. These substitutes are not a concern in an era of high technology in which the customer looks for cutting-edge technology and a wide variety of services. The threats of new entrants are low and the barrier for entry is increasing. The high start-up capital, government regulations, and spectrum availability provide significant barriers to entry for companies trying to enter the market.. The threat of buyer's power is strong due to the undifferentiated product, the tendency to switch, the low cost of switching, and buyer independence. Finally, the threat of supplier's power is strong due to the importance of quality/cost, oligopoly threat, and no substitute inputs. The few suppliers in the market and the relative size of them increase the strength of this threat.

Trends in the General Environment - PESTEL Analysis

Political requirements are important when considering Verizon's competitive position due to its significant strength in the industry. "Regulatory regimes frequently restrict or impose conditions on our ability to operate in designated areas and provide specified products or services. " (Verizon 10-K, 2020, Page 16) New technology needs approval from the governments in the locations they want to operate. These licenses and permits allow them to fully leverage all the money they have invested into research and development.

Operating on the technological forefront comes with a host of benefits. One of which is the ability to charge a premium for your newly introduced technology. However, this advantage can become a hindrance if the average disposable income of the customers decreases in such a way that prices them out of the newly formed market. A project with significant time and capital requirements might lose viability by the time it enters the market due to fluctuations in discretionary spending of consumers.

Social factors are really an important factor for telecommunication industries. Wireless telecommunication connects the communities with their work, entertainment, and other people in society. The use of internet services has grown in recent years, the use of social media, live stream TV with Netflix and YouTube, and many others are essentials of now and future generations, changing the lifestyle of people around the globe.

The wireless communication industry is extremely competitive and companies depend on strong innovation and technology to maintain their customers and increase their market share. 5G technology will replace the current LTE format and provide higher traffic through the network, higher download and upload speeds, and a more reliable network. Verizon needs to stay ahead of the technology and ahead of the newest trends of internet-connected devices if they want to stay relevant in a highly competitive industry.

Verizon needs to stay ahead of the new and upcoming technology to be able to compete in the industry. In order to do so, they need to expand their network and secure the rights for the sites to build new facilities, radio equipment, antennas, and systems. They need to be able to

build and extend their network, they have to plan for the possible impacts that this expansion will have on the environment.

Verizon and other wireless communication companies are regulated by the FCC, Federal Communications Commission. “All wireless services require the use of radiofrequency spectrum, the assignment, and distribution of which is subject to FCC oversight” (Verizon 10-K, 2020, Pg. 12). The FCC regulates construction and coverage areas to requirements for wireless towers and antennas. FCC has the power to influence the strategic decision made by a company such as Verizon due to the control they exert over the industry. Verizon anticipates the need to add spectrum to their network to be able to compete with future demand and growth.

Key Success Factors Analysis

The wireless communication industry is capital intensive and rapidly changing. As firms continue to merge, having the capital required to purchase smaller firms or firms in distress may prove beneficial for long-term success. In addition, having a healthy cash flow and balance sheet allows firms to withstand economic downturns, further increasing the chances of firm longevity.

Verizon needs to maintain its focus on creating technological advances. To maintain large recurring revenue streams Verizon must stay on the cutting edge of technology. As growth in this industry begins to stagnate, each user becomes more valuable. This slow growth is highlighted by “a compound annual growth rate of the market in the period 2016–20 was 0.4%” (Marketline, Telecommunication in North America, 2021). Losing recurring revenue will decrease Verizon’s ability to produce new technology resulting in a downward spiral. The high costs of research and

development and implementation of new technologies require Verizon to be exceptionally efficient in their use of capital or face the consequences of losing market share in a stagnating market.

Finally, we want to mention the importance of adhering to legal guidance issued by regulatory bodies. Firms with the capital to produce and implement market-changing technology are still required to abide by the regulations of the markets in which they operate. This highlights the importance of working with regulators to ensure you can best provide services to your customers.

SWOT Analysis

Strengths ● Market Share Power ● Brand Recognition and Marketing ● Technological Capabilities	**Opportunities** ● Global Markets ● Expansion via Acquisitions ● Diversification
Weakness ● Liabilities ● US Market Dependency ● Security Concerns	**Threats** ● Government Regulations ● Security and Data Breaches ● Market Competition

TOWS Matrix

	Opportunities	**Threats**
Strengths	Use their Brand Recognition and technological capabilities to penetrate global markets and diversify their	Create differentiation campaigns and focus R&D on advanced technology to increase security and eliminate data

	portfolio.	breaches.
Weaknesses	Promote a value campaign and marketing strategy to generate profits from Global markets and reduce the dependency on the US market.	Decrease liabilities by using their technology and market share power to access Global markets. Reduce security concerns by increasing transparency and focusing on data security.

Strengths

Verizon provides a wide variety of services to its customers including private network services, private Cloud services, and internet access services. During the pandemic, they have been able to connect businesses while employees are able to work from home and keep their families safe. The increasingly popular trend of working from home has allowed Verizon to expand on its already popular connectivity services. Verizon has a competitive advantage in network reliability and can leverage this to help provide strong connections to consumers.

Verizon is able to capitalize on their brand recognition and has taken full advantage of their marketing scheme as the largest carrier with the most coverage in the United States. Customer loyalty is extremely important in a highly competitive market and their ability to sustain changes as well as to retain their customer base give them a competitive advantage over their competitors.

Weaknesses

Verizon depends on outside vendors to supply them with the majority of their equipment (fiber, phones, switch, and network equipment). They are at a severe disadvantage if their suppliers are unable to provide these products. “We depend on various key suppliers and vendors to provide us, directly or through other suppliers, with equipment and services, such as fiber,

switch and network equipment, smartphones, and other wireless devices that we need in order to operate our business and provide products to our customers." (Verizon 10-K, 2020, Pg. 15). Verizon's total contractual obligations are $258 billion per their 2020 10-K report. Their ability to pay their debts in the long run will depend on their ability to leverage their strengths and opportunities. This weakness makes them vulnerable during recession time or high inflation rates spikes which can diminish their ability to make a profit.

Opportunities

The growing eCommerce industry creates an opportunity for Verizon to expand upon facilitating transactions between businesses and consumers not only in the United States but other parts of the world. With the rise in popularity of sites such as Facebook Marketplace and Letgo, Verizon can expand on its ability to facilitate transactions between consumers. "Our eCommerce offering includes different types of business models, including facilitating transactions between businesses and consumers, enabling businesses that facilitate transactions for other businesses, and facilitating transactions between consumers." (Verizon 10-K, 2020, Pg. 8). Verizon can also work to improve its 5G broadband network to help facilitate these transactions in a faster and more reliable manner.

Threats

One of the main threats Verizon is currently concerned with is cyber-attacks. These attacks are a huge threat since they could shut down a large portion of Verizon's networks and systems while there is also a concern of the attacks stealing customer information. "Cyberattacks, including through the use of malware, computer viruses, dedicated denial of

services attacks, credential harvesting, social engineering and other means for obtaining unauthorized access to or disrupting the operation of our networks and systems and those of our suppliers, vendors, and other service providers, could have an adverse effect on our business." (Verizon 10-K, 2020, Pg. 14). This threat could cost Verizon millions in lawsuits, incentives offered to existing customers/business partners to retain their business, lost revenue, and security measures. However, Verizon is taking action to monitor this threat by paying for advanced security measures to keep their network and systems safe.

Sustainable Competitive Advantage (SCA) and Major Problems for Verizon

VRIO

Resource/Capability	**Valuable**	**Rare**	**Difficult to imitate or substitute**	**Organized to capture value**	**The extent of sustained competitive advantage**
Capital	Yes	No	No	No	Competitive Parity

Market Share	Yes	Yes	No	No	Temporary Competitive Advantage
Brand	Yes	Yes	Yes	Yes	Sustained Competitive Advantage
Technology	Yes	Yes	Yes	Yes	Sustained Competitive Advantage

Verizon Wireless has established two sustained competitive advantages over the wireless telecommunications industry that are difficult to duplicate and are aided by many factors. These sustained competitive advantages are their industry-leading technological capabilities and brand.

Technology

Verizon provides its users with the best network experience in the industry. Many third-party resources verify Verizon's superior speed and reliability of its technology services and capabilities. J.D. Power has named Version the Most Awarded Wireless Company for Network Quality 25 successive times over the last 12 years. The American Customer Satisfaction Index reports that Verizon leads the industry based on customer valuation of network coverage, data speed, call quality, and call reliability. PCMag recently tested T-Mobile, Verizon, and AT&T's network speeds and observed that Verizon had the fastest download speeds. In Table 1 (see appendix) you can see that Verizon averaged network speeds of 105.1 Mbps (megabits per second) compared to AT&T's 103.1 Mbps and T-Mobile's much lower 74 Mbps (Forbes, 2020).

Verizon was able to outperform AT&T and T-Mobile even though only 4% of its 5G network was available while AT&T had 38% available and T-Mobile had 54% available. Verizon's mostly 4G LTE network was still able to defeat the competition. That is why PC Mag named Verizon the fastest mobile network for 2020.

Brand

Verizon has spent decades building a brand that is synonymous with the highest level of network capabilities. Ever since the early days of the wireless telecommunications industry Verizon has been building its brand as a powerhouse of quantity and unrivaled services. It is almost an impossible task for a new company to clear the necessary hurdles and build a brand that can compete with Verizon. Verizon's brand cannot be imitated or replicated; this is what makes it a key sustained competitive advantage.

Problems

Verizon has a few key problems going forward. One of the main problems is pricing pressure from competing companies in the market. The major companies in the market are locked in a battle for market share and have unleashed an intense price war. For a while, Verizon had resisted offering an unlimited plan but due to pressure from rivals, they were forced to or risked losing market share. This has made Verizon's price per user metric decrease and sheds light on future issues for Verizon (Fool, 2017). As stated earlier, Verizon also suffers from cyber-attacks that can cripple Verizon's network and leave millions of customers without service. If these cyber-attacks persist and are not dealt with properly Verizon will continue to suffer from lost revenue, lawsuits, and incentive packages for the foreseeable future. Lastly, Verizon has

concerns for the future of 5G technology and how to protect their customers' data. The best solution to these problems is government regulations which Verizon is pushing for. If there are no proper regulations put in place, Verizon will have issues in the future protecting their customers' data.

Possibilities, Challenges, and Issues

5G Risk and Drawbacks

The 5G network is a new growing technology with high potential to provide significant value to consumers. However, hackers are constantly looking for ways to exploit new technology that opens Verizon up to the threat of data theft.s, securities. Another drawback is the cost of this network is high and can only function with new technology. Customers with a 4G network have to pay more to upgrade to a 5G network.

Competition

Even with the 5G network, Verizon still has high competition in the market with AT&T and T-Mobile. Verizon has to improve its 5G network while expanding its horizon to other cities and states and also focus on global expansion to improve and surpass the competition. For 2021, Verizon should continue to prioritize the development and construction of its 5G technologies in order to offer affordable upgrades from 4G network to 5G network with an affordable better price to attract customers.

High-Cost infrastructure

Verizon provides high-quality services and products but has a high infrastructure cost for maintenance and development. In order to keep these high costs manageable Verizon needs to

continually add new users in addition to maintain their current user base. We suggest expanding to new industries to bolster user growth numbers, specifically targeting first responders.

Cyber Security

"The 2021 Verizon Data Breach Investigations Report (DBIR) draws on 29,207 incidents investigated in 2020, over 5,200 of which were confirmed breaches" (CPO Mag). The company needs a strong function to control cyber-attacks on their customers. In 2021 the company is investing in a networking Monetization tool that will bring cyber security to a minimum and will also take complete actions. But with the improvement of the 5G network with Verizon, there are more options for identity theft and data breaches that need to be prevented with an advanced cyber security system with the support of the 5G network.

Product lines and backup supplies

During the covid-19 pandemic the company had limited products to offer their customers as there are limited suppliers in the market. Due to delay in product shipments from suppliers, Verizon had a tough time delivering the product to the customers. Verizon does not have its own product line to back-up or provide customers with similar product offers which leads the customers dissatisfied.

Strategic Recommendation

Verizon's biggest problems are competition, high cost of infrastructure, higher risks with 5G Network, low network security, not having enough suppliers and not having its own product line. The goal for Verizon is to attract more customers while providing affordable plans that can fund their continual infrastructure development and maintenance. Customers with a 4G network

have to pay more to upgrade to a 5G network. In order to maintain market share Verizon will have to offer competitive pricing. And target customers that will be willing to pay for the high quality service that sets them apart from the competition.

In addition, Verizon should partner with key vendors to control their costs and maintain healthy supply chains. As the company's high focus is the quality of products they should have a focused approach to research and development. To ensure they produce items that are highly desired by the market. This will allow them to manage costs as they continue to occupy the technological forefront of the industry. The company should also invest in expanding 5G technology to other cities and states.. They should focus on the states and cities with limited network connections This will help increase the profits while staying competitive with AT&T and T-Mobile. With technology being such a large part of our personal lives Verizon needs to continually invest in cyber security. The company needs to invest in advanced network optimization tools that support the newer 5G technology. This will help control and minimize Data breaches.

Providing First Responders 5G Tools

The strategy we want to highlight and ultimately pursue is outfitting first responder vehicles and personnel with 5G technology. We propose pursuing contracts with local and state governments to distribute necessary hardware and secure recurring subscription revenue with these entities. The municipalities we plan to target have anywhere from 200-500 emergency response vehicles. With the conservative estimate of two devices per vehicle, we project 400-1,000 devices per municipality. Each requires a 5G ultra-wideband connection and

subscription. While selling hardware that is capable of utilizing the 5G technology is important, the recurring revenue of subscriptions is the backbone of our financial model. We plan to achieve our IRR of 12% by rolling out the 5G services to ten municipalities over the next ten years. Our research shows government agencies are interested in improving the technology they have at their disposal. (Greenberg, 2020) This is evident in the money dedicated to technological improvement in the infrastructure bills and the money allocated to improving the reach of broadband in the US. We believe this project is in line with Verizon's current long-term goals. It focuses on providing unmatched services to municipalities and in turn the public. It promotes a strong brand image by associating the company with the brave men and women who devote their lives to keeping us all safe. And it does this by designing, developing, and distributing the next-generation technology the company is known for.

Justification of Strategy

Project Timeline

We plan to develop hardware and technology specific to the needs of first responders in the first year of this project. In this time we will also research municipalities in Florida to identify viable municipalities. Key factors would need to be identified before moving forward with any local or state government. Size of staff and vehicle fleet, age and condition of current hardware and technology, located by 5G ultra wide-band towers, and ability to afford upgraded services are factors that will be considered. In year one, once a municipality has been selected we will begin outfitting and training them on the new technology and hardware. Once implementation and training is complete Verizon will begin collecting monthly service fees.

Shortly after this the cycle will begin again and the next best local or state government will be selected. This will be completed year after year continually increasing our market share and growing the recurring revenue subscription model. Periodically, when installed technology becomes obsolete we will revisit our customers and upgrade them to the best available technology and retrain them when necessary. During each step of this plan Verizon will continue to grow and maintain their 5G services in order to provide the highest quality services.

Initial Investment

The initial cash outlay for this project is estimated to be $1.3 million. This project can be funded with cash on hand. This cash in addition to the personnel Verizon has positioned across the country tells us Verizon has the resources to pursue this strategy. If the current cash on hand is already allocated to other projects, the necessary funds could be raised through debt offerings to the state governments that would be participating in the project or to third-party financial institutions. Verizon has issued bonds in the past totaling over one billion dollars. Earlier this year they saw strong demand for a twenty-five billion dollar debt deal. This leads us to believe that funding the initial investment will face little resistance.

Projected Return

The net present value of this investment after 10 years is approximately $185,000. We calculated this value by discounting the projected cash flows. The discount rate or WACC used was 10%, slightly above the required return of Verizon projects. The internal rate of return to 12% on an initial investment of $1.3 million. This is achieved by leveraging recurring subscriptions costs and continually growing the base of users by expanding to new local and

state governments. This is highlighted in the later years. The ten-year IRR of the project is above the return Verizon looks for in their projects of 9%. The speed of the rollout determines the rate of recurring revenue growth. Because of this, the quicker municipalities join the program the more profitable it becomes. Our models take the conservative approach of adding a single municipality each year.

Risks

Some risks we foresee are losing the business and market share of this specific venture to competition. While major competitors are not as aggressive in their 5G development and rollout, we expect AT&T and Sprint to attempt to provide similar services to first responders. If government agencies chose to award contracts bundling large numbers of municipalities together it could be difficult to break through into the market and secure the necessary market share to make the project viable. Another risk on the horizon is our customers will prefer a different or new technology. However, we feel 5G technology will remain the premier emerging tech for the foreseeable future and for the duration of our financial model.

Summary of Risks and Potential Consequences

Each new project has potential risks that can cause a project or even the company to fail. These risks are greater when providing 5G connectivity to first responders because these communications can potentially save lives. These risks can vary from competition to service failures and can be detrimental to the reputation of Verizon. Verizon can take steps to mitigate these risks and help ensure that this project will be successful in the long run.

Competition poses the biggest threat to Verizon as they expand their 5G network to help first responders. Currently, Verizon uses 4G LTE to provide a strong network connection to First responders but AT&T currently has a project called FirstNet that provides first responders with a strong 5G network. (FirstNet to bring, 2021) Verizon might face challenges when implementing 5G connectivity for first responders if AT&T already has a strong network of loyal first responders. Currently, Verizon covers 99% of the United States population with its 4G LTE network and they should work to build their 5G infrastructure to match the coverage of their 4G. This, along with a long history of reliability and speed can help them to compete with companies like AT&T. Verizon should also advertise their programs for ethical responses such as helping Puerto Rico reopen vital delivery channels after the hurricane and helping the Pueblo people of Santa Clara prepare for natural disasters (Verizon Frontline: Public Safety Services, 2021) These programs can garner public and financial support by showing how Verizon doesn't just focus on the profit but how they also care about the people of the world.

One potential consequence of expanding 5G for faster first response times is a failure of the service that prevents first responders from being able to communicate and respond to calls. This would be detrimental because it would keep responders from helping citizens in emergency situations such as hurricanes, floods, and tornadoes. A failure of the 5G network that resulted in lapses of coverage for first responders could also hurt the public perception of Verizon's quality of service. Verizon can mitigate the risk of network outages by expanding its infrastructure for its 5G network. Currently, Verizon has 78% of facilities powered with backup generators, and expanding that network could prove to be vital to ensuring a strong reliable network in any

situation. (Verizon Frontline: Public Safety Services). Also, Verizon has 100% of macro cell sites across the United states backed up by battery and Verizon should work to update these systems as often as possible to ensure reliability (Verizon Frontline: Public Safety Services).

Appendix

Financials - High End Forecast

Purpose: To illustrate 10 year financial plan for our project
Outfitting First Responder Vehicles With 5G Equipment

High End Forecast

	Initial Cash Outflow	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Hardware	$ (281,250)						$ (281,250)				
Initial permit fee	$ (250,000)										
Research and Development	$ (350,000)										
Client Acquistion	$ (500,000)										
Subtotal startup/finish	$ (1,381,250)	$ -	$ -	$ -	$ -	$ -	$ (281,250)	$ -	$ -	$ -	$ -
New sales		$ 162,000	$ 162,000	$ 162,000	$ 162,000	$ 162,000	$ 162,000	$ 162,000	$ 162,000	$ 162,000	$ 162,000
Recurring Subscriptions		$ -	$ 137,700	$ 275,400	$ 413,100	$ 550,800	$ 688,500	$ 826,200	$ 963,900	$ 1,101,600	$ 1,239,300
Shipping and Installation		$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)
Variable costs		$ (113,400)	$ (170,100)	$ (198,450)	$ (226,800)	$ (255,150)	$ (283,500)	$ (311,850)	$ (340,200)	$ (368,550)	$ (396,900)
Depreciation		$ (56,250)	$ (56,250)	$ (56,250)	$ (56,250)	$ (56,250)	$ (56,250)	$ (56,250)	$ (56,250)	$ (56,250)	$ (56,250)
Earnings before tax		$ (57,650)	$ 23,350	$ 132,700	$ 242,050	$ 351,400	$ 460,750	$ 570,100	$ 679,450	$ 788,800	$ 898,150
Taxes		$ 14,413	$ (5,838)	$ (33,175)	$ (60,513)	$ (87,850)	$ (115,188)	$ (142,525)	$ (169,863)	$ (197,200)	$ (224,538)
Net income		$ (43,238)	$ 17,513	$ 99,525	$ 181,538	$ 263,550	$ 345,563	$ 427,575	$ 509,588	$ 591,600	$ 673,613
Plus depreciation		$ 56,250	$ 56,250	$ 56,250	$ 56,250	$ 56,250	$ 56,250	$ 56,250	$ 56,250	$ 56,250	$ 56,250
Subtotal cash income		$ 13,013	$ 73,763	$ 155,775	$ 237,788	$ 319,800	$ 401,813	$ 483,825	$ 565,838	$ 647,850	$ 729,863
Total cash flows	$ (1,381,250)	$ 13,013	$ 73,763	$ 155,775	$ 237,788	$ 319,800	$ 120,563	$ 483,825	$ 565,838	$ 647,850	$ 729,863

NPV	$ 306,000
IRR	13.3%

Assumptions	High End	
Vehicles Add Per Year	225	
Devices Per Vehcile	2	
Devices Added Per Year	450	
Yearly Revenue Per Device	$ 360	$30 Per Month * 12 Months
Projected First Year Revenue	$ 162,000	
Churn Rate	15%	
Cost To Produce Device	$ 125	
Cost To Produce 5 Year Supply	$ 281,250	
Shipping	$ 50,000	
Research and Development	$ 350,000	
Client Acquistion	$ 500,000	
Variable Costs	70%	
Permit fee (initial)	$ 250,000	
Tax Rate	25%	
Inflation	0%	
WACC or hurdle rate	10%	

Machines	$ 281,250	
Shipping (abo	$ -	
Total	$ 281,250	
Depreciation	$ 56,250	Five year life straight line (20%)

Purpose: To illustrate first year and recurring revenue streams as the project is rolled out over 10 years - High End Forecast

Revenue	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	$ 162,000	$ 162,000	$ 162,000	$ 162,000	$ 162,000	$ 162,000	$ 162,000	$ 162,000	$ 162,000	$ 162,000
		162,000	162,000	162,000	162,000	162,000	162,000	162,000	162,000	162,000
			162,000	162,000	162,000	162,000	162,000	162,000	162,000	162,000
				162,000	162,000	162,000	162,000	162,000	162,000	162,000
					162,000	162,000	162,000	162,000	162,000	162,000
						162,000	162,000	162,000	162,000	162,000
							162,000	162,000	162,000	162,000
								162,000	162,000	162,000
									162,000	162,000
										162,000
First Year Revenue	162,000	162,000	162,000	162,000	162,000	162,000	162,000	162,000	162,000	162,000
Recurring Revenue	-	137,700	275,400	413,100	550,800	688,500	826,200	963,900	1,101,600	1,239,300
Total	$ 162,000	$ 299,700	$ 437,400	$ 575,100	$ 712,800	$ 850,500	$ 988,200	$ 1,125,900	$ 1,263,600	$ 1,401,300

Purpose: To illustrate variable expenses associated with the services provided - High End Forecast

Expenses	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	$ 113,400	$ 113,400	$ 113,400	$ 113,400	$ 113,400	$ 113,400	$ 113,400	$ 113,400	$ 113,400	$ 113,400
		56,700	56,700	56,700	56,700	56,700	56,700	56,700	56,700	56,700
			28,350	28,350	28,350	28,350	28,350	28,350	28,350	28,350
				28,350	28,350	28,350	28,350	28,350	28,350	28,350
					28,350	28,350	28,350	28,350	28,350	28,350
						28,350	28,350	28,350	28,350	28,350
							28,350	28,350	28,350	28,350
								28,350	28,350	28,350
									28,350	28,350
										28,350
Total	**$ 113,400**	**$ 170,100**	**$ 198,450**	**$ 226,800**	**$ 255,150**	**$ 283,500**	**$ 311,850**	**$ 340,200**	**$ 368,550**	**$ 396,900**

*Expenses assume 0% churn rate in order to be conservative and relfect costs of churn

**Expenses for first year revenue represent the full variable cost, second year expenses are reduced by 50%, and third year expenses by an additional 50% to reflect higher variable costs while initially securing revenue streams and a lower variable costs when revenue streams are established and the company enjoys the efficiencies associated with economies of scale.

Financials - Median Forecast

Purpose: To illustrate 10 year financial plan for our project
Outfitting First Responder Vehicles With 5G Equipment

Median Forecast

	Initial Cash Outflow	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Hardware	$ (205,000)						$ (205,000)				
Initial permit fee	$ (250,000)										
Research and Development	$ (350,000)										
Client Acquisition	$ (500,000)										
Subtotal startup/finish	$ (1,305,000)	$ -	$ -	$ -	$ -	$ -	$ (205,000)	$ -	$ -	$ -	$ -
New sales		$ 147,600	$ 147,600	$ 147,600	$ 147,600	$ 147,600	$ 147,600	$ 147,600	$ 147,600	$ 147,600	$ 147,600
Recurring Subscriptions		$ -	$ 125,460	$ 250,920	$ 376,380	$ 501,840	$ 627,300	$ 752,760	$ 878,220	$ 1,003,680	$ 1,129,140
Shipping and Installation		$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)
Variable costs		$ (103,320)	$ (154,980)	$ (180,810)	$ (284,130)	$ (232,470)	$ (258,300)	$ (284,130)	$ (309,960)	$ (335,790)	$ (361,620)
Depreciation		$ (41,000)	$ (41,000)	$ (41,000)	$ (41,000)	$ (41,000)	$ (41,000)	$ (41,000)	$ (41,000)	$ (41,000)	$ (41,000)
Earnings before tax		$ (46,720)	$ 27,080	$ 126,710	$ 148,850	$ 325,970	$ 425,600	$ 525,230	$ 624,860	$ 724,490	$ 824,120
Taxes		$ 11,680	$ (6,770)	$ (31,678)	$ (37,213)	$ (81,493)	$ (106,400)	$ (131,308)	$ (156,215)	$ (181,123)	$ (206,030)
Net income		$ (35,040)	$ 20,310	$ 95,033	$ 111,638	$ 244,478	$ 319,200	$ 393,923	$ 468,645	$ 543,368	$ 618,090
Plus depreciation		$ 41,000	$ 41,000	$ 41,000	$ 41,000	$ 41,000	$ 41,000	$ 41,000	$ 41,000	$ 41,000	$ 41,000
Subtotal cash income		$ 5,960	$ 61,310	$ 136,033	$ 152,638	$ 285,478	$ 360,200	$ 434,923	$ 509,645	$ 584,368	$ 659,090
Total cash flows	$ (1,305,000)	$ 5,960	$ 61,310	$ 136,033	$ 152,638	$ 285,478	$ 155,200	$ 434,923	$ 509,645	$ 584,368	$ 659,090

NPV	$ 185,300
IRR	12.1%

Assumptions	Medium	
Vehicles Add Per Year	205	
Devices Per Vehcile	2	
Devices Added Per Year	410	
Yearly Revenue Per Device	$ 360	$30 Per Month * 12 Months
Projected First Year Revenue	$ 147,600	
Churn Rate	15%	
Cost To Produce Device	$ 100	
Cost To Produce 5 Year Supply	$ 205,000	
Shipping	$ 50,000	
Research and Development	$ 350,000	
Client Acquistion	$ 500,000	
Variable Costs	70%	
Permit fee (initial)	$ 250,000	
Tax Rate	25%	
Inflation	0%	
WACC or hurdle rate	10%	

Machines	$ 205,000	
Shipping (abo	$ -	
Total	$ 205,000	
Depreciation	$ 41,000	Five year life straight line (20%)

Purpose: To illustrate first year and recurring revenue streams as the project is rolled out over 10 years - Median Forecast

Revenue	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	$ 147,600	$ 147,600	$ 147,600	$ 147,600	$ 147,600	$ 147,600	$ 147,600	$ 147,600	$ 147,600	$ 147,600
		147,600	147,600	147,600	147,600	147,600	147,600	147,600	147,600	147,600
			147,600	147,600	147,600	147,600	147,600	147,600	147,600	147,600
				147,600	147,600	147,600	147,600	147,600	147,600	147,600
					147,600	147,600	147,600	147,600	147,600	147,600
						147,600	147,600	147,600	147,600	147,600
							147,600	147,600	147,600	147,600
								147,600	147,600	147,600
									147,600	147,600
										147,600
First Year Revenue	147,600	147,600	147,600	147,600	147,600	147,600	147,600	147,600	147,600	147,600
Recurring Revenue	-	125,460	250,920	376,380	501,840	627,300	752,760	878,220	1,003,680	1,129,140
Total	$ 147,600	$ 273,060	$ 398,520	$ 523,980	$ 649,440	$ 774,900	$ 900,360	$ 1,025,820	$ 1,151,280	$ 1,276,740

Purpose: To illustrate variable expenses associated with the services provided - Median Forecast

Expenses	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	$ 103,320	$ 103,320	$ 103,320	$ 103,320	$ 103,320	$ 103,320	$ 103,320	$ 103,320	$ 103,320	$ 103,320
		51,660	51,660	51,660	51,660	51,660	51,660	51,660	51,660	51,660
			25,830	25,830	25,830	25,830	25,830	25,830	25,830	25,830
				103,320	25,830	25,830	25,830	25,830	25,830	25,830
					25,830	25,830	25,830	25,830	25,830	25,830
						25,830	25,830	25,830	25,830	25,830
							25,830	25,830	25,830	25,830
								25,830	25,830	25,830
									25,830	25,830
										25,830
Total	**$ 103,320**	**$ 154,980**	**$ 180,810**	**$ 284,130**	**$ 232,470**	**$ 258,300**	**$ 284,130**	**$ 309,960**	**$ 335,790**	**$ 361,620**

*Expenses assume 0% churn rate in order to be conservative and relfect costs of churn

**Expenses for first year revenue represent the full variable cost, second year expenses are reduced by 50%, and third year expenses by an additional 50% to reflect higher variable costs while initially securing revenue streams and a lower variable costs when revenue streams are established and the company enjoys the efficiencies associated with economies of scale.

Financials - Low End Forecast

Purpose: To illustrate 10 year financial plan for our project
Outfitting First Responder Vehicles With 5G Equipment

Low End Forecast

	Initial Cash Outflow	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Hardware	$ (231,250)						$ (231,250)				
Initial permit fee	$ (250,000)										
Research and Development	$ (350,000)										
Client Acquistion	$ (500,000)										
Subtotal startup/finish	$ (1,331,250)	$ -	$ -	$ -	$ -	$ -	$ (231,250)	$ -	$ -	$ -	$ -
New sales		$ 133,200	$ 133,200	$ 133,200	$ 133,200	$ 133,200	$ 133,200	$ 133,200	$ 133,200	$ 133,200	$ 133,200
Recurring Subscriptions		$ -	$ 113,220	$ 226,440	$ 339,660	$ 452,880	$ 566,100	$ 679,320	$ 792,540	$ 905,760	$ 1,018,980
Shipping and Installation		$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)
Variable costs		$ (93,240)	$ (139,860)	$ (163,170)	$ (186,480)	$ (209,790)	$ (233,100)	$ (256,410)	$ (279,720)	$ (303,030)	$ (326,340)
Depreciation		$ (46,250)	$ (46,250)	$ (46,250)	$ (46,250)	$ (46,250)	$ (46,250)	$ (46,250)	$ (46,250)	$ (46,250)	$ (46,250)
Earnings before tax		$ (56,290)	$ 10,310	$ 100,220	$ 190,130	$ 280,040	$ 369,950	$ 459,860	$ 549,770	$ 639,680	$ 729,590
Taxes		$ 14,073	$ (2,578)	$ (25,055)	$ (47,533)	$ (70,010)	$ (92,488)	$ (114,965)	$ (137,443)	$ (159,920)	$ (182,398)
Net income		$ (42,218)	$ 7,733	$ 75,165	$ 142,598	$ 210,030	$ 277,463	$ 344,895	$ 412,328	$ 479,760	$ 547,193
Plus depreciation		$ 46,250	$ 46,250	$ 46,250	$ 46,250	$ 46,250	$ 46,250	$ 46,250	$ 46,250	$ 46,250	$ 46,250
Subtotal cash income		$ 4,033	$ 53,983	$ 121,415	$ 188,848	$ 256,280	$ 323,713	$ 391,145	$ 458,578	$ 526,010	$ 593,443
Total cash flows	$ (1,331,250)	$ 4,033	$ 53,983	$ 121,415	$ 188,848	$ 256,280	$ 92,463	$ 391,145	$ 458,578	$ 526,010	$ 593,443

NPV	$ 15,100
IRR	10.2%

Assumptions	Low End	
Vehicles Add Per Year	185	
Devices Per Vehcile	2	
Devices Added Per Year	370	
Yearly Revenue Per Device	$ 360	$30 Per Month * 12 Months
Projected First Year Revenue	$ 133,200	
Churn Rate	15%	
Cost To Produce Unit of Hardware	$ 125	
Cost To Produce 5 Year Supply of Hardware	$ 231,250	
Shipping	$ 50,000	
Research and Development	$ 350,000	
Client Acquistion	$ 500,000	
Variable Costs	70%	
Permit fee (initial)	$ 250,000	
Tax Rate	25%	
Inflation	0%	
WACC or hurdle rate	10%	

Machines	$ 231,250	
Shipping (abo	$ -	
Total	$ 231,250	
Depreciation	$ 46,250	Five year life straight line (20%)

Purpose: To illustrate first year and recurring revenue streams as the project is rolled out over 10 years

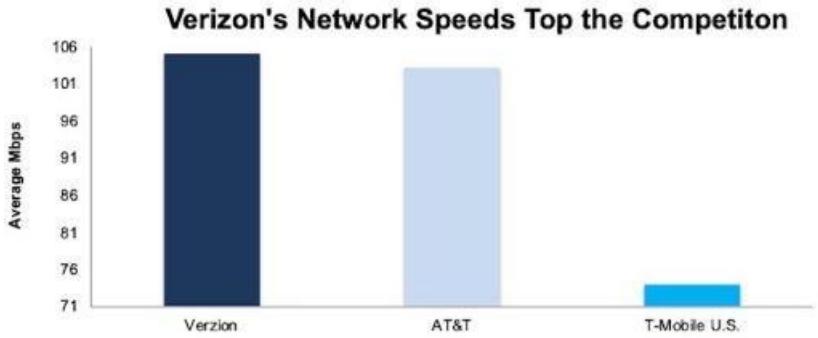
Revenue	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	$ 133,200	$ 133,200	$ 133,200	$ 133,200	$ 133,200	$ 133,200	$ 133,200	$ 133,200	$ 133,200	$ 133,200
		133,200	133,200	133,200	133,200	133,200	133,200	133,200	133,200	133,200
			133,200	133,200	133,200	133,200	133,200	133,200	133,200	133,200
				133,200	133,200	133,200	133,200	133,200	133,200	133,200
					133,200	133,200	133,200	133,200	133,200	133,200
						133,200	133,200	133,200	133,200	133,200
							133,200	133,200	133,200	133,200
								133,200	133,200	133,200
									133,200	133,200
										133,200
First Year Revenue	133,200	133,200	133,200	133,200	133,200	133,200	133,200	133,200	133,200	133,200
Recurring Revenue	-	113,220	226,440	339,660	452,880	566,100	679,320	792,540	905,760	1,018,980
Total	$ 133,200	$ 246,420	$ 359,640	$ 472,860	$ 586,080	$ 699,300	$ 812,520	$ 925,740	$ 1,038,960	$ 1,152,180

Purpose: To illustrate variable expenses associated with the services provided - Low End Forecast

Expenses	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	$ 93,240	$ 93,240	$ 93,240	$ 93,240	$ 93,240	$ 93,240	$ 93,240	$ 93,240	$ 93,240	$ 93,240
		46,620	46,620	46,620	46,620	46,620	46,620	46,620	46,620	46,620
			23,310	23,310	23,310	23,310	23,310	23,310	23,310	23,310
				23,310	23,310	23,310	23,310	23,310	23,310	23,310
					23,310	23,310	23,310	23,310	23,310	23,310
						23,310	23,310	23,310	23,310	23,310
							23,310	23,310	23,310	23,310
								23,310	23,310	23,310
									23,310	23,310
										23,310
Total	**$ 93,240**	**$ 139,860**	**$ 163,170**	**$ 186,480**	**$ 209,790**	**$ 233,100**	**$ 256,410**	**$ 279,720**	**$ 303,030**	**$ 326,340**

*Expenses assume 0% churn rate in order to be conservative and relfect costs of churn
**Expenses for first year revenue represent the full variable cost, second year expenses are reduced by 50%, and third year expenses by an additional 50% to reflect higher variable costs while initially securing revenue streams and a lower variable costs when revenue streams are established and the company enjoys the efficiencies associated with economies of scale.

Table 1



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