

INTERNET OF EVERYTHING

A master's thesis

Submitted to the Faculty

of

American Public University System

by

Michael De Shannon

In Partial Fulfillment of the

Requirements for the Degree of

Master of Science in IT Project Management

February of 2022

Capstone Professor:

Dr. John Rhome

The author, at this moment, grants the right for American Public University System to display the contents for educational reviews. The author is responsible for meeting the United States copyright law requirements to include the materials, not the author's creation.

© Copyright 2021 by Michael De Shannon. All rights reserved.

DEDICATION

This Internet of Everything thesis has dedicated to "Symbolics, Inc." (Schmidt, n.d., paras. 1-4). Honestly, they helped Michael all money for the first Electrical Engineer major at "Los Angeles Pierce College" (Aguiar, 2021) in the 1980s. Then, Michael had excellent grades. Michael got promoted to the Vietnamese student association president. They also wanted to train Michael to learn about the Lisp programming language (Schmidt, n.d.). Michael is so grateful and sincerely appreciates that they helped the Internet of Everything master's thesis possible.

ACKNOWLEDGMENTS

Michael truly appreciates the great Internet of today. Truthfully, Michael is internally grateful to the American Public University System (APUS) that provides the student with a convenient way to study anywhere at any time. Beyond grateful, thanks to the exceptional IT professors at the APUS who gave Michael the fast grading and excellent grades for all courses. They are all outstanding IT professors globally. APUS is a fantastic online IT university for international students and military service members to study.

Moreover, thanks to Capstone professor Dr. John Rhome took time and giving a valuable, warmed, and excited congratulations and welcome. Michael is so grateful and sincerely appreciates Dr. Rhome's time and helpful response all the time. Michael thinks Dr. Rhome is one of the excellent IT online professors, and Dr. Rhome will help Michael finish this IT Project Management Master of Science Degree without any problem.

ABSTRACT

Internet of Everything

By

Michael De Shannon

Master of Science in IT Project Management

American Public University System

Charles Town, West Virginia

Dr. John Rhome, Capstone Professor

The *Internet of Everything (IoE)* is the outstanding development of today, and it will lead to an excellent future to come. The IoE refers to the network and physical devices to promote economically and minimize human involvement. The IoE method is to help people in the world use the Internet invaluable and intelligent ways. Home and business users have an accomplishment to use the Internet as e-commerce websites, education websites, auction websites, online shopping websites, grocery websites, social media websites, intelligent cars, smartphones, and many more. The IoE helps global businesses to get the highest revenues.

Keywords: Internet of Everything, Internet of Things

TABLE OF CONTENTS

COPYRIGHT PAGE.....	i
DEDICATION.....	ii
ACKNOWLEDGMENTS.....	iii
ABSTRACT.....	iv
TABLE OF CONTENTS.....	v

CHAPTER	PAGE
I. INTERNET OF EVERYTHING.....	1
Purpose.....	2
II. LITERATURE REVIEW.....	2
Significance of the Research.....	6
<i>Significance #1</i>	6
<i>Significance #2</i>	8
<i>Significance #3</i>	8
<i>Significance #4</i>	8
<i>Significance #5</i>	9
<i>Significance #6</i>	9
<i>Significance #7</i>	10
<i>Significance #8</i>	10
<i>Significance #9</i>	11

<i>Significance #10</i>	11
<i>Significance #11</i>	12
<i>Significance #12</i>	12
<i>Significance #13</i>	12
III. METHODOLOGY.....	12
Hypotheses.....	12
What is the Internet of Everything?.....	13
What is the Internet of Thing?.....	14
What is the problem statement.....	14
Problem Solve Solutions.....	15
The Update USGv6 Test Program.....	17
Security Policy Management.....	26
Intrusion Detection Systems.....	26
Cryptology.....	27
IBM's Cryptology.....	27
Quantum Cryptography.....	28
Physical Access Control Security.....	29
Mitigate to Cloud Computing.....	29
Incident Management.....	30
Information Security Policy.....	30
Design Security Architecture Policies.....	30
IV. RESEARCH DESIGN.....	31
Collection and Analysis Data:.....	31

Quantitative and Qualitative Research Data.....	32
Validity, Reliability, and Generalizability.....	33
Independent and Dependent Variables.....	34
Sampling for the IoE.....	35
Travel Research Survey.....	35
Mean, Median, and Mode.....	35
The Limitations of the IoE and Bias.....	36
Summary.....	37
Conclusion.....	46
REFERENCES.....	47

Introduction

Internet of Everything

The *Internet of Everything (IoE)* (Ambrose, 2015) helps people in the world can use the Internet to get many things done fast and efficiently. The IoE is an advanced technology, and it provides people to use the Internet for e-commerce, education, auction, online shopping, grocery, social media, intelligent cars, smartphones, and many more. The Internet creates an exceptional global economy (Ambrose, 2015). The IoE invents from the *Internet of Things (IoT)* (Ambrose, 2015) such as mainframes, desktop and laptop computers, smartphones, and many other devices as they will need to connect to the Internet (Ambrose, 2015). As a suggestion, the IoT's profit will increase to more than \$18 trillion and more than 49 billion devices before 2021 (Sunday Business Post, 2015).

The IoE has created sensor integration as low-power wireless communication technologies, 5G applications, and network protocols (Sanchez-Iborra & Santa, n.d.). The IoE has the highest value in connecting intelligent networks across learning, and the IoE will benefit the people who use the Internet, processes, data, and things. Still, students need to understand the IoE potential risks (Selinger, Sepulveda, & Buchan, 2013). The IoE will change how life will be lived in the future by the sensor energy will produce power to the sensors for a prolonged time. The sensors can remote distant locations like underground, space, and other planets (Miraz et al., 2015).

Today, more than 4.4 billion mobile phones existence; more than 4.9 billion people have connected through the Internet. As a suggestion, more than 199 billion devices will connect to the Internet before 2023. Moreover, IoE is an advanced technology, and it helps global businesses to get the highest revenues. The IoE provides all people worldwide with meaningful

lives via the Internet (Tulemissova, 2016).

Purpose

The primary purpose of the *Internet of Everything (IoE)* (Ambrose, 2015) is to bring convenience, value, and intelligent ways to use the Internet. The IoE is outstanding advanced technology as it helps people use the Internet for e-commerce, education, auction, online shopping, grocery, social media, intelligent cars, smartphones, and many more. The IoE changes the world to live as a new way of life by the Internet (Ambrose, 2015).

Additionally, the IoE invents from the *Internet of things (IoT)* (Sunday Business Post, 2015) like mainframes, servers, desktop computers, laptop computers, smartphones, and many other devices that need to have the Internet. As a suggestion, the IoT's profit will increase to more than \$18 trillion and more than 49 billion devices before 2024 (Sunday Business Post, 2015).

Furthermore, today, more than 4.4 billion mobile phones existence; more than 4.9 billion people have connected through the Internet. As specialized research, more than 199 billion devices will connect to the Internet before 2024. Moreover, IoE is the superior advanced technology, and it improves industry and eCommerce to get the highest revenues. The IoE helps all people worldwide to have meaningful lives via the Internet (Tulemissova, 2016).

Literature Review

The *Internet of Everything (IoE)* (Ambrose, 2015) helps people in the world can use the Internet to get many things done fast and efficiently. The IoE provides people to use the Internet for e-commerce, education, auction, online shopping, grocery, social media, intelligent cars, smartphones, and many more. The IoE creates an exceptional global economy (Ambrose, 2015, paras. 1-8). The IoE started from the *Internet of Things (IoT)* (Sunday Business

Post, 2015), including mainframes, desktop computers, laptop computers, smartphones connected to the Internet, and many more. As a suggestion, the IoT's profit will increase to more than \$18 trillion and more than 49 billion devices before 2021 (Sunday Business Post, 2015).

As a literature review, computer history started after 1936, with Bell Laboratories and Hewlett-Packard after 1938 (Computer History Museum, 2021). IBM invented the first massive automatic digital calculator built in the United States after 1943 (IBM, 2021). IBM created a mainframe *System/360* (IBM, 2021), an expensive system. It had built-in network communications. It could handle commercial and scientific works after 1963 (IBM, 2021). IBM invented *System/370 Model 145* (IBM, 2021) with the large-scale integration mainframe in the 1970s. Then, the *IBM 3081* (IBM, 2021) processor mainframe had provided the most excellent three-dimensional networks linking thousands of devices after 1983 (IBM, 2021).

Additionally, before 1999, the *Integrated Circuit (IC)* (Wancho, n.d.) was created by Jack Kilby. Jack won the Nobel Prize in Physics as part of his IC invention (Wancho, n.d.). *AMD Epyc Rome* (Cadence Design Systems, Inc., 2021) has released after 2018, and it had more than 38 billion transistors in the chip. The earliest microprocessor had thousands of transistors in the chip, but the microprocessor has increased to billions of transistors in the present (Cadence Design Systems, Inc., 2021). In the late 1960s, *Advanced Research Projects Agency Network (ARPANET)* (Andrews, 2019) created the first workable Internet prototype that allowed more computers to communicate on a single network. In the 1970s, "scientists Robert Kahn and Vinton Cerf invented Transmission Control Protocol and Internet Protocol, TCP/IP" (Andrews, 2019, paras. 1-8) and multiple networks computer communications standards. Then, ARPANET adopted TCP/IP became the modern Internet on January 1, 1983. In 1990, "computer scientist Tim Berners-Lee created the World Wide Web" (Andrews, 2019, paras. 1-8). After 1982, the

government granted the update *Internet Protocol Version 6 (IPv6)* (Vought, n.d.) for the global Internet user. The IPv6 replaced IPv4, and the IPv6 will be the Internet's next-generation protocol. The IPv6 will be the unique Internet protocol address for all Internet users globally. IPv6 will be the most updated Internet protocol address global numeric identifier for all Internet users worldwide. However, businesses and individuals still use IPv4. After 2014, IPv4 got a problem with many global Internet users, and IPv4 caused computer users' economic issues over the Internet globally. Thus, IPv6 got widely used and recognized with the complete transition. The IPv6 became the most excellent Internet protocol address for the world's Internet technology and service users.

Moreover, after 2004, IPv6 started popularly and became a commercial development and adoption of IPv6 technology. From 2010 - 2015, IPv6 has successfully increased users globally and became mass users by many corporations globally. The IPv6 can help the business owner reduce cost, improve security and risk management (Vought, n.d.). There are "three main categories of packet-switched networks" (Comer, 2015, pp. 220-234) that will classify according to the distance they span. *Local Area Network (LAN)* (Comer, 2015) is the least expensive, and it can travel within a single room or a single building. When *Metropolitan Area Network (MAN)* (Comer, 2015) is a medium expense, it can span a significant city or a metroplex. Moreover, *Wide Area Network (WAN)* (Comer, 2015) is the most expensive, and it can travel sites in multiple cities. MAN technologies have not been commercially successful so that networking professionals merged MAN networks into the WAN category and used the terms LAN and WAN. Thus, LAN and WAN became so popular that end with area networks. *Institute of Electrical and Electronics Engineers (IEEE)* (Comer, 2015) had a standard for LANs focus on the protocol stack's first two layers. In 1980, IEEE accepted standards for project 802 LAN/MAN

(Comer, 2015) was essential to focus on two protocol stack layers. The *Internet Engineering Task Force (IETF)* (Comer, 2015) states transport and internet protocols, and the *World Wide Web Consortium (W3C)* (Comer, 2015) focuses on application-layer standards. Each organization thinks its layers are the most important (Comer, 2015).

Furthermore, a group of vendors created the *Wi-Fi Alliance* (Comer, 2015) in 1999. It associates wires LANS with the term Wi-Fi. The IEEE used the 802.11 standards. They certified the wireless standards started with "802.11, 802.11b, 802.11g, and 802.11 in IEEE standards" (Comer, 2015, pp. 267-269). IEEE has also created many other wireless networking standards to handle Internet communication. Each standard will specify a frequency range and a data rate to be used (Comer, 2015). Network routing will process to select an "Internet protocol of a packet-switching network like LAN and WAN to transmit data across one or more networks by network hardware called router" (Cloudflare, Inc., 2021, para. 1). "Routing is one of the remarkable functions for IP in LAN and WAN packet-switched networks. Bill Yeager created routing, and Cisco Systems licensed it after 1986" (IT History Society, 2021, para. 1). Cisco routing offers LAN, WAN, and cloud, intent-based networking with the most integrated data security to deliver a complete data risk prevention solution. Cisco has the new Catalyst 8000 Edge Platform to transform the WAN edge with data security and 5G-ready connectivity (Cisco, 2021).

Moreover, the "Wi-Fi Alliance had standards for many routers globally" (Wi-Fi Alliance, 2021, paras. 1-100). Wi-Fi has more than \$3.2 trillion in global economic value and more than 15 billion devices in use (Wi-Fi Alliance, 2021). "In 2020, they had outstanding support members like Apple, Intel Corporation, and many more" (Wi-Fi Alliance, 2021, paras. 1-5). Moreover, the IoE has helped the eCommerce successes on the Global 500 and Fortune 500.

The IoE helps Walmart has become the most excellent eCommerce and retail championship globally (Fortune Media IP Limited, 2021).

Significance of the Research

Significant #1

Walmart is the effective #1 successful e-business management strategy globally.

Walmart ranks top number #1 on Fortune 500 and Global 500 from 2015. Walmart proves to all businesses that Walmart is one of the excellent retail and eCommerce exceptional championships in world history (Fortune Media IP Limited, 2021). Walmart created excellent IT project management strategy teamwork that Walmart wanted buyers to save money to live better. Walmart got the Presidential Medal of Freedom award from President George H. W. Bush after 1991.

Additionally, Walmart had an excellent project supply chain strategy in that its regional distribution centers located have the lowest labor costs. Walmart wanted to lower its operating costs so that Walmart could pay its employees better rates, and Walmart has outstanding teamwork to deliver high-quality products and services to all customers around the world. Moreover, Walmart uses an extensive and comprehensive IT project database to improve its inventory management and meet international buyer expectations (Keller, n.d.).

Walmart's history started after the year 1961. Sam Walton invented the first Walmart store to sell products to the customer at the lowest price at any time and anywhere after 1961. Walton owned more than 22 stores had more than \$12 million in revenue after 1966. The Walmart store has incorporated after the year 1968. Thus, Walmart became a free trade Incorporation with the first stock sold more than \$16 per share after 1969. After 1970, Walmart

had an excellent project management team-building strategy for its first distribution center. After 1971, Walmart had listed on the New York Stock Exchange with more than 49 stores, and Walmart had more than \$76 million in revenue. The Walmart Foundation had created after 1978. After 1979, Walmart had \$1 billion in revenue, more than 275 stores, and more than 20,000 teamwork associates. Walmart made the first Sam's Club and replaced cash registers with computerized point-of-sale systems so that Walmart could have the fastest teamwork and final checkout for the customers after 1982 (Walmart, Inc., 2021).

Walmart had more than \$485 billion in revenue, and its net profit was more than \$16 billion in 2015. Walmart had more than \$482 billion and a net profit of more than \$14 billion in 2016, and in 2017, Walmart had more than \$485 billion, and they got a net profit of more than \$13 billion. Walmart reached more than \$500 billion and a net profit of more than \$9.8 billion in 2018. Walmart had more than \$514 billion and a net profit of more than \$6.6 billion in 2019. Walmart had more than \$523 billion, and its net profit was more than \$14 billion in 2020 (Fortune Media IP Limited, 2021). In 2015, Walmart created excellent project management to focus on customer service. Walmart sells the freshest produce groceries. Walmart builds the most superlative advanced technology for Walmart stores and eCommerce websites by actively integrating with m-commerce such as smartphone and tablet apps to all Walmart customers worldwide to give them outstanding digital shopping experiences. Walmart can buy low price items from China. Thus, Walmart can gain and sustain its cost advantages (Dudovskiy, 2016).

Furthermore, with the COVID-19 pandemic crisis, Walmart is still an e-commerce champion. In 2018, Walmart's US eCommerce sales increased more than 39%, and in the same year, Walmart increased more than 35% growth in eCommerce sales than Amazon experienced. Walmart got more sales than Apple in 2019 (McKinnon, 2019). In 2020, Walmart partnered

with Instacart to compete with Amazon. Walmart and Instacart offer customers the same-day delivery option at Walmart's four locations in California (O'Brien, 2020). Walmart has a successful project management team building e-business management globally. Today, Walmart is one of the world's largest eCommerce and retailer stores. Walmart has 11,500 stores and eCommerce websites around the world. Walmart has over 2.2 million teamwork employees worldwide (Walmart, Inc., 2021).

Significant #2

Amazon has more than 37% revenue growth in 2020 and ranks the top #2 of the Fortune 500 for their project management. Amazon earned more than \$21.0 billion in profit on more than \$385 billion in annual sales. As the pandemic forced everybody online, Amazon won big. Amazon's IoE cloud service also had success (Fortune Media IP Limited, 2021).

Significant #3

Apple is ranked three on Fortune 500 of 2021, and they have more than \$275 billion in revenue. Their excellent sell is from its app store. Their stock increased more than 79% in 2020 (Fortune Media IP Limited, 2021).

Significant #4

The IoE of the intelligent car - The Self-Driving Car is the future car. Aptiv has started with today's excellent advance autonomous vehicle (AV) development. Aptiv creates the Artificial Intelligence (AI) network sensing self-driving cars that automatically program the vehicle to travel without operating a vehicle. The Aptivs' AV and robotic taxis will have excellent sensing of its environment and run safely. The Aptivs' AV and automated taxis have the most excellent advanced AI autonomous control systems to control navigation paths and avoid accidents.

Additionally, Aptiv's AV ideal can lead to future autonomous cruises, autonomous spaceships, and autonomous trucks (CBS Sunday Morning, 2019). Aptiv's headquarter is in Dublin, Ireland. Aptiv is a global company with more than 42 countries, 122 manufacturing facilities, 170,000 workers, and more than ten technical centers (Aptiv, 2021). The president of Aptiv came from MIT (Fridman, 2019).

Significant #5

NVIDIA and Mercedes-Benz joined ventures to create advanced AI autonomous cars (<https://youtu.be/Ocr3fzVBSL8>) that can talk, listen, and drive by themselves (Csongor, 2017). NVIDIA partnered with BMW to develop advanced AI autonomous manufacturing robots (<https://youtu.be/ncAW5Bdq8BE>). NVIDIA made a robust AI network that can autonomously navigate, detect, and move objects (NVIDIA, 2021).

Significant #6

"General Motors (GM) invested more than \$480 million in Lyft. GM and Onstar Mobileeye joined the venture to create computer road maps to be used by autonomous vehicles" (Baldwin, 2016, paras. 1-7). "Walmart invested \$2.75 billion in GM's autonomous vehicle" (Wayland, 2021, paras. 1-13). GM also joined a venture with Microsoft to make excellent autonomous vehicles. They want to create an outstanding AI safer autonomous automobile for drivers to travel without accidents (Cruise LLC., 2021).

GM and Microsoft use a cloud platform for their autonomous vehicles. Thus, their self-driving cars will use Microsoft's cloud platform solution globally. Microsoft, GM, and Honda invested more than \$2 billion in electric AI autonomous cars, giving them a total of \$30 billion to start. They want to build AI autonomous vehicles with protection from accidents, zero

congestion, and zero emissions. GM and Microsoft want to launch more than 29 electric AI autonomous cars after 2024 (Cruise LLC., 2021).

Significant #7

Waymo joined a venture with some of the world's largest automakers to make AI autonomous vehicles, trucks, and vans for people to get where they are going safely and efficiently. Waymo will create on unique custom AI design of software and hardware. Moreover, Waymo's primary mission is to transform regular cars, trucks, and vans into advanced AI autonomous vehicles, trucks, and vans to save a thousand lives from traffic accidents as possible (Waymo, 2020).

After 2008, Waymo's invented its autonomous in San Francisco, California. Waymo finished more than 999 autonomous miles tests across California. After October 7, 2020, Waymo began a fully autonomous app service in Phoenix, Arizona (Waymo, 2021). Waymo uses an AI Network application to predict and understand the environment surrounding their autonomous cars, vans, and trucks. Waymo AI Network has the behavior prediction that will help the diver understand the scene information of the travel destiny (Waymo, 2020).

Significant #8

After 2016, Ford Motor Company joined venture with Argo AI, and they invested more than \$999 million to make the advanced AI autonomous. Argo AI will develop level 4 autonomous with AI network autonomous driver systems, finishing in 2021. Argo AI has robotics and AI autonomous specialist with more than 198 workers. Ford Motor Company has a specialist in luxury Lincoln vehicles, Ford cars, and Ford trucks, and they have more than 184,000 workers globally (The Ford Motor Company, 2017). Argo AI has joined a venture with

Ford Motor Company and Volkswagen to build the most advanced AI autonomous vehicles to benefit people globally (Argo IA LLC., 2021).

Significant #9

BMW created a level 3 AI autonomous (<https://youtu.be/IYK4XnJxsA>) that will provide drivers to automate hand-free driving. BMW AI autonomous cars will have a limit speed of no more than 84 mph on the highway, and it has two driving modes. The driver can drive as autonomous or as a regular. BMW has risk protection to help the driver control the autonomous to complete stop as safely as possible to avoid accidents. Moreover, it has an excellent AI alerting the driving system with a camera and audio to alert the driver to ensure the driver will have a safe and comfortable drive (Slovick, 2020).

Additionally, BMW has a unique AI autonomous driving test system from level 1-5 that can help understand all autonomous vehicles of five classes (BMW AG, 2021). Moreover, BMW wants to make the superb AI autonomous vehicle globally from their idea of the future. BMW has already had the idea to create the most excellent advanced AI autonomous car of the future (<https://youtu.be/6tUWYXe9qbY>). BMW looks into the future of the advanced IA autonomous car to develop the advanced AI autonomous vehicle at present (BMW Group Company, 2021).

Significant #10

Today, Honda invented a level 3 AI autonomous vehicle for lease only in Japan (<https://youtu.be/7eYYwU3ETnI>), and it retails price of less than \$103,000. The Honda Legend level 3 AI autonomous vehicle uses the advanced AI driver system that drivers do not need to drive when the car is on the highway. The driver will activate the turn signal to change lanes (Beresford, 2021).

Significant #11

Cadillac used GM's AI autonomous driving technology (<https://youtu.be/m6mMBGtasdY>), which will provide the driver with a hands-free driving car. Cadillac AI autonomous driving system cars will sell for less than \$61,000. Cadillac (<https://www.cadillac.com/world-of-cadillac/innovation/super-cruise>) has the advanced AI driving system today, and it can provide a driver to drive at speed up to 85 mph and automated change lanes on the highway (General Motors, 2021).

Significant #12

Toyota wants to create advanced AI autonomous driving technology as they want to hire excellent AI engineers worldwide. Toyota plans to make advanced AI autonomous vehicles to save thousands of lives from many traffic accidents. They want to transform transportation to the AI safer autonomous automobile for everyone in the world to enjoy car travel without any accidents possible (Toyota, 2021).

Significant #13

The IoE of the Autonomous Vehicle (AV) can lead to autonomous cruises, autonomous trucks, and autonomous spaceships as the future to come. Nevada governor Brian Sandoval proved the world-first self-driving truck in 2015 on the YouTube video (Car Jam TV, 2015). A Mercedes autonomous truck is also driving itself on YouTube video – A Mercedes future autonomous truck 2025 commercial (Car Jam TV, 2015).

Methodology

Hypotheses:

The research has three questions are: What is the Internet of Everything (IoE)? What is the Internet of Things (IoT)? What is the problem statement of the IoE?

What is the Internet of Everything?

The *Internet of Everything (IoE)* (Ambrose, 2015) method is to help people in the world use the Internet with convenience, value, and intelligent ways. The IoE helps home, and business users significantly accomplish utilizing the Internet. They built many super Internet websites like eCommerce, education, auction, online shopping, grocery, social media, intelligent cars, smartphones, and many more.

Additionally, in 2017, more than 3.8 billion Internet users worldwide. China was a significant online user of more than 828 million users. India was the second online user of more than 559 million users, and the United States was the third internet user of more than 292 million users (Clement, 2019). Moreover, the IoE improves global business to get the highest revenues. The IoE enhanced people's lives by creating an exceptional global economy (Ambrose, 2015).

The IoE Alternate Hypothesis:

E-commerce websites like Walmart and Amazon more likely need to use the Internet. Online education websites, online auction websites, and online shopping websites more likely need to use the Internet.

The IoE Null Hypothesis:

The Internet will have no statistically significant difference in using the network. All the people in the world can use the Internet.

Hypothesis Testing:

The Hypothesis Testing will decide between the IoE Alternate Hypothesis and the IoE Null Hypothesis.

Significance Level:

The null hypothesis needs to be correct 95% from the P-Value testing.

P-Value:

The probability of obtaining a test statistic will prove that the null is correct and there is no statistically significant difference in using the Internet. All the people in the world can use the Internet. However, an actual result from the p-value showed a statistically significant difference in using the Internet because not all people worldwide can use the Internet. So, the IoE Null Hypothesis is false.

Additionally, the IoE population of interest showed that the low-class people did not have computers and smartphones. The IoE Alternate Hypothesis is true because the e-commerce websites, education websites, auction websites, online shopping websites, grocery websites, social media websites, smart cars, and smartphones, more likely they need to use the Internet (Russell, n.d.).

What is the Internet of Things?

The IoE creates from the *Internet of Things (IoT)* (Sunday Business Post, 2015), such as many physical devices like mainframes, servers, desktop, and laptop computers, smartphones, and many other devices that need to connect to the Internet. As a suggestion, the IoT profit will increase to more than \$18 trillion and more than 49 billion devices before 2021 (Sunday Business Post, 2015). Today, more than 4.4 billion mobile phones worldwide and more than 4.9 billion people have connected through the Internet. As a suggestion, more than 199 billion devices will connect to the Internet before 2021. Moreover, IoE is the most advanced technology, and it works like magic to improve business and industry to get the highest revenues. The IoE helps all people worldwide to have the most meaningful lives via the Internet (Tulemissova, 2016).

What is the problem statement?

The problem is that the IoE will increase the security risks for home and business users, such as cybercrime, natural disaster, fire, thief, and unpredictable data risks. As a suggestion, cybercrime will cost IoE users more than \$5.99 trillion annually before 2023 (Morgan, 2019). "In 2020, IBM named leader more than the seventh time in a row for data center backup and recovery solutions" (IBM, 2021, paras. 1-6). "The IBM Power System has the security built-in to protect the data risks for the IoE users. The IBM Power System will be a great help for the data risk prevention solutions" ("IBM POWER9," 2015, paras. 1-12). There are also many other foremost cloud platform providers as they have data secure communication and insightful IoE solutions. They can significantly help data risk protection and cybersecurity ("Qualcomm," 2015).

Problem Solve Solutions

The project managers need to prevent all project security risks and project risks such as cybercrime, natural disaster, fire, thief, and other unpredictable threats. They need to buy cybercrime, natural disaster, fire, thief insurances to protect businesses and unforeseen risks. CISO needs to update project security and risk management all the time ("*A guide to the project management body of knowledge (pmbok® guide)*," 2017). The IoE of Self-Driving Car will have complete protection from a car accident than a human-driven vehicle, but the Autonomous Vehicle (AV) may still get an accident. Thus, the AV driver needs to buy AV liability insurance like conventional car liability insurance as the law requires protecting the AV and driver from an accident (Anderson, Brown, & Safford, 2019).

Furthermore, liability car insurance is a car insurance policy that will cover injury and damage to a third-party vehicle. A driver will require to buy liability car insurance as per state

law requirements. However, the driver may need to purchase full coverage car insurance as it will cost more money than liability car insurance. Still, the driver will get to cover the financial risk for their car and the third-party vehicle. The full-coverage car insurance policy will cover collision insurance to help the driver the cost to repair or replace both party vehicles from an accident. The full-coverage car insurance policy will also protect the driver from other financial risks like falling tree objects, walls, fire, and thieves (Fontinelle, 2020). The most crucial advantage of AI autonomous vehicles can save thousands of lives from car accidents. AI AV has built in the most advanced AI driving system to help drivers safely, conveniently, and comfortably avoid accidents. AV will be the most excellent benefit for car travelers in that it will help a car traveler drives safely, conveniently, and comfortably with AI autonomous network driving system.

Additionally, AV will reduce accidents because more than 93% of car crashes are human error. AV will be the most outstanding lifesaving, with more than 34,000 people dying in car accidents in the United States each year. AV will have the most excellent societal benefits from more than \$241 billion cost for car accidents, more than \$57 billion cost from lost workplaces, and more than \$593 billion due to loss of life and decreased quality of life by injuries. AV will protect everyone on the street and highway. The AI network autonomous driving technology can apply to cars, vans, trucks, cruises, airplanes, and spaceships around the world today and in the future to come (US Department of Transportation, 2021).

Finally, in 2021 of the USA, "Xfinity provides a download speed of 2,000 Mbps when Verizon can offer 940 Mbps download speed. AT&T will provide a download speed of 940 Mbps, and Spectrum can offer 940 Mbps download speed" (Shelton, 2021, paras. 1-27). "The

10G network will be new advanced technology, and it will enable many inventors to develop the significant life changes of the future IoE" (Tengplatform, 2021, para. 1).

The Update USGv6 Test Program

The *National Institute of Standards & Technology (NIST)* (Vought, n.d.) needs to continuously update and expand the US Government USGv6 Program published by the *Internet Engineering Task Force (IETF)* (Vought, n.d.). The USGv6 Test Program updated by NIST will provide the government with the most excellent testing of IPv6 commercial product offerings. The government agencies need to update the USGv6 Test Program as part of their acquisition strategy (Vought, n.d.).

Example for the Update USGv6 Test Program



The Update USGv6 Test Program Schedule and Budget Proposal

Office Rental Cost:

1. Office space for development, testing, and meeting will charge \$2000/month and \$12,000 for six months in Las Vegas.
2. The Office supply will cost \$1200 for six months.

Hardware and Software:

1. 5 4K desktop computers with window ten professionals: \$5000
2. Business Internet and phone: \$250/month and \$1,500 for 6 months
3. Wireless Color Laser Print/Copy/Scan/FAX: \$500
4. Digital Cordless Home Phone w/ Answering Machine: \$50 x 5 = \$250
5. MS Project Professional 2019: \$500 x 5 = \$2,500
6. Smartsheet Project Management: \$50/month x 5 = \$250 and 6 months for \$1,500
7. AWS Database: \$100/month and six months for \$600
8. MS Office 365 Business Premium: \$15/month x 5 = \$75 and 6 months for \$450
9. Norton 369 = \$140 per year
10. Red 8K Camera and lens = \$250,000
11. Director of Photography (DGA) = \$100,000
12. Cameraman and Crew = \$221,000
13. Contingency = \$34,083

The Update USGv6 Test Program Project Management Team Member Pay Rates:

The project manager (Michael De Shannon) will get paid \$298,000 a year, but he will work on a task that takes one day to complete. He will work eight-hour day and five-day workweek. Moreover, the project manager will work eight weeks to finish the USGv6 test program.

1. Michael De Shannon will work as a project manager or a project leader, and Michael will

Responsible for the updated USGv6 test program as project management team leader.

Michael Will Get Pay: $\$298,000/52/5 = \$1,146.16$ per day x 60 days = \$68,769

2. Ava Wilson will work as a specialist software engineer (B.S.), and Ava will update the USGv6 test program.

Ave Will Get Pay: $\$350,000/52/5 = \1346.15 per day x 21 days = \$28,269.00

3. Ashley Miller will work as a senior software engineer (B.S.), and Ashley will be
4. Responsible for updating the USGv6 test program.

Ashley Will Get Pay: $\$300,000/52/5 = \1153.85 per day x 20 days = \$23,077.00

5. Bobby Smith will work as a computer technician, and Bobby will set up the computer workstations in facilities and provide help-desk assistance.

Computer Technician Will Get Pay: $\$75,000/52/5 = \289 per day x 60 days = \$17,340.00

6. John White will work as a specialist quality assurance engineer (B.S.), and John will be responsible for updating the USGv6 test program.

John Will Get Pay: $\$350,000/52/5 = \1346.15 per day x 10 days = \$13,461.50

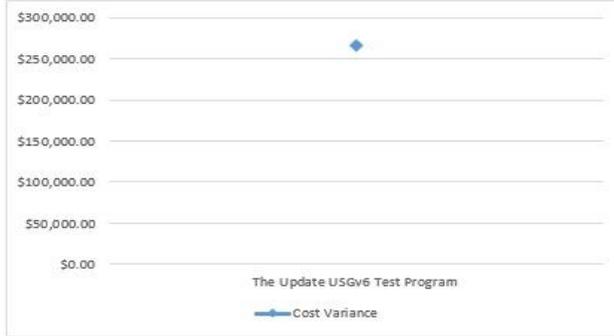
Note: The USGv6 test program will use MS Project Professional 2019 to create a schedule and budget, and it will finish in 60 days with a budget of \$750,000.25.

The Update USGv6 Test Program Budget Reports

COST OVERRUNS

TASK COST VARIANCE

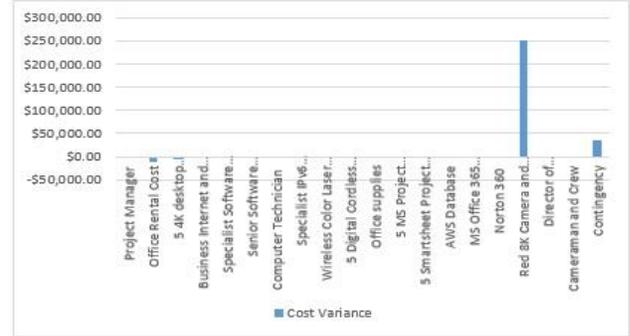
Cost variance for all top-level tasks in the project.



Name	% Complete	Cost	Baseline Cost	Cost Variance
The Update USGv6 Test Program	100%	\$750,000.25	\$484,695.25	\$265,305.00

RESOURCE COST VARIANCE

Cost variance for all the work resources.

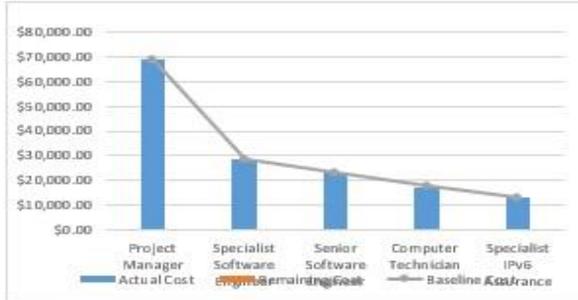


Name	Cost	Baseline Cost	Cost Variance
Project Manager	\$68,769.60	\$68,769.60	\$0.00
Specialist Software Engineer	\$28,269.15	\$28,269.15	\$0.00
Senior Software Engineer	\$23,077.00	\$23,077.00	\$0.00
Computer Technician	\$17,340.00	\$17,918.00	(\$578.00)
Specialist IPv6 Assurance	\$13,461.50	\$13,461.50	\$0.00

RESOURCE COST OVERVIEW

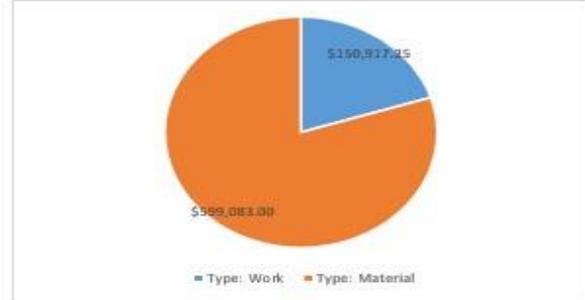
COST STATUS

Cost status for work resources.



COST DISTRIBUTION

How costs are spread out amongst different resource types.



COST DETAILS

Cost details for all work resources.

Name	Actual Work	Actual Cost	Standard Rate
Project Manager	480 hrs	\$68,769.60	\$1,146.16/day
Specialist Software Engineer	168 hrs	\$28,269.15	\$1,346.15/day
Senior Software Engineer	160 hrs	\$23,077.00	\$1,153.85/day
Computer Technician	480 hrs	\$17,340.00	\$289.00/day
Specialist IPv6 Assurance	80 hrs	\$13,461.50	\$1,346.15/day

COST OVERVIEW

TUE 8/25/20 - TUE 11/24/20

COST

\$750,000.25

REMAINING COST

\$0.00

% COMPLETE

100%

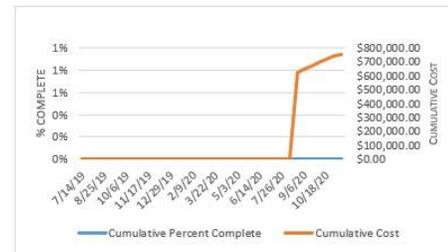
COST STATUS

Cost status for top level tasks.

Name	Actual Cost	Remaining Cost	Baseline Cost	Cost	Cost Variance
The Update USGv6 Test Program	\$750,000.25	\$0.00	\$484,695.25	\$750,000.25	\$265,305.00

PROGRESS VERSUS COST

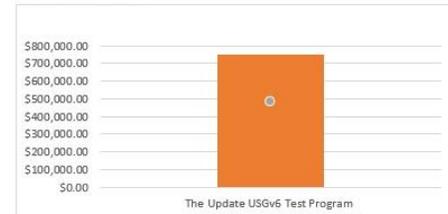
Progress made versus the cost spent over time. If % Complete line below the cumulative cost line, your project may be over budget.



COST STATUS

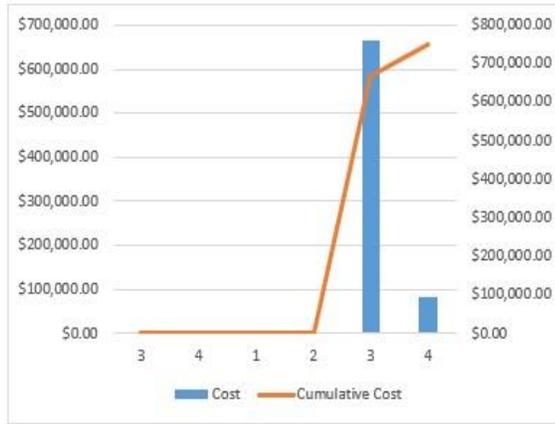
Cost status for all top-level tasks. Is your baseline zero?

[Try setting as baseline](#)



CASH FLOW

Actual Cost	Baseline Cost	Remaining Cost	Cost Variance
\$750,000.25	\$484,695.25	\$0.00	\$265,305.00



The chart shows the project's cumulative cost and the cost per quarter. To see the costs for a different time period, select the Edit option from the Field List.

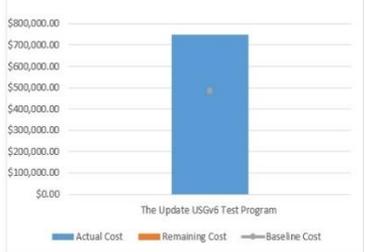
The table below shows cost information for all top-level tasks. To see cost stats for all tasks, set the Outline Level in the Field List.

Name	Remaining Cost	Actual Cost	Cost	ACWP	BCWP	BCWS
The Update USGv6 Test Program	\$0.00	\$750,000.25	\$750,000.25	\$657,352.20	\$97,937.05	\$484,695.25



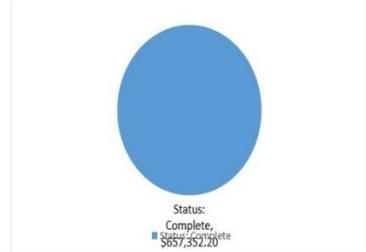
COST STATUS

Cost status for top-level tasks.



COST DISTRIBUTION

How costs are spread out amongst tasks based on their status.



COST DETAILS

Cost details for all top-level tasks.

Name	Fixed Cost	Actual Cost	Remaining Cost	Cost	Baseline Cost	Cost Variance
The Update USGv6 Test Program	\$0.00	\$750,000.25	\$0.00	\$750,000.25	\$484,695.25	\$265,305.00

PROJECT OVERVIEW

TUE 8/25/20 - TUE 11/24/20



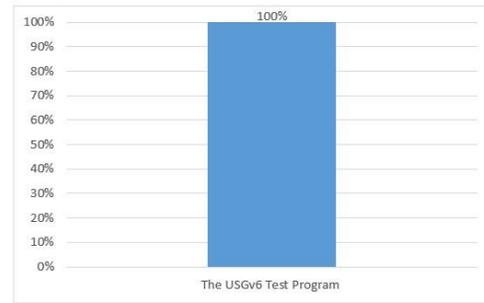
MILESTONES DUE

Milestones that are coming soon.

Name	Finish

% COMPLETE

Status for all top-level tasks. To see the status for subtasks, click on the chart and update the outline level in the Field List.



LATE TASKS

Tasks that are past due.

Name	Start	Finish	Duration	% Complete	Resource Names

MS Project Professional 2019 for The Update USGv6 Test Program Budget

	Task Name	Baseline Dur.	Baseline Start	Baseline Finish	Baseline Work	Baseline Cost	% Complete	Actual Cost	Cost Variance	SV	Timeline	
											6 PM	Tue Nov 24 12 AM
1	The Update USGv6 Test Program	60 days	Tue 8/25/20	Mon 11/16/20	1,384 hrs	\$484,695.25	100%	\$750,000.25	\$265,305.00	(\$386,758.20)		
2	Phase 1	10 days	Tue 8/25/20	Mon 9/7/20	424 hrs	\$398,585.65	100%	\$663,890.65	\$265,305.00	(\$386,758.20)		
3	Document Requestments	10 days	Tue 8/25/20	Mon 9/7/20	88 hrs	\$345,124.15	100%	\$610,429.15	\$265,305.00	(\$339,835.15)		
4	Office Rental	1 day	Wed 8/26/20	Wed 8/26/20	0 hrs	\$328,200.00	100%	\$344,083.00	\$15,883.00	(\$328,200.00)		
5	Setup Hardwares & Softwares	1 day	Thu 8/27/20	Thu 8/27/20	8 hrs	\$5,289.00	100%	\$5,000.00	(\$289.00)	\$0.00		
6	Team Members Meeting	1 day	Fri 8/28/20	Fri 8/28/20	32 hrs	\$4,135.15	100%	\$253,846.15	\$249,711.00	(\$4,135.15)		
7	Update USGv6 Test Proc	1 day	Mon 8/31/20	Mon 8/31/20	8 hrs	\$1,346.15	100%	\$1,346.15	\$0.00	(\$1,346.15)		
8	Creating Data Reports	1 day	Tue 9/1/20	Tue 9/1/20	8 hrs	\$1,153.85	100%	\$1,153.85	\$0.00	(\$1,153.85)		
9	Maintenance & Repair IPv6	1 day	Wed 9/2/20	Wed 9/2/20	8 hrs	\$1,153.85	100%	\$1,153.85	\$0.00	(\$1,153.85)		
10	Update USGv6 Test Proc	1 day	Thu 9/3/20	Thu 9/3/20	8 hrs	\$1,346.15	100%	\$1,346.15	\$0.00	(\$1,346.15)		
11	Creating Data Reports	1 day	Fri 9/4/20	Fri 9/4/20	8 hrs	\$1,153.85	100%	\$1,153.85	\$0.00	(\$1,153.85)		
12	Develop Quality Standards	1 day	Mon 9/7/20	Mon 9/7/20	8 hrs	\$1,346.15	100%	\$1,346.15	\$0.00	(\$1,346.15)		
13	Review requestments with project manager	1 day	Tue 9/8/20	Tue 9/8/20	0 hrs	\$0.00	100%	\$0.00	\$0.00	\$0.00		
14	Requestments approved	0 days	Wed 9/9/20	Wed 9/9/20	0 hrs	\$0.00	100%	\$0.00	\$0.00	\$0.00		
15	Phase 2	14 days	Thu 9/10/20	Tue 9/29/20	336 hrs	\$53,461.50	100%	\$53,461.50	\$0.00	(\$46,923.05)		
16	Document Requestments	14 days	Thu 9/10/20	Tue 9/29/20	104 hrs	\$16,538.45	100%	\$16,538.45	\$0.00	(\$11,153.85)		
17	Update USGv6 Test I	2 days	Fri 9/11/20	Mon 9/14/20	16 hrs	\$2,692.30	100%	\$2,692.30	\$0.00	(\$2,692.30)		

	Task Name	Baseli	Baseline Start	Baseline Finish	Baselin	Baseline Cost	%	Actual	Cost	SV	6 PM	Tue Nov 24 12 AM
		Dur.			Work		Complete	Cost	Variance			
16	Document Requestments	14 days	Thu 9/10/20	Tue 9/29/20	104 hrs	\$16,538.45	100%	\$16,538.45	\$0.00	(\$11,153.85)		
17	Update USGv6 Test	2 days	Fri 9/11/20	Mon 9/14/20	16 hrs	\$2,692.30	100%	\$2,692.30	\$0.00	(\$2,692.30)		
18	Creating Data Reports	1 day	Tue 9/15/20	Tue 9/15/20	8 hrs	\$1,153.85	100%	\$1,153.85	\$0.00	(\$1,153.85)		
19	Maintenance & Repair IPv6	1 day	Wed 9/16/20	Wed 9/16/20	8 hrs	\$1,153.85	100%	\$1,153.85	\$0.00	(\$1,153.85)		
20	Design Website	4 days	Thu 9/17/20	Tue 9/22/20	72 hrs	\$11,538.45	100%	\$11,538.45	\$0.00	(\$6,153.85)		
21	Creating Data Reports	1 day	Wed 9/23/20	Wed 9/23/20	8 hrs	\$1,153.85	100%	\$1,153.85	\$0.00	(\$1,153.85)		
22	Analyzing IPv6	1 day	Thu 9/24/20	Thu 9/24/20	8 hrs	\$1,153.85	100%	\$1,153.85	\$0.00	(\$1,153.85)		
23	Maintenance & Repair IPv6	1 day	Fri 9/25/20	Fri 9/25/20	8 hrs	\$1,153.85	100%	\$1,153.85	\$0.00	(\$1,153.85)		
24	Develop Quality Standards	2 days	Mon 9/28/20	Tue 9/29/20	16 hrs	\$2,692.30	100%	\$2,692.30	\$0.00	(\$2,692.30)		
25	Review requestments with project manager	1 day	Wed 9/30/20	Wed 9/30/20	0 hrs	\$0.00	100%	\$0.00	\$0.00	\$0.00		
26	Requestments approved	0 days	Thu 10/1/20	Thu 10/1/20	0 hrs	\$0.00	100%	\$0.00	\$0.00	\$0.00		
27	Phase 3	10 days	Fri 10/2/20	Thu 10/15/20	232 hrs	\$36,923.05	100%	\$36,923.05	\$0.00	(\$35,769.20)		
28	Document Requestments	10 days	Fri 10/2/20	Thu 10/15/20	232 hrs	\$36,923.05	100%	\$36,923.05	\$0.00	(\$35,769.20)		
29	Update USGv6 Tes	1 day	Mon 10/5/20	Mon 10/5/20	8 hrs	\$1,346.15	100%	\$1,346.15	\$0.00	(\$1,346.15)		
30	Creating Data Reports	1 day	Tue 10/6/20	Tue 10/6/20	64 hrs	\$10,192.30	100%	\$10,192.30	\$0.00	(\$9,038.45)		
31	Update USGv6 T	2 days	Wed 10/7/20	Thu 10/8/20	16 hrs	\$2,692.30	100%	\$2,692.30	\$0.00	(\$2,692.30)		

	Task Name	Baseli	Baseline Start	Baseline Finish	Baselin	Baseline Cost	%	Actual	Cost	SV	6 PM	Tue Nov 24 12 AM
		Dur.			Work		Complete	Cost	Variance			
32	Analyzing Data	1 day	Fri 10/9/20	Fri 10/9/20	8 hrs	\$1,153.85	100%	\$1,153.85	\$0.00	(\$1,153.85)		
33	Update USGv6 T	1 day	Mon 10/12/20	Mon 10/12/20	8 hrs	\$1,346.15	100%	\$1,346.15	\$0.00	(\$1,346.15)		
34	Maintenance & Repair IPv6	1 day	Tue 10/13/20	Tue 10/13/20	8 hrs	\$1,153.85	100%	\$1,153.85	\$0.00	(\$1,153.85)		
35	Develop Wbsite Quality Standards	2 days	Wed 10/14/20	Thu 10/15/20	16 hrs	\$2,692.30	100%	\$2,692.30	\$0.00	(\$2,692.30)		
36	Review requestments with project manager	1 day	Fri 10/16/20	Fri 10/16/20	0 hrs	\$0.00	100%	\$0.00	\$0.00	\$0.00		
37	Requestments approved	0 days	Mon 10/19/20	Mon 10/19/20	0 hrs	\$0.00	100%	\$0.00	\$0.00	\$0.00		
38	Phase 4	15 days	Tue 10/20/20	Mon 11/9/20	0 hrs	\$0.00	100%	\$0.00	\$0.00	\$0.00		
39	Document Requestments	15 days	Tue 10/20/20	Mon 11/9/20	160 hrs	\$25,384.60	100%	\$25,384.60	\$0.00	(\$25,384.60)		
40	Update USGv6 T	4 days	Wed 10/21/20	Mon 10/26/20	32 hrs	\$5,384.60	100%	\$5,384.60	\$0.00	(\$5,384.60)		
41	Creating Data Reports	2 days	Tue 10/27/20	Wed 10/28/20	16 hrs	\$2,307.70	100%	\$2,307.70	\$0.00	(\$2,307.70)		
42	Analyzing Data	2 days	Thu 10/29/20	Fri 10/30/20	16 hrs	\$2,307.70	100%	\$2,307.70	\$0.00	(\$2,307.70)		
43	Testing IPv6 Error	2 days	Mon 11/2/20	Tue 11/3/20	16 hrs	\$2,692.30	100%	\$2,692.30	\$0.00	(\$2,692.30)		
44	Update USGv6 T	2 days	Wed 11/4/20	Thu 11/5/20	16 hrs	\$2,692.30	100%	\$2,692.30	\$0.00	(\$2,692.30)		
45	Analyzing Data	2 days	Fri 11/6/20	Mon 11/9/20	16 hrs	\$2,307.70	100%	\$2,307.70	\$0.00	(\$2,307.70)		
46	Review requestments	1 day	Tue 11/10/20	Tue 11/10/20	0 hrs	\$0.00	100%	\$0.00	\$0.00	\$0.00		

Task Name	Dur.	Baseline Start	Baseline Finish	Work	Baseline Cost	Complete	Cost	Variance	SV	6 PM	12 AM	6 AM
43 Testing IPv6 Error	2 days	Mon 11/2/20	Tue 11/3/20	16 hrs	\$2,692.30	100%	\$2,692.30	\$0.00	(\$2,692.30)			
44 Update USGv6 T	2 days	Wed 11/4/20	Thu 11/5/20	16 hrs	\$2,692.30	100%	\$2,692.30	\$0.00	(\$2,692.30)			
45 Analyzing Data	2 days	Fri 11/6/20	Mon 11/9/20	16 hrs	\$2,307.70	100%	\$2,307.70	\$0.00	(\$2,307.70)			
46 Review requestments with project manager	1 day	Tue 11/10/20	Tue 11/10/20	0 hrs	\$0.00	100%	\$0.00	\$0.00	\$0.00			
47 Requestments approved	0 days	Wed 11/11/20	Wed 11/11/20	0 hrs	\$0.00	100%	\$0.00	\$0.00	\$0.00			
48 Phase 5	7 days	Thu 11/12/20	Fri 11/20/20	0 hrs	\$0.00	100%	\$0.00	\$0.00	\$0.00			
49 Document Requestments	7 days	Thu 11/12/20	Fri 11/20/20	48 hrs	\$7,692.30	100%	\$7,692.30	\$0.00	(\$7,692.30)			
50 Update USGv6 Test	2 days	Fri 11/13/20	Mon 11/16/20	16 hrs	\$2,692.30	100%	\$2,692.30	\$0.00	(\$2,692.30)			
51 Creating Data Reports	1 day	Tue 11/17/20	Tue 11/17/20	8 hrs	\$1,153.85	100%	\$1,153.85	\$0.00	(\$1,153.85)			
52 Analyzing Data	1 day	Wed 11/18/20	Wed 11/18/20	8 hrs	\$1,153.85	100%	\$1,153.85	\$0.00	(\$1,153.85)			
53 Develop Quality Standards IPv6	2 days	Thu 11/19/20	Fri 11/20/20	16 hrs	\$2,692.30	100%	\$2,692.30	\$0.00	(\$2,692.30)			
54 Review requestments with project manager	1 day	Mon 11/23/20	Mon 11/23/20	0 hrs	\$0.00	100%	\$0.00	\$0.00	\$0.00			
55 Requestments approved	0 days	Tue 11/24/20	Tue 11/24/20	0 hrs	\$0.00	100%	\$0.00	\$0.00	\$0.00			11/24

MS Project Professional 2019 for The Update USGv6 Test Program Task

Task	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names	% Complete	Ac
1	1	The Update USGv6 Test Program	60 days?	Tue 8/25/20	Mon 11/16/20		Project Manager, Computer Technician	100%	
2	1.1	Phase 1	10 days?	Tue 8/25/20	Mon 9/7/20			100%	
3	1.1.1	Document Requestments	10 days?	Tue 8/25/20	Mon 9/7/20			100%	
4	1.1.1.1	Office Rental	1 day	Wed 8/26/20	Wed 8/26/20		Camerman and Crew[1], Director of Photography[1], Contingency[1]	100%	
5	1.1.1.2	Setup Hardwares & Software	1 day	Thu 8/27/20	Thu 8/27/20		5 4K desktop computers with window 10 professionals[1], 5 Digital	100%	
6	1.1.1.3	Team Members Meeting	1 day	Fri 8/28/20	Fri 8/28/20		Senior Software Engineer, Specialist Software Engineer, Specialist IP	100%	
7	1.1.1.4	Update USGv6 Test Program	1 day	Mon 8/31/20	Mon 8/31/20		Specialist Software Engineer	100%	
8	1.1.1.5	Creating Data Reports	1 day	Tue 9/1/20	Tue 9/1/20		Senior Software Engineer	100%	
9	1.1.1.6	Maintenance & Repair IPv6	1 day	Wed 9/2/20	Wed 9/2/20		Senior Software Engineer	100%	
10	1.1.1.7	Update USGv6 Test Program	1 day	Thu 9/3/20	Thu 9/3/20		Specialist Software Engineer	100%	
11	1.1.1.8	Creating Data Reports	1 day	Fri 9/4/20	Fri 9/4/20		Senior Software Engineer	100%	
12	1.1.1.9	Develop Quality Standards	1 day	Mon 9/7/20	Mon 9/7/20		Specialist IPv6 Assurance	100%	
13	1.1.1.10	Review requestments with	1 day	Tue 9/8/20	Tue 9/8/20			100%	
14	1.1.1.11	Requestments approved	0 days	Wed 9/9/20	Wed 9/9/20	13		100%	
15	1.1.2	Phase 2	14 days?	Thu 9/10/20	Tue 9/29/20			100%	
16	1.1.2.1	Document Requestments	14 days?	Thu 9/10/20	Tue 9/29/20			100%	
17	1.1.2.1.1	Update USGv6 Test Program	2 days	Fri 9/11/20	Mon 9/14/20		Specialist Software Engineer	100%	
18	1.1.2.1.2	Creating Data Reports	1 day	Tue 9/15/20	Tue 9/15/20		Senior Software Engineer	100%	
19	1.1.2.1.3	Maintenance & Repair IPv6	1 day	Wed 9/16/20	Wed 9/16/20		Senior Software Engineer	100%	
20	1.1.2.1.4	Design Website	4 days?	Thu 9/17/20	Tue 9/22/20		Specialist Software Engineer	100%	
21	1.1.2.1.4.1	Creating Data Reports	1 day	Wed 9/23/20	Wed 9/23/20		Senior Software Engineer	100%	
22	1.1.2.1.4.2	Analyzing IPv6	1 day	Thu 9/24/20	Thu 9/24/20		Senior Software Engineer	100%	
23	1.1.2.1.4.3	Maintenance & Repair IPv6	1 day	Fri 9/25/20	Fri 9/25/20		Senior Software Engineer	100%	
24	1.1.2.1.4.4	Develop Quality Standards	2 days	Mon 9/28/20	Tue 9/29/20		Specialist IPv6 Assurance	100%	
25	1.1.2.1.4.5	Review requestments v	1 day	Wed 9/30/20	Wed 9/30/20			100%	

	Task	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names	% Complete
24	✓	1.1.2.1.4.4	Develop Quality Standards	2 days	Mon 9/28/20	Tue 9/29/20		Specialist IPv6 Assurance	100%
25	✓	1.1.2.1.4.5	Review requestments v	1 day	Wed 9/30/20	Wed 9/30/20			100%
26	✓	1.1.2.1.5	Requestments approved	0 days	Thu 10/1/20	Thu 10/1/20	25		100%
27	✓	1.1.2.2	Phase 3	10 days?	Fri 10/2/20	Thu 10/15/20			100%
28	✓	1.1.2.2.1	Document Requestment	10 days?	Fri 10/2/20	Thu 10/15/20			100%
29	✓	1.1.2.2.1.1	Update USGv6 Test Program	1 day	Mon 10/5/20	Mon 10/5/20		Specialist Software Engineer	100%
30	✓	1.1.2.2.1.2	Creating Data Reports	1 day?	Tue 10/6/20	Tue 10/6/20		Senior Software Engineer	100%
31	✓	1.1.2.2.1.2.1	Update USGv6 Test Program	2 days	Wed 10/7/20	Thu 10/8/20		Specialist Software Engineer	100%
32	✓	1.1.2.2.1.2.2	Analyzing Data	1 day	Fri 10/9/20	Fri 10/9/20		Senior Software Engineer	100%
33	✓	1.1.2.2.1.2.3	Update USGv6 Test Program	1 day	Mon 10/12/20	Mon 10/12/20		Specialist Software Engineer	100%
34	✓	1.1.2.2.1.2.4	Maintenance & Repair IPv6	1 day	Tue 10/13/20	Tue 10/13/20		Senior Software Engineer	100%
35	✓	1.1.2.2.1.2.5	Develop Wbsite Quality Standards	2 days	Wed 10/14/20	Thu 10/15/20		Specialist IPv6 Assurance	100%
36	✓	1.1.2.2.1.2.6	Review requestment	1 day	Fri 10/16/20	Fri 10/16/20			100%
37	✓	1.1.2.2.1.3	Requestments approve	0 days	Mon 10/19/20	Mon 10/19/20	36		100%
38	✓	1.1.2.2.1.4	Phase 4	15 days	Tue 10/20/20	Mon 11/9/20			100%
39	✓	1.1.2.2.1.5	Document Requestme	15 days?	Tue 10/20/20	Mon 11/9/20			100%
40	✓	1.1.2.2.1.5.1	Update USGv6 Test Program	4 days	Wed 10/21/20	Mon 10/26/20		Specialist Software Engineer	100%
41	✓	1.1.2.2.1.5.2	Creating Data Report	2 days	Tue 10/27/20	Wed 10/28/20		Senior Software Engineer	100%
42	✓	1.1.2.2.1.5.3	Analyzing Data	2 days	Thu 10/29/20	Fri 10/30/20		Senior Software Engineer	100%
43	✓	1.1.2.2.1.5.4	Testing IPv6 Error	2 days	Mon 11/2/20	Tue 11/3/20		Specialist IPv6 Assurance	100%
44	✓	1.1.2.2.1.5.5	Update USGv6 Test Program	2 days	Wed 11/4/20	Thu 11/5/20		Specialist Software Engineer	100%
45	✓	1.1.2.2.1.5.6	Analyzing Data	2 days	Fri 11/6/20	Mon 11/9/20		Senior Software Engineer	100%
46	✓	1.1.2.2.1.5.7	Review requestment	1 day	Tue 11/10/20	Tue 11/10/20			100%
47	✓	1.1.2.2.1.5.8	Requestments appro	0 days	Wed 11/11/20	Wed 11/11/20	46		100%
48	✓	1.1.2.2.1.5.9	Phase 5	7 days	Thu 11/12/20	Fri 11/20/20			100%
49	✓	1.1.2.2.1.5.10	Document Requestm	7 days?	Thu 11/12/20	Fri 11/20/20			100%
50	✓	1.1.2.2.1.5.10.1	Update USGv6 Test Program	2 days	Fri 11/13/20	Mon 11/16/20		Specialist Software Engineer	100%
51	✓	1.1.2.2.1.5.10.2	Creating Data Rep	1 day	Tue 11/17/20	Tue 11/17/20		Senior Software Engineer	100%
52	✓	1.1.2.2.1.5.10.3	Analyzing Data	1 day	Wed 11/18/20	Wed 11/18/20		Senior Software Engineer	100%
53	✓	1.1.2.2.1.5.10.4	Develop Quality Standards IPv6	2 days	Thu 11/19/20	Fri 11/20/20		Specialist IPv6 Assurance	100%
54	✓	1.1.2.2.1.5.10.5	Review requestme	1 day	Mon 11/23/20	Mon 11/23/20			100%
55	✓	1.1.2.2.1.5.10.6	Requestments app	0 days	Tue 11/24/20	Tue 11/24/20	54		100%

Security Policy Management

To derive a project security and risk policy of the IoE, the project managers need to understand human behavior, IoT, and IoE facilities. They need to understand an organization to relate the IoE. Moreover, they need to understand which protection aspects are essential for IoE security and risk management. Thus, they will create an excellent IoE security policy to protect business risk (Comer, 2015).

Intrusion Detection Systems

Intrusion detection systems are the tools used to protect physical security activity on the boundaries of an enterprise. Intrusion detection systems will physically protect the staff work and the enterprise data processing equipment as the guard patrols. The IoE will help the intrusion detection systems use network video cameras and alarms to monitor the enterprise locations (Peltier, 2013).

Cryptology

"Cryptology has advanced technology to protect sensitive data and preserve government communications" (Peltier, 2013, p. 20-41). The IoE helps Cryptology use today's cyber society for everyday online shopping, digital media, banking, and ATM usage. All cryptologies require encryption protection to avoid excessively using illegal data substances or misuse legal data or data abuse. Cryptology has been an excellent novel concept since the beginning of sensitive information communication. Many global data systems lack appropriate information protection such as passwords and authentication through encryption or encrypted databases. Cryptology will be outstanding in protecting sensitive information vulnerable to prying eyes unauthorized.

Additionally, the everyday use of cryptography is the safe transfer of data across communication systems. A message will begin with the plaintext, which is then encrypted. Moreover, the cryptography process will have a private or secret key encryption, and it has referred to as an asymmetric key that uses to encrypt or decrypt messages (Peltier, 2013).

IBM's Cryptology

"The chairman of IBM invented an encryption method for Lloyds Bank in the United Kingdom and named it Lucifer" (IBM, 2021, paras. 1-10) to protect the cash-dispensing system data. Then IBM worked hard on the Lucifer code and turned Lucifer code into a commercial product.

Additionally, after 1967, the *US National Bureau of Standards (NBS)* (IBM, 2021) started an interoperable data encryption standard, and then after 1972, the NBS published the encryption algorithms (IBM, 2021). The encryption algorithms got the work credit from IBM's refined version of Lucifer code. After 1976, "the NBS made IBM's cryptographic algorithm became the first-ever Data Encryption Standard (DES) for the United States, and international countries globally would soon follow" (IBM, 2021, paras. 1-10).

Quantum Cryptography

"The further cryptology advanced technique currently in development is quantum cryptography" (Peltier, 2013, pp. 38-41). Now, it is the excellent theoretically unbreakable. It has gained with modern computers speed with emerging technologies (Peltier, 2013). It is an advanced technology that has accumulated with modern computers the rate with emerging technologies that use quantum physics to secure the distribution of symmetric encryption keys called *Quantum Key Distribution (QKD)* (ID Quantique, 2021). QKD will transmit light quantum particle photons that use the keys to encrypt 100 Gb/s large amounts of information across an optical link.

Additionally, many global enterprises used the QKD appliances with Ethernet and Fiber Channel with link bandwidth up to 100Gbps. The *European Telecommunication Standards Institute (ETSI)* (ID Quantique, 2021) makes a standard QKD interface for *Optical Transport Network (OTN)* (ID Quantique, 2021) vendors (ID Quantique, 2021). "PacketLight Networks has developed the fast to effectively 400G Dense Wavelength-Division Multiplexing (DWDM)/OTN solutions fiber-optic network capacity bandwidth per wavelength" (PacketLight Networks, 2021, paras. 1-8). DWDM/OTN will improve to reduce cost per bit in data center interconnect, metro, and long-haul applications. DWDM/OTN can quickly increase capacity,

and DWDM/OTN significantly reduces power consumption, support, and maintenance (PacketLight Networks, 2021).

Physical Access Control Security

Access control is a fundamental everyday practice to protect physical spaces, areas, and data within an information system. The IoE will help to create an excellent physical security guard network system to secure their business places and server rooms with security cameras, and so forth, to protect their business risks (Peltier, 2013). For example, people need to lock their doors by network alarms when they leave their homes, and employees need to use their badges to access their workplaces. People need to use PINs to access ATMs and many more (Peltier, 2013).

Mitigate to Cloud Computing

Many global enterprises consider mitigating their business data to cloud platforms to save money and reduce information risks. They will process and store data to the cloud provider or rent usage from the cloud platform and pay for only what they need to use on-demand. All their business data will get security from cloud providers (Peltier, 2013). Additionally, Amazon Web Services (AWS) offers three different types of cloud computing available for homes, and business owners can save money depending on the product they will use (Amazon Web Services, Inc., 2021). They will provide 12-months of Free service to new customers. They also will offer Free Trails service for short-term trial offers, and once the trial expires, the user will pay pay-as-you-go service rates (Amazon Web Services, Inc., 2021).

Furthermore, IBM offers excellent advanced technology quantum-safe cryptography with key management and application transactions in IBM Cloud. It recommends as the world's most outstanding data security today (IBM, 2021). It can solve complex data problems quickly, break

encryption algorithms, and access sensitive data. It has developed an excellent strategic plan to help protect customers for IBM platforms and services (IBM, 2021).

Incident Management

Incident management will make the *Incident Response (IR)* (Peltier, 2013) to the computer security or natural disaster events. The *National Institute of Standards and Technology* (Peltier, 2013) created helpful documents to help enterprises understand IR management. The IoE will help project managers to develop an excellent incident management plan to fix future business problems. Additionally, the project managers need to ensure that IT departments have the excellent IR of DR and BC or IR of CoOP plans and update the IR policy and procedures all the time (Peltier, 2013).

Information Security Policy

Information Security Policy (Peltier, 2013) can define as the company policy. The company policy is the rule for workers to follow to work under the company's policies. All enterprises globally will have their policies, and all procedures need to meet the standards required by laws enforced (Peltier, 2013).

Additionally, the project managers need to create the standard for all projects and enterprise security and risk management policies. Thus, the enterprise will have a successful business and the highest revenue. All enterprises' main goals are to make the highest revenues like Walmart as possible (Peltier, 2013).

Design Security Architecture Policies

All enterprises worldwide need to develop the most excellent security architecture policy plans as the first step of their business operation. Thus, they can prevent all enterprises risks as a

part of the enterprise security and risk management plans to get the highest revenues like Walmart (Angelo, 2001).

Additionally, all global project managers must create effective information security architecture policies with excellent, well-written policy statements such as all directives, standards, procedures, guidelines, and supporting documents (Peltier, 2013). The project managers need to create excellent internal and external policies all the time. The inner portion will tell employees how their work duties perform. The outer part will say that the enterprise has the most significant responsibility. An enterprise must have policies to support their outstanding business practice that the organization has vital to the most excellent execution of its mission.

Furthermore, the project managers need to create excellent policy key elements to meet the needs of an organization, and a superb policy needs to be easy to understand and meet the audience requirements. The policy material needs to create at the average reading and comprehension level in a sixth-grader (a 12-year-old). An excellent policy needs to meet business objectives, and it needs to have the politically correct way to say things all the time (Peltier, 2013).

Research Design

Collection and Analysis Data:

The *Research Design* (Hughes and Hayhoe, 2008) will include collecting and analyzing the IoE research paper. An excellent research paper on the IoE topic will need more data research. The outcome of data researches will help to write the most outstanding research paper for the IoE topic (Hughes and Hayhoe, 2008). The IoE will need the online survey tools to use quantitative survey research to analyze, collect, and use data that can contribute to the most excellent business models, marketing strategies and improve customer services for the IoE

businesses. Moreover, the survey research will help the IoE global industries like e-commerce and enterprise get excellent revenues (QuestionPro Survey Software, 2021).

Advantages of Survey Research:

The IoE or the Internet will help the business owner use the email survey tools to save money and time, so they do not have to pay for the mail surveys and phone interviews. The email surveys allow customer services to reach a million customers very quickly and easily, and so forth (Methods Group LLC., 2021).

Disadvantages of Survey Research:

The problem of survey research is that many low-income communities do not have email access or phones, so the only way to reach them is by mail surveys, which will cost more money using postage-stamps. Survey research is one of the most excellent methods for market researches. However, if the researchers do not prepare for running survey researches, the collected data may not be valuable. The researchers need to learn how to use the survey research to get the best feedback from the customers and many other participants (Methods Group LLC., 2021).

Quantitative and Qualitative Research Data

The *Quantitative Research Data (QRD)* (Hughes & Hayhoe, 2008) can be counted or timed in numbers. It can be the works that can finish within a given time limit, the time spent recovering the errors, or the number of user errors (Hughes & Hayhoe, 2008). The QRD will define the value of data that will count as a number from 1, 2, 3, 4, ..., and so forth (QuestionPro Survey Software, 2021). It will use mathematical calculations and statistical analysis, for example, as a question of each laptop cost. The answer is: Each laptop will cost \$205. The QRD values will associate with most measuring parameters such as pounds or kilograms for weight

and dollars for the cost (QuestionPro Survey Software, 2021). *Qualitative Research Data* (Hughes & Hayhoe, 2008) will define as data that will rely on methods. *Qualitative Research Data* is non-numeric, like words, images, objects, or sounds. *Qualitative Research Data* will look more to data credibility, transferability, and dependability (Hughes & Hayhoe, 2008).

Validity, Reliability, and Generalizability

Reliability (Middleton, 2019) defines consistency to measure data, and validity establishes the accuracy of a measure of something. Additionally, the measurement will be considered reliable in quantitative research when the same result will achieve by using the same methods to measure data repeatedly. For example, a technician measures the temperature of a liquid sample several times under identical conditions, and the thermometer displays the same temperature every time, so the results will be considered reliable (Middleton, 2019).

Furthermore, *Validity* (Middleton, 2019) is a measurement, calculation, or specification that conforms to the correct value or standard corresponding to natural properties, characteristics, and variations in the physical or social world (Middleton, 2019). Moreover, high *Reliability* (Middleton, 2019) will show a valid measurement. If a method is not reliable, it is not valid. If a technician tests the thermometer, that will show the different temperatures each time, even though he or she has carefully controlled conditions to ensure the temperature stays the same. In this case, the thermometer will probably be malfunctioning. Therefore, its measurements are not valid (Middleton, 2019).

Finally, the *Generalizability* (Hughes & Hayhoe, 2008) (external validity) can use to manage by a researcher to set up the test that the conditions that he or she creates in the test environment match those in the global environment as much as possible (Hughes & Hayhoe, 2008). This design element will ensure that the sample group fairly represents the general

population of interest (Hughes & Hayhoe, 2008). For example, the stratified random sampling method will group into different classifications gender, level of education, and socioeconomic status, so it is the best probability sampling method to be used when the researcher can study the sub-group within a higher population. It also will give more precise statistical outcome results than simple random sampling (Foley, 2018). Thus, it will consider the *Generalizability* (external validity) of quantitative data results (Hughes & Hayhoe, 2008). *Generalizability* (external validity) defines as the extent results from a study can be generalized to other situations, groups, and events (Streefkerk, 2021).

Independent and Dependent Variables

An *Independent Variable* (Graphing Tutorial, n.d.) is a variable that will not change by the other variables. For example, a person's age is an *Independent Variable*. If he or she goes to school, watches TV, eats, and so forth, but his or her age will not change. By contrast, a *Dependent Variable* (Graphing Tutorial, n.d.) depends on other factors. For example, a test score could be a *Dependent Variable* because it could change depending on several factors, such as how much a student studied before taking the test and so forth. The time spent studying will cause a change in test score, and it will not be possible that test score could cause a change in 'Time Spent Studying' (Graphing Tutorial, n.d.).

Additionally, the IoE *Dependent Variable* will depend on the people in the world who use the Internet. So, the people who use the Internet will be the *Independent Variables*.

The IoE *Dependent Variable* will depend on the many uses of independent Internet variables like many devices and websites. Moreover, they will refer to e-commerce websites, online education websites, online auction websites, online shopping websites, online grocery websites, social media websites, intelligent cars, smartphones, and people using the Internet as *Independent*

Variables. The more people (*Independent Variables*) use the Internet will help the IoE (*Dependent Variable*) to increase the IoE value and raise the world economy (Ambrose, 2015). Moreover, students who spend more time studying will get high exam scores. The student's *Dependent Variable* is the effect of getting high exam scores from the cause of the *Independent Variable* of the student studies (Thomas, 2021).

Sampling for the IoE

There are some types of probability *Sampling* (Foley, 2018) techniques for the IoE. However, a stratified random *Sampling* method will group into different classifications gender, level of education, and socioeconomic status, so it is the best probability *Sampling* method for the IoE when the online researcher can study the sub-group within a higher population. It also will give more precise statistical outcome results than simple random *Sampling* (Foley, 2018). Using a probability *Sampling* method is the most accurate of the statistical techniques after the experiment by the Internet. This method will guarantee that the selected data is wholly randomized and without bias (Datey & Kuthe, 2015).

Travel Research Survey

QuestionPro will help travel agencies and hotels survey customer experiences (QuestionPro Survey Software, 2021, paras. 1-12). QuestionPro also has excellent travel survey templates to get the best quality customer survey responses (QuestionPro Survey Software, 2021, paras. 1-5).

Mean, Median and Mode

Analyze the data using descriptive statistics (*Mean, Median, and Mode*) (Purplemath, Inc.,2021). The *Mean* will sum all numbers and divide by the number of numbers in the set. For

example, the sum of all the numbers in the 7 set of numbers as follow: $18 + 23 + 30 + 47 + 56 + 17 + 18 = 209$

$209/7 = 29.86$. So, 29.86 is an average.

Additionally, the *Median* is a quantity value lying at the midpoint of observed quantity values frequency distribution. For example, in the 9 set of numbers as follow: 13, 18, 13, 14, 13, 16, 14, 21, 13. The *Median* (the middle number), so to find the central number, first needs to rewrite the list of numerical order: 13, 13, 13, 13, 14, 14, 16, 17, 21. They have nine numbers in the list, so that the center number will be the $(9 + 1) \div 2 = 10 \div 2 = 5$ th, and the number: 13, 13, 13, 13, 14, 14, 16, 17, 21. So, the *Median* is 14. The *Mode* is the number that will repeat more often than any other number, so 13 is the *Mode* (Purplemath, Inc.,2021).

mean: 29.86

median: 14

mode: 13

The Limitations of the IoE and Bias

In 1974, the *US Privacy Act* (Ziegeldorf, Morton, & Wehrle, n.d.) passed the *Fair Information Practices* (FIPs) (Ziegeldorf, Morton, & Wehrle, n.d.) to limit internet users to use illegal personal data on the Internet in a way considered unfair or biased. The FIP principles protect against the violation of the use and control of personal data on the Internet. The FIP principles of data protection will include unsolicited advertisements and social engineering. The FIP principles are mandatory practices and processes for personal data privacy protection.

Additionally, privacy is a fundamental human right, and it has been created as the Universal Declaration of Human Rights in the constitutional law of most countries today. The

EU data directive has increased data protection standards in Europe and evoked international self-regulatory efforts with the *Safe Harbor Agreement* (Ziegeldorf, Morton, & Wehrle, n.d.).

Summary

The *Internet of Everything (IoE)* (Ambrose, 2015) helps people in the world can use the Internet to get many things done fast and efficiently. The IoE is an advanced technology, and it provides people to use the Internet for e-commerce, education, auction, online shopping, grocery, social media, intelligent cars, smartphones, and many more. The Internet creates an exceptional global economy (Ambrose, 2015). The IoE invents from the *Internet of Things (IoT)* (Ambrose, 2015) such as mainframes, desktop and laptop computers, smartphones, and many other devices as they will need to connect to the Internet (Ambrose, 2015). As a suggestion, the IoT's profit will increase to more than \$18 trillion and more than 49 billion devices before 2021 (Sunday Business Post, 2015).

The IoE has created sensor integration as low-power wireless communication technologies, 5G applications, and network protocols (Sanchez-Iborra & Santa, n.d.). The IoE has the highest value in connecting intelligent networks across learning, and the IoE will benefit the people who use the Internet, processes, data, and things. Still, students need to understand the IoE potential risks (Selinger, Sepulveda, & Buchan, 2013). The IoE will change how life will be lived in the future by the sensor energy will produce power to the sensors for a prolonged time. The sensors can remote distant locations like underground, space, and other planets (Miraz et al., 2015).

Today, more than 4.4 billion mobile phones existence; more than 4.9 billion people have connected through the Internet. As a suggestion, more than 199 billion devices will connect to

the Internet before 2023. Moreover, IoE is an advanced technology, and it helps global businesses to get the highest revenues. The IoE provides all people worldwide with meaningful lives via the Internet (Tulemissova, 2016).

As a literature review, computer history started after 1936, with Bell Laboratories and Hewlett-Packard after 1938 (Computer History Museum, 2021). IBM invented the first massive automatic digital calculator built in the United States after 1943 (IBM, 2021). IBM created a mainframe *System/360* (IBM, 2021), an expensive system. It had built-in network communications. It could handle commercial and scientific works after 1963 (IBM, 2021). IBM invented *System/370 Model 145* (IBM, 2021) with the large-scale integration mainframe in the 1970s. Then, the *IBM 3081* (IBM, 2021) processor mainframe had provided the most excellent three-dimensional networks linking thousands of devices after 1983 (IBM, 2021).

Additionally, before 1999, the *Integrated Circuit (IC)* (Wancho, n.d.) was created by Jack Kilby. Jack won the Nobel Prize in Physics as part of his IC invention (Wancho, n.d.). *AMD Epyc Rome* (Cadence Design Systems, Inc., 2021) has released after 2018, and it had more than 38 billion transistors in the chip. The earliest microprocessor had thousands of transistors in the chip, but the microprocessor has increased to billions of transistors in the present (Cadence Design Systems, Inc., 2021). In the late 1960s, *Advanced Research Projects Agency Network (ARPANET)* (Andrews, 2019) created the first workable Internet prototype that allowed more computers to communicate on a single network. In the 1970s, "scientists Robert Kahn and Vinton Cerf invented Transmission Control Protocol and Internet Protocol, TCP/IP" (Andrews, 2019, paras. 1-8) and multiple networks computer communications standards. Then, ARPANET adopted TCP/IP became the modern Internet on January 1, 1983. In 1990, "computer scientist Tim Berners-Lee created the World Wide Web" (Andrews, 2019, paras. 1-8). After 1982, the

government granted the update *Internet Protocol Version 6 (IPv6)* (Vought, n.d.) for the global Internet user. The IPv6 replaced IPv4, and the IPv6 will be the Internet's next-generation protocol. The IPv6 will be the unique Internet protocol address for all Internet users globally. IPv6 will be the most updated Internet protocol address global numeric identifier for all Internet users worldwide. However, businesses and individuals still use IPv4. After 2014, IPv4 got a problem with many global Internet users, and IPv4 caused computer users' economic issues over the Internet globally. Thus, IPv6 got widely used and recognized with the complete transition. The IPv6 became the most excellent Internet protocol address for the world's Internet technology and service users.

Moreover, after 2004, IPv6 started popularly and became a commercial development and adoption of IPv6 technology. From 2010 - 2015, IPv6 has successfully increased users globally and became mass users by many corporations globally. The IPv6 can help the business owner reduce cost, improve security and risk management (Vought, n.d.). There are "three main categories of packet-switched networks" (Comer, 2015, pp. 220-234) that will classify according to the distance they span. *Local Area Network (LAN)* (Comer, 2015) is the least expensive, and it can travel within a single room or a single building. When *Metropolitan Area Network (MAN)* (Comer, 2015) is a medium expense, it can span a significant city or a metroplex. Moreover, *Wide Area Network (WAN)* (Comer, 2015) is the most expensive, and it can travel sites in multiple cities. MAN technologies have not been commercially successful so that networking professionals merged MAN networks into the WAN category and used the terms LAN and WAN. Thus, LAN and WAN became so popular that end with area networks. *Institute of Electrical and Electronics Engineers (IEEE)* (Comer, 2015) had a standard for LANs focus on the protocol stack's first two layers. In 1980, IEEE accepted standards for project 802 LAN/MAN

(Comer, 2015) was essential to focus on two protocol stack layers. The *Internet Engineering Task Force (IETF)* (Comer, 2015) states transport and internet protocols, and the *World Wide Web Consortium (W3C)* (Comer, 2015) focuses on application-layer standards. Each organization thinks its layers are the most important (Comer, 2015).

Furthermore, a group of vendors created the *Wi-Fi Alliance* (Comer, 2015) in 1999. It associates wires LANs with the term Wi-Fi. The IEEE used the 802.11 standards. They certified the wireless standards started with "802.11, 802.11b, 802.11g, and 802.11 in IEEE standards" (Comer, 2015, pp. 267-269). IEEE has also created many other wireless networking standards to handle Internet communication. Each standard will specify a frequency range and a data rate to be used (Comer, 2015). Network routing will process to select an "Internet protocol of a packet-switching network like LAN and WAN to transmit data across one or more networks by network hardware called router" (Cloudflare, Inc., 2021, para. 1). "Routing is one of the remarkable functions for IP in LAN and WAN packet-switched networks. Bill Yeager created routing, and Cisco Systems licensed it after 1986" (IT History Society, 2021, para. 1). Cisco routing offers LAN, WAN, and cloud, intent-based networking with the most integrated data security to deliver a complete data risk prevention solution. Cisco has the new Catalyst 8000 Edge Platform to transform the WAN edge with data security and 5G-ready connectivity (Cisco, 2021).

Moreover, the "Wi-Fi Alliance had standards for many routers globally" (Wi-Fi Alliance, 2021, paras. 1-100). Wi-Fi has more than \$3.2 trillion in global economic value and more than 15 billion devices in use (Wi-Fi Alliance, 2021). "In 2020, they had outstanding support members like Apple, Intel Corporation, and many more" (Wi-Fi Alliance, 2021, paras. 1-5). Moreover, the IoE has helped the eCommerce successes on the Global 500 and Fortune 500.

The IoE helps Walmart has become the most excellent eCommerce and retail championship globally (Fortune Media IP Limited, 2021).

Walmart is the effective #1 successful e-business management strategy globally.

Walmart ranks top number #1 on Fortune 500 and Global 500 from 2015. Walmart proves to all businesses that Walmart is one of the excellent retail and eCommerce exceptional championships in world history (Fortune Media IP Limited, 2021). Walmart created excellent IT project management strategy teamwork that Walmart wanted buyers to save money to live better. Walmart got the Presidential Medal of Freedom award from President George H. W. Bush after 1991.

Additionally, Walmart had an excellent project supply chain strategy in that its regional distribution centers located have the lowest labor costs. Walmart wanted to lower its operating costs so that Walmart could pay its employees better rates, and Walmart has outstanding teamwork to deliver high-quality products and services to all customers around the world. Moreover, Walmart uses an extensive and comprehensive IT project database to improve its inventory management and meet international buyer expectations (Keller, n.d.).

Walmart's history started after the year 1961. Sam Walton invented the first Walmart store to sell products to the customer at the lowest price at any time and anywhere after 1961. Walton owned more than 22 stores had more than \$12 million in revenue after 1966. The Walmart store has incorporated after the year 1968. Thus, Walmart became a free trade Incorporation with the first stock sold more than \$16 per share after 1969. After 1970, Walmart had an excellent project management team-building strategy for its first distribution center. After 1971, Walmart had listed on the New York Stock Exchange with more than 49 stores, and Walmart had more than \$76 million in revenue. The Walmart Foundation had created after

1978. After 1979, Walmart had \$1 billion in revenue, more than 275 stores, and more than 20,000 teamwork associates. Walmart made the first Sam's Club and replaced cash registers with computerized point-of-sale systems so that Walmart could have the fastest teamwork and final checkout for the customers after 1982 (Walmart, Inc., 2021).

Walmart had more than \$485 billion in revenue, and its net profit was more than \$16 billion in 2015. Walmart had more than \$482 billion and a net profit of more than \$14 billion in 2016, and in 2017, Walmart had more than \$485 billion, and they got a net profit of more than \$13 billion. Walmart reached more than \$500 billion and a net profit of more than \$9.8 billion in 2018. Walmart had more than \$514 billion and a net profit of more than \$6.6 billion in 2019. Walmart had more than \$523 billion, and its net profit was more than \$14 billion in 2020 (Fortune Media IP Limited, 2021). In 2015, Walmart created excellent project management to focus on customer service. Walmart sells the freshest produce groceries. Walmart builds the most superlative advanced technology for Walmart stores and eCommerce websites by actively integrating with m-commerce such as smartphone and tablet apps to all Walmart customers worldwide to give them outstanding digital shopping experiences. Walmart can buy low price items from China. Thus, Walmart can gain and sustain its cost advantages (Dudovskiy, 2016).

Furthermore, with the COVID-19 pandemic crisis, Walmart is still an e-commerce champion. In 2018, Walmart's US eCommerce sales increased more than 39%, and in the same year, Walmart increased more than 35% growth in eCommerce sales than Amazon experienced. Walmart got more sales than Apple in 2019 (McKinnon, 2019). In 2020, Walmart partnered with Instacart to compete with Amazon. Walmart and Instacart offer customers the same-day delivery option at Walmart's four locations in California (O'Brien, 2020). Walmart has a successful project management team building e-business management globally. Today, Walmart

is one of the world's largest eCommerce and retailer stores. Walmart has 11,500 stores and eCommerce websites around the world. Walmart has over 2.2 million teamwork employees worldwide (Walmart, Inc., 2021).

Amazon has more than 37% revenue growth in 2020 and ranks the top #2 of the Fortune 500 for their project management. Amazon earned more than \$21.0 billion in profit on more than \$385 billion in annual sales. As the pandemic forced everybody online, Amazon won big. Amazon's IoE cloud service also had success (Fortune Media IP Limited, 2021). Apple is ranked three on Fortune 500 of 2021, and they have more than \$275 billion in revenue. Their excellent sell is from its app store. Their stock increased more than 79% in 2020 (Fortune Media IP Limited, 2021).

The IoE of the intelligent car - The Self-Driving Car is the car of the future. Aptiv has started with today's excellent advance autonomous vehicle (AV) development. Aptiv creates the Artificial Intelligence (AI) network sensing self-driving cars that automatically program the car to travel without operating a vehicle. The Aptiv's AV and robotic taxis will have excellent sensing of its environment and run safely. The Aptiv's AV and automated taxis have the most excellent advanced AI autonomous control systems to control navigation paths and avoid accidents.

Additionally, Aptiv's AV ideal can lead to future autonomous cruises, autonomous spaceships, and autonomous trucks (CBS Sunday Morning, 2019). Aptiv's headquarter is in Dublin, Ireland. Aptiv is a global company with more than 42 countries, 122 manufacturing facilities, 170,000 workers, and more than ten technical centers (Aptiv, 2021). The president of Aptiv came from MIT (Fridman, 2019).

NVIDIA and Mercedes-Benz joined ventures to create advanced AI autonomous cars (<https://youtu.be/Ocr3fzVBSL8>) that can talk, listen, and drive by themselves (Csongor, 2017). NVIDIA partnered with BMW to develop advanced AI autonomous manufacturing robots (<https://youtu.be/ncAW5Bdq8BE>). NVIDIA made a robust AI network that can autonomously navigate, detect, and move objects (NVIDIA, 2021).

"General Motors (GM) invested more than \$480 million in Lyft. GM and Onstar Mobileeye joined the venture to create computer road maps to be used by autonomous vehicles" (Baldwin, 2016, paras. 1-7). "Walmart invested \$2.75 billion in GM's autonomous vehicle" (Wayland, 2021, paras. 1-13). GM also joined a venture with Microsoft to make excellent autonomous vehicles. They want to create an outstanding AI safer autonomous automobile for drivers to travel without accidents (Cruise LLC., 2021).

GM and Microsoft use a cloud platform for their autonomous vehicles. Thus, their self-driving cars will use Microsoft's cloud platform solution globally. Microsoft, GM, and Honda invested more than \$2 billion in electric AI autonomous cars, giving them a total of \$30 billion to start. They want to build AI autonomous vehicles with protection from accidents, zero congestion, and zero emissions. GM and Microsoft want to launch more than 29 electric AI autonomous cars after 2024 (Cruise LLC., 2021).

BMW created a level 3 AI autonomous (<https://youtu.be/IYK4XnJjxsA>) that will provide drivers to automate hand-free driving. BMW AI autonomous cars will have a limit speed of no more than 84 mph on the highway, and it has two driving modes. The driver can drive as autonomous or as a regular. BMW has risk protection to help the driver control the autonomous to complete stop as safely as possible to avoid accidents. Moreover, it has an excellent AI alerting the driving system with a camera and audio to alert the driver to ensure the driver will

have a safe and comfortable drive (Slovick, 2020).

Additionally, BMW has a unique AI autonomous driving test system from level 1-5 that can help understand all autonomous vehicles of five classes (BMW AG, 2021). Moreover, BMW wants to make the superb AI autonomous vehicle globally from their idea of the future. BMW has already had the idea to create the most excellent advanced AI autonomous car of the future (<https://youtu.be/6tUWYXe9qbY>). BMW looks into the future of the advanced IA autonomous car to develop the advanced AI autonomous vehicle at present (BMW Group Company, 2021).

Today, Honda invented a level 3 AI autonomous vehicle for lease only in Japan (<https://youtu.be/7eYYwU3ETnI>), and it retails price of less than \$103,000. The Honda Legend level 3 AI autonomous vehicle uses the advanced AI driver system that drivers do not need to drive when the car is on the highway. The driver will activate the turn signal to change lanes (Beresford, 2021). Cadillac used GM's AI autonomous driving technology (<https://youtu.be/m6mMBGtasdY>), which will provide the driver with a hands-free driving car. Cadillac AI autonomous driving system cars will sell for less than \$61,000. Cadillac (<https://www.cadillac.com/world-of-cadillac/innovation/super-cruise>) has the most advanced AI driving system today, and it can provide a driver to drive at speed up to 85 mph and automated change lanes on the highway (General Motors, 2021).

Toyota wants to create advanced AI autonomous driving technology as they want to hire excellent AI engineers worldwide. Toyota plans to make advanced AI autonomous vehicles to save thousands of lives from many traffic accidents. They want to transform transportation to the AI safer autonomous automobile for everyone in the world to enjoy car travel without any accidents possible (Toyota, 2021).

The IoE of the Autonomous Vehicle (AV) can lead to autonomous cruises, autonomous trucks, and autonomous spaceships as the future to come. Nevada governor Brian Sandoval proved the world-first self-driving truck in 2015 on the YouTube video (Car Jam TV, 2015). A Mercedes autonomous truck is also driving itself on YouTube video – A Mercedes future autonomous truck 2025 commercial (Car Jam TV, 2015).

Conclusion

The *Internet of Everything (IoE)* helps people have excellent use of the Internet today. The IoE method is to help people in the world use the Internet invaluable and intelligent ways. Home and business users have a great accomplishment to use the Internet as e-commerce websites, education websites, auction websites, online shopping websites, online grocery websites, social media websites, intelligent cars, smartphones, and many more. As a suggestion, more than 199 billion devices will connect to the Internet before 2024. The IoE improves global businesses to get the highest revenues. Moreover, the IoE and IoT provide the platforms to give people in the world the opportunities to promote efficiency in economic benefits and minimize the need for human involvement. The IoE and IoT are the outstanding development of the 21st century. They will continue to lead to the excellent future to come.

References

Andrews, E. (2019, October 28). *Who Invented the Internet?* History.

<https://www.history.com/news/who-invented-the-internet#:~:text=The%20first%20workable%20prototype%20of,communicate%20on%20a%20single%20network>

Aptiv. (2021). *Autonomous Mobility*.

<https://www.aptiv.com/en/solutions/autonomous-mobility>

Aptiv. (2021). *Our Location*.

https://jobs.aptiv.com/?utm_source=aptiv.com&utm_medium=referral_career_navigation_home&utm_campaign=aptiv_career_site

Argo AI LLC. (2021). *We are Building Self-Driving Technology You Can Trust*. ARGO.

<https://www.argo.ai/>

Anderson, G. J., Brown, A. L., & Safford, H. R. (2019, January). *Automated Vehicle Liability*

and Insurance – Part I: Manufacturers. https://policyinstitute.ucdavis.edu/wp-content/uploads/Liability-Pt1_IssuePaper_010819.pdf

Angelo, S. M. (2001, November 27). *Security Architecture Model Component Overview*.

<https://sansorg.egnyte.com/dl/y5E2pcroJ9/?>

A guide to the project management body of knowledge (pmbok® guide). (2017). ProQuest.

<https://ebookcentral.proquest.com/lib/apus/reader.action?docID=5180849>

Amazon Web Services, Inc. (2021). *AWS Free Tier*. AWS.

https://aws.amazon.com/free/?all-free-tier.sort-by=item.additionalFields.SortRank&all-free-tier.sort-order=asc&awsf.Free%20Tier%20Types=*all&awsf.Free%20Tier%20Categories=catego

ries%23compute&trk=ps_a134p000004ew2xAAA&trkCampaign=acq_paid_search_bran
d&sc_channel=PS&sc_campaign=acquisition_US&sc_publisher=Google&sc_category=
Cloud%20Computing&sc_country=US&sc_geo=NAMER&sc_outcome=acq&sc_detail=
amazon%20cloud%20hosting%20pricing&sc_content=Cloud%20Hosting_e&sc_matchty
pe=e&sc_segment=463367500961&sc_medium=ACQ-P|PS-
GO|Brand|Desktop|SU|Cloud%20Computing|Solution|US|EN|Text&s_kwcid=AL!4422!3
!463367500961!e!!g!!amazon%20cloud%20hosting%20pricing&ef_id=Cj0KCQjwub-
HBhCyARIsAPctr7zJAPGy5neq48eDLkEZ6mDLiG-QDLSvF6fO_J8kYZ-
vszEIf0J9jaEaAmaoEALw_wcB:G:s&s_kwcid=AL!4422!3!463367500961!e!!g!!amazo
n%20cloud%20hosting%20pricing

Ambrose, S. (2015, January). *TECH TALK THE INTERNET OF EVERYTHING AND
EVERYTHING ON THE INTERNET*. ProQuest.

[https://search-proquest-
com.ezproxy1.apus.edu/docview/1637735643?accountid=8289](https://search-proquest-com.ezproxy1.apus.edu/docview/1637735643?accountid=8289)

Aguair, A. (2021, November 8). *PRESIDENT'S MESSAGE*. Los Angeles Pierce College.
http://207.62.63.167/pierce_president.asp

Baldwin, R. (2016, March 18). *OnStar is helping GM plan for an autonomous car future*.
<https://www.engadget.com/2016-03-18-onstar-gm-self-driving-cars.html>

Beresford, C. (2021, March 4). *The Honda Legend Sedan with Level 3 Autonomy Available For
Lease in Japan*. [https://www.caranddriver.com/news/a35729591/honda-legend-level-3-
autonomy-leases-japan/](https://www.caranddriver.com/news/a35729591/honda-legend-level-3-autonomy-leases-japan/)

BMW AG. (2021). *The path to autonomous driving*. BMW.
<https://www.bmw.com/en/automotive-life/autonomous-driving.html>

BMW Group Company. (2021). *THE FUTURE HAS BEGUN*. BMW GROUP.

<https://www.bmwgroup.com/en/company/the-next-100-years.html>

Bobran, B. (2018, July 18). *Business Continuity vs. Disaster Recovery: What's the Difference?*

<https://phoenixnap.com/blog/business-continuity-vs-disaster-recovery>

CBS Sunday Morning. (2019, May 17). *Self-driving cars* [Video]. Youtube.

<https://youtu.be/ugNJf2QW0E>

Clement, J. (2019, July 25). *Internet usage worldwide - Statistics & Facts*.

<https://www.statista.com/topics/1145/internet-usage-worldwide/>

Cadence Design Systems, Inc. (2021). *Microprocessor vs. Integrated Circuit--What's the*

Differenc? <https://resources.pcb.cadence.com/blog/2020-microprocessor-vs-integrated-circuit-what-s-the-difference>

Computer History Museum. (2021). *Timeline of Computer History*. CHM.

<https://www.computerhistory.org/timeline/computers/>

Comer, D. (2015). *Computer networks and Internets*, 6th Edition. Boston, Massachusetts:

Pearson.

Cisco. (2021). *Routers*. <https://www.cisco.com/c/en/us/products/routers/index.html>

Cloudflare, Inc. (2021). *What is Routing?* CLOUDFLARE.

<https://www.cloudflare.com/learning/network-layer/what-is-routing/>

Csongor, R. (2017, January 6). *Mercedes-Benz and NVIDIA Announce Partnership for AI Car Technology*.

<https://blogs.nvidia.com/blog/2017/01/06/mercedes-benz-nvidia-ai-car/>

Cruise LLC. (2021, January 19). *Cruise and GM team up with Microsoft to commercialize self-*

driving vehicles. <https://www.getcruise.com/news/cruise-and-gm-team-up-with-microsoft-to-commercialize-self-driving-vehicles>

Car Jam T. (2015, May 6). *Daimler's Self Driving Truck Nevada Worlds First Licensed Autonomous Freightliner Inspiration CARJAM* [Video]. Youtube.
<https://youtu.be/HdSRUG4KTPA>

Car Jam T. (2015, January 16). *Mercedes Self Driving Truck Driving Itself Mercedes Future Truck 2025 Commercial CARJAM TV 4K 2015* [Video]. Youtube.
<https://youtu.be/XZxZC0lgOlc>

Dudovskiy, J. (2016, March 28). *Walmart Business Strategy and Competitive Advantage*. BRM. <https://research-methodology.net/walmart-business-strategy/>

Davey, S. H., & Kuthe, S. S. (2015). Development of recommendation system for selecting a proper sampling technique for researchers in management based on objectives of research & study population. *International Journal of Electronics, Communication, and Soft Computing Science & Engineering (IJECSCE)*, , 351-356. ProQuest.
<https://search-proquest-com.ezproxy1.apus.edu/docview/1712403286?accountid=8289>

Fangs, J. (2019, September 23). Hyundai teams with apt to put self-driving cars on the road by 2022. <https://search-proquest-com.ezproxy1.apus.edu/docview/2296426887/4BCBD91074B14E71PQ/6?accountid=8289>

Fangs, J. (2019, September 23). *Hyundai teams with apt to put self-driving cars on the road by 2022*. <https://www.engadget.com/2019-09-23-hyundai-and-aptiv-self-driving-venture.html?ncid=txtlnkusaolp00000616>

Fridman, L. (2019, February 26). *Karl Iagnemma & Oscar Beijbom (Aptiv Autonomous*

Mobility) - MIT Self-Driving Cars [Video]. Youtube.

<https://youtu.be/p5AtrKqQ3Fw>

Fortune Media IP Limited. (2021). *Global 500 – Walmart Rank 1*. FORTUNE.

<https://fortune.com/company/walmart/global500/>

Fortune Media IP Limited. (2021). *Fortune 500 – Amazon Rank 2*. FORTUNE.

<https://fortune.com/company/amazon-com/fortune500/>

Fortune Media IP Limited. (2021). *Global 500 - The Top 10*. FORTUNE.

<https://fortune.com/global500/2019/>

Fortune Media IP Limited. (2021). *Fortune 500 - The Top 10*. FORTUNE.

<https://fortune.com/fortune500/>

Fortune Media IP Limited. (2021). *Apple Rank 3*. FORTUNE.

<https://fortune.com/company/apple/fortune500/>

Foley, B. (2018). *Probability Sampling vs. Non-Probability Sampling*. Alchemer.

<https://www.surveygizmo.com/resources/blog/probability-sampling/>

Fontinelle, A. (2020, July 14). *Liability Car Insurance*. Investopedia.

<https://www.investopedia.com/terms/a/automobile-liability->

[insurance.asp#:~:text=Liability%20car%20insurance%20is%20the,property%20while%20operating%20a%20vehicle.&text=The%20two%20components%20of%20liability,liability%20and%20property%20damage%20liability](https://www.investopedia.com/terms/a/automobile-liability-insurance.asp#:~:text=Liability%20car%20insurance%20is%20the,property%20while%20operating%20a%20vehicle.&text=The%20two%20components%20of%20liability,liability%20and%20property%20damage%20liability)

General Motor. (2021). *INNOVATING THE FUTURE OF DRIVING. AGAIN*.

<https://www.cadillac.com/world-of-cadillac/innovation/super-cruise>

Graphing Tutorial. (n.d.). *What are Independent and Dependent Variables?*

https://nces.ed.gov/nceskids/help/user_guide/graph/variables.asp

Hughes, M. A., & Hayhoe, G. F. (2008). *A Research Primer For Technical Communication: Methods, Exemplars, and Analyses*. New York: Lawrence Erlbaum Associates, c2008

IBM. (2021). *Cryptography for a Connected World*.

<https://www.ibm.com/ibm/history/ibm100/us/en/icons/cryptography/>

IBM. (2021). *Evolution of the mainframe*.

https://www.ibm.com/ibm/history/exhibits/mainframe/mainframe_intro.html

IBM. (2021). *Mainframes introduction 2*.

https://www.ibm.com/ibm/history/exhibits/mainframe/mainframe_intro2.html

IBM. (2021). *Mainframes introduction 3*.

https://www.ibm.com/ibm/history/exhibits/mainframe/mainframe_intro3.html

IBM. (2021). *IBM Cloud Delivers Quantum-Safe Cryptography and Hyper Protect Crypto Services to Help Protect Data in the Hybrid Era*.

[https://newsroom.ibm.com/2020-11-30-IBM-Cloud-Delivers-Quantum-Safe-](https://newsroom.ibm.com/2020-11-30-IBM-Cloud-Delivers-Quantum-Safe-Cryptography-and-Hyper-Protect-Crypto-Services-to-Help-Protect-Data-in-the-Hybrid-Era)

[Cryptography-and-Hyper-Protect-Crypto-Services-to-Help-Protect-Data-in-the-Hybrid-Era](https://newsroom.ibm.com/2020-11-30-IBM-Cloud-Delivers-Quantum-Safe-Cryptography-and-Hyper-Protect-Crypto-Services-to-Help-Protect-Data-in-the-Hybrid-Era)

IBM. (2021). *2020 Gartner Magic Quadrant*.

<https://www.ibm.com/account/reg/us-en/signup?formid=urx-39850>

ID Quntique. (2021). *Quantum-Safe Security*.

[https://www.idquantique.com/quantum-safe-security/overview/quantum-key-](https://www.idquantique.com/quantum-safe-security/overview/quantum-key-distribution/#:~:text=Quantum%20cryptography%20is%20a%20technology,light%2C%20across%20an%20optical%20link)

[distribution/#:~:text=Quantum%20cryptography%20is%20a%20technology,light%2C%20across%20an%20optical%20link](https://www.idquantique.com/quantum-safe-security/overview/quantum-key-distribution/#:~:text=Quantum%20cryptography%20is%20a%20technology,light%2C%20across%20an%20optical%20link)

IBM POWER9 on IBM cloud to help accelerate the adoption of hybrid cloud: IBM power

- Systems virtual servers on the IBM cloud provide more flexibility to help clients modernize workloads for the hybrid cloud era. (2019, June 17). *PR Newswire*.
<https://search-proquest-com.ezproxy1.apus.edu/docview/2241532259?accountid=8289>
- IT History Society. (2021). *Dr. William (Bill) Yeager*.
<https://www.ithistory.org/honor-roll/dr-william-bill-yeager>
- Keller, C. R. (n.d.). *What is Walmart's Secret to Success?*
<https://profitworks.ca/small-business-sales-and-marketing-resources/blog/marketing-strategy/579-sam-walton-wal-mart-what-is-wal-mart-s-secret-to-success.html>
- Kumar, R. (2014). *Research Methodology: A Step-by-Step Guide for Beginners*. 4th Edition, SAGE Publications Ltd., London.
- Lennox, J. M. (2001). *Team-building for a better tomorrow*. *Journal of Property PROJECT MANAGEMENT: TEAM BUILDING* 20 Management, 66(5), 10-11. Retrieved from
<https://search-proquestcom.ezproxy1.apus.edu/docview/216395763?accountid=8289>
- Madakam, S., Ramaswamy, R., & Tripathi, S. (2015, July 28). *Internet of Things (IoT): A Literature Review*.
https://www.researchgate.net/publication/280527542_Internet_of_Things_IoT_A_Literature_Review
- Mallon, S. (2018, October 29). *IoT Is the Most Excellent Development of the 21st Century*.
<https://www.smartdatacollective.com/iot-most-important-development-of-21st-century/>
- McKinnon, T. (2019, April 15). *eCommerce, Strategy & Growth*.
<https://www.indigo9digital.com/blog/4-secrets-to-walmarts-ecommerce-success>
- Methods Group, LLC. (2021, March 11). *Advantages and Disadvantages of Survey Research*.
<https://surveymethods.com/benefits-and-weaknesses-of-survey-research/>

- Middleton, F. (2019, December 3). *Reliability vs. validity: what is the difference?* Scribbr.
<https://www.scribbr.com/methodology/reliability-vs-validity/>
- Miraz, M. H., Ali, M., Excell, P. S., & Picking, R. (2015, September). *A review on Internet of Things (IoT), Internet of Everything (IoE) and Internet of Nano Things (IoNT)*.
https://www.researchgate.net/publication/308496376_A_review_on_Internet_of_Things_IoT_Internet_of_Everything_IoE_and_Internet_of_Nano_Things_IoNT
- Morgan, S. (2019). *2019 Official Annual Cybercrime Report*.
<https://www.herjavecgroup.com/wp-content/uploads/2018/12/CV-HG-2019-Official-Annual-Cybercrime-Report.pdf>
- NVIDIA. (2021). *BMW Group Selects NVIDIA to Redefine Factory Logistics*.
<https://nvidianews.nvidia.com/news/bmw-group-selects-nvidia-to-redefine-factory-logistics>
- NortonLifeLock Inc. (2021). *Choose to be safer online - Opt-in to Cyber Safety*.
<https://us.norton.com/>
- O'Brien, S. A. (2020, August 11). *Instacart partners with Walmart to compete with Amazon*. CNN Business. <https://www.cnn.com/2020/08/11/tech/walmart-instacart-partner-whole-foods/index.html>
- PacketLight Network. (2021). *400G over Single DWDM Wavelength*.
<https://www.packetlight.com/technology/400g-dwdm-wavelength-solution>
- Parker, J. (2020, January 15). *What is Netflow?*
<https://www.pcwldd.com/what-is-netflow>
- Peltier, T. R. (2013). *Information security fundamentals*. ProQuest.
<https://ebookcentral.proquest.com>

- Powell, S. (2004). *Team building and team working*. *Team Performance Management*, 10(1), 35- 38. doi:<http://dx.doi.org.ezproxy1.apus.edu/10.1108/13527590410527577>
- Purcell, D. E. (205, April). *Global Technology Standards – a bridge to the future*.
<http://www.strategicstandards.com/files/FutureShock.pdf>
- Purplemath, Inc. (2021). *Mean, Median, Mode, and Range*.
<https://www.purplemath.com/modules/meanmode.htm>
- QuestionPro Survey Software . (2021). *Quantitative Data: Definition*.
<https://www.questionpro.com/blog/quantitative-data/>
- Qualcomm adds new cloud solutions providers for the Internet of everything: -- new integrated cloud clients hosted on intelligent connectivity solution will drive expanded features for Internet of everything devices - . (2015, May 14 . *PR Newswire*. <https://search-proquest-com.ezproxy1.apus.edu/docview/1680753356?accountid=8289>
- Russell, J. (n.d.). *The statistics tutor's quick guide*.
<http://www.statstutor.ac.uk/resources/uploaded/tutorsquickguidetostatistics.pdf>
- Sanchez-Iborra, R., & Santa, J. (n.d.). *Special Issue "Embedding Internet of Everything in New-Age Smart Environments"*.
https://www.mdpi.com/journal/electronics/special_issues/ioe_smart_enviro
- Selinger, M., Sepulveda, A., & Buchan, J. (2013). *Education and the Internet of Everything*.
https://www.cisco.com/c/dam/en_us/solutions/industries/docs/education/education_internet.pdf
- Schmidt, D. (n.d.). *Symbolic*. Symbolics-DKS. <http://www.symbolics-dks.com/>
- Streefkerk, R. (2021, November 19). *Internal vs. external validity*.

- <https://www.scribbr.com/methodology/internal-vs-external-validity/>
- Slovick, M. (2020, July 10). *BMW Takes Self-Driving to Level 3 Automation*.
- <https://www.electronicdesign.com/markets/automotive/article/21136427/bmw-takes-selfdriving-to-level-3-automation>
- Sunday Business Post. (2015, October 4). *Internet of things: The Internet of everything*.
- <https://search-proquest-com.ezproxy1.apus.edu/docview/1718794014?accountid=8289>
- Shelton, S. (2021, February 9). *Best Internet Service Providers of 2021*.
- <https://www.usnews.com/360-reviews/internet-providers>
- Tengplatform. (2021). *10G WILL POWER THE NEXT ERA OF INNOVATION*.
- <https://www.10gplatform.com/impact>
- Thomas, L. (2021, August 27). *Independent and dependent variables*.
- <https://www.scribbr.com/methodology/independent-and-dependent-variables/>
- The Ford Motor Company. (2017, February 10). *FORD INVESTS IN ARGO AI, A NEW ARTIFICIAL INTELLIGENCE COMPANY, IN DRIVE FOR AUTONOMOUS VEHICLE LEADERSHIP*.
- <https://media.ford.com/content/fordmedia/fna/us/en/news/2017/02/10/ford-invests-in-argo-ai-new-artificial-intelligence-company.html>
- Top Trending. (2019, March 2). *Self-Driving Cars: The Future of Transportation* [Video].
- Youtube. <https://youtu.be/aNkKZuKbVKc>
- Toyota. (2021). *TECHNOLOGY HAS ONCE AGAIN EXPANDED WHAT IS POSSIBLE FOR MOBILITY*. <https://automatedtoyota.com/>
- Tulemissova, G. (2016). *The impact of the IoT and IoE technologies on changes in knowledge management strategy*. Kidmore End: Academic Conferences International Limited.

<https://search-proquest-com.ezproxy1.apus.edu/docview/1803415502?accountid=8289>

US Department of Transportation. (2021). *The Evolution of Automated Safety Technologies*.
<https://www.nhtsa.gov/technology-innovation/automated-vehicles-safety#topic-road-self-driving>

Vought, R. T. (n.d.). *MEMORANDUM FOR HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES*. <https://www.cio.gov/assets/resources/internet-protocol-version6-draft.pdf>

Wancho, T. (n.d.). *TEXAS INSTRUMENTS INTEGRATED CIRCUIT*
The chip that Jack built. BULLOCK MUSEUM.
https://www.thestoryoftexas.com/discover/artifacts/integratedcircuit_spotlight_121214

Walmart, Inc. (2021). *Our History*. <https://corporate.walmart.com/our-story/our-history>

Walmart, Inc. (2021). *About Us*. <https://corporate.walmart.com/our-story>

Wayland, M. (2021, April 15). *Walmart investing in GM's Cruise self-driving car company*.
<https://www.cnbc.com/2021/04/15/walmart-investing-in-gms-cruise-self-driving-car-company.html>

Waymo. (2020, June 25). *Partnering with Volvo Car Group to scale the Waymo Driver*.
<https://blog.waymo.com/2020/06/partnering-with-volvo-car-group-to.html>

Waymo. (2020, May 14). *VectorNet: Predicting behavior to help the Waymo Driver make better decisions*. <https://blog.waymo.com/2020/05/vectornet.html>

Waymo. (2021, February 17). *Waypoint the Official Waymo Blog*.
<https://blog.waymo.com/search/label/technology>

Wi-Fi Alliance. (2021). *Routers*.
<https://www.wi-fi.org/product-finder-results?keywords=Router>

Wi-Fi Alliance. (2021). *Wi-Fi Alliance Hall of Fame*.

<https://www.wi-fi.org/wi-fi-alliance-hall-of-fame>

Wi-Fi Alliance. (2021). *Wi-Fi is*.

<https://www.wi-fi.org/discover-wi-fi>

Ziegeldorf, J. H., Morton, O. M., & Wehrle, K. (n.d.). *Privacy in the Internet of Things:*

Threats and Challenges. <https://arxiv.org/ftp/arxiv/papers/1505/1505.07683.pdf>

