Leading and Managing in an Era of Disruptive Change: *A Practical Guide*

Lessons Learned…

- You must be sure that you have the right people with enough capacity and skill set to launch into MNS.
- As hard as it is to turn away from any option for business, you must understand that there is such thing as a too small customer. The small guys under 10 end points take up a disproportionate amount of time.
- Don't try to have generalist sell MNS. We have found that the copier guys are not effective at selling MNS.

Lessons Learned… (cont)

- Make sure your agreements are clear and complete. Do everything to avoid confusion on what a billable call should be. Said another way make the agreements all inclusive but if you are not able to make that happen make sure that the folk understand where covered services and billable services meet.
- Pay attention to the accounting side, in particular the Chart of Accounts. Putting information into the right buckets from the start is critical.
- Your prospect is buying a Trusted Adviser…the best vCIO wins
- The QBR (some call it a Technology Roadmap) is a great way to build relationship, and drive incremental business.

Those are REALLY important…

… but in our experience the #1 factor in your success in navigating this new space is…

LEADERSHIP

I think that means YOU

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Managing Technologies

"Perfect storm"

This session will be about…

- Understanding the "Technology Shift"
- Describing what that means to businesses
- The importance of Technology Planning
- A look into the future

A day at the News-Stand

R6 | Tuesday, February 10, 2015

JOURNAL REPORT | CIO NETWORK

THE WALL STREET JOURNAL.

Why Most Firms Better Get Moving

Cisco's John Chambers on digital disruptions ahead

"I think in this next decade, IT will be in vogue again."

USA TODAY

Connecting the 'Internet of Things' dots

Panel in Congress eyes security risks, wants all up to speed

Erin Kelly
USA TODAY

WASHINGTON The "Internet of Things" has become the latest big thing on Capitol Hill.

As more Americans connect to the Internet through everything from fitness bracelets to coffeemakers, Congress is looking at ways to spur innovation while ensuring that hackers don't exploit the growing number of smart ets to steal personal data.

d that lawmakers are nd on the rapidly ology, two tech- Congress — lif., and ave

including computers, tablets and smartphones) will generate nearly $9 trillion worldwide by 2020.

"Technology is revolutionizing the way consumers use cars, homes, work spaces and everyday items," said Issa, former chairman of the Consumer Electronics Association. "These devices raise both opportunities and questions about regulatory policy, spectrum space, privacy and more."

The list of Internet-connected things, which is growing by the day, includes baby monitors with sensors that send information to parents' smartphones about their infant's breathing and temperature; thermostats that use sensors, weather forecasts and the activity in a home to control the temperature; and Wi-Fi-enabled coffeemakers that can be controlled by a smartphone.

All of this is news to quite a few members of Congress, some of whom can still be seen roaming the halls with flip phones. (Sen. Charles Schumer, D-NY., is among the more high-profile flip phone users, although his staff his quick to point out that he also has an iPad.)

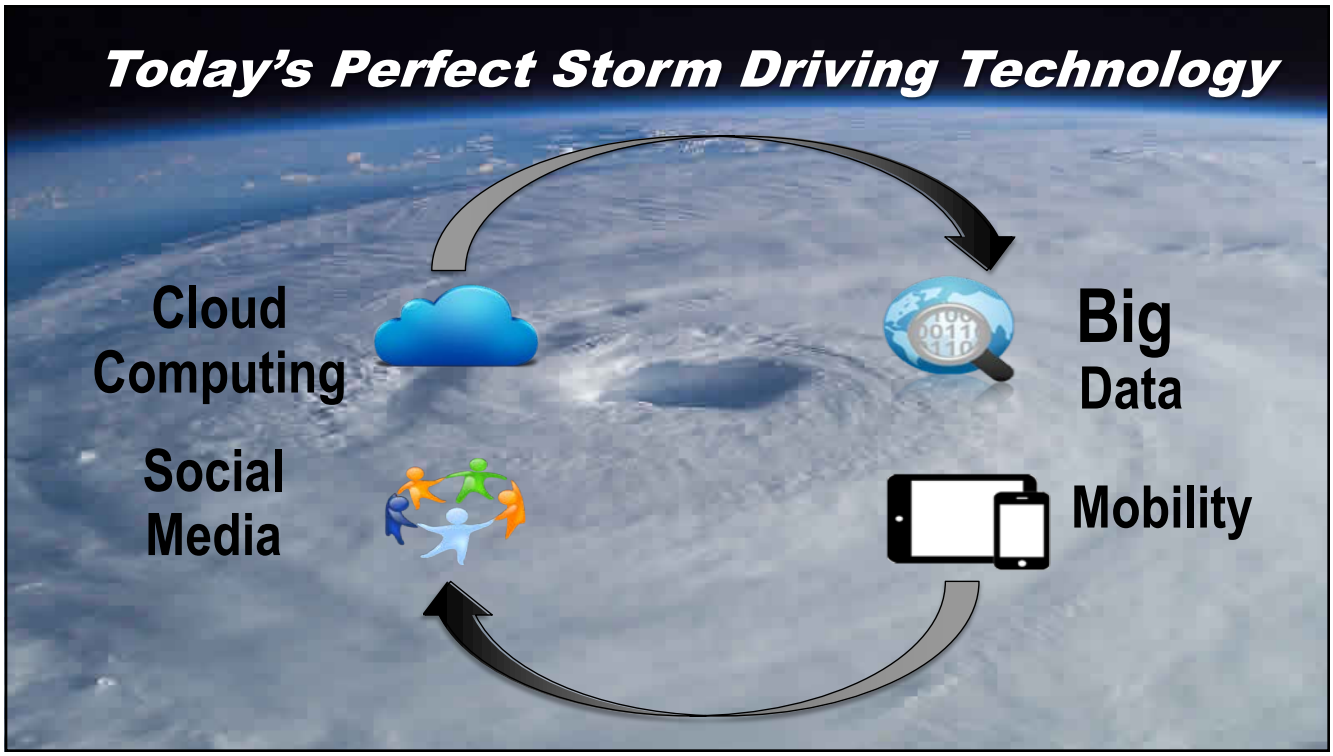
"Part of the reason for our caucus is to inform members about what's going on," said DelBene, who wears an Internet-connected fitness bracelet to work and is a former Microsoft executive and former CEO of a business software company. "The more we educate folks, the more it will help them make informed policy decisions."

Issa and DelBene say the issue is a rare bipartisan one. Both sides agree on the need to protect consumers' privacy. The goal is to prevent cybercriminals from hacking into devices while protecting their data from the prying

Industry Trends and Business Goals
2 questions to consider …

- How is technology is impacting ***your*** industry?
- How is technology impacting the achievement of ***your*** overall business goals?

<u>Technology has become embedded into Business Strategy</u>



Four Primary Areas Driving the Technology Shift

- **Social Media**
  - "How we Interact"
- **Mobility**
  - "Anywhere, anytime, any device"
- **Cloud & Managed Services**
  - "Scalable", "Utility", "Proactive"
- **Big Data**
  - "Trends", "Decision Support", "Machine Intelligence"

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Social Media

- Nearly 2 billion are on Facebook, representing almost 30% of the world population, and over 60% of the "internet connected" world population
- 87% of LinkedIn users say they trust its information in decision making
- Twitter has become more prominent than any other form of media in real-time reporting on events

Mobility/BYOD

- There are over 3 billion smartphones in use today, up from 1.5 billion 3 years ago
- They represent 83% of Internet traffic
- BYOD strategies are the most radical change to the economics and culture of client computing in business in decades
- Anytime, anywhere, nearly unlimited

Cloud Computing

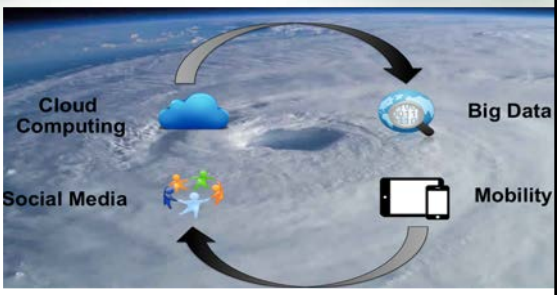
- The Cloud market in the US is at **$167 billion in 2020,** up from **$67 billion in 2015** —"with spending for cloud-based IT services growing at more than four times the rate of the IT market as whole."
- The cloud computing model will dominate growth for the next 20 years.
- Small and medium-sized business will lead the public cloud computing charge.
  - ✓ *87% of SMBs have implemented cloud services.*

Big Data

- More data crosses the Internet every second than was stored in the entire Internet 20 years ago
- Walmart collects enough customer data every hour to fill 20 million file cabinets worth of text
- 90 percent of all the data in the world has been generated over the last two years.
- Every 2 days we create as much information as we did up to 2003

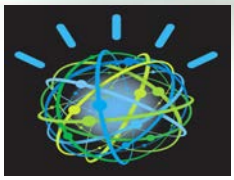
A New Infrastructure

With powerful technology in our pockets *(Mobile Devices)*, platforms that connect all of us *(Social Media)*, unlimited storage *(Cloud)*, and increasing ability to analyze information *(Big Data)*, we have built a platform to do just about anything.



It's Only Beginning ...

- AI (Artificial Intelligence)
- Cognitive Machine Learning
- IoT (Internet of Things)
- VR & AR
- Robotics



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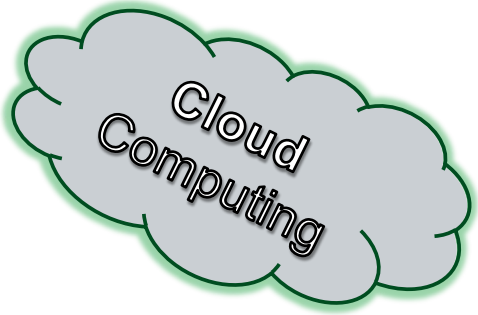
What does this all mean???

No one knows for sure…

…it has never happened before!



Digital Companies

Three time horizons:

1. 2000-2010: Adoption- eCommerce era
2. 2010-2015 *(and beyond)*: Build-up of "delivery system" that includes Social, Mobile, Cloud, Big Data
3. 2016 forward: Transformation, as products and services become digital and companies have to invent their own future

"With the *overwhelming, unprecedented* growth in **social media, mobility,** and **cloud computing**……if all companies don't see the impact on every facet of their ***business*** and their ***lives***, they simply are not paying attention."

Marc Andreesen
Andreesen, Horowitz

USA TODAY

February, 2013

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All Things D

"I am seeing a series of disruptions at a faster pace than I have seen in my career… the "Internet of Things" will bring 50 billion connected devices by 2020."

John Chambers
Cisco Systems

Jeff Immelt
GE

*"The Industrial Internet leverages the power of the cloud to connect machines with sensors and sophisticated software to other machines…they will deliver the right information to the right people, all in real time…this opportunity will bring $15 trillion to the global GDP by 2030…**the equivalent of adding another US economy to the world**."*

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Disruption

- New ways of doing things that overturn the traditional business methods. *Business Dictionary.com*
- Advances will transform life, business, and the global economy. *McKinsey & Company*
- 12 leading technologies will have a potential economic impact of up to $33 trillion by 2025 *McKinsey Global Institute*

UBER airbnb coursera

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12 Leading Disruptive Technologies

Mobile Internet

Increasingly inexpensive and capable mobile computing devices and Internet connectivity

Automation of knowledge work

Intelligent software systems that can perform knowledge work tasks involving unstructured commands and subtle judgments

The Internet of Things

Networks of low-cost sensors and actuators for data collection, monitoring, decision making, and process optimization

Cloud technology

Use of computer hardware and software resources delivered over a network or the Internet, often as a service

Advanced robotics

Increasingly capable robots with enhanced senses, dexterity, and intelligence used to automate tasks or augment humans

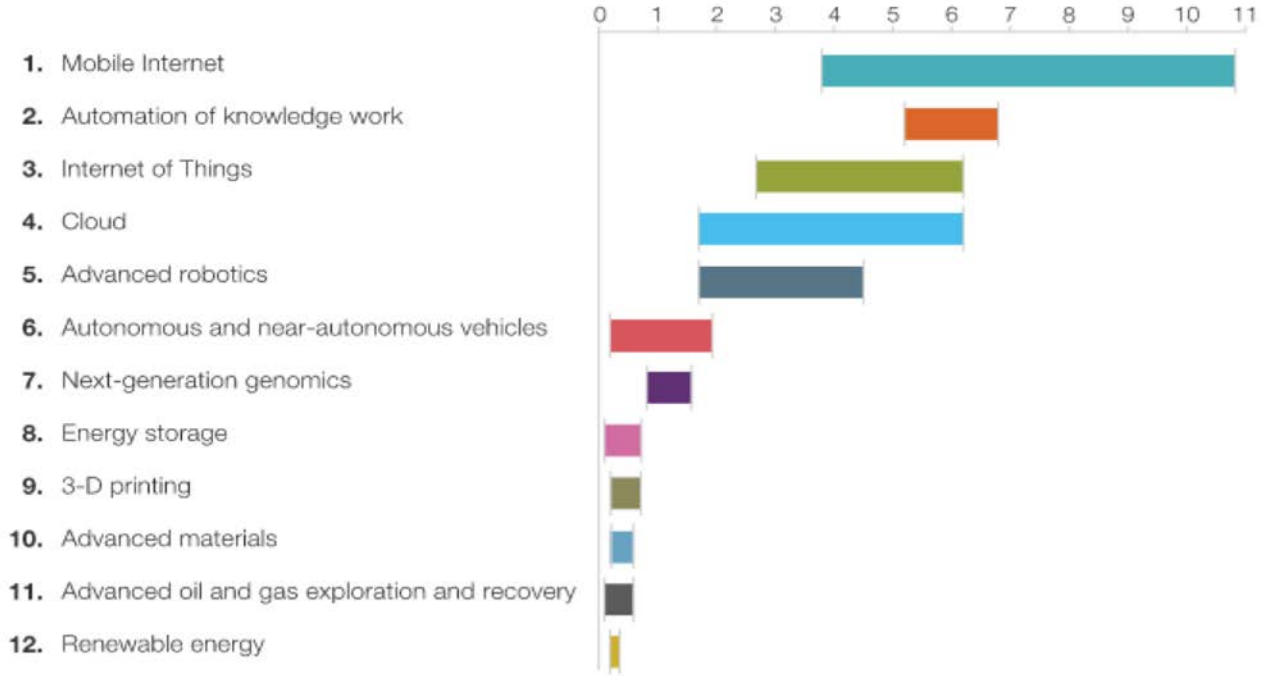
Autonomous and near-autonomous vehicles

Vehicles that can navigate and operate with reduced or no human intervention

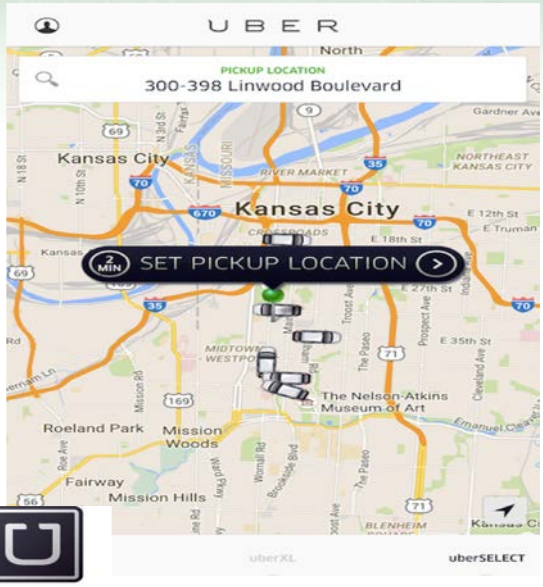
12 Leading Disruptive Technologies

Next-generation genomics	Fast, low-cost gene sequencing, advanced big data analytics, and synthetic biology ("writing" DNA)
Energy storage	Devices or systems that store energy for later use, including batteries
3D printing	Additive manufacturing techniques to create objects by printing layers of material based on digital models
Advanced materials	Materials designed to have superior characteristics (e.g., strength, weight, conductivity) or functionality
Advanced oil and gas exploration and recovery	Exploration and recovery techniques that make extraction of unconventional oil and gas economical
Renewable energy	Generation of electricity from renewable sources with reduced harmful climate impact

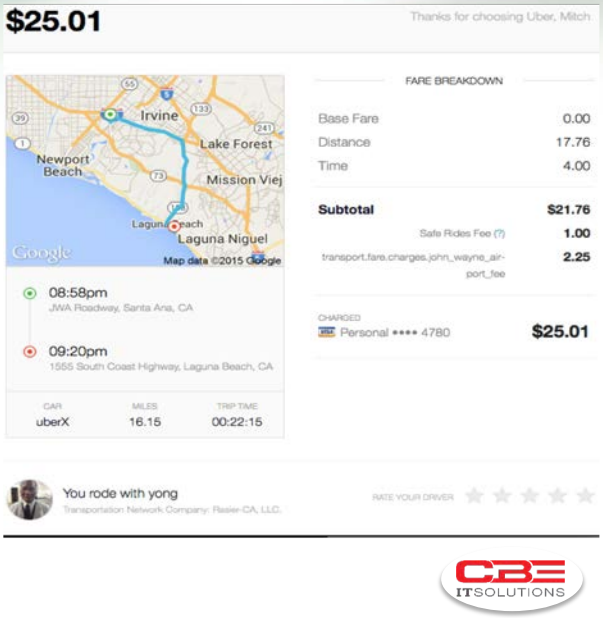
Estimated potential economic impact of technologies across sized applications in 2025, $ trillion, annual



Transportation



UBER



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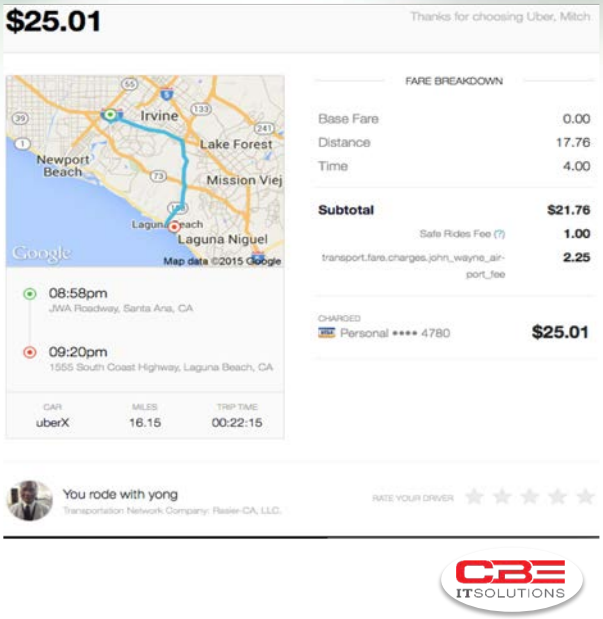
The return trip

What industry is being disrupted?

UBER



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UBER

August, 2013
Google Ventures invests $255 million in Uber…
its largest investment ever.

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The "Sharing Economy" Has Created 17 Billion Dollar Companies

Disruption

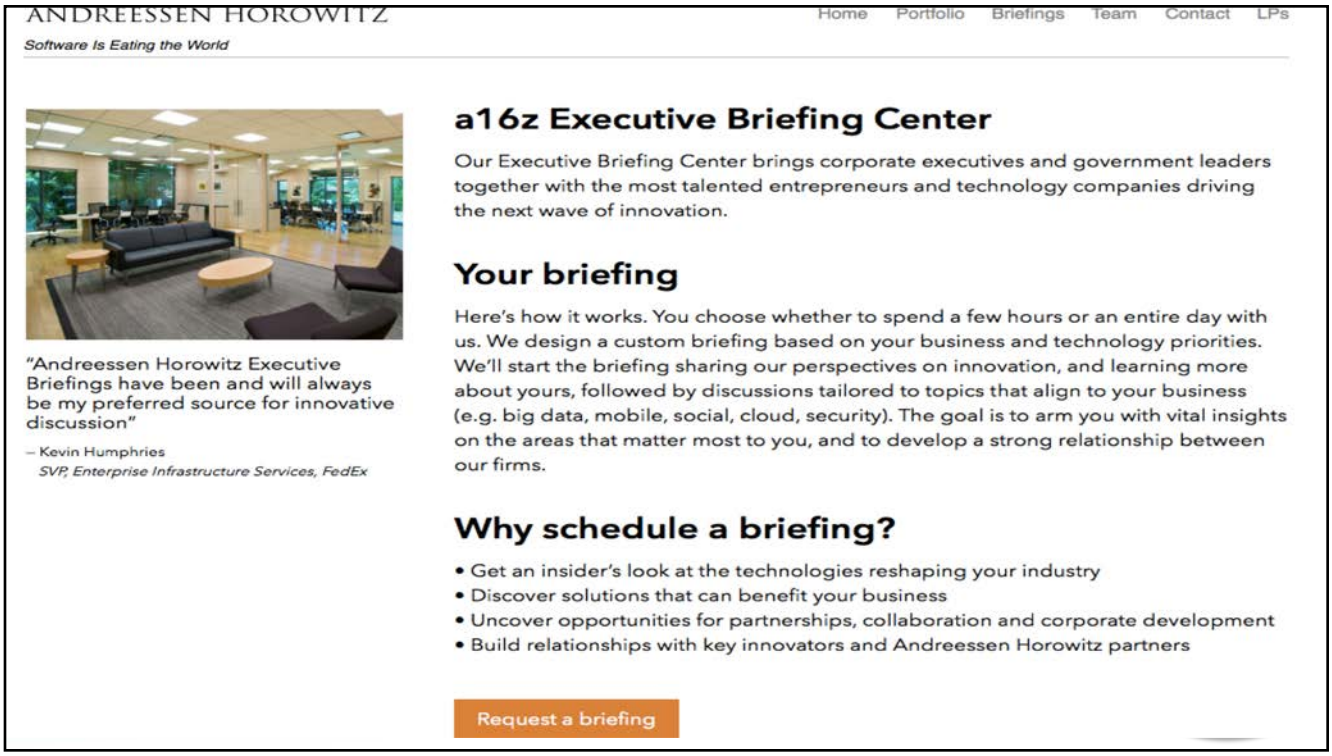
What's Happened

- Internet Based "Disintermediation"
  - Examples: Borders Books, Blockbuster, newspapers
- Advertising Industry
  - Billions of dollars shifted from traditional media to social and apps
- Sharing Economy
  - Uber, airbnb

What's Next ????

Solving Business Problems Using Technology

- Every Industry, Everywhere



Technology has become embedded in Strategy

- Back in 2007, only 40% of CIOs were involved in strategic planning;
- Now they're regarded as some of the most integral members of the C-Suite.

Where does this shift leave most businesses?

- **Spending 6% to 8%** of their revenue on technology
  - Normally in the top 3 expense categories behind payroll and rent
- **"Technology" is top-of-mind for senior leadership** and has moved from "operational" to "strategic"
- **Organizations don't want to fall behind, but can't afford to make a mistake**
- **More Technology Aware** (and dependent) than ever,yet most don't have a formal "Road Map" in place and are looking for guidance

Advice…

Business leaders should

1. Keep their organizational strategies updated in the face of continually evolving technologies,
2. Ensure that their organizations continue to look ahead, and
3. Use technologies to improve internal performance

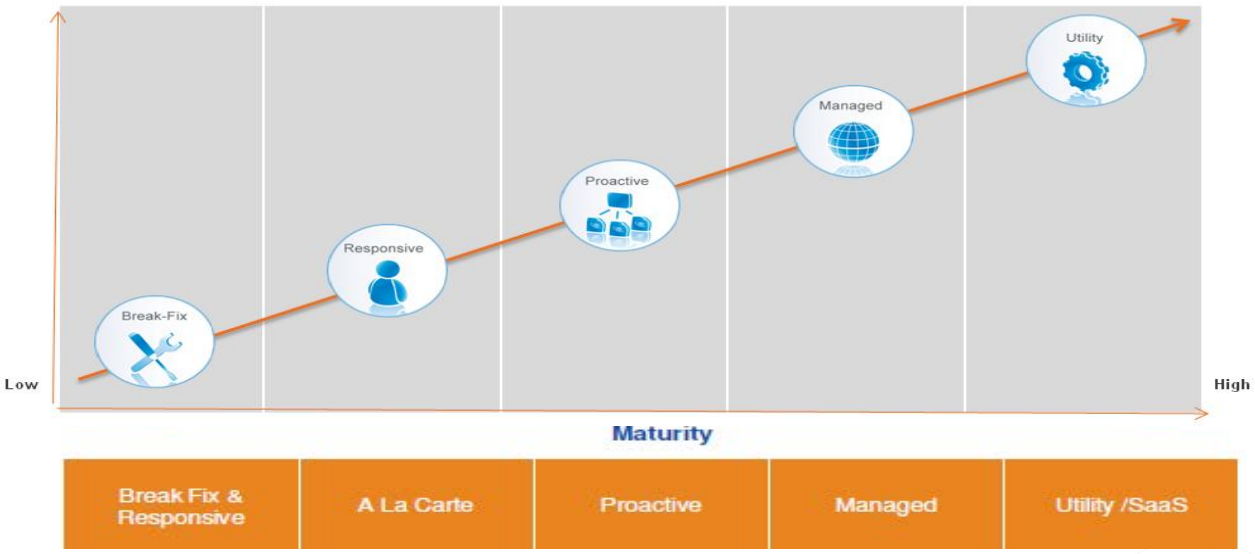
Disruptive technologies can change the game for businesses, creating entirely new products and services, as well as shifting pools of value between producers or from producers to consumers.

Organizations will often need to use business-model innovations to capture some of that value. Leaders need to plan for a range of scenarios, abandoning assumptions about where competition and risk could come from, and not be afraid to look beyond long-established models.

Organizations will also need to keep their employees' skills up-to-date and balance the potential benefits of emerging technologies with the risks they sometimes pose.

McKinsey&Company

Evolution of Systems Management



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Takeaways

1. Focus to the impact of Technology on your Industry
   - Start by reading the McKinsey & Company Report: “Disruptive Technologies: Advances that will transform life, business, and the global economy”
   - Study the “Impact of Technology on the _____ Industry”
2. Technology will become increasingly critical to your business. Make your systems “bullet-proof”
   - Use proactive measures, and system monitoring/management capabilities
3. Build a Technology Road-Map that aligns with your company strategy
   - Start by gaining consensus on your Attitude Toward Technology
   - Put the Technology RoadMap in writing, and keep it updated.

Computer Security Expert

Computer Security Expert

Path #1

Computer Security Expert

Path #1

Forensic Analyst

Computer Security Expert

Path #1

- Forensic Analyst
- Forensic Lab Director

Computer Security Expert

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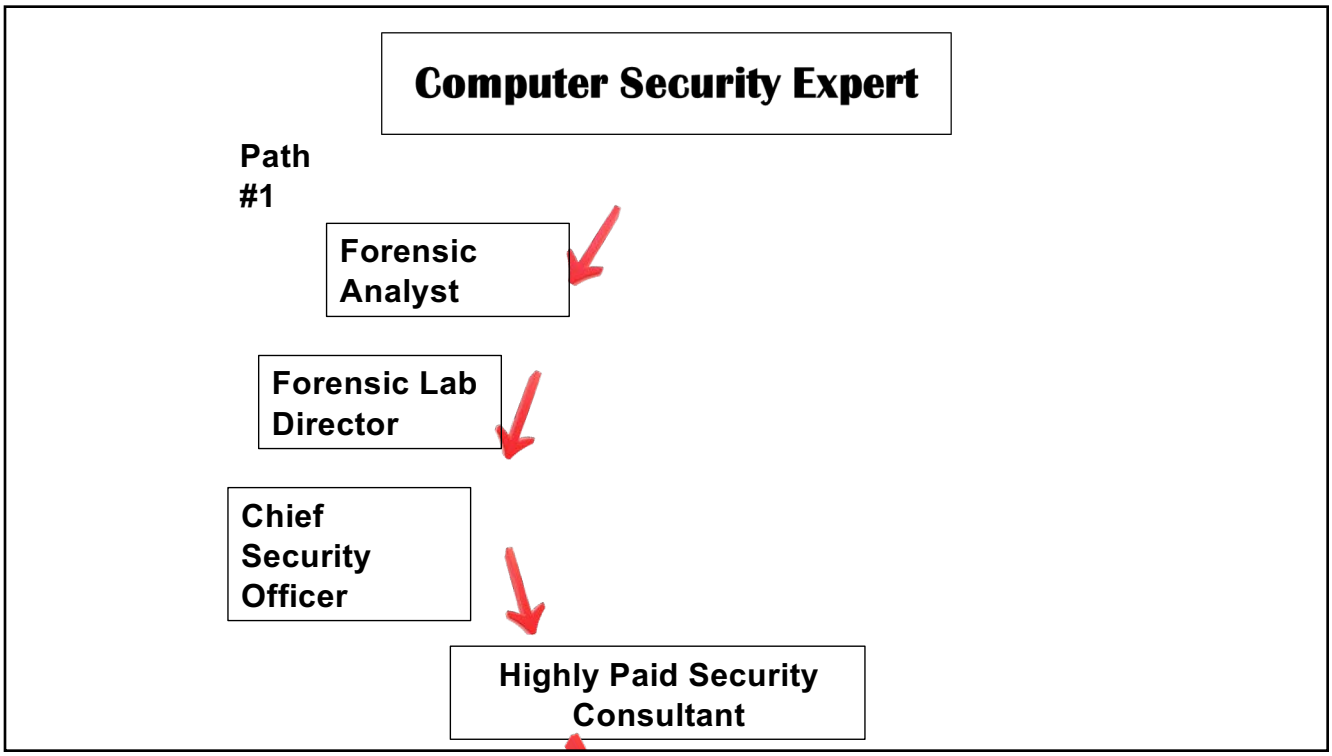
- Forensic Analyst
- Forensic Lab Director
- Chief Security Officer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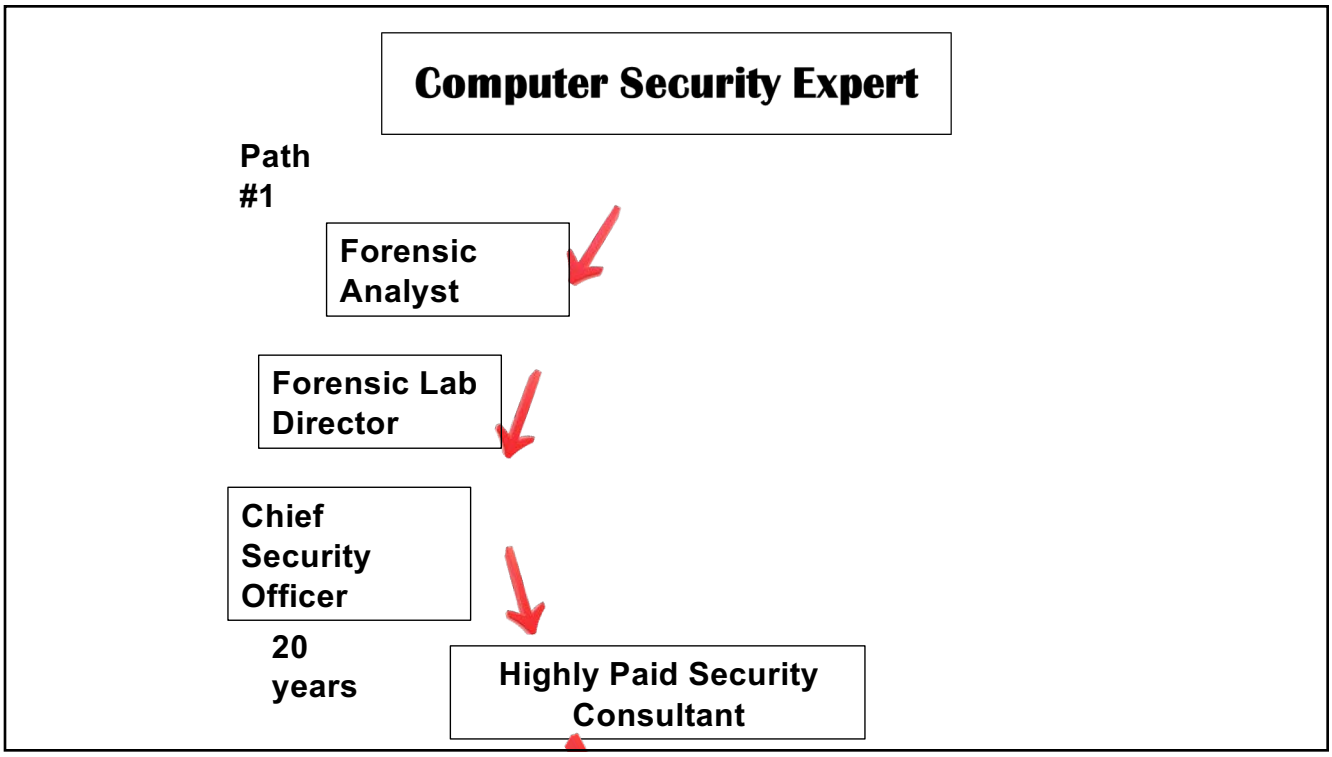
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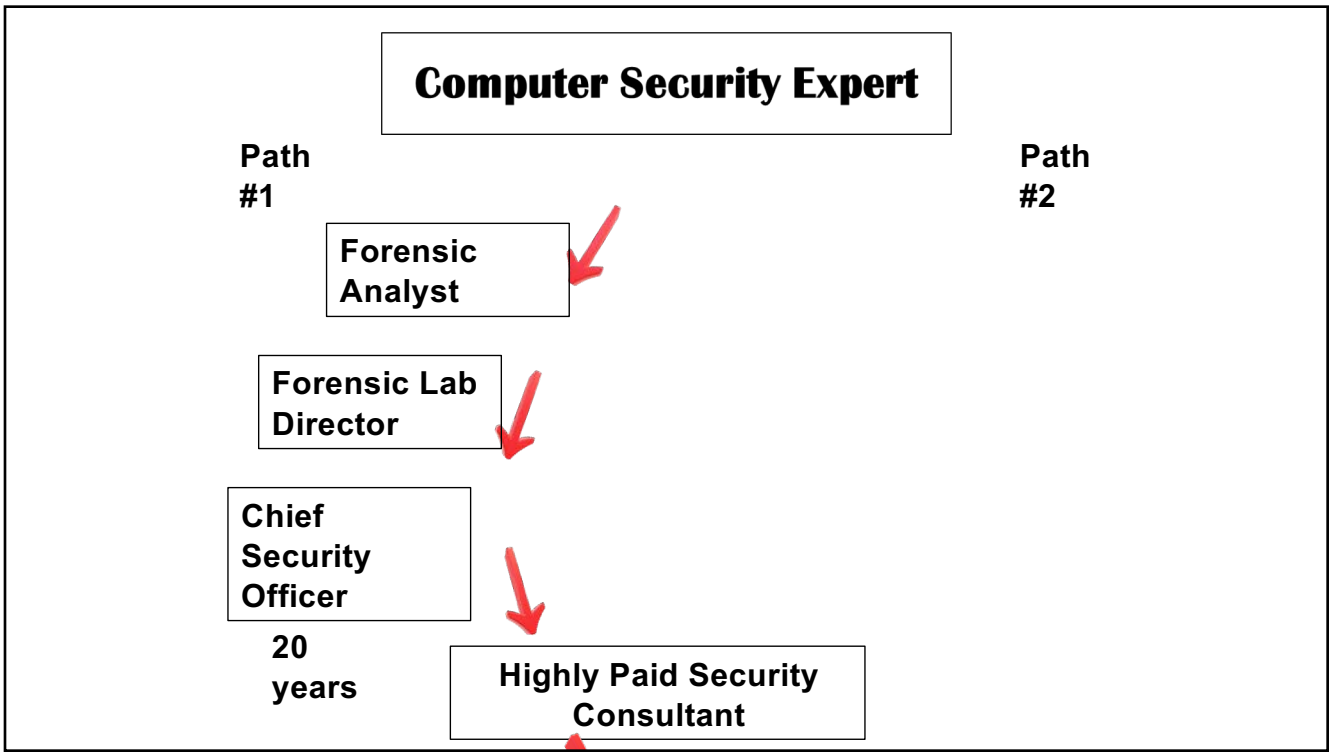
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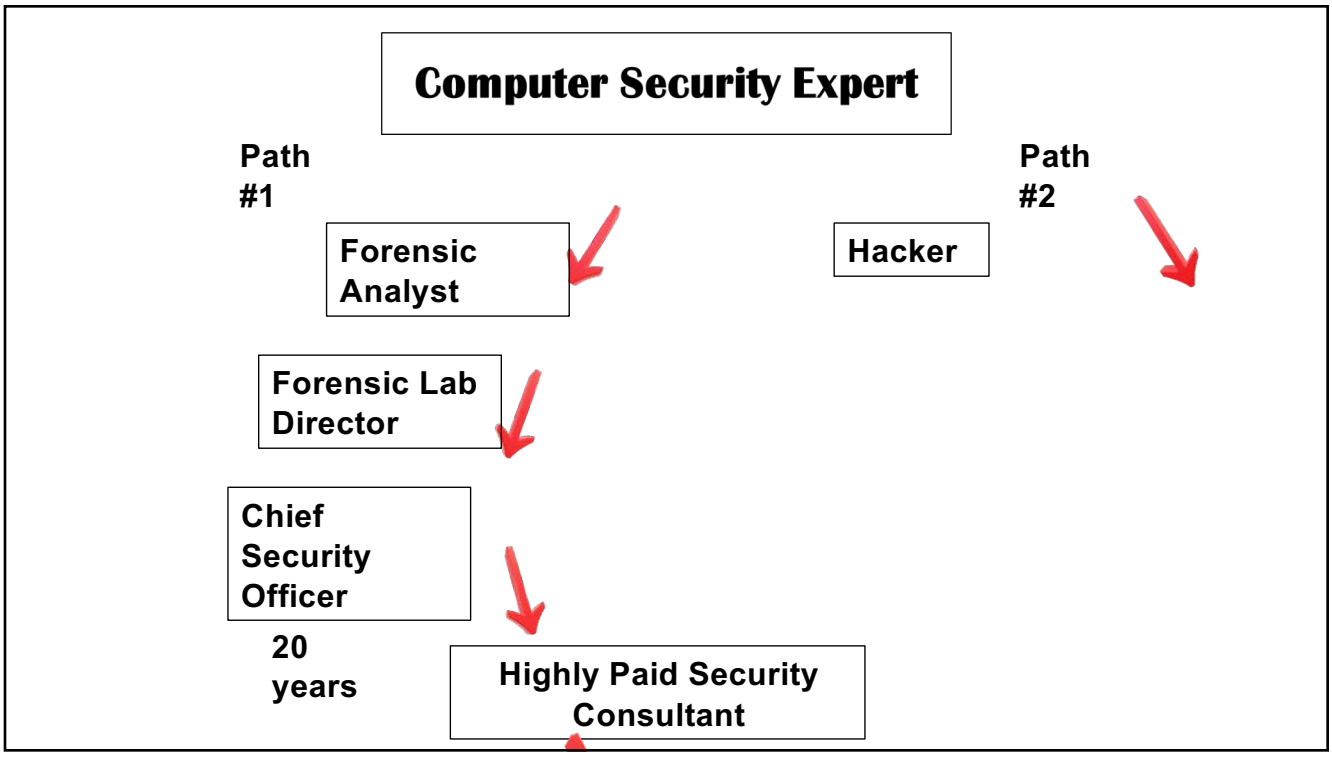
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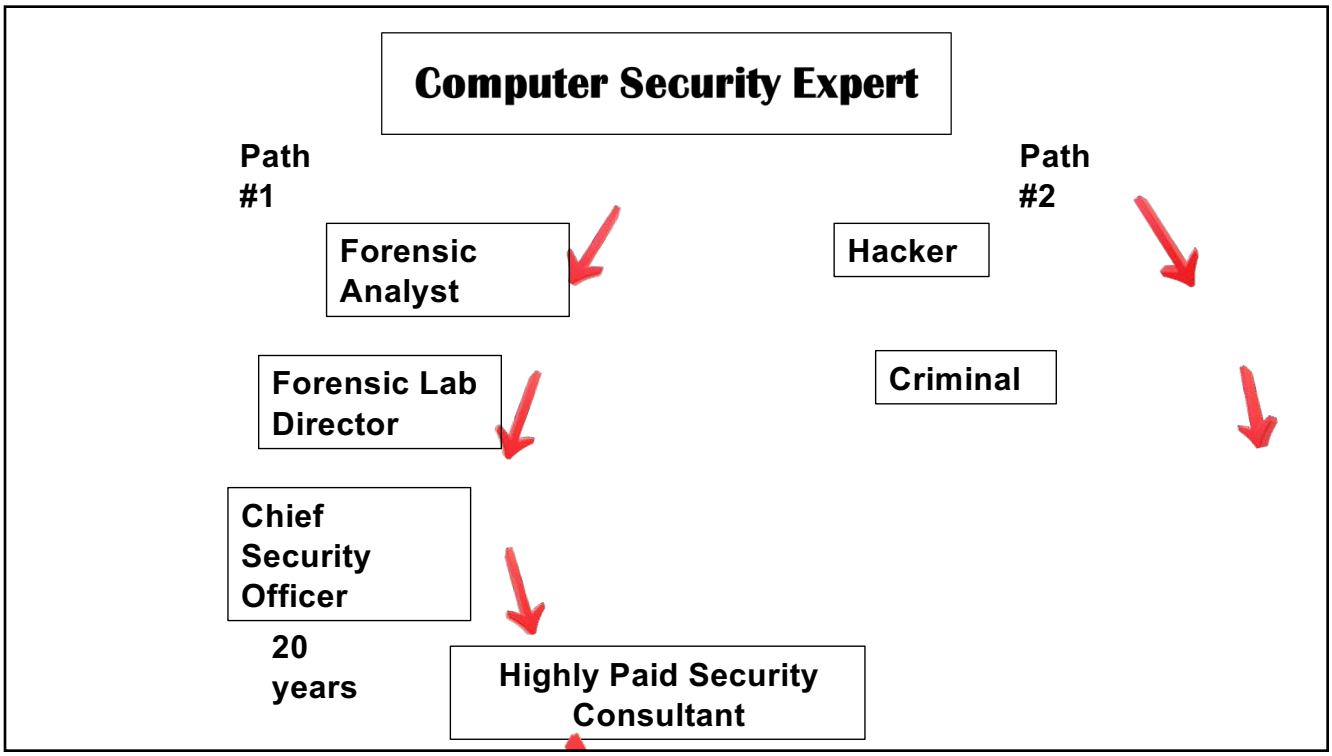
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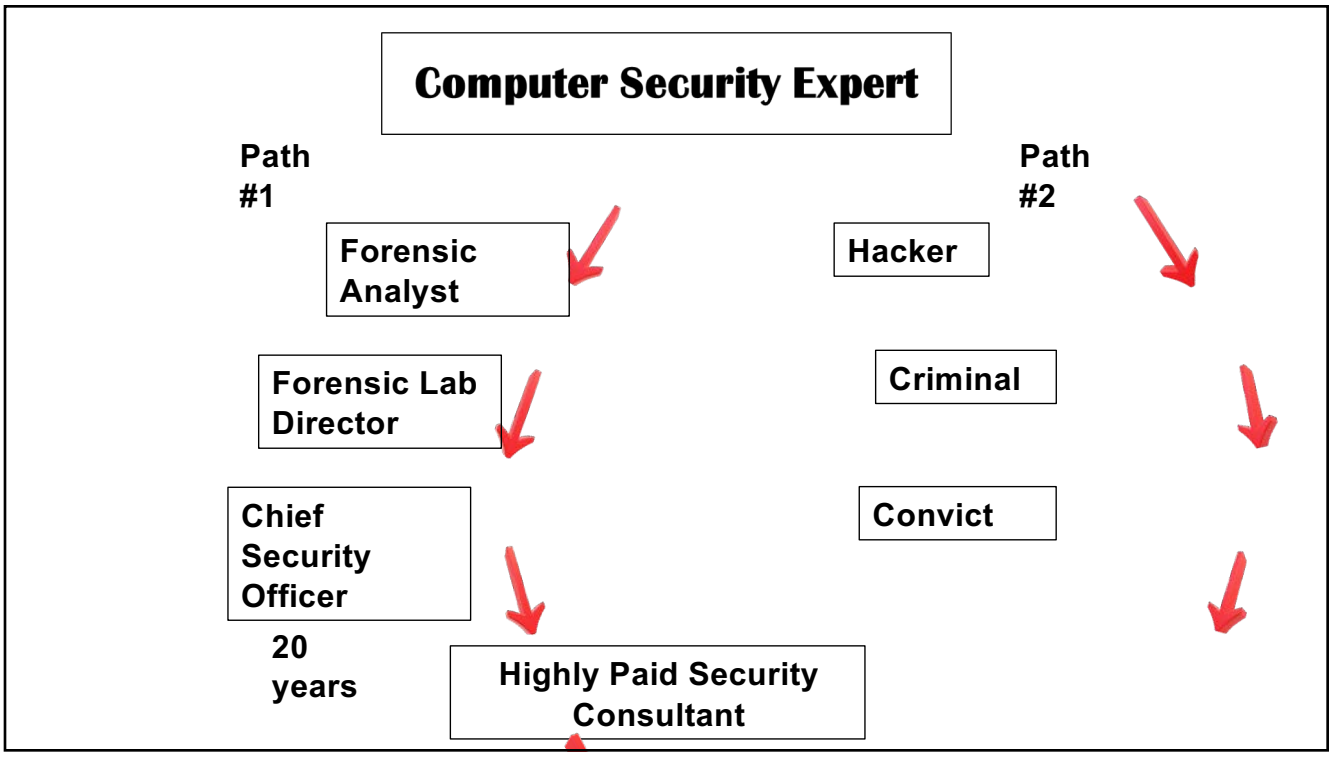
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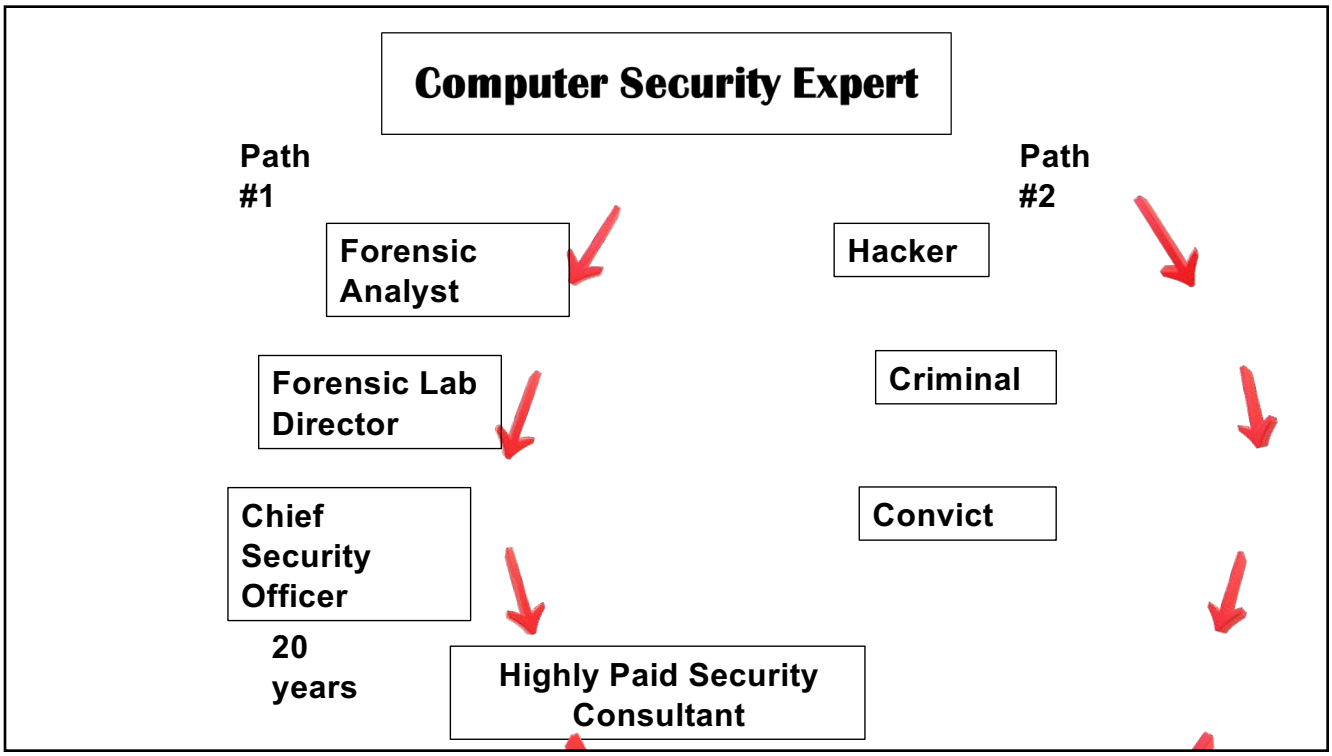
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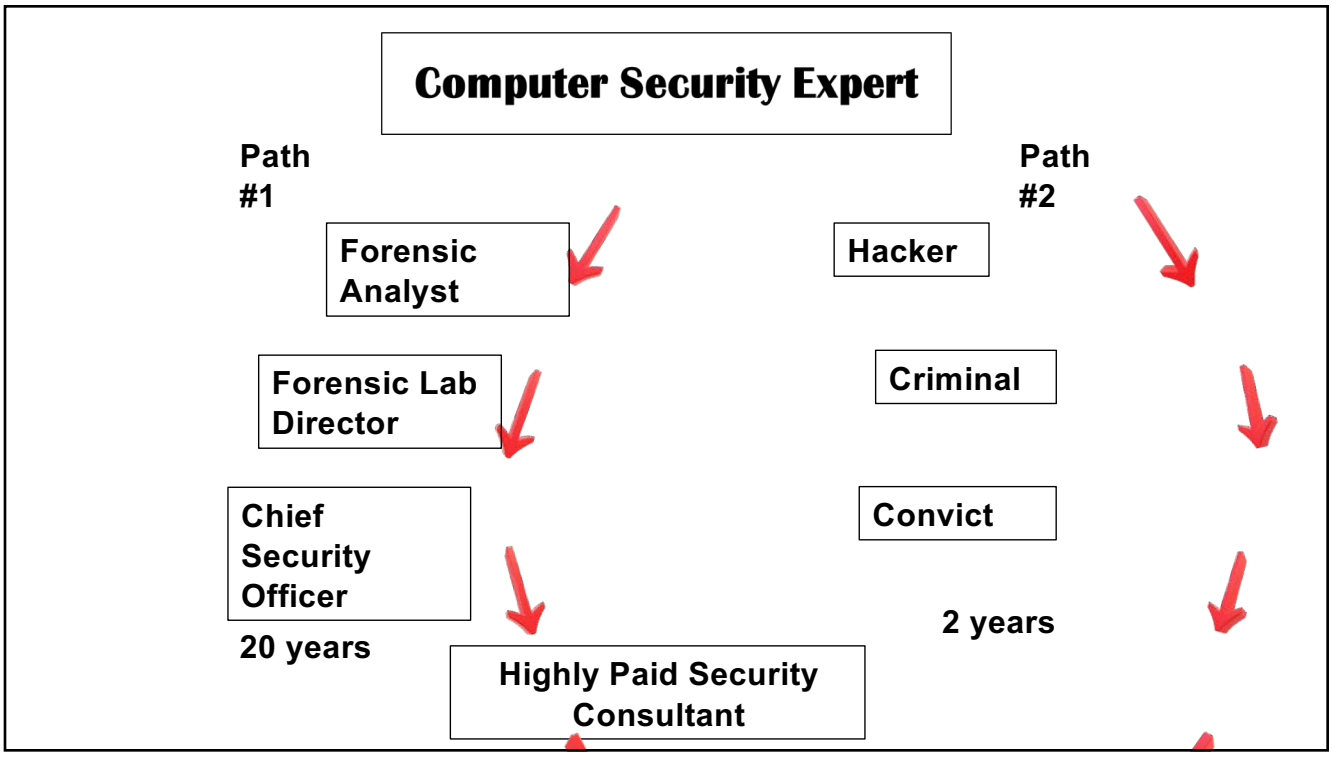
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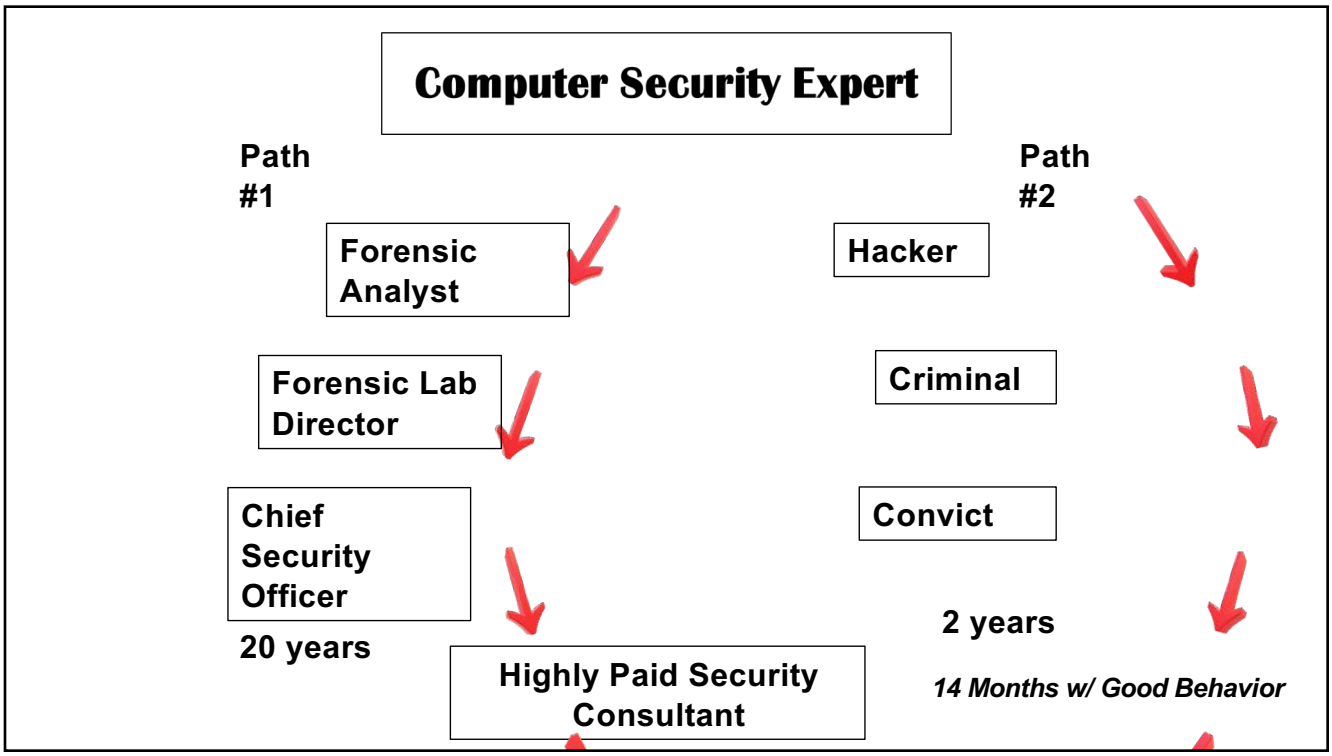
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2 years
14 Months w/ Good Behavior

Have you seen this man lately?

Sensors/IOT

- Cisco estimated 50 billion IOT devices by 2020…18 months later Intel said 200 billion
- Some speculate that anything that costs more than $5, and can't be eaten, will have a sensor
- McKinsey forecasts that global IOT spending will be $11 Trillion by 2025
- GE estimated the "Industrial Internet" will add between $10 Trillion and $15 Trillion to the economy within the next 15 years. The global economy is $78 Trillion

Future of Work

- The consensus among a majority of studies about the Future of Work
  - 5-15% of jobs will be eliminated in 10-15 years
  - 75% of jobs will be altered or enhanced
  - 15% net new jobs will be created

4 Questions

- Will a robot take my job away?
- Will my company be “Ubered”?
- What will my industry look like in 10 years?
- Will my children be better off than I am?

Cognizants Center for the Future of Work

- 2,000 companies studied
- 6% of revenue currently driven by digital
- This will nearly double in next 3 years to 11.4%
- $6.6 Trillion in economic impact
- This would be the 3rd largest economy in the world if it were a country

AI

- In 2017, 6 of the top 8 hedge funds earned around $8 billion based largely-or exclusively- on AI algorithms.
- In medicine, machines have quickly surpassed the capabilities of human radiologists. Houston Methodist hospital uses AI here:
  - 30 times faster
  - 99% accurate
  - Virtually eliminating unnecessary biopsies, which account for 20% of the total

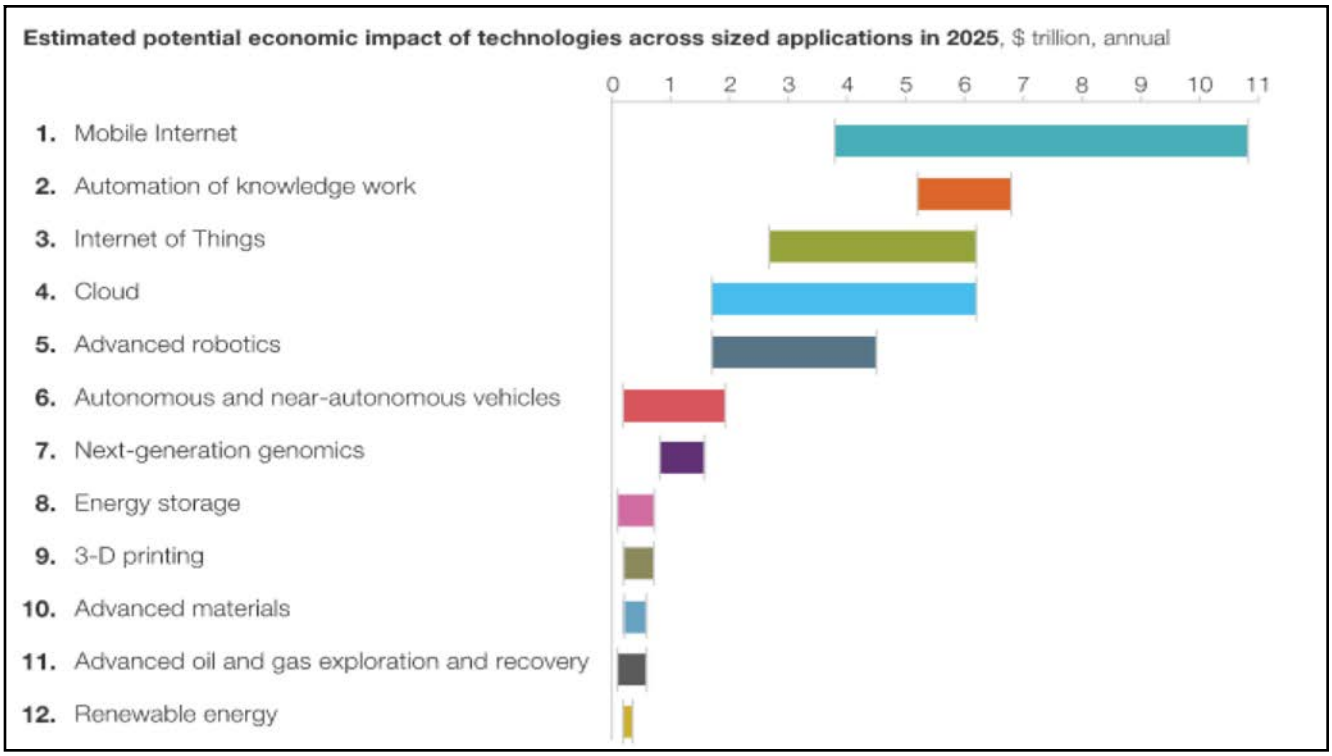
"What to do when machines do everything" by Frank, Roehrig, Pring

- In summary, AI will impact 100% of jobs
- 12% will go away
- 15% net new jobs created

What does this all mean???

No one knows…

…it has never happened before!



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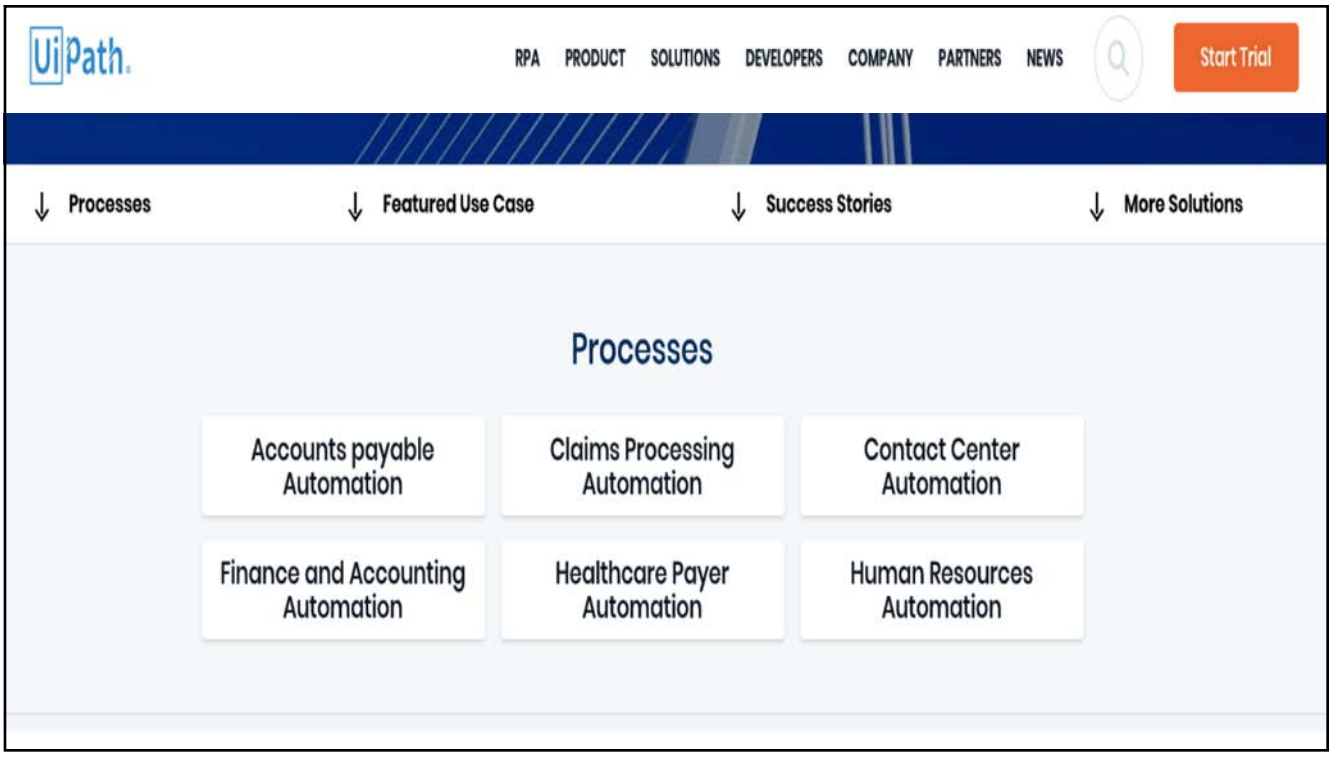
NEWS
Robotic Process Automation (RPA)
The only automation software for today's enterprise
What is Robotic Process Automation?
Robotic Process Automation is the technology that allows anyone today to configure computer software, or a "robot" to emulate and integrate the actions of a human interacting within digital systems to execute a business process. RPA robots utilize the user interface to capture data and manipulate applications just like humans do. They interpret, trigger responses and communicate with other systems in order to perform on a vast variety of repetitive tasks. Only substantially better: an RPA software robot never sleeps, makes zero mistakes and costs a lot less than an employee.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Featured Use Case
Success Stories
More Solutions
Processes
Accounts payable Automation
Claims Processing Automation
Contact Center Automation
Finance and Accounting Automation
Healthcare Payer Automation
Human Resources Automation

As a Leader in Your Business…

- It's still early, but you can't afford to be late
- Implement the RoadMap and listen…and communicate
- Develop a "conversational understanding"
  - Be fearless...like John
  - Build your information streams
  - Establish a Technology Committee that is responsible for reviewing new technologies for re-sale
- Hone your implementation capabilities with Security
- Security, Cloud, and Data
  - Get active with Microsoft CSP program
- The technologies are hard today, but will get easier