DIGITAL TRANSFORMATION (DT)

The Internet of Things and the Cybersecurity and Data Privacy Laws Implicated

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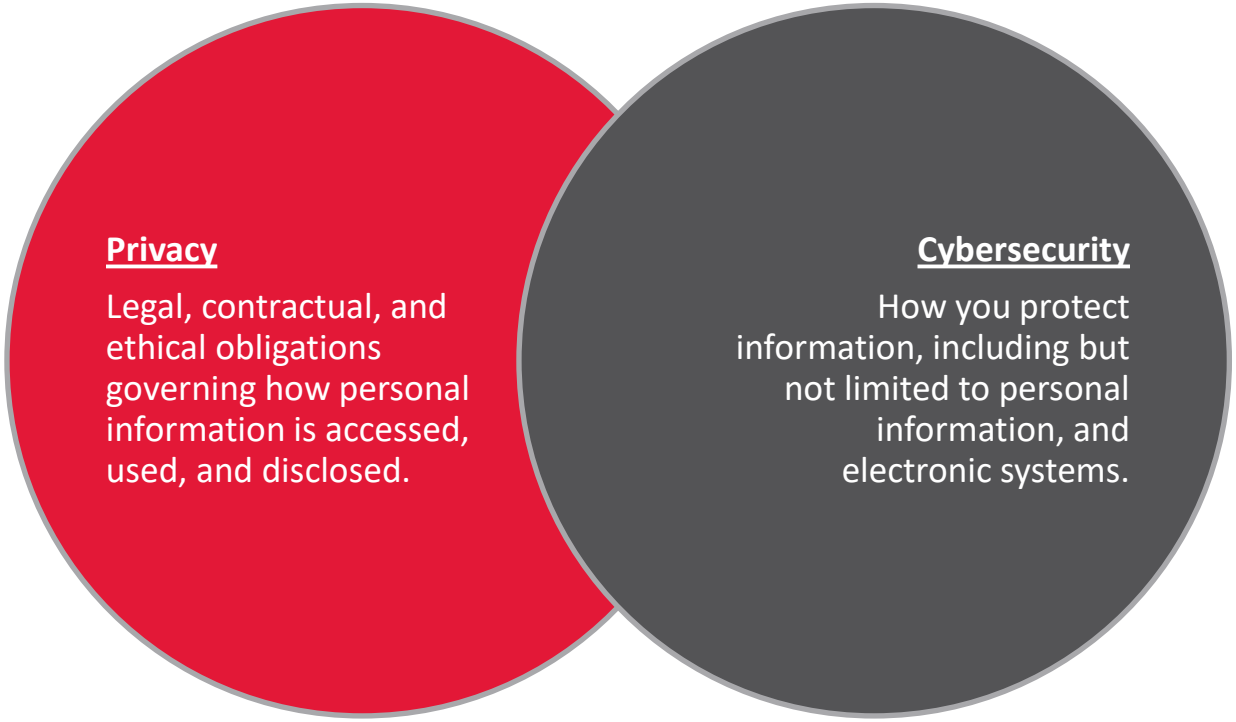
Simple Definitions



Governed by a patchwork of legal, industry and regulatory standards

DT and the Pandemic

- **Digital Transformation (DT) is the process of leveraging technology, people and processes to innovate and stay competitive.**

- **DT has led to businesses managing more than 10 times the quantity of data they did five years ago per a recent poll of 1,000 execs.**

- ***"We've seen two years' worth of [DT] in two months."***
  - Satya Nadella (Microsoft CEO, April 2020)

ATDT Fall Series: Session 1 Recap

- ***Navigating the Patchwork of Cybersecurity and Data Privacy Laws that Govern***
- **"Common Threads" Emerge**
  - Cybersecurity
    - Incident Response Plans (IRPs)
    - Risk Assessments (RAs)
    - Written Information Security Programs (WISPs)
  - Data Privacy
    - Privacy Policies and Procedures
    - Privacy Reviews, Data Privacy Impact Assessments (DPIAs)

CYBERSECURITY

Federal Trade Commission:

Ask: "What are the industry standards? Are we meeting them?"

Patchwork Common Threads

- Incident Response Plans (IRPs)
- Risk Assessments (RAs)
- Written Information Security Programs (WISPs)

IRPs – Key Elements

- Phase 1 – Accountability
  - Identify the Incident Response Team (IRT) and its duties.
- Phase 2 – Response Procedures
  - Define incident response procedures and incident severity classifications
- Phase 3 – Reporting and Notification
  - Identify legal and contractual obligations
- Phase 4 – Post-incident Response
  - Make sure IRP training, testing and review happens at least every six months

RAs – Key Elements

- Assess electronic systems at least once every 12 months and any internal and external risks to the security, confidentiality, or integrity of personal or sensitive information and systems

WISPs – Key Elements

- Evaluate and adjust the WISP in light of any changes to operations or business arrangements

DATA PRIVACY

General Data Protection Regulation (GDPR):

"The law asks you to make a good faith effort to give people the means to control how their data is used and who has access to it."

Patchwork Common Threads

- There is quite a lot at stake
  - The California Consumer Privacy Act (CCPA) has been amended by the California Privacy Rights Act and becomes operative in January 2023
  - New state laws have passed, Colorado Privacy Act (CPA), Virginia Consumer Data Protection Act (CDPA), and more are being considered
  - Federal laws continue to evolve and enforcement is expanding (e.g., SEC recently settled with app developer for $10 million)

Data Privacy Protections and Responses

- Privacy "readiness" assessments
  - Applicability analysis of state, federal and international privacy laws
  - Privacy risk assessment
- Legally defensible GDPR/CCPA compliance programs
  - Review and update existing policies and procedures
  - Prepare data protection impact assessments (DPIAs)
- Updates to Data Processing Agreements that reflect patchwork, including new EU Standard Contractual Clauses
- Regulators take cooperation into account
- Clarity is essential
- Both legislation and the technology to help address it will continue to evolve

ATDT Fall Series: Session 2 Recap

- ***Supply Chain Risk Management: a Cybersecurity and Data Privacy Imperative***

Source: OCC

Recent guidance from the Federal Reserve, FDIC and OCC, recommends certain best practices, including:

PLANNING

- Assess the nature of the vendor interaction and potential impact on your customers, employees, and partners
- Explain to the vendor how the organization will select, assess and oversee the vendor

DUE DILIGENCE

- Evaluate the vendor's ownership structure, and its legal and regulatory compliance history and capabilities
- Assess the vendor's financial condition – review financial statements, annual reports and public filings

CONTRACT NEGOTIATION

- Data protection agreements (DPAs) are the best ways to ensure vendors protect your data
- Cover all your data – not just personal data
- Embed a standards-based security questionnaire to learn about the vendor's security program
- Use straightforward language so that business and technical professionals on both sides of the deal can understand their obligations
- **Red flags:** low liability limits for cybersecurity incidents, a lack of transparency, or vague commitments to cybersecurity and data privacy

MONITORING

- Approve, or delegate, the responsibility of managing vendor contracts and reporting their status to management or the board
- Review the results of management's ongoing monitoring of third-party relationships involving critical activities

TERMINATION

- Evaluate the third party's financial condition and changes
- Review the adequacy of the third party's insurance coverage
- Review relevant audits and other reports from the third party

ATDT Fall/Winter Series

- ***The Internet of Things and the Cybersecurity and Data Privacy Laws Implicated***
  - Wednesday, Dec. 8, 2021
- ***ATDT Winter Series Preview***
  - February, March, April 2022 (dates TBD)
    - Blockchain, cryptocurrencies, and cybersecurity legal risks
    - Artificial Intel., digital assets, and data privacy legal risks
    - A roadmap to data privacy readiness, *e.g.*, the Cal. Privacy Rights Act, VA and CO's new laws, and updates from abroad (the EU and China)

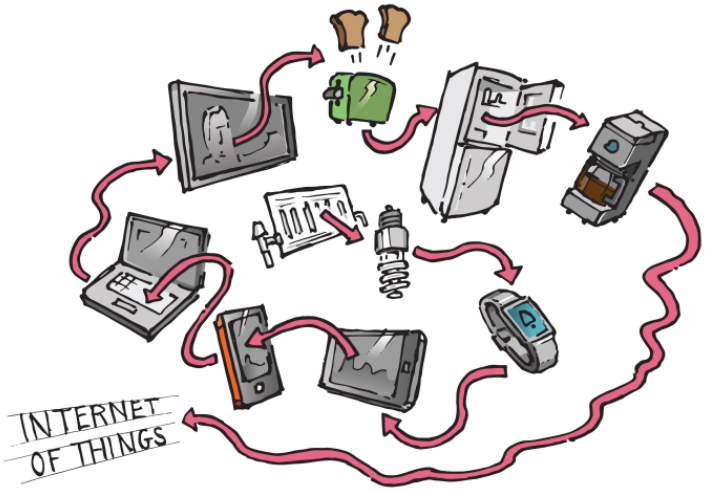
The Threat

Internet of Things

FTC Definition:

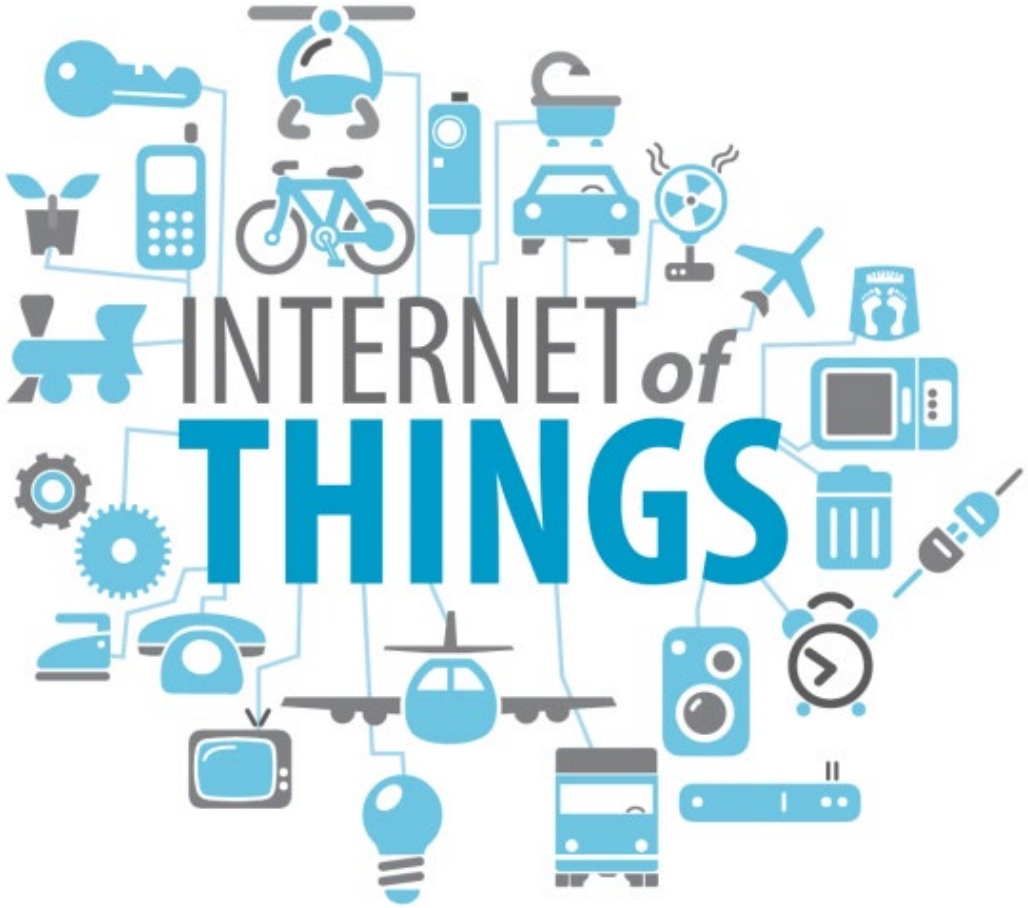
> ***The ability of everyday objects to connect to the Internet to send and receive data.***

- **Physical Objects**
- **Consumer Goods**



IoT: Benefits

- Data Collection
- Convenience
- Coolness Factor
- Others?



IoT Drawbacks, History

- **Zombiebots**
- **Opening holes in security**
- **Privacy Issues**
- **Product Liability Laws?**

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- **Started off with Sensors**
  - Carnegie Melon Coke Machine
- **Then to switches**
  - Remote locations
- **Gradually more and more complicated machines**

IoT Attacks – Cyber-Physical

- **Stuxnet**
  - Centrifuges
- **German Steel Mill**
  - “Massive damage to the system.”
  - “Unable to shut down a blast furnace in a regulated manner.”

What Happened?

- October 21, 2016: Massive Distributed Denial of Service (DDoS) attack
- Targeted a domain name system (*aka* translator)
- Massive amounts of junk data and traffic transmitted from multiple machines (256 billion bits per second)

IoT and Things to Keep in Mind

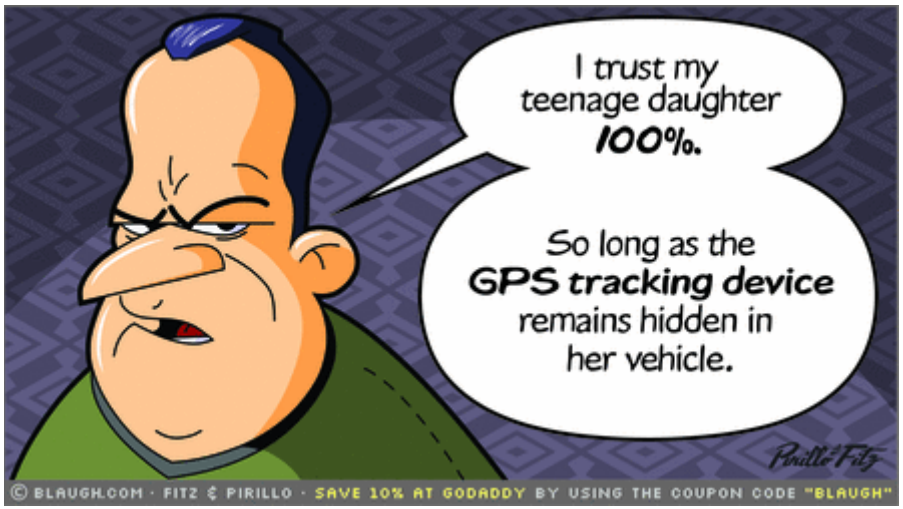
- **IoT is collecting extensive personal information about users:**
  - Location
  - Patterns of movement; speed
  - User preferences
  - Video
  - Audio
- **This information is useful and potentially available to others.**

IoT Data as Evidence

- Criminal Cases
- Divorce and Custody Cases
- Personal Injury Cases
- Noncompete Cases
- Employment Disputes
- Commercial Lawsuits

Laws and Regulations

IoT as a *Legal* Concern



Location: The Subject of Many Discovery Disputes

- **Installing a GPS tracking device on a vehicle to monitor the vehicle's movements constitutes a search under the Fourth Amendment.** *U.S. v. Jones*, 132 U.S. 945(2012)
- **New Jersey Court says it's okay for a wife to plant a GPS tracker in her soon to be ex-husband's vehicle.**
- **OnStar was tracking former subscribers until Senators publicly criticized.**
- **Insurance companies give discounts for voluntary GPS tracking.**

Why IoT Devices?

- Have processor and communication capability
- Usually, no internal security scanners
- Usually, minimal security
- Hard to detect compromise

Audio and Video: The Next IoT Frontier

- Bentonville, AR police sought a warrant for Amazon to had over audio records from an Echo device for use in a first-degree murder trial.
- Amazon declined; police say they were able to pull data off of the speaker itself.
- However, Amazon later provided the information after the Defendant agreed.
- SIDE NOTE: Another smart home device showed that 140 gallons of water were used between 1 a.m. and 3 a.m. the night of the incident in question (to wash away evidence?).

Big Difficulty in this Area of the Law:
Lack of Understanding of the Technology

"If I'm applying the First Amendment, I have to apply it to a world where there's an Internet, and there's Facebook, and there are movies like ... *The Social Network*, which I couldn't even understand ."

— Justice Stephen Breyer

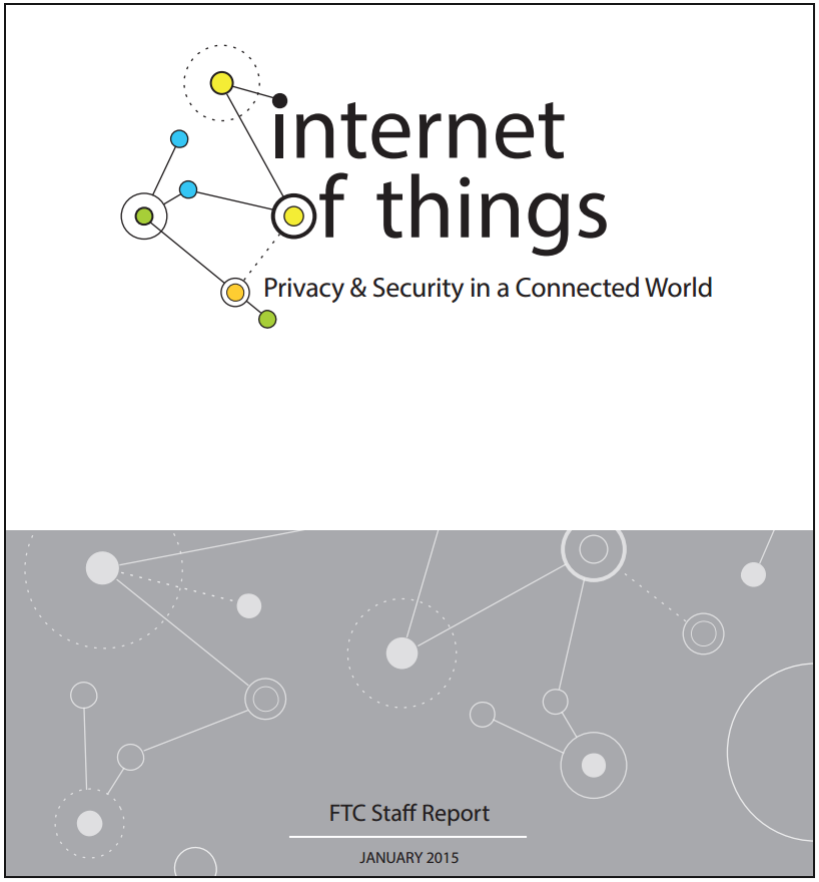
***Justice Roberts*:** "I thought, you know, you push a button; it goes right to the other thing."

***Justice Scalia*:** "You mean it doesn't go right to the other thing?"

— Justice John Roberts to Justice Antonin Scalia Regarding How a Text-Messaging Service Works

The Federal Trade Commission

- Hosted a workshop in 2013
- Published a Staff Report in January 2015
- Monitoring the issues, but not ready for legislation
- Sued for violations



IoT Cybersecurity Improvement Act

- Enacted Dec. 4, 2020.
- Mandates cybersecurity Standards and Guidelines for the acquisition and use of IoT devices capable of connecting to the Internet.
- While directly limited to those devices used by the Federal Government, also affects government contractors.
- Expected to have major spillover effect to private industry as well.
- National Institute of Standards and Technology (NIST) - SP800-213 – Issued November 2021.

What about the States?

- **In 2019, CA and OR passed IoT laws requiring reasonable security, including:**

  (a) a means for authentication from outside a local area network, including a:

  - preprogrammed password that is unique for each connected device; or
  - requirement that a user generate a new means of authentication before gaining first-time access; or

  (b) compliance with requirements of federal law or regulations that apply to security measures for connect devices.

Protections

You Should Implement

Incident Response Plans (IRPs)

- **Why it's necessary**
  - FTC: a reasonable plan, reasonably followed, may be the difference for a regulatory action.
  - SEC: recent enforcement actions have analyzed IRPs.
  - Federal Reserve/OCC/FDIC: 36-hour rule.
  - Insurance: an IRP is becoming mandatory by underwriters.
  - Reputational harm: consumers and other third parties increasingly intolerant of a botched response.
  - Business continuity: responding as important to survival than defending.

Risk Assessments (RAs)

- **FTC investigations typically ask:**
  - "Describe in detail any type of hacking incident or system compromise — including your internal or external network, and any other network configuration, devices, [and IoT]."
  - "Describe your RA process, including but not limited to how the nature and level of the risk is assessed and recorded, the frequency of RA, and how you respond to . . . identified risks [including for IoT]."

Responses

You Should Have Ready

Written Information Security Programs (WISPs)

- **Cybersecurity Laws**
  - Ohio, New York and Utah laws have WISP requirements as a 'safe harbor'
  - Oregon, Massachusetts and Rhode Island require WISPs, and that includes administrative, technical and physical safeguards
- **Organizations required to**
  - "evaluate and adjust the [Written] Information Security Program *in light of any changes to [your] operations or business arrangements* ...." i.e., emerging technologies, like IoT.

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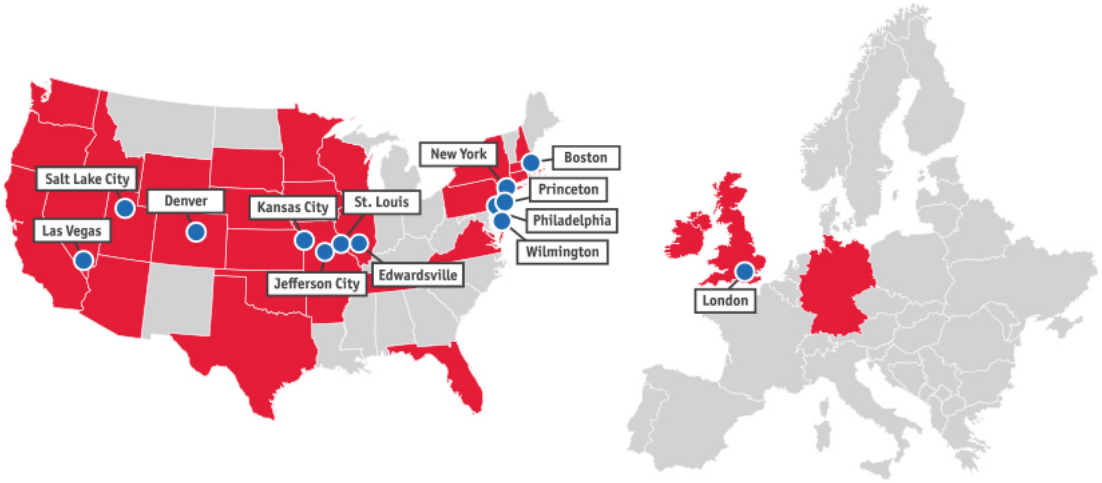

**As of Dec. 2021*

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