

New Cybersecurity, Cyber Insurance & Privacy Risks

Knowledge is Power
What You Need to Know to Mitigate These Risks

FENG Monthly Meeting

Tuesday, February 4, 2020 | 8-10am PricewaterhouseCoopers (PwC) Office 5375 Mira Sorrento Place, Ste 300 (3rd flr), San Diego, CA 92121

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CEO and Founder

Chief Privacy Consultant

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BIOS OF PRINCIPALS

Michael H. Cox, cipp/us

□ CEO/Founder, Chief Privacy Consultant, SoCal Privacy Consultants Previous experience Part-time Chief Privacy Officer, Pathway Genomics Corp. VP of Enterprise Risk Management, Goal Financial Business Risk Officer, Capital One Auto Finance VP of Operations – multiple organizations, including 2 Fortune 200 companies ☐ Certified Information Privacy Professional (CIPP/US) ■ Member of: International Association of Privacy Professionals (IAPP) IAPP Professional Privacy Faculty Lares Institute, privacy think-tank Co-author, Security chapter for HIMSS Good Informatics Practices (GIP)

■ Frequent speaker on privacy and security subjects

■ B.S., Business Administration, Virginia Tech

Neil R. Packard, CISA, CIPM

- □ Chief Security Consultant, SoCal Privacy Consultants□ Previous experience
 - Deputy Assistant Director, Federal Trade Commission
 - IT Specialist (Security), Office of Inspector General, Department of Veteran Affairs
 - Founder, e-Diligent, Inc. (e-discovery & forensics)
 - Director of Information Technology, Seltzer Caplan McMahon Vitek
- ☐ Certified Information Security Auditor (CISA)
- ☐ Certified Information Privacy Management (CIPM)
- Member of:
 - International Association of Privacy Professionals (IAPP)
 - Information Systems Audit and Control Association (ISACA)
 - InfraGard
- Business Administration, University of La Verne

About Us: SoCal Privacy Consultants

Educate – Assess – Operationalize - Transform Lean, sustainable and defensible privacy and security programs

| Private / | public customer-cer | ntric organizations in health | care, Internet, | technology services, | financial services, etc. |
|-----------|---------------------|-------------------------------|-----------------|----------------------|--------------------------|
| | | | | | |

- □ Conducts gap and risk assessments; and establishes programs for partners, service providers, and M&A buyers/sellers
- □ For an FTC consent order client, established multi-state information security programs and help pass four consecutive satisfactory biennial audits certifying compliance to the order

Today's Objectives

- Understand commonalties & differences between data privacy & data security
- Understand drivers influencing data breach costs
- Learn about ransomware: avg. ransom-demand, mitigations & insurance considerations
- Follow practical approach to developing "reasonable" cybersecurity posture
- Understand key legal obligations & operational impacts for complying with California Consumer Privacy Act (CCPA).
- Understand CCPA exemptions
- Understand implications of non-compliance with CCPA
- Learn what's in store with CCPA 2.0 & other state privacy bills
- Learn practical approach to complying with patchwork of state privacy laws
- Learn importance of data governance to achieving sustainability & how it is managed across privacy & security

Privacy Basics

Jan. 28 Data Privacy Day celebrated around the world

Privacy laws facilitate \$2.8 trillion international cross-border data flow

Terminology

| Term | Meaning | | |
|------------------------|--|--|--|
| DSARs | Data Subject Access Requests (GDPR term) | | |
| DPLC | Data Privacy Lifecycle – notice, collection, purpose, access, use, sharing, & retention / disposal | | |
| Data Mapping | Mapping DPLC data flow, data inventory & data locations (resources) | | |
| Resources | Products/services, processes, software/apps, databases, technologies, systems & external resources (service providers/3rd parties) containing/involving Pl | | |
| PbD / PIAs | Privacy-by-Design / Privacy Impact Assessments (DPIA or Data Protection Impact Assessment) | | |
| Privacy-by- Default | Strictest privacy settings automatically apply once a customer acquires a new product / service | | |

Differences: Privacy vs. Security

| Privacy | Security |
|---|---|
| Consumer focused | Data focused, includes Bus. Confid. |
| Consumer rights & choices | Data protection |
| Notice / transparency (informed) | IP, network & asset protection |
| Legitimate purpose / consent for collection, use, access, sharing & retention (DPLC management) | Confidentiality, integrity & availability |
| Authorized access governance | Unauthorized access |
| Laws, principles, context, reasonable consumer expectations/social norms & risk oriented | Standards & controls oriented |
| Includes security | Does not include privacy |
| Accountability / governance / trust | Often not included in standards |

What Does This Tell You about the Different Nature of Privacy & Security?

- Security standards generally strengthen over time due to new technologies & trying to stay ahead of threats
- □ Privacy as a concept is ever evolving due to new technologies, new contexts, new social norms, etc.
 - What may be creepy in one context may not be creepy in another context
 - What is acceptable changes over time

Ransomware Is Highly Disruptive

- Ransomware attacks are increasingly more rampant & vicious
- Average bitcoin demand was \$41,198 in 3rdQtr 2019 (more than tripled from 1st Qtr) & ever increasing
- Ransomware riders have increased cyber-insurance rates by as much as 25%
 - May be encouraging payouts & thus more ransomware
- Organizations have been still recovering 30 days later
- General cyber hygiene which we'll talk about & ability to rapidly restore systems
 - Must be regularly testing recoverability of systems
- Critical to identify early to mitigate damage

2019 Annual Cost of Breach Study by the Ponemon Institute

Targets breaches that **do not exceed 100,000 records** and thus *excludes catastrophic mega breaches*, e.g. Equifax & Facebook

| Avg. U.S. Data Breach Cost | | | |
|----------------------------|---------|---------------------------|--|
| 2006 | 2019 | Increase | |
| \$3.54M | \$8.19M | 130% over 14 years | |

Breach Impacts Can Be Severe

Avg. 2019 U.S. total data breach costs: \$8.19M (32,434 records/Ponemon Inst.)

- Operational resource disruption/distraction risk
 - CEOs lost 1-1.5 yrs of productivity winning back stakeholder confidence (interviews)
- Regulatory risk
- Legal risk
- Financial risk: avg. U.S. breach cost per compromised record: \$242
 - **Healthcare: \$408 / \$13.85M** (1.75Xs highest of any industry for 8th straight year)
 - Lost sales & business opportunities 12-22% avg. loss in brand value
- Brand/reputation risk: uninsurable & can be catastrophic to SMBs
- Officer & director liability risk on the rise

How many total consumer records do you have?

Breach Cost Considerations

- Lost business cost: 36.2% biggest cost factor last 5 years
- Chance of experiencing a data breach within 2 years: 29.6%
- SMBs face disproportionately larger breach costs relative to larger organizations hampering their ability to recover financially
 - Largest organizations (25,000+ employees) averaged \$204 per employee
 - SMBs (500 1,000 employees) averaged \$3,533 per employee

General Factors Affecting avg. Breach Cost per Record

- Unexpected loss of customers following a data breach
- Size of data breach: number of records compromised
- ☐ Time it takes to identify & contain a data breach
 - Average time to identify a breach: 196 days
 - Average time to contain a breach: 49 days (245 days total)

Globally, breaches with lifecycle less than 200 days were on average \$1.22M less costly than breaches with lifecycle of more than 200 days (\$3.34M vs. \$4.56M respectively), a difference of 37%

- Effective management of:
 - Detection & escalation costs
 - Post data breach costs

Factors Decreasing avg. Cost per Record

| Cost Mitigators | \$ | Cost Mitigators | \$ |
|--|-----------|--|-----------|
| Formation of the IR team | \$360,000 | Use of security analytics reducing human intervention | \$200,000 |
| Extensive use of encryption | \$360,000 | Board-level involvement | \$180,000 |
| Extensive tests of the IR plan | \$320,000 | Extensive use of DLP | \$180,000 |
| Business continuity management | \$280,000 | CISO appointed | \$180,000 |
| DevSecOps approach in design & testing | \$280,000 | Insurance protection | \$160,000 |
| Employee training | \$270,000 | Data classification schema | \$130,000 |
| Participation in threat sharing | \$240,000 | CPO appointed | \$50,000 |
| Artificial intelligence incident detention & response platform | \$230,000 | Identity theft protection provided compromised consumers | \$10,000 |

Companies without automated incident detection & response had 95% higher costs
Cost decreases are based on global costs, so U.S. cost savings would be greater

Factors Increasing avg. Cost per Record

| Cost Amplifiers | \$ |
|-----------------------------------|-----------|
| Third-party breach | \$370,000 |
| Compliance failures | \$350,000 |
| Extensive cloud migration | \$300,000 |
| System complexity | \$290,000 |
| OT infrastructure | \$260,000 |
| Extensive use of mobile platforms | \$240,000 |
| Lost or stolen devices | \$180,000 |
| Extensive use of IoT devices | \$160,000 |
| Rush to notify | \$150,000 |
| Consultants engaged | \$110,000 |

Cost increases are based on global costs, so U.S. cost increases would be greater

Long Tail Breach Costs

- In a sample of 86 companies -
 - Average of 67% of costs incurred within 1st year
 - 22% of costs incurred in 2nd year
 - 11% of costs occur more than 2 years after data breach
- Organizations in high regulatory environments experienced a longer tail
 - 53% in 1st year
 - 31% in 2nd year
 - 16% more than 2 years after incident

Ponemon: Recommendations to Help Minimize Financial Consequences of a Data Breach

- ☐ Have an **incident response team & routinely table-top test** incident response plans in various breach scenarios (have detailed playbook)
- Programs that preserve customer trust pre- & post-breach will help reduce unexpected loss of customers following a data breach
- Discover, classify & obscure/encrypt sensitive data & identify database misconfigurations (vulnerability scanning, etc.)
- Invest in technologies that help improve ability to rapidly detect & contain a data breach (increased visibility across extended perimeter)
- Invest in governance, risk management & compliance programs
- Beware of IT complexity & disconnected security solutions (use <u>CASBs</u> with cloud services, provide IoT & mobile security, etc.)

CCPA Powerfully Boosts Class Action Risk

When "nonencrypted and nonredacted" PI is "subject to an unauthorized access and exfiltration, theft, or disclosure

as a result of the business's **violation of** the **duty** to implement and maintain **reasonable security** procedures and practices

appropriate to the nature of the information to protect the information"

Private Right of Action's PI Definition

More limited scope of PI were it to be compromised could lead to reportable breach

- Private right of action applies to breach of the following (when not encrypted or redacted):
 - 1st name/initial & last name in combination with:
 - Gov't identifiers: SSN; driver's license # or CA ID card #; Tax ID #; passport #; military ID #; etc.
 - Financial account #; credit/debit card # (in combination with required security/access code or password)
 - Medical info; health insurance info
 - Biometric data generated from measurements or technical analysis of human body characteristics (e.g. fingerprint, retina, or iris image) used to authenticate a specific individual
 - specifies that for breaches involving biometric data, the reporting entity must provide "instructions on how to notify other entities that used the same type of biometric data as an authenticator to no longer rely on [that] data for authentication purposes"
 - Username/email address in combination with password or security question & answer permitting access to online account

Data sensitivity drives a risk-based approach

Determines strength of controls based on data sensitivity levels

| Quartile | 4 Data Sensitivity Classifications | Examples |
|----------|---------------------------------------|---|
| 4 | Highly Sensitive | 1st name/initial & last name plus any of following: gov't issued ID # (SSN, passport ID#, state ID#, driver's license#, tax ID#, birth/marriage certificate), W-2, health insurance ID#, genetic info (defined by GINA), medical/health info (medical history, physical/mental condition, test results, diagnosis, treatment/medications), background check info, biometric data/record or identifiers, digital signature, precise geo-location data username/ID or email address w/password or common security question answers (mother's maiden name, DOB, place of birth) financial acct # or payment card info plus any required security/access code or password |
| 3 | Sensitive | PII that does not fall into highly or less sensitive PII groups, such as other personally identifiable dates, vehicle ID/serial #, other unique ID#/characteristic/code, non-precise geo-location data, other personnel file info |
| 2 | Slightly Sensitive | published contact info: name plus address, phone#; email address, fax#, instant message user ID, URL address, IP address, photo/video/audio file, persistent device/processor/serial ID; any other PII used for marketing purposes (see CA's "Shine the Light Law") |
| 1 | Non-Sensitive | non-personal information, such as session identifiers/cookies |

Examples – adjust processes based on data sensitivity levels, e.g. pre-contract due diligence and periodic monitoring of BAs, roles-based access controls (RBAC)

"Reasonable" (& Defensible) Security

- 96-99% of breaches avoidable by simple & intermediate controls (Verizon DBIRS)
- Select comprehensive set of standards: ISO 27001-2:2013 + Top 20 CSCs
 - □ CA State AG Office's Feb. 2016 CA Data Breach Report: "failure to implement all the Top 20 (Critical Security) Controls that apply ... constitutes a lack of reasonable security" and "define(s) a minimum level of information security ..."
 - Matches well with root causes of breaches, but is not a comprehensive framework
- Ohio: 1st state to pass cybersecurity safe harbor law inoculating businesses proving compliance to recognized security standards

Top 20 Critical Security Controls v.7.1 (4/01/2019)

Matches well with common root causes of breaches & is updated every couple of years

Basic CIS Controls

- 1. Inventory & Control of Hardware Assets
- 2. Inventory & Control of Software Assets
- 3. Continuous Vulnerability Assessment & Remediation
- 4. Controlled Use of Administrative Privileges
- 5. Secure Configuration for Hardware & Software on Mobile Device, Laptops, Workstations & Servers
- 6. Maintenance, Monitoring & Analysis of Audit Logs

Foundational CIS Controls

- 7. Email & Web Browser Protections
- 8. Malware Defense
- 9. Limitation & Control of Network Ports, Protocols & Services
- 10.Data Recovery Capabilities
- 11. Secure Configuration for Network Devices, such as Firewalls, Routers & Switches

- 12. Boundary Defense
- 13.Data Protection
- 14. Controlled Access Based on Need to Know
- 15. Wireless Access Control
- 16.Account Monitoring & Control

Organizational CIS Controls

- 17.Implement a Security Awareness & Training Program
- 18. Application Software Security

19.Incident Response & Management20.Penetration Tests & Red Team Exercises

Now includes **implementation group tiers**: **1**. SMB w/ limited IT/cybersecurity resources (crawl/walk - <u>43</u> subcontrols); **2**. Moderate SMB with individuals responsible for managing/protecting IT infrastructure w/ regulatory compliance burdens (run - 139); **3**. Larger mature organizations employing multiple cybersecurity experts (171).

NY's SHIELD Act Defines Reasonable Security effective 3/2020

- Administrative Controls (NY General Business Law § 899-aa & State Technology Law § 208)
 - 1. designates one or more employees to coordinate security program
 - 2. identifies reasonably foreseeable internal & external risks
 - 3. assesses sufficiency of safeguards in place to control identified risks
 - 4. trains & manages employees in security program practices & procedures
 - 5. selects service providers capable of maintaining appropriate safeguards, & requires those safeguards by contract
 - 6. adjusts security program in light of business changes or new circumstances

Technical safeguards

- 1. assesses risks in network & software design
- 2. assesses risks in information processing, transmission & storage
- 3. detects, prevents & responds to attacks or system failures
- 4. regularly tests & monitors effectiveness of key controls, systems & procedures

Physical Safeguards

- 1. assesses risks of information storage & disposal
- 2. detects, prevents & responds to intrusions
- 3. protects against unauthorized access to, or use of, private information during or after the collection, transportation & destruction or disposal of the information
- 4. disposes of private information no longer needed for business purposes within reasonable amount of time, by erasing electronic media so information cannot be read or reconstructed

Private right of action for actual damages; AG fines for delayed notice A small business with fewer than 50 employees, less than \$3M in annual revenue in each of last 3 fiscal years, or less than \$5M in year-end total assets will be deemed compliant if data security program is appropriate in light of size & complexity of business, nature & scope of its activities, & sensitivity of PI collected

Reasonable Security: FTC's Data Security Orders

2019 New and improved data security orders



- Specific requirements
- Increase third-party assessor accountability
- Elevate data security considerations to C-Suite & Board

"Reasonable" (& Defensible) Security

- Follow AWS Shared Responsibility Model
- Conduct periodic controls evaluation against standards/controls
 - Identify exceptions based on specific compensating controls
- Conduct periodic risk assessment with x-functional team
 - Identify material risks & corresponding mitigation plans
 - Prioritize & track timely completion of mitigation plan
- Use encryption & redaction everywhere a breach "safe harbor"
- Use **data minimization practices**, e.g. data masking, deidentification, pseudonymization, minimum necessary, etc.
- Review/test your incident response plan
- Monitor critical activities, e.g. patching
- **Document** all of this in a restricted repository

Cyber Insurance *Limited in Protections*

- No established standards, so policies vary widely
- Cyber insurance coverage includes many exclusions & limitations, e.g. caps
 - Attack traced to certain nation-states excluded as "acts of war"
 - Intentional acts, e.g. business email attacks, such as phishing
 - Fines & penalties
- A savvy broker or specialist cyber insurance lawyer should be able to explain exclusions & limitations and may recommend *additional coverage* if desired
- After a breach, many insureds & their insurance carriers have sued & countersued each other over coverage issues
- Also, ensure compliance to any representations made in any cyber insurance application and/or reps and warrants in the policies regarding things such as encryption, period risk assessments, timely patching, etc.
 - Failure to adhere to these will likely void the policy
 - Ensure representations are defined as requirements in policies/procedures

Mature Privacy Programs Experience Higher ROI

Getting \$270 on \$100 is probably one of better investments you can make

Cisco study - "From Privacy to Profit: Achieving Positive Returns on Privacy Investments"

- Benefits
 - Reduces business development delays
 - Mitigates losses from data breaches
 - Enables agility & innovation
 - Makes company attractive to investors
 - Builds customer loyalty & trust
 - Achieves operational efficiency from data controls
- Progress rated: Centre for Information Policy Leadership's Accountability Wheel (1-5 scale)
 - 1. Leadership & Oversight
 - 2. Risk Assessment (including DPIA)
 - 3. Policies & Procedures (including Fairness & Ethics)
 - 4. Transparency
 - 5. Training & Awareness
 - 6. Monitoring & Verification
 - 7. Response & Enforcement
 - Biggest ROI discrepancies based on maturity of organization's privacy program (not co. size)
 - \$2.70 ROI for every \$1 spent for companies rated 1-3 (U.S. \$2.60, UK \$3.50, \$1.9 lowest)
 \$3.10 ROI for companies rated 4+



Background: CCPA & GDPR

- □ GDPR comprehensive & very complex/specific
 - Negotiated over 4 years
 - Published 2 years in advance
- □ CCPA not comprehensive & lacks some clarity
 - Negotiated in less than a week to avoid ballot initiative
 - Published 1.5 years in advance of enforcement
 - But is a continually moving target

CCPA Is Continually Evolving

Privacy Notices, P&Ps and Training Require Frequent Updating to Comply

- □ CCPA v1.3
 - Amended in 2018 & 2019
 - Other bills under consideration will likely amend CCPA
 - CA AG released draft regulations Oct. 10 prior to 2019 amendments
 - 4 public hearings Dec. 2, 3, 4 & 5
 - 45-day comment period ended Dec. 6
 - Final regulations likely by spring/summer 2020
 - Updated to include comments & 2019 amendments
 - One additional regulation required by CCPA in 2020
 - AG has general rulemaking authority
- CCPA v2.0 CA fall ballot initiative will further strengthen CCPA

CCPA: Accountability Model for Privacy

Can outsource functions & activities, but not responsibility!

| Party | Role | Accountability | | |
|---|---|--|--|--|
| Consumer Individual – state laws Patient - HIPAA Data subject – EU | Has data rights | Exercise rights (control) | | |
| Business - for profit - Covered entity - HIPAA - Data controller - EU | Trusted organization | Defines data collected & purposes & means of processing - responsible thru-out delivery chain | | |
| Service provider - Bus. associate - HIPAA - Data processor – EU | Subcontractor | Processes strictly on behalf of data controller pursuant to certain contractual limitations - responsible for own security practices & supports rights fulfilment - has direct liability | | |
| 3rd partiesNew responsible party | Ad networks, data brokers, social networks & data analytics providers | Any other person/entity receiving PI from & under control of business or service provider – for valuable consideration, must offer an opt-out from "sale" | | |

CCPA Applicability & Impact

As 5th largest economy, CA will influence global privacy practices

- Applicable to "for profit businesses" (data controllers)
 - Greater than \$25M in gross annual revenue,
 - Annually handle PI of 50,000+ consumers or households, or
 - Derive 50% or more of annual revenue from "sales" of PI
- Applies to many SMBs (IAPP estimates):
 - 500,000+ U.S. & 135,000+ CA businesses
 - Underestimates impact on smaller downstream businesses
- 137 unique CA website visitors/day = 50K CA consumers
 - Collecting data via cookies is within broad definition of PI

CCPA: Who Is Protected?

- □ Consumers: natural persons who are CA residents (customer business relationship not necessary) including:
 - Company visitors, tenants, students, parents, children, etc.
 - Employees/independent contractors & job applicants
 - BTB contact individuals
- □ Scope: entities processing data from CA consumers, including employers
 - Regardless of whether firm is physically located in CA

Enforcement with Large Civil Penalties

- Exclusively enforced by <u>CA Attorney General</u>
 - If fail to cure within 30-day cure period face penalties:
 - Up to \$2,500 for each violation per consumer, or
 - Up to \$7,500 for each intentional violation
 - Also subject to an injunction
 - 20% of penalties collected to fund enforcement
- To avoid statutory damages provide substantive evidence of compliance

Right to Sue for Large Civil Damages

- Individuals can bring a civil action
 - Greater of statutory damages of \$100-\$750 or actual damages per consumer per incident (\$75M/100,000 consumers)
 - Applies only to "data breach" violations & not technical violations of Act as a whole
 - Definition of breached PI is narrower than CCPA's PI definition
 - If consumer provided 30-day written notice & business has not provided "express written statement" that violation is cured & "no further violations (will) occur"
 - Can sue if business continues to violate based on written statement
 - For actual (quantifiable) damages, no notice required

CCPA: Incredibly Broad Definition of PI

11 categories of PI to extent identify, relate to, describe, reasonably capable of being associated with, or could reasonably be linked, directly or indirectly, to a particular consumer or household

Identifiers

real name/alias, postal/email address, phone#, IP address, account name/#, SSN, driver's license#, passport#, signature, insurance policy#, or other similar identifiers

Commercial information

records of personal property & products/services purchased, obtained or considered, or other *purchasing & consuming histories & tendencies*

Biometric identifiers

DNA, biological/behavioral data, sleep, health & exercise data (gait)

Characteristics of a protected class under CA or Federal law

race, national origin, ancestry, marital status, sex, gender (sexual orientation), age, religion, physical or mental disability or other medical condition

Internet or other electronic activity information

browsing & search history, & info re: a consumer's interactions with a *website, application or advertisement*

CCPA: Incredibly Broad Definition of PI

11 categories of PI to extent identify, relate to, describe, are capable of being associated with, or could reasonably be linked, directly or indirectly, to a <u>particular</u> consumer *or household*

| Unique persistent identifiers that recognize a consumer or family over time & across different services | device identifier; IP address; cookies, beacons, pixel tags, mobile ad identifiers & similar technology, customer#, unique pseudonym or user alias; other forms of persistent or probabilistic identifiers used to identify a particular consumer or device | |
|---|---|--|
| Geolocation data | precise geolocation can be highly sensitive data | |
| Audio, electronic, visual, thermal, olfactory or similar information | voice recordings, transcriptions, keystrokes, etc. | |
| Professional or employment- related information | job applicants, benefits, compensation, performance reviews, education/resume (one-year moratorium) | |
| Inferences drawn | profile of preferences, characteristics, psychological trends, predispositions, behavior, attitudes, intelligence, abilities & attitudes | |

CCPA: Aggregate & De-identified Data Is Not PI

| Information | Meaning |
|----------------------|---|
| Aggregate | information that relates to a group or category of consumers, from which individual consumer identities have been removed and is " not reasonably linkable " to a consumer or household (household means a person or group of persons occupying a single dwelling) |
| De-identified | information that cannot reasonably identify, relate to, describe, be reasonably capable of being associated with , or be linked , directly or indirectly , to a particular consumer (eliminates "key-coded" data) |

CCPA requires 4 safeguards to prohibit/prevent reidentification

CCPA: 4 Required Safeguards to Prevent Reidentification

1. Implement technical safeguards prohibiting reidentification

a. Collaborate with qualified statistician to establish enterprise-wide deidentification rules for the removal of certain PI data types.

2. Implement business process specifically prohibiting reidentification

a. Develop an internal policy/procedure preventing employees and service providers (include in addendum) from attempting to reidentify data.

3. Implement business processes to prevent inadvertent release of deidentified information

a. Establish training and other safeguards to help prevent de-identified information from being accessed or acquired by unauthorized parties.

4. Make no attempt to reidentify the information

a. Properly sanction personnel who violate policies enacted to prohibit reidentification

Don't Use Terms: Anonymous or Anonymized

Recent study published in Nature Communications -

- 99.98% of Americans re-identifiable from any "anonymized" data set using only 15 demographic attributes (recent study)
- 83% re-identifiable using only gender, DOB & ZIP code
- Calls into question whether any data set can be truly anonymized

Source: https://www.jdsupra.com/legalnews/is-anonymized-data-truly-safe-from-re-55837/

CCPA Privacy Notices Practices

Many specific requirements for notices / statutory penalties for failure to disclose

- Privacy notice availability
- Data mapping facilitates accurate privacy notices
- Privacy notice frequency of update requirements
- Cookie policy
- General privacy notices readability requirements
- 4 Types of Consumer Notices
 - Just-in-time notice at/before time of collection of PI
 - Just-in-time notice of financial incentive(s)
 - Notice of right to opt-out of sale of PI
 - Privacy notice with specific rights and other disclosures

Cookie (basics) policy

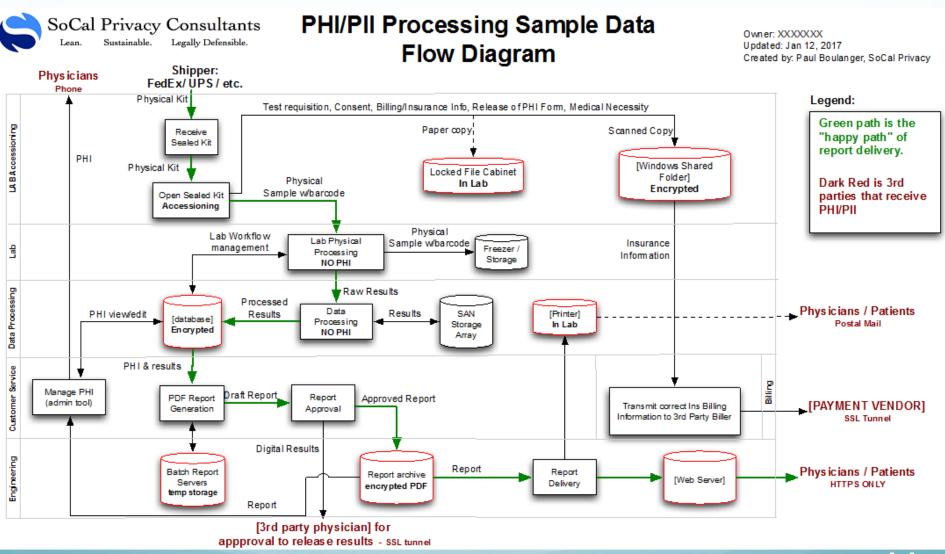
- Conduct cookie audit (open source tools)
- ☐ Identify/deactivate non-essential persistent cookies (not necessary for performance of website functionality, ecommerce)
- Inform online privacy notice's disclosures
- ☐ Inform just-in-time notice/disclosure & express opt-in
 - No pre-checked boxes
 - No implied consent by continuing to use site (EU)
 - No website blocking after refusing to accept cookies (EU)

Data Mapping Is Critical for Data Discovery & Inventory and Rights Management

- □ Data map & update immediately:
 - Before Jan. 1, 2020
 - Annually thereafter (12 mo. lookback)
 - Before any changes to data types collected or its use and other required notice disclosures
- Update privacy notices based on data mapping
- Establish governance -
 - DPLC owners to maintain data map accuracy
 - DSAR coordinator to log, track & respond to DSARs
 - Also <u>report</u> metrics to privacy official & governance committee
 - Resource/data custodians to retrieve/delete/port PI

Sample Data Flow Diagram

Our Data Mapping whitepaper is in IAPP's Resource Center available to 50,000+ global members



Resource & Data Inventory

Data inventory / data sensitivity level & resource owners / custodians for each resource

| Data Resource Map: | (Name of DPLC) | Also create a service provider |
|--------------------|----------------|--------------------------------|
| Document Owner: | | & third party inventory |

| Data Locations | Database | Shared folder | Вох | Share Point | File cabinet | AWS S3 |
|--------------------|-------------------------------|------------------|---------------------|-----------------|-----------------------------|---|
| Resource owner | J Dunbar | J Dunbar | A Spellman | J Dunbar | J Dunbar | A Spellman |
| Resource custodian | M Marks | P Mann | C Grant | P Mann | D Rossi | M Mitchel |
| Data inventory | | | | | | |
| • Data identifiers | Acct#, DL#, Name, Password | Photo, Name | Acct#, Name, GPS | Device ID, Name | Name, Address, Signature | Acct#, Name, PW, Photo, Device ID |
| Classification | | | | | | |
| Highly sensitive | Χ | | Χ | | | X |
| • Sensitive | | | | Χ | | |
| Slightly sensitive | | Χ | | | Χ | |
| Non-sensitive | | | | | | |

- Develop at the end of data mapping session add as many columns / rows of columns as necessary
- List all data identifiers for each resource
- Identify highest data sensitivity level which determines required strength of controls

Process Inventory Analysis

Akin to Record of Processing Inventory (ROPA) Required by GDPR

| | А | В | C | D |
|----|-------------------------------|--|---|---|
| 1 | | [Company Name] | Revision: 01/29/2020 | Justification Owner |
| 2 | Record of Proce | essing Activities (ROPA) - legitimate business | purpose justification | |
| 3 | DPLC Process | Sub-process Steps | Processing Purpose | CCPA Lawful Processing Rationale |
| 4 | Activity Tracking/Re | ecording | | |
| 5 | | Record IoT device information | Store recorded data on IoT device | Purpose consistent w/ consumer Notice/Consent |
| 6 | | Record IoT device information | Transmit recorded IoT device information to company data storage (AWS/DataCenter) | Purpose consistent w/ consumer Notice/Consent |
| 7 | | QA Review | Transfer data records for quality assurance review | Purpose consistent w/ consumer Notice/Consent |
| 8 | | Aggregate Data | 3rd party data transfer | Purpose consistent w/ consumer Notice/Consent |
| 9 | | Customer Portal Data Access | Customer data access and reporting | Purpose consistent w/ consumer Notice/Consent |
| 10 | | Customer Data Transfer | SFTP | Purpose consistent w/ consumer Notice/Consent |
| 11 | | | | |
| 12 | Productivity & Com | pliance | | |
| 13 | | Data Analytics | Transfer data to Tableau to perform data analytics and reporting | Purpose consistent w/ consumer Notice/Consent |
| 14 | | Customer Report Delivery | Transmission of customer reports | Purpose consistent w/ consumer Notice/Consent |
| 15 | B2B | | | |
| 16 | | Lead Generation | Contact information input to service provider webform | B2B Contact Info w/in context of provision/receipt Goods/Services |
| 17 | | Salesforce Sync (API) | Service Provider contact information transfer to Salesforce | B2B Contact Info w/in context of provision/receipt Goods/Services |
| 18 | | Telemarketing | Contact information correction/update | B2B Contact Info w/in context of provision/receipt Goods/Services |
| 19 | Human Resources | | | |
| 20 | | Candidate Intake | Submission of applicant information to HRIS | Employee Data use consistent w/employment context & Notice |
| 21 | | Pre-screening Candidates | Review of applicant information in HRIS | Employee Data use consistent w/employment context & Notice |
| 22 | | In-person Interview process | Interview of candidates by hiring managers | Employee Data use consistent w/employment context & Notice |
| 23 | | Offer Extended Process | Offer sent to candidate | Employee Data use consistent w/employment context & Notice |
| 24 | | Post Offer - Backgrd check | Candidate personal information input to BCheck Cloud portal | Employee Data use consistent w/employment context & Notice |
| 25 | | Onboarding | Identity and employment eligibility verification | Employee Data use consistent w/employment context & Notice |
| 26 | | Access Badge creation Brivo | Collection of employee photo image for access badge/card | Employee Data use consistent w/employment context & Notice |
| 27 | | Badge Creation | Creation of an access badge/card | Employee Data use consistent w/employment context & Notice |
| 28 | | | | |

CCPA Basic Consumer Rights

Requires a process similar to GDPR's Data Subject Access Request (**DSAR**)

- Right to know
 - Privacy notice
 - Just-in-time notice with abbreviated disclosures at or prior to collection
- Right of access & data portability
- Right to request deletion with certain exceptions
- Right to opt-out of "sale" of PI & for children to opt-in
- Right to equal service/price (anti-discrimination) for exercising rights

Other CCPA Internal Business Impacts

- Also data map & establish governance around these DPLCs, e.g. establish resource owners/custodians, honor rights, etc:
 - BTB Contact Information (CRM: marketing, sales & bus dev)
 - 1-year moratorium for data involving providing/receiving a product/service or due diligence
 - Must still comply with **Do Not Sell** obligations
 - Private right of action still available for breaches
 - Carve-out does not affect marketing communication or other BTB communications that do not involve receiving/providing a product/service

Employee Data

- 1-year moratorium for data used in employment context
- Employee privacy notice still required (includes job applicants)
- CCPA applies for employee data used outside employment context
- Private right of action still available for breaches evaluate security

CCPA Exemptions Not All Encompassing

General applicability, independent of industry sector with certain exceptions

- Non-profits with exceptions
- Federal privacy laws
 - HIPAA/CMIA covered entities (CEs) not BAs at this time
 - PI (defined by CCPA) exempted to extent treated in same manner as PHI
 - Federal "Common Rule" clinical trials following certain good clinical practice guidelines
 - Excludes research for commercial purposes bill may change this
 - GLBA entities
 - Are subject to CCPA when engage in activities outside of GLBA
 - FCRA & DPPA

CCPA Service Provider & Third Party Management

| Term | Meaning | | |
|--|--|--|--|
| Service Provider – Subcontractors | An entity that <i>receives PI from</i> a data controller & processes that PI strictly on behalf of data controller <i>pursuant to certain contractual terms</i> . For any entity to be considered a service provider, it must agree to certain contractual restrictions or by default it becomes a data controller or third party with greater obligations. Thus, service providers should either sign a proper CCPA Service Provider Addendum or agree to update the master services agreement to incorporate these restrictions. | | |
| Third Party - Ad networks, data brokers, social networks & data analytics providers | Any other person/entity, other than a data controller or service provider, receiving PI from and under control of data controller or service provider. When valuable consideration is involved, a "Do Not Sell My Personal Information" or "Do Not Sell My Info" opt-out ("opt-out") link must be offered. Given CCPA's definition, third party takes on a different meaning than how it has been used in the past and does not include service providers. 2020 CA ballot initiative: opt-in for PI sold or used for advertising purposes Organizations are moving away from behavioral ads to contextual ads Follow ad self-regulatory agencies, e.g. Interactive Advertising Bureau (IAB) | | |

Mature CCPA Privacy Program P&Ps

- Privacy Operations Practices
- Privacy Notices Practices
- Privacy Choice & Consent Practices
- Consumer Rights Requests (DSARs)
 - DSAR Submission & Verification
 - DSAR Coordination, Timeframes, Response & Record-keeping
 - DSAR Disclosure Fulfillment Requirements
 - DSAR Request Webform
- Service Providers & Third Parties Management
 - CCPA Service Provider Addendum
- Employee Data Privacy Practices
- B2B Contact Information Privacy Practices
- Training Program

Highlights: How CCPA 2.0 Expands CCPA

Effective Jan. 1, 2021 with deadline for final regulation one year later

Bumps threshold: buying/selling/sharing/collecting PI to 100,000+ CA consumers (274/day) □ 12-month disclosure extended over more periods as long as isn't unduely burdensome □ New California Privacy Protection Agency enforces privacy laws & impose fines □ Requires disclosure of use of **automated decision-making** (performance at work, economic situation, heath, personal preferences, etc.) & allows certain opt-out rights with respect to such use Creates sensitive PI category (sex life/sexual orientation, private communications, health status, geolocation, religion, race, finances, biometrics, etc.) CA consumers receive enhanced rights, e.g. opt out of its use in marketing/advertising Creates additional protections for PI of children, including \$7,500 fine for violations if have actual knowledge that affected consumer is under 16 years of age ☐ Mandates further disclosure obligations & reinforces must follow own disclosures ☐ Must disclose reasons for types & amount of PI collected & how long retained (GDPR-like) ■ **Specifies** use of PI for purposes other than those disclosed, retained for longer than stated, or collected more information than was needed to offer relevant service/product

would be in violation

CCPA's Key Operational Impacts

- Apply CCPA with CA residents only or across the U.S?
- Grasping expanded PI definition, 11 PI categories & covered data set
 - Deidentification rules may require <u>qualified</u> statistician validation
- Establishing clear roles & responsibilities for privacy governance
 - Privacy Official, DSAR Coordinator, Resource Custodian, etc.
- Heavy roles-based training of many different groups
 - Awareness training alone will not operationalize CCPA compliance
- Creating & maintaining data mapping before changes occur
 - Requires DPLC process owner role & responsibilities
- Maintaining accurate/real time privacy notices & just-in-time notices
 - Including employee/<u>job applicant</u> privacy notice
 - Actively manage & account for cookies in notices

CCPA's Key Operational Impacts

- Providing appropriate opt-outs/ins, suppression & tracking
 - Determining when PI is "sold" (valuable, not monetary, consideration)
- Operationalizing DSAR process deletion, portability, etc.
 - DSAR designated methods for submission & verification requirements
 - Authorized agents registered with CA
 - DSAR coordination, timeframes & record-keeping requirements
 - DSAR disclosure fulfillment requirements
 - Unstructured data & household data
- Anti-discrimination requirements for discounted products/services
- Properly managing service providers & third parties
- Qualifying for exemptions: HIPAA, GLBA, etc.
- Protecting crown jewels with "reasonable security" (increased class action risk)
- Complying with final/future regulations, future amendments & CCPA 2.0

In Sum

- ☐ State of perpetual & every increasing cyber warfare
- Social media hammers the ill-prepared
- ☐ Class action lawsuits on the rise
- Statutory penalties for violations
- Compliance alone is not enough
- Cyber insurance may provide partial or no coverage
- ☐ Willful neglect or **good-faith** efforts?
- ☐ Privacy & security are **business risks & objectives** (not compliance risks)

Be Prepared!

- Business partner and M&A due diligence requirements
 - CCPA requirements
 - Increasing cybersecurity requirements
- Early adopters have competitive advantage
- Part of Trust equation:
 - Privacy is a customer expectation
 - Thus, Privacy/Security-by-Design is a functional requirement of services, products, processes, etc.
- □ Requires defensible & sustainable program of policies/SOPs, governance & embedded practices

Mature Program Sustainability Requirements

Mature Program Requires Sustainability

- Sustainable (NIST: repeatability)
 - Most clients have ad-hoc or risk informed practices
 - Goal: establish repeatable practices based on
 - Demonstrated executive commitment and support
 - Governance with clearly defined roles and responsibilities for oversight, execution and monitoring
 - Requires organizational, cultural & operational changes
 - Program <u>matures over time</u>, not a short-term project (3-5 years)
- Defensibility: build proactive risk management & Privacy/Security-by-Design processes on top of compliance
 - Check-the box compliance is not enough

Mature Privacy Program Elements

Establishes governance with clear roles & responsibilities creating a sustainable foundation based on Framework

Sustainable, Defensible and Trustworthy Privacy (& Security) Program

Risk management program requires risk owners who identify & acceptably mitigate foreseeable risks (& document same) to be defendable to regulator & plaintiff judge/jury, based on COSO's ERM approach & methodology

Privacy Program

- Data & resource mapping
- Governance structure
- PI sensitivity classification
 - drives strength of controls
- Risk management: P/SbD, periodic
- Sanctions & complaints
- External resource management
- · Monitoring, auditing & oversight
- Incident & breach management & response

Privacy Practices

- Data privacy lifecycle controls
 - notice, data collection, use, sharing & retention controls
- Data subject rights & choices
 - data infrastructure & management
- Data minimization (avoid reidentification)
 - e.g. min. necessary, key coding, deidentification, pseudonymization
- Verification & authentication

Security Practices

- Administrative safeguards
 - e.g., RBAC design, authorization & periodic review
- Physical controls
 - e.g., review of facility's physical controls
- Technical controls
 - e.g. use of encryption
- Engineering controls
 - e.g. implementation of Privacy/Security-by-Design/SDLC

Compliance establishes baseline, however alone is not defensible as laws, regulations & standards cannot keep pace with emerging technologies – an effective risk management program closes this gap

Enterprise cross-functional collaboration & coordination

Foundational Program Governance

Next slides include operational recommendations for governance elements

| # | Privacy | Security | | |
|----|---|--|--|--|
| 1 | Organizational Governance | Same | | |
| 2 | Governance via Policy | Same | | |
| 3 | HR Governance: pre-onboarding, onboarding, employed & termination | Same | | |
| 4 | Data Privacy Lifecycle & Resource Governance | Data & Resource Mapping portion | | |
| 5 | Privacy Rights Governance N/A | | | |
| 6 | Privacy-by-Design Governance | Security-by-Design Governance | | |
| 7 | Same when dealing with Co-Data Controller (GDPR/CaCPA) | External Resource Mgmt Governance | | |
| 8 | Monitoring & Evaluation/Auditing Governance | Same | | |
| 9 | Event & Incident Management Governance | Same | | |
| 10 | Documentary Evidence of Governance | Same | | |

<u>External Resource Management</u> means governance of **service providers & 3rd parties** under CaCPA Other related governance scopes include *M&A*, outsourcing, system architecture, change management, project management, etc.

Privacy Bills in Progress

Imagine patchwork of 50 state privacy laws (akin to breach notification laws)

Modeled on CCPA

- Hawaii
- Maryland
- Massachusetts
- New Mexico
- Rhode Island
- Connecticut
- New York
- Pennsylvania
- Texas

Varies more with CCPA

- **|** Illinois
- New Jersey
- New York
- Oregon
- Virginia
- Louisiana
- Nevada: effective 10/1/19 Sale Opt-out
- Washington

Federal Privacy Law?

- □ Tech giants pushing for U.S. omnibus privacy law to preempt state law & without private right of action
 - Congress appears too dysfunctional to act
 - Many states would sue to prevent preemption & may win
 - Not likely going to achieve EU's "adequacy" standard
- Don't hold your breadth be prepared to comply with a patchwork of state laws

Integrate CCPA into GAPP Privacy Principles

Requires data governance to enforce these principles (AICPA/CICA)

| | Generall | y Accepted Privacy Principles (GAPP) | | SoCal Privacy Cons Operationalizing Privacy and Security | |
|--------------------|--|---|---|---|-------------------|
| No. | Principle Areas | Description | CCPA Sections | GDPR Articles | Criteria Total |
| 1 2.1 2.2 | Management Policies and Communications Procedures and Controls | The entity defines, documents, communicates, and assigns accountability for its privacy policies and procedures. | | 5, 6, 14, 24, 27, 32, 36-39 | 14 3 11 |
| 2 2.1 2.2 | Notice Policies and Communications Procedures and Controls | The entity provides notice about its privacy policies and procedures and identifies the purposes for which personal information is collected, used, retained, and disclosed. | 1798.100(b) 1798.110 (c) | 5,12-15, 21 | 5 2 3 |
| 3.1 3.2 | Choice & Consent Policies and Communications Procedures and Controls | The entity describes the choices available to the individual and obtains implicit or explicit consent with respect to the collection, use, and disclosure of personal information. | 1798.120 1798.120(d) | 6, 7, 8 | 7 3 4 |
| 4 4.1 4.2 | <u>Collection</u> Policies and Communications Procedures and Controls | The entity collects personal information only for the purposes identified in the notice. | 1798.100(b) | 5, 6, 9, 21, 25, 35, 89 | 7 3 4 |
| 5 5.1 5.2 | <u>Use - Retention - Disposal</u> Policies and Communications Procedures and Controls | The entity limits the use of personal information to the purposes identified in the notice and for which the individual has provided implicit or explicit consent. The entity retains personal information for only as long as necessary to fulfill the stated purposes or as required by law or regulations and thereafter appropriately disposes of such information. | 1798.100(b) | 5, 6, 10, 22, 39 | 5 2 3 |
| 6 6.1 6.2 | Access Policies and Communications Procedures and Controls | The entity provides individuals with access to their personal information for review and update. | 1798.100(a) 1798.110(a)(1)-(5)+ (b) 1798.130(a)(1)-(7) | 7, 12, 14-18, 20-22, 26, 38 | 8 2 6 |
| 7 7.1 7.2 | Third Party Disclosure Policies and Communications Procedures and Controls | The entity discloses personal information to third parties only for the purposes identified in the notice and with the implicit or explicit consent of the individual. | 1798.140(v)+ (w) 1798.145(h) | 28, 29, 32 | 7 3 4 |
| 8 8.1 8.2 | Security for Privacy Policies and Communications Procedures and Controls | The entity protects personal information against unauthorized access (both physical and logical). | 1798.81.5(b) 1798.150(a)(1) | 5 ,6, 24, 32, 46 | 9 2 7 |
| 9 9.1 9.2 | Quality Policies and Communications Procedures and Controls | The entity maintains accurate, complete, and relevant personal information for the purposes identified in the notice. | | 5, 16 | 4 2 2 |
| 10 10.1 10.2 | Monitoring & Enforcement Policies and Communications Procedures and Controls | The entity monitors compliance with its privacy policies and procedures and has procedures to address privacy related inquiries, complaints and disputes. | | 17, 19, 20, 30, 33- 35, 37,39, 47 | 7 2 5 |

Eight Questions to Ask

- 1. What **security framework** is our security program and policies/SOPs based on? E.g. ISO 27001-2:2013
- 2. Do the security program and policies/SOPs also address the **Top 20** Critical Security Controls as appropriate to comply with CA law?
- 3. How quickly can we recover from a ransomware attack if it were to lockup all databases?
- 4. Have we **mapped** our data flows and inventoried our resources and the data contained therein? Have owners been established to **maintain** future states?
- 5. Has our consumer-facing **privacy notice** been updated to comply with CCPA?
- 6. If we sell or plan to sell PI, is the "Do Not Sell My Personal Info" link setup?
- 7. Do we have internal CCPA policies?
- 8. Do personnel **understand** that no new PI can be collected and no existing PI used or shared for a different purpose until the privacy notice is first updated?
- 9. Do we have a consumer access rights process and tracker set-up and has it been tested?

If You Haven't Started to Comply,

Don't Wait —

Every Day of Delay Falls on the

Willful Neglect Side of the Ledger —

Better to Begin Good Faith Efforts Now

So much more ... let us know if questions about -

- Artificial Intelligence risks & transparency
- IoT risks, laws & security frameworks CA & OR with 5 bills in other states; NIST & ENISA (EU)
 - E.g. smart building systems are vulnerable to attack (doors, elevators, HVAC, etc.
- **Biometrics** laws & class actions Illinois & other states
 - Facial recognition risks & technology
- Automated decision-making/profiling risks & transparency

ANY FINAL QUESTIONS?

If you would like to have a copy of our **Data Mapping Whitepaper**, please note which this on your business card and provide it to us or let us know – happy to share it, we do not follow-up unless asked.

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Appendix

Supplemental Information About Us

IAPP Certifications

https://iapp.org/certify/programs/

- The "what" of privacy laws & regulations
 - CIPP/US
 - CIPP/E EU (GDPR)
 - CIPP/C Canada
 - CIPP/A Asia
- The "how" of privacy operations
 - CIPM Certified Information Privacy Manager
- The 'how' of privacy & technology
 - CIPT Certified Information Privacy Technologist (PbD)



About UsSoCal Privacy Consultants

Why SoCal Privacy?

Operationalizing Privacy and Security Programs

- Practical we arm you with the knowledge, tools & confidence to establish a workable & functional program
- Sustainable operationalize through governance with clear roles, responsibilities & practices (NIST's Repeatable RM Tier)
 - You get our tools, so you can perform future self-assessments (sustainability)
- **Defensible** establish risk management program & educate you re: how to defend actions to a regulator & plaintiff judge or jury
 - Empower newly designated privacy & security officials re: how to effectively communicate importance of privacy & security to c-levels & board members to overcome any resistance & gain their support & commitment - regulators evaluate "the tone at the top" when the worse happens
- Trustworthy a well-founded privacy & security program establishes & maintains trust relationship with consumers & other stakeholders as well as mitigates risk of costly & disruptive breaches

Why SoCal Privacy?

Experience – major law firms still recommend the Big Four, but choose us when practical operational experience is called for

- We're not recent college graduates using a checklist we're experienced professionals
 - Michael has testified before three FTC lawyers for two hours on behalf of a client
 - Michael served as part-time Chief Privacy Officer of an international company for 8 years and also as an enterprise risk management officer for a top 10 bank
 - Neil has security audit, IT director and e-discovery experience as well as understands FTC expectations having worked there
- □ Understand client's business and how to operationalize practices/processes
 - Conducting data mapping first allows us to get our arms around your business to better advise you during the assessment
 - Michael's previous operations executive experience allows him to provide practical advice on how to operationalize practices as repeatable processes
- Understand IT technical systems and controls
 - Neil's experience allows him to offer deep dive technical advice

Typical Phase I: Assessment SCOPE of WORK

- Perform Data Mapping (data flow, inventory & locations)
- Privacy Impacts Assessment (PIA) based on data mapping interviews to ensure accuracy with privacy notice and laws/regulations/standards
- Conduct Controls Evaluations based on NIST Cybersecurity Framework evaluation methodology
 - HIPAA + Top <u>20</u> Critical Security Controls
 - ISO 27002:2013 + Top <u>20</u> Critical Security Controls
 - U.S. Sentencing Guidelines for Effective Compliance Programs
- Perform Security Risk Assessment

Phase I: Work Tools & Deliverables

- Work tools Also delivered for your reuse
 - Data mapping: SIPOC & resource/data inventory (Excel) with example interview questions
 - Controls evaluations workbooks (Excel) that include a tab identifying gaps
 - Risk assessment workbook (Excel) & placemat (valuation methodology)
 - Documents entire process and provides instructions for repeatability
 - Requested documents list (Word) used post-assessment to evaluate readiness

Deliverables

- Data Flow Diagram(s) (Vizio) current & if planned changes future states
- Privacy Impact Assessment (PIA) Report of recommendations (Word)
- Security Summary Report (Word)
- Risk Register of risks identified during the risk assessment (Excel)

Recommend setting up a shared, but restricted <u>compliance repository</u> for all documentation to facilitate governance/oversight and being prepared to promptly respond to information requests and investigational demand letters



Certified, experienced privacy and security professionals arm you with the knowledge, tools and confidence to build and establish a practical, sustainable, and legally defensible Privacy and Security Program with our 2-phased process:

Phase 1 – Assessment

- Create data flow, inventory, and locations map which the first step towards governance
- Conduct controls evaluation of your current program against applicable regulations and standards
- Perform risk assessment to identify foreseeable risks and acceptably mitigate these risks
- Provide reports: security prioritized recommendations and privacy impacts assessment to help you establish or strengthen your program

Phase 2 – Implementation Support as requested, including polices and procedures

Assist with custom implementation of Phase 1 recommendations, including policies and processes

Our experience and expertise allows us to serve a wide range of industries, such as high tech, Internet, financial services, and biotech/life sciences/healthcare firms.

Michael Cox, CIPP <u>mcox@socalprivacy.com</u>

CEO and Founder 619.318.1263

www.SoCalPrivacy.com

Also privacy and security consulting for mobile apps and due diligence of third parties and M&A

Comparing CCPA to EU's GDPR

And HIPAA & GLBA Impacts



Commonalities: CCPA & GDPR

- Applies to businesses determining "purposes & means of processing" & covers many SMBs
- Protects residents & thus have extra-territorial reach
- ☐ Includes HR/employee data in scope
- Creates new consumer rights, e.g. right of access to PI
- Additional protections for individuals under 16 years of age
- De-identification definitions very similar & cannot re-identify
- Must track & document compliance, but in a very different manner

Key Differences

Compliance can be leveraged, but recognize differences

CCPA

- Business applicability thresholds
- 11 Categories of PI
- Informed privacy notice & consumer rights oriented
- 12 mo. look-back at data collected for disclosure requests
- Anti-discrimination
- Service provider contractual obligations

GDPR

- Offering goods/services or profiling/monitoring
- Personal Data defined broadly
- Legitimate purpose analysis
- Privacy-by-Design/DPIA
- Demonstrable compliance proof
- Data retention
- Explicit data processor contractual requirements
- DPO, local legal representative
- X-border data transfer rules, e.g. PS

Rights Similar, But Must Account for Differences

| | GDPR | ССРА | HIPAA |
|--|------|------|-------|
| Privacy Rights | GDFK | CCFA | ПІГАА |
| Right to Notice & Choice: (provide notice & inform of rights): CCPA - Notice/Disclosures; HIPAA - NOPP | Yes | Yes | Yes |
| Right to Access (quality; correction / amendment) | Yes | Yes | Yes |
| Right to Notifying External Resources re: Corrections, Erasure or Restriction (opt-in/out) | Yes | Yes | Yes |
| Right to Data Portability | Yes | Yes | N/A |
| Right to Object to Processing: direct marketing; scientific, historical or statistical purposes (opt-in/out) | Yes | Yes | N/A |
| Right to Erasure ("right to be forgotten"): applies in limited cases but must erase without undue delay | Yes | Yes | N/A |
| Right to Restrict Processing (opt-in/out of sale) | Yes | Yes | N/A |
| Right to Not Be Evaluated via Automated Profiling | Yes | N/A | N/A |
| Right to Complain (Right to Redress) | Yes | N/A | Yes |
| Right to Restrictions, Restrict Disclosures & Request Confidential Communications | N/A | N/A | Yes |
| Right to Accounting of Disclosures | N/A | N/A | Yes |

"Reasonable" (& Defensible) Security

- Select a comprehensive set of standards
 - 96-99% of breaches avoidable by simple & intermediate controls (Verizon DBIRs)
- Identify what is reasonable under the circumstances & exceptions based on:
 - Company size, complexity & capabilities; industry, DTC/BTB; jurisdictions
 - Nature & sensitivity of PI
 - Technical, hardware & software infrastructure
 - Costs of security measures (vs. benefit)
 - Probability & impact of likely risks to PI
 - Insurance & client due diligence requirements (Fortune 500)

"Reasonable (Defensible) Security" Requirements

As federal & state laws require "reasonable security" (but generally no specific measures), it is critical to select a defensible standards-framework

- ☐ CA State AG Office's Feb. 2016 CA Data Breach Report:
 - "failure to implement all the Top 20 (Critical Security) Controls that apply ... constitutes a lack of reasonable security" and "define(s) a minimum level of information security ..."
 - Matches well with root causes of breaches, but is not a comprehensive framework
- Ohio: 1st state to pass cybersecurity safe harbor law inoculating businesses proving compliance to recognized security standards
- ISO 27001-2:2103 is well-accepted internationally standard
 - Recommend integrating Top 20 CSCs within the ISO framework
- IoT security standards are rapidly emerging

Monitoring & Evaluation

Governance Operational Recommendations

- Establish, in policy, mechanisms for periodic evaluations/ monitoring, reporting of findings & overseeing appropriate implementation of corrective actions/mitigation plans
- ☐ Define activities in policy, assign ownership & timetables
 - Regular, appropriate patching FTC emphasis
 - Periodic risk assessment & controls evaluation
 - Periodic vulnerability scans & penetration tests
 - Periodic code reviews
 - Periodic RBAC rights review
 - Periodic hardware/software inventory reconciliation
 - Periodic review of access points & wireless
 - Periodic 3rd-party due diligence based on data sensitivity
 - Periodic incident response desktop exercise &/or simulation
 - Periodic testing of Business Continuity & Disaster Recovery plans

CCPA Corresponding Business Obligations

- Respond to abbreviated disclosure requests in notice
- Respond to more specific disclosure requests
- Respond to requests for information from business that sell/disclose PI
- Respond to **opt-outs of sale of data**
- Obtain opt-in consent for sale of data of minors
- Respond to **deletion requests**
- Respond to requests for data access & portability
- Not to discriminate vs. consumers exercising their CCPA rights

CCPA Privacy Operations Practices

- ☐ Jurisdictional scope: CA only or across the U.S.?
- Personal Information definition
- Consumer rights
- Anti-discrimination
- Deidentified & aggregate data
- ☐ Highly sensitive data
- Concept of "reasonable security"

CCPA: Employee Data & B2B Contact Information

| Term | Meaning |
|-------------------------|---|
| Employee Data | PI businesses collect from job applicants, employees, owners, officers, medical staff, and contractors to the extent the company uses the PI solely in the capacity of the person's role with the company, including benefits and emergency contact information. There is a limited one-year moratorium in terms of full CCPA applicability to such employment data. Businesses are still required to provide separate privacy notices to job-applicants and employees (as DPLCs are different) and such personnel still benefit from the private right of action. CCPA is fully applicable to employee data used outside the capacity of the person's role. |
| B2B Contact Information | PI solely collected and used in B2B company communications and transactions with other companies, organizations, and government agencies from or about an employee, owner, director, officer or contractor of a business or government agency obtained in the context of due diligence or provision/receipt goods/services. There is a limited one-year moratorium from most CCPA requirements. This exemption does not apply to the right to opt-out of the sale of PI, the obligation not to discriminate against a consumer for attempting to exercise their rights, or the private right of action in event of a data breach. B2B companies will still have to determine if and to what extent they must comply with CCPA requirements for other types of PI they collect, such as for marketing purposes with prospective customers. |

CCPA Employee Data Privacy Practices

- Job-applicant & employee data mapping
- ☐ Employee data used within employment capacity
 - Separate job applicant & employee privacy notices
- ☐ Employee data used outside employment capacity
 - Separate employee privacy notice for data used outside context
 - Full consumer rights, e.g. DSARs
- HR service providers, e.g. applicant/recruiting services, etc.
 - Execute CCPA service provider addendum
- Employee documents update for CCPA's definition of PI
 - Employee handbook, confidentiality agreements, separation agreements, arbitration agreements, independent contractor agreements
 - Disclose any electronic employee monitoring programs
 - HR employee data security polices & procedures (unstructured data)

CCPA B2B Contact Information

Work with Business Development, Sales & Marketing to ensure compliance

- B2B contact information data mapping
- Exempt: B2B contact information used <u>within provision/receipt</u> goods/services or due diligence
 - Use for secondary purpose triggers express consent & full CCPA compliance
- B2B contact information used <u>outside</u> context in which provided
 - Privacy notice for data used outside context
 - Full consumer rights, e.g. DSARs
- **B2B service providers**, e.g. Salesforce in the cloud
 - Execute CCPA service provider addendum
- Avoid obtaining B2B contact information from a data broker which may trigger full CCPA applicability

GLBA Entities & CCPA

- □ Apply CCPA to all PI not collected, process, sold or disclosed pursuant to GLBA, e.g.
 - Targeted online advertising
 - Tracking web page visitors
 - Collecting geolocation data
 - Etc.

HIPAA Covered Entities: Qualifying for CCPA Exemption

- Treat Non-Regulated PI Same as PHI
 - CCPA provides no specific guidance
- Include CCPA's PI definition scope in:
 - Privacy notices
 - Confidentiality agreements
 - Privacy & security policies/SOPs & practices, e.g. AUP
 - Training
 - Business associate agreements (protection flow down)
 - Watch for clarification via rule-making, etc.
- Lots of vagueness, for example re: deidentification rules

CCPA Definitions: Devil is in the Details

| Activity | Meaning |
|---|---|
| Collection | buying, renting, gathering, obtaining, receiving, or accessing any PI pertaining to a consumer, either actively or passively, or by observing consumer's behavior |
| Sale (does not mean "sell" as usually understood) | selling, renting, releasing, disclosing, disseminating, making available, transferring, or otherwise communicating orally, in writing, or by electronic or other means, a consumer's PI by business to another business or a 3rd party for monetary or other valuable consideration (almost always "contractual consideration") |
| Disclosure | providing PI to another person/entity for operational purposes, or other notified purposes, provided use of PI shall be reasonably necessary & proportionate to achieve operational purpose for which PI was collected or processed or for another operational purpose compatible with context in which PI was collected |

Releasing, disclosing, disseminating, making available or transferring PI for monetary or other valuable consideration is considered a "sale" under CCPA, requiring disclosure & opt-out (opt-in for children)

4 Types of Consumer Notices

- ☐ Each with specific disclosure requirements
 - Just-in-time notice at/before time of collection of PI
 - Just-in-time notice of financial incentive(s)
 - Notice of right to opt-out of sale of PI
 - Privacy notice with specific rights/other disclosures

CCPA Privacy Choice & Consent Practices

- **Explicit consent** for purpose **not disclosed** in privacy notice
- Wanting to "sell" PI when not collecting PI directly from consumers directly contact:
 - Consumers to provide notice of sale of PI & notice of right to opt-out, or
 - Source of PI to confirm provided proper notice at collection & obtain signed attestation describing how notice was given with sample
- **Engineering requirements** for Do Not Sell opt-out & children's opt-in
 - Do Not Sell requirements
 - On-hold pending final reg: treat user-enabled browser opt-out/DNT signals
 - For those not offered opt-out, if later want to sell PI treat as opted-out & require opt-in to sell PI
 - Children's opt-in requirements
 - Timeframes, tracking & suppression
 - Periodic testing
- Operational requirements for Do Not Sell opt-out & children's opt-in
 - Manual DSARs requesting opt-outs/ins
 - Opt-out DSARs do not need to be verifiable unless suspect fraud
 - Cannot require to create an account to exercise rights (undue hindrance)

In Sum: Operationalizing Consumer Rights

- □ Provide 2 or more designated methods for submitting requests including at a min. toll-free PH# & Web address (if have a website)
- Verifying requesting consumer without undue hindrance (will be tricky & subject to enforcement if get it wrong)
- Request be made in writing & info should be provided:
 - Free of charge
 - In readily useable/portable format allowing data transfer to another entity without undue hindrance
 - Within 45 days of request can be extended once for an additional 45 days with notice to consumer
 - Via customer's existing account or by mail/electronically at consumer's option - cannot require account creation to make request

In Sum: Operationalizing Consumer Rights

- Develop/implement internal data tracking infrastructure & rights operational processes
 - Identify all pieces of consumer PI to fulfill disclosure requests
 & for opt-ins/outs record date, timestamp & authentication
- Requires training of staff -
 - Consumer-facing representatives re: inquiries about rights & privacy practices
 - DSAR coordinator logging/tracking/responding & reporting
 - Resource/data custodians retrieving/deleting/porting data
- Conduct table-top exercise re: each of the rights

CCPA Consumer Rights Requests (DSARs)

Consumer Access Rights Requests (DSARs) Policy

Communication method

- Verbal whenever verification difficult, to constrain request to PI of concern, & convey unexpected news
- More efficient, engenders trust & mitigates complaints/enforcement/lawsuits
- General access policy
 - Provide as much control to consumers over PI as possible
- Structured vs. unstructured data
 - Use appropriate portal/CRM/repositories to communicate PI vs. email not intended as a repository & shared folder
- DSAR Submission & Verification and DSAR (Rights Request) Webform
- DSAR Coordination, Timeframes, Response & Record-keeping
- DSAR Disclosure Fulfillment Requirements

CCPA DSAR Submission & Verification

- Designated methods for DSAR submission, including opt-out from sale of PI
 - 2+: toll-free phone# + method reflecting primary way interacts w/ consumer
 - Interactive webform (in draft regulation)
 - Email, mail, in-person (e.g. in-store)
 - Email address only, if business has direct relationship w/ consumers solely online
- DSARs submitted in an alternative manner for request to know or delete
 - Required: accept or provide specific directions as to how to submit or remedy request
 - Recommend: accept written requests (email/mail) same as designated method DSARs
- DSAR submission & receipt
 - Consumer contact personnel explain rights & how to submit requests to consumers
 - Promptly direct DSARs to DSAR Coordinator (day one counts as receipt)

CCPA DSAR Submission & Verification

- General verification procedures and guidelines
 - First matching/using data on file whenever feasible
 - Only collecting new data to facilitate verification when absolutely necessary
 - Reasonable in light of nature/sensitivity of PI requested
 - Avoid collecting highly sensitive PI for 1st time
 - Use verification-service provider when no or insufficient information available for verification
 - Use reasonable security measures to detect fraud & prevent unauthorized access
 - Promptly delete newly collected PI for verification, unless needed for 24-month record-keeping
- Accountholder authentication procedures
 - If consumer has password-protected account, use existing authentication to verify consumer unless account not convenient to consumer
 - Require reauthentication prior to deletion or disclosure of PI
- Unacceptable non-accountholder verification procedures
 - As condition of submitting/fulfilling DSAR, cannot require consumer to open account or use it if inaccessible

CCPA DSAR Submission & Verification

- Risk-based verification procedures
 - Requests to know: match at least 2 data points
 - Requests for specific pieces of PI: match at least 3 data points & obtain signed declaration under penalty of perjury
 - Requests to delete: match either 2 or 3 data points based on nature/sensitivity of PI
- Opt-in request for children for sale of PI actual knowledge
 - Collects PI from children under 13: 4 consent methods for parents/guardians in draft reg
 - Collects PI from minors ages 13-17: reasonable verification of minors
 - In both case inform of right to opt-out at any time
- Authorized agents (register w/ CA Sec'y of State) making DSARs on behalf of consumers
 - Verify authorization & agent identity
 - In addition to verifying other authorized representatives (power of attorney, executor)

CCPA DSAR Coordination, Timeframes, Response & Record-keeping

- □ **DSAR coordination**, timeframes, record-keeping & governance reporting
 - Confirms receipt of request to know & delete within 10 days with information re: process, verification & timing
 - Ensures verified DSARs properly completed w/in 45 days (includes verification)
 - One 45-day extension (day 1 starts w/ receipt by business) with notice & explanation
 - Fulfillment covers preceding 12-month timeframe from receipt of request
- DSAR validation & consumer rights classification
 - Validate legal request
 - Classify DSAR type: right to know, data portability, deletion, opt-out
- Request execution: production, compilation, response package review & response
 - Resource Custodians compile & provide/delete requested PI to DSAR Coordinator
- Record retention
 - 24-month record-keeping
 - PI obtained for verification disposed of after logging categories (not specific PI)
 - Cannot use these records for any other purpose
 - Compiled data disposed of

CCPA DSAR Disclosure Fulfillment Requirements

- For each request type, specific disclosure requirements are defined covering 12-month period preceding receipt of verifiable DSAR
 - Right to know requests
 - Portable data requests
 - In readily useable format for transmitting to another entity
 - Deletion requests
 - 8 exceptions: detect security incidents, debug, legal obligations
 - Opt-out requests (Do Not Sell)
 - Suppress within 15 days of receipt & confirm with consumer
 - Notify 3rd parties to whom provided PI w/in 90 days that consumer has opted-out
 - Note: Requests to access or delete household information
 - If no password-protected account, provide aggregate information, or
 - If consumers jointly make a request & each is verified, comply with request

CCPA Training Program

Driving organizational & cultural change

- Roles-based CCPA training needs assessment
- New hire & annual awareness training
- Organize the following around various roles, e.g. management
 - Privacy notice training
 - Admins/receptionists & mailroom personnel (DSAR receipt)
 - DSAR process training
 - Service provider & third party management training
 - Anti-discrimination training
 - Human Resources training (re: employee data & security)
 - B2B contact information training
- Training record retention

CA AG's Rule-making Authority

- ☐ CCPA's **specific** implementing rule-makings:
 - ✓ First: opt-out, notice, access/portability & exception provisions
 - Issued with just over 2 months until CCPA becomes operative
 - Second: adding categories of PI to address changes in technology, data collection, obstacles to implementation & privacy concerns
- □ General authority to issue rules as necessary to further Act's purposes

CA AG's Office re: Enforcement of CCPA

Companies cannot be complacent in their efforts

- CA AG's press releases and comments -
 - Effective January 1, 2020, businesses must comply with the CCPA's key requirements
- Start now AG will evaluate steps companies have taken to comply before CCPA's effective date which reflects on how seriously they view their obligations
 - When mapping data and establishing compliance mechanisms, document any overly burdensome technical barrier not allowing for perfect compliance
 - Defenses relying on the technical burden or infeasibility of CCPA compliance will need to be specific & significant
 - **Be prepared to demonstrate compliance** by & through their policies, procedures & incident response plans, etc.

CCPA Effective & Enforcement Dates

- □ Effective Jan. 1, 2020 re: private rights of action
 - Effective July 1, 2020 re: regulatory enforcement
 - For infractions committed starting Jan. 1
- Extra-territorial reach protecting CA consumers

Amendment Updates

Five amendments signed into law include

- Anti-discrimination right:
 - May charge consumer different price/rate or provide different level/quality of goods/services if difference is reasonably related to value provided to *business* by consumer's data
 - May offer financial incentives, including payments to consumers as compensation, for collection of PI, sale of PI, or deletion of PI
 - May also offer different price/rate/level/quality of goods/services to consumer if price/difference is directly related to value provided to business by consumer's data
- "Data brokers" that knowingly collects & sells PI to 3rd parties with whom has no direct relationship with consumer
 - Relationship can include visiting premises/website & intentionally interacting with business' online ads
 - Must register with CA AG's Office on/before Jan. 31 following each year meets broker definition & pay a registration fee
 - Unlike VT's law, data broker do not also have to offer an opt-out, but business do

Apply CCPA with CA Residents only?

- Consider alternative business models & web/mobile presences, including
 - Global across the U.S.?
 - CA-only sites & offerings?
- However, also consider:
 - Impact on customer relations of differentiating service to residents of CA & other states
 - Legal implications of voluntarily representing & applying CA law across other states
 - Keep in mind that other states following CA's lead may impose differing privacy laws

Prepare Early to Mitigate Class Action Risk

Failure to undertake these efforts could lead to significant liability

- Place rigorous controls around highly sensitive consumer/employee PI
- Formalize/deploy end-to-end redaction & encryption everywhere to avoid having to notify (& safeguard PKI keys)
- Ensure policies/SOPs operationalize governance & practices adhering to an established framework, e.g. ISO 27001-2:2013
 - Integrate Top 20 Critical Security Controls into this framework
 - Document proof of compliance in a compliance repository
- Review/test your incident response plan
- ☐ Get the **facts right in** any data **breach notification** letter
- ☐ Obtain **cyber-insurance** & *understand its limits* & *exclusions*
 - Many cyber-insurance carriers authorize breach lawyer/breach vendors
 - For sub-servicers: due diligence; cyber-insurance; indemnification, etc.

https://www.lexology.com/library/detail.aspx?g=e4653681-84b2-4a78-9e45-6f22884a296f

10/

Data Minimization via Privacy-by-Design

- Anonymized: low risk of identification due to singling out, link-ability or inference
 - EU/CaCPA: irreversible to prevent identification
 - Randomization & generalization
- Not-PI: excluded from scope of CaCPA!
 - Aggregate data summarized group data with no identifiers
 - **De-identified** remove direct/indirect identifiers & not re-identify
- PI: do not disclose as anonymous in notice/consent/marketing
 - Pseudonymized replace identifiers with unique numbers or other value that does not allow direct identification
 - Key-coded with restricted access to key-code
 - Masked data
 - Limited data set with data use agreement
 - Minimum necessary: collection; access; use; sharing; retention

Apply Lessons Learned from GDPR

- Analyze whether the CCPA applies to you
- □ Prepare to comply prior to Jan. 1, 2020
 - Understand compliance will take longer than you believe, e.g. tagging & tracking data elements, fulfilling data subject rights
 - Requires organizational, cultural & operational changes
 - Check-the-box compliance will fail
- Strong sr. leadership support & cross-functional collaboration is critical
 - Gain commitment for heavy use of enterprise-wide resources
- Budget appropriate funds early

Ponemon: Breach Cost Components & Examples

- Detection & escalation costs: 31.1% of global cost
 - Forensic and investigative activities
 - Assessment and audit services
 - Crisis team management
 - Communications to executive management & board of directors
- Notification costs: 5.4%
 - Emails, letters, outbound telephone calls, or general notice to data subjects that their personal information was lost or stolen
 - Communication with regulators; determination of all regulatory requirements, engagement of outside experts
- Post data breach response costs: 27.3%
 - Help desk activities / Inbound communications
 - Credit report monitoring & identity protection services
 - Issuing new accounts or credit cards
 - Legal expenditures
 - Product discounts
 - Regulatory interventions (fines)
- Lost business cost: \$1.42M or 36.2% biggest cost factor for last 5 years
 - Cost of business disruption & revenue losses from system downtime
 - Cost of lost customers & acquiring new customers (customer turnover)
 - Reputation losses & diminished goodwill

General Factors Affecting avg. Breach Cost per Record

- Unexpected loss of customers following a data breach
- Size of data breach: number of records compromised
- Time it takes to identify & contain a data breach
 - Average time to identify a breach: 196 days
 - Average time to contain a breach: 49 days (245 days total)

Globally, breaches with lifecycle less than 200 days were on average \$1.22M less costly than breaches with lifecycle of more than 200 days (\$3.34M vs. \$4.56M respectively), a difference of 37%

- Effective management of:
 - Detection & escalation costs.
 - Post data breach costs

Raw Data Mapping SIPOC

Ask "follow the data" questions for each unique DPLC

| S | | 1 | Р | 0 | | С |
|--------------------------------|--|--|--|---|--|----------------------------------|
| Data Suppliers - Data Sources | Data Resource From / Data Location | Data Inputs, Formats & How Moved / Transferred | DPLC <u>Process</u> Steps | Data Outputs, Formats & How Moved / Transferred | Data Resource To / Data Location | Data Customers / Endpoints |
| | | | Notice | | | |
| | | | Data Collected | | | |
| | | | Data Used / Processed / Accessed | | | |
| | | | Data Used / Processed / Accessed | | | |
| | | | Data Shared / Transferred | | | |
| | | | Data Stored / Backed-up | | | |
| | | | Data Disposed / Destruction | | | |

Rename each process step as organization commonly refers to it

Add as many rows as necessary to capture all DPLC process steps

Process managers should update/maintain this and archive each version with a revision date

Privacy Data Mapping SIPOC

Process Name: PHI/PIIPII Processing Sample



Legally Defensible.

Revision Date 13 Mar 2016

Process Owner: [Privacy Official or delegate]

Data States: At rest; in motion; at endpoints; at disposal/desruction

| | | | Process Steps | Data States: A | t rest; in motion; at endpoints; a | il disposal/desruction |
|-----------------------------|-------------------------------|--|--|--|--|-------------------------------|
| S | | 1 | P | 0 | | С |
| Data Suppliers / Sources | Location From / Data State | Data Inputs | Data Flow Steps | Data Outputs | Location To / Data State | Data Customers / Endpoints |
| Clinic / Practice | US / INTL | Signed Consent | Notice | Signed Consent | Locked File cabinet, Scanned to:[Shared Folder:/consents/m onth-Year] | Legal |
| Clinic / Practice | FedEx / UPS | sample kit, activation code, Test Requisition Form ("TRF") (name gender dob, demographics, physician info), clinical history, consent / auth | Receive Sealed Sample Kit | sample kit, activation code, TRF (name gender dob, demographics, physician info), clinical history, consent / auth | Receiving Area | Accessioning |
| Accessioning | Receiving Area | sample kit w/Patient name, activation code | Open Kit: Assign barcode to sample | sample kit w/Patient name, activation code, barcode (accessionNo) | Lab Work Bench | Lab |
| Accessioning | Lab Work Bench | TRF (name gender dob, demographics, physician info), clinical history, consent / auth, activation code | Open Kit: Scanning paperwork with sample kit | TRF (name gender dob, demographics, physician info), clinical history, consent / auth, activation code | [Backend Admin Tool], Shared Folder: "Sample Tracking", [Shared Folder:/consents/m onth-Year] | Customer Service, Billing |
| Lab | Lab Work Bench | sample w/Patient name, barcode, activation code | Lab Processing | sample w/Patient name, barcode, activation code; raw output | Sample into freezer; SAN storage Array | Data Processing |

Data Mapping Benefits

Most entities have inadequate understanding of end-to-end **DPLC**

Informs counsel/advisors to better advise business **Informs privacy notices / customer choices (opt-ins/outs & preferences)** Informs DSAR fulfillment & response process (CCPA, HIPAA, GDPR) Informs Privacy-by-Design (CCPA, GDPR), e.g. secondary uses, out of context Informs controls evaluations & risk assessments Helps establish & maintain governance of data and resources **Demonstrates governance & controls with external parties Shortens new hire learning curve** Facilitates internal communications & understanding re: end-to-end DPLC Informs e-discovery & breach response pre-planning