General data protection regulation

TechDefcon Readiness
2017

GDPR – Enterprise Challenges

You Can't Protect what you can't find

You can't Govern Data without Data Intelligence

The Core Values

That build our business- Delivered through a platform based approach using UDMF, TAP, DQMF, and other platforms

- **Protect** : EU citizens personal data
- **Control** : is provided to data subjects over their processed data
- **Unify** : the duties and responsibilities of controllers and processors
- **Simplify** : the means of data collection and processing

GDPR Value Proposition Across CPO / CDO / CSO

General Data Protection Regulation

PRIVACY (CPO)

GDPR Compliance

- Automate Compliance
- Regulator Reporting

DATA (CDO)

GDPR Compliance

- Automate Compliance
- Regulator Reporting

SECURITY (CSO)

De-Risk PII

- Identify unprotected PII
- Map usage & access

PII Inventory

Build PII inventory

- Identity
- Residency
- Application

Data Quality /Governance

Simplify data mapping

- ,Race relationship across identity attributes
- Resolve ID entity differences across businesses

Smart Enforcement

Data security

- Enhance data security tools with risk & data awareness

Data Flow Map

Document data usage

- ISO
- GDPR
- HIPAA
- Data stewardship needs

Data Virtualization & Reuse

Isolate DB's from dev access

- Make ID data into a service
- monetization

Breach Response

Automate

- Identify whether you were breached,
- who was impacted,
- where it occurred

Advisory Services (Consulting & Compliance)

Strategic Consulting Services

- Digital Transformation Security Consulting
- IIoT SCADA Systems Consulting
- Enterprise Security & Information Protection Maturity Assessment (Security Assurance)
- Security Governance, Policies, Procedures
- ESRM awareness and change management
- Enterprise Security Architecture Review
- Data Classification/Protection/Privacy Governance/Leakage
- Cryptography Consulting

Operational Consulting Services

- Privacy Compliance Officer
- Inventory and classification of information assets
- Security risk assessment

Audit & Assessment Services

- Cloud Compliance Assessment
- CLOUD-BASED Application security testing
- Data Discovery Assessment / Data Security Compliance consulting
- Security audits (org, configuration, architecture)
- Governance & Regulatory compliance
- Third Party Security Assessment
- General Data Protection Regulatory

We offer Advisory, Protection , Monitoring & Remediation services in our portfolio

Data Privacy Compliance Framework

General Data Protection Regulation

Business Drivers (Data Controller , Data Processor & Data Subject)

InfoSec Standards & Privacy Requirements

Privacy Governance

Privacy Policy & Procedures (People , Process & Technology)

Privacy Program Management

- Privacy Strategy
- Data Discovery
- Data Classification
- Data Flow Mapping
- Privacy Impact Assessment
- Privacy Policy & Procedure

Privacy Operations

- Consent Controls
- Data Breach Reporting
- Pseudonymisation
- Infosec Controls
- Privacy Impact Assessment
- Monitoring & Compliance

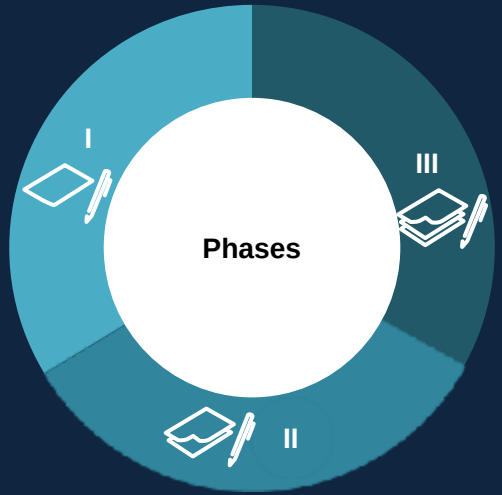
- Awareness
- Communication
- Support

People

Technology

Privacy Compliance

ESRM Approach



I

Phase I – GDPR Readiness Assessment (8-12 weeks)

- Data Discovery
- Data Classification
- Data Mapping
- Privacy Impact Analysis
- Risk Analysis (Architecture & Controls)

II

Phase II – GDPR Solutioning & Implementation (20-24 weeks)

- Identify new & improved measures, both technical and organizational towards reduction of risk
- Determine priorities and actions towards implementation of measures
- Define privacy organization, policy & procedure
- Data Anonymization Techniques
- Data Retention /Erasure
- Setup automated data governance process compliance tracking
- Establish assurance via auditing of the effectiveness of the measures covering internal and third party

III

Phase III – Manage GDPR Privacy Operations (ongoing BAU)

- Monitoring of Privacy Rules & Compliance
- Privacy by Design - Architecture
- Privacy Impact Assessment & Assurance
- Automate Privacy Compliance
- Breach Notification & Response

General Data Protection Regulation

- Data Management
- Data Quality
- Consent Authorization
- PII Inventory
- PIA
- Security Controls
- Risk Analysis
- Data Mapping
- Privacy Policy
- Processes
- Data Anonymization
- Compliance
- Privacy Operations
- Documentation
- Retention/Erasure
- Incident Response

ESRM Approach & Key Deliverable

Data Privacy Organisation Setup

- Inform and advise the controller or the processor and the employees who carry out processing of their data protection obligations
- Monitor compliance with the GDPR and other data protection provisions Provide advice where requested as regards the data protection impact assessment
- Cooperate with the supervisory authority
- Act as the contact point for the supervisory authority on issues relating to processing, including prior consultation and to consult, where appropriate, with regard to any other matter

GDPR Implementation

- Define Data Privacy Policy
- Develop & document the processes around Data Privacy
- Develop & document the procedures aligned to GDPR requirement
- Rights of Data Subject
- Data Portability & Transfer
- Consent & Data Usage
- Data Redaction / Masking
- Data Retention & Erasure
- Data Anonymization Techniques
- Security Controls & Protecting PII/SPI
- Incident Management & Reporting
- Monitoring Data Access
- Privacy by design

Key Deliverable

- Data Privacy Policy
- Data Security Process & Procedures
- Architecture Design Guidelines
- Non Functional Requirements
- Data Redaction & Encryption
- Data Retention Policy & Procedures
- Data Anonymization /Masking Guidelines
- Security Controls Enforcement
- IR & Handling Process Document
- Access Monitoring Controls
- User Awareness on Data Privacy

Data Anonymization: ESRM Approach

Need for Anonymization

- Regulatory compliance on data privacy and handling mechanisms
- Requirement for easy and appropriate levels of access to data for different stakeholders in/outside the organization including 3rd parties
- Data protection and security requirements
- Secondary usage of data for monetization

Our Solution

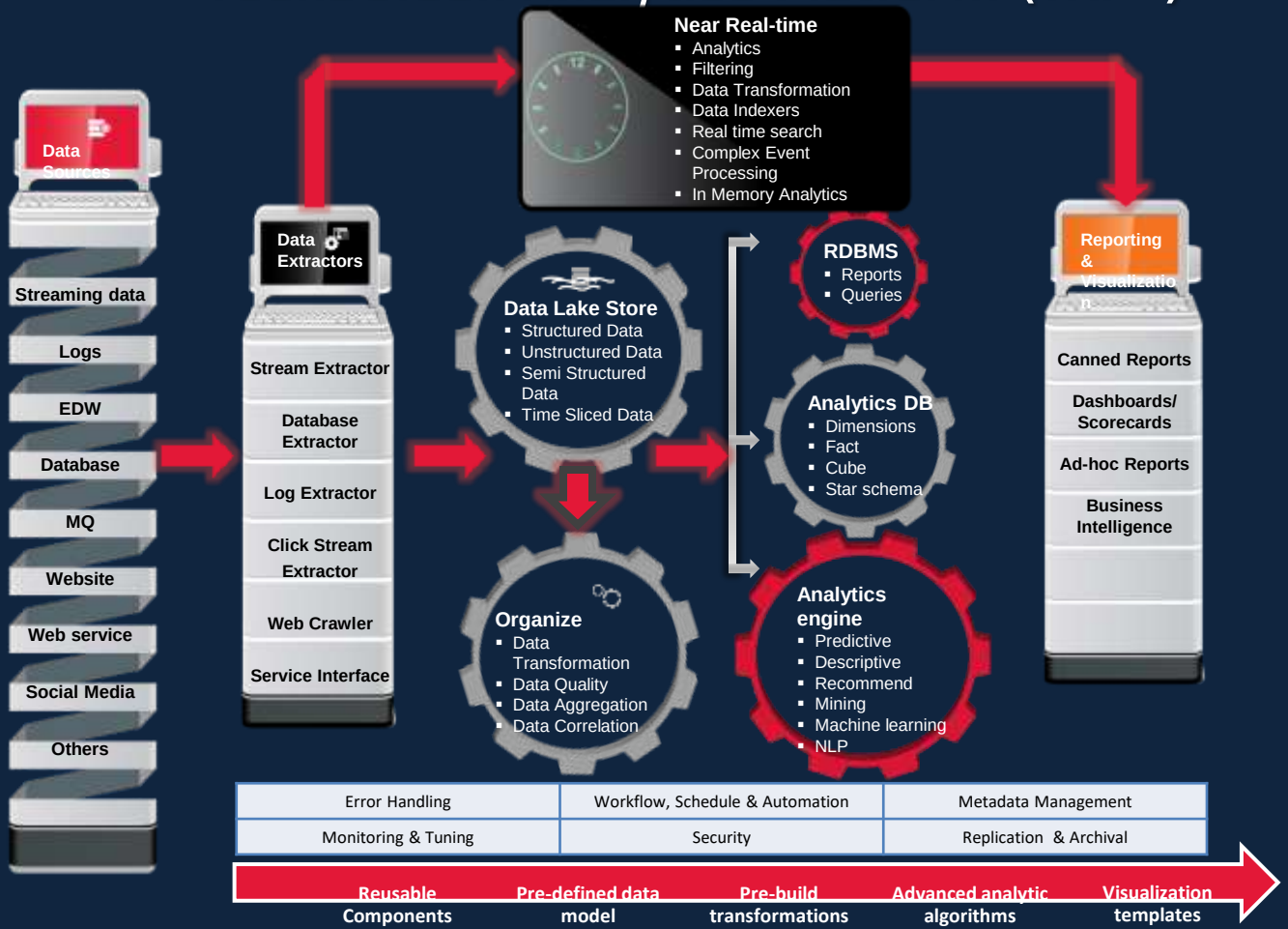
- Data Anonymization Platform (DAP) to enable customers to jumpstart anonymization, data masking
- Anonymization Platform enabled by in-house built reusable library in conjunction with various open source platforms
- Proven solution that delivers high levels of performance and security
- Use of Hadoop technologies and platforms to achieve the flexibility & scalability
- An effective Jeopardy and Fallout Management
- Ability to handle huge amounts of data in near real time

Benefits

- Reusable components leading to minimal time spent on development, reduced cost and quicker time to market
- Goodwill and customer trust through transparent usage policies as a result of anonymization
- High preparedness to comply with Data Protection laws and reforms saving potentially huge amounts in legal expenses and penalties
- Analytic Insights to formulate effective market strategies by identifying key trends and themes in data; Use real-time aggregation of anonymous customer data in multiple ways
- Monetization of existing data and new revenue stream; Potential for multiple new revenue models

TechDefcon Analytics Platform (TAP*)

General Data Protection Regulation



GDPR: Factsheet

Technical Features

- Built for scalability using distributed processing platforms with Big data based technologies
- In-memory processing without persisting data anywhere before anonymization
- Choice of low cost open source or best of breed technologies
- In-built cross-cutting features to easily manage and monitor the platform
- Adherence to Service Oriented Architecture standards
- Security compliance with standards, like, PCI, ISO, HIPAA, RSA, PKCS

Functional advancement

- Deployed more than 50 variations of functional flows using different configurations for major telecom player
- Implemented advanced hashing (SHA5), encryption (RSA, ECC, AES) mechanisms with unstable seeds and keys for higher degree of data hiding
- Implementation of advanced algorithms K-Anonymity (K-5 to 1000), L-Diversity, and T-closeness for greater degree of anonymization
- Implemented API based (web services) interaction with different loosely coupled service components following SOA reference architecture for a telecom major
- Build in multi-tenant user management with O-Auth and JaaS implementation

Non-functional achievement

- Implemented for a European telecom major to process ~1 billion orders/per day, totalling to over 600GB of data per day.
- Deployed for a European telecom major in distributed cluster of 10 nodes for horizontal scalability using platforms like Apache Storm, Apache Hadoop

Applicable Use Cases

Data monetization with external parties

- Anonymization and enrichment of data
- Allowing access of data with K-anonymity/ L-diversity proofing

Data sharing with vendors

- Generation of masked/anonymized datasets from actual data
- Controlling visibility of information with controlled lifespan of anonymization

Third-party Analytics

- Required for the purpose of getting analytics done on anonymized data
- Enables sending of entire (unmasked/ non-generalized) data for analytical purposes
- Controlled access to the data with layered encryption mechanism

We Partner with Companies from Around the World

Enterprise Security & Risk Management

Capabilities & Credentials

Capabilities

- Experienced Consultants providing advisory and consultancy to medium to large organizations
- Have the knowledge / experience of the data protection laws mainly EU, UK and US Privacy Shield
- Experienced working in compliance roles, including compliance with privacy legislation
- Broad knowledge on information security , risk management and security governance
- Good personal organisation, self motivated and project management skills
- Excellent written and verbal communication skills with fluency in English
- Experienced with setting up Data privacy organisation

How capabilities can help

Trusted Security Advisors

Partnership & collaboration throughout the Digital Transformation journey

Innovation & Disruptive offerings

We offer Advisory, Protection , Monitoring & Remediation services in our portfolio

Thank You

- Contact us: sales@techdefcon.com

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