Informatica for GDPR and Data Security

Presented by Ilya Gershanov
Bucharest, 16th March 2017
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Introduction to Informatica
Introduction to Informatica

Over $2 billion investment exclusively focused on Data Management

3600+ employees

$1.1 billion revenue

500+ partners

300,000+ developers
Over 7,000 Customers Rely on Informatica

Financial
Services &
Insurance

Healthcare

Pharmaceutical

Telco

Public Sector

Oil & Gas

Energy & Utilities

Retail & Services

found from our FTP

ConocoPhillips

Informatica
Over 7,000 Customers Rely on Informatica (continued)

Education
- The George Washington University
- Illinois State University
- Kroton Education
- Harvard University
- RIT
- Stanford University

Media & Entertainment
- 20th Century Fox
- HBO
- Univision
- RCS
- Condé Nast
- Time Warner

Manufacturing
- Siemens
- Valspar
- Qualcomm
- Seagate
- IKON
- Cemex

High Tech
- Cisco
- Citrix
- HP
- Facebook
- Intel
- Google
- Microsoft
- Salesforce

Transportation
- BNSF
- KLM
- British Airways
- Con-way
- Maersk
- Europcar
- CP
- FedEx
- UPS

Consumer Packaged Goods
- Dial
- Foster's Group
- L'Oréal
- Whirlpool
- Electrolux
- Philips
- Monsanto

Automotive
- BMW
- Toyota
- Nissan
- Daimler
- GM
- Volkswagen
- Tesla
Industry Recognition for Best of Breed Products

Enterprise iPaaS (Cloud)

Data Integration Tools

MDM of Customer Data

Data Quality Tools

Data Masking Technology

Metadata Mgmt Solutions

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Informatica Intelligent Data Platform
Minimize Risks with Unified Enterprise Data Management Platform

Business Applications
- Analytics
- Compliance
- Governance
- MDM
- And more

INFORMATICA
INTELLIGENT DATA PLATFORM

Data Stores
Deep Partnerships
Introduction to GDPR

Background and Requirements
Identity Theft, Fraud and Impersonation Fuel Concerns

For many years has been the reason of

• Direct financial losses
• Ruined reputations
• Broken careers
• …

But it does not have to be like this!

Should be just bonuses and promotions for timely and reliable implementation
What’s changing?

• From 25th May 2018, the new EU General Data Privacy Regulation (GDPR) will require all organisations that hold data related to EU citizens to more effectively manage data on their customers, employees, contacts and any other relevant persons (Data Subject)
What is GDPR?

- Is a ‘principles’ based regulation
- New approach based upon ‘data privacy by design’
- Very large penalties for violations (of up to € 20 mln./4% of turnover)
- Applies to any organisation holding EU citizen data, anywhere
- Provides data protection rights to EU citizens
- Impacts the collection, processing, transfer, and disclosure of an individuals data records
- Provides consistent data privacy requirements across the EU
- Requires Data Protection Impact Assessments under some circumstances
The General Data Protection Regulation (GDPR) mandates the following (in general terms):

- A citizen’s right to rapid notification of a data breach
- A citizen’s consent to the processing of data & its utilisation
- A citizen’s right to the portability of their data to other providers
- A citizen’s right to access
- A citizen’s right to be forgotten / erased (where appropriate)
GDPR Requirements: What if Data Breach

• Article 31 tells us that controllers are required to notify the appropriate supervisory authority of a personal data breach within **72 hours (at the latest)** on learning about the exposure if it results in risk to the consumer.

• The GDPR notification also has to include:
  • categories of data,
  • records touched,
  • data subjects affected.

• This means that the work has to be done in advance including **sensitive data classification**, link to **Data Subject 360°** (Customer 360°, Contact 360°, Employee 360°, etc.)
GDPR Requirements: Consent Management

• **Consent** must be given in an intelligible and easily accessible form, with the **purpose for data processing attached to that consent**.

• This means:
  • Central data store for consent data
  • Online consent management (general opt-in/out and special cases)
  • Business processes (new customer, contract termination, mktg. campaigns)
  • Consent lifecycle management (expiations etc.)
  • Link to **Data Subject 360°** (and sensitive data in downstream systems)
GDPR Requirements: Other Rights of Data Subject

- **Data Portability** - receive the personal data concerning them and have the right to transmit that data to another controller.

- **Right to be Forgotten** - have the data controller erase his/her personal data.

- **Right to Access** - obtain confirmation as to whether or not personal data concerning them is being processed, where and for what purpose.

- This means existing processes and frameworks to:
  - Identify all personal data in relation to **Data Subject 360°**
  - Extract all personal data, consent and usage information
  - **Consistently remove/obfuscate & archive** all personal data
GDPR Implementation

The Plan + Toolbox
GDPR. The Plan to Get Compliant

1. **QUICK POSITIONING**
   - Where are we right now compared to GDPR requirements?
   - What is potential fee exposure?
   - Where are we compared to our competitors?
   - ~5 days

2. **GDPR PROGRAM DESIGN**
   - What exactly has to be done to comply?
     - Organizational changes
     - Technology changes
   - ~1-3 Months

3. **GDPR PROGRAM EXECUTION**
   - Aligning organizational structure
   - Deploying roles and responsibilities
   - Policies and procedures design
   - Implementation of technical controls
   - Duration depends on the phase 2 results
Data Governance
Proven Foundation for Enterprise-wide Org. Changes incl. GDPR

Governance Council
Chief Privacy Officer, Chief Information Security Officer, Head of Legal, CFO, CDO
Policy setting

Data Stewardship
Data Governance Council, Data Security Office, DPO, Head of Architecture
Policy enforcement

Operational Implementation
IT Custodian, Data Owners, Data Custodian, Application Owners, Users
Policy execution and automation

Policy Implementation
Design, Data Discovery, Data Proliferation Analysis

Policy Optimisation
Access Policy Enforcement, Data Masking, Data Archiving, Data Disposal, Data Mastering

Informatica
GDPR. Informatica Toolbox
For Reliable and Cost-Efficient Implementation

“Where is all our data?”

“Where is our Data Subject data?”

“How is our data being used?”

“How do we control Consent?”

Data

Metadata

Policy Interpretation & Management

Sensitive Data Discovery & Risk Analysis

Data Subject Discovery & Mgmt

Enacting Consent Control
Policy Interpretation & Management

Relate to Processes, Data & Roles
Informatica Axon for Policy Management
Putting the Business in control of Data Governance

- Single repository of policies, processes, roles and data assets
- Easy capture and maintenance
- Monitoring and Attainment Tracking/Report incl. Data Quality
Enterprise Information Catalog is the Technical Foundation
Central Location and Unified view of all Enterprise metadata

- Use business semantics to search all enterprise data assets for Personal Data
- Discover relationships hidden in enterprise metadata, understand deep lineage and assess impact
- Reliable and Agile automatic categorization of personal data with Smart Data domains
- Fast implementation with broadest metadata source connectivity, processing at big data scale
Sensitive Data Discovery & Classification
For Risk Analysis
Sensitive Data Discovery as Ongoing Process

#1 Foundation
Standardized basis for measuring risk, communicating status, and making decisions.

#2 Objectives
Implement Data Security Intelligence with Sensitive Data Discovery & Classification
- Learn things you don’t already know
- Validate what you think you know
Continuous, automated process
With the data always up-to-date

#3 Action
Implement Data Security Controls:
- Prioritize data protection efforts
- Allocate resources effectively
- Monitor change and track progress
Sensitive Data Discovery for GDPR

Prioritization is the Key

- Sensitivity Level
- Protection Status
- Number of Sensitive Fields
- Number of Sensitive Records
- Number of Targets
- Risk Cost
- User Access Count
- User Activity Count
Secure@Source Capabilities

- Discovery & Classification
- Sophisticated policy framework
- Proliferation analysis
- User Access and Activity
- Multi-factor risk scoring
- Policy-based alerting
- Highly visual and interactive
- Integrates data security information from 3rd parties
Secure @ Source for Current View on Risk
Data Subject Discovery & Management
GDPR. How to Link Personal Data to Data Subjects?
Customer 360° Has to be Ongoing
Valuable information changes and degrades….

- 5,769 people change jobs
- 2,748 people change address
- 515 people get married
- 263 people get divorced
- 186 people declare bankruptcy

Data Degrades
- 27% per year
- 61% in 2 years
- 104% in 3 years!

- 240 companies change addresses
- 150 companies change numbers
- 112 executives change jobs
- 12 companies open their doors
- 20 companies close their doors
- 4 companies change names

Informatica MDM – Robust App. to Support GDPR

Data view

Related MDM Children list view

MDM Match Candidates list view

Callouts – Important, time-or context-sensitive data surfaced to user

Images and rich media associated with MDM Entity displayed in view
Enacting Consent Control

With Informatica Data Security Solutions
GDRP Control Approach

• Restrict access to personal data:
  • If the data can be changed – mask/obfuscate with data masking
  • If not (in production systems) – use dynamic data masking
  • Use Informatica Test Data Management solution for non-production environments

• Optimize application landscape to save the cost of compliance:
  • Decommission and archive historic application data
  • Manage Information Lifecycle Management policies with Informatica Data Archive solution
The Goal of Dynamic Data Masking
Central security enforcement across the enterprise

<table>
<thead>
<tr>
<th>Authorized</th>
<th>Call Center User</th>
<th>Data Scientist</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Client Name</strong></td>
<td><strong>Masked Client Name</strong></td>
<td><strong>Masked Client Name</strong></td>
</tr>
<tr>
<td>John Stone</td>
<td>J*****</td>
<td>J*****</td>
</tr>
<tr>
<td>Adam Ross</td>
<td>A*****</td>
<td>A*****</td>
</tr>
<tr>
<td>987-65-4329</td>
<td>xxx-xx-4329</td>
<td>xxx-xx-xxxx</td>
</tr>
<tr>
<td>987-65-4320</td>
<td>xxx-xx-4320</td>
<td>xxx-xx-xxxx</td>
</tr>
</tbody>
</table>

Dynamic Data Masking
Applies rules based on user context

Production database containing sensitive data

<table>
<thead>
<tr>
<th>Client Name</th>
<th>SSN</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Stone</td>
<td>987-65-4329</td>
</tr>
<tr>
<td>Adam Ross</td>
<td>987-65-4320</td>
</tr>
</tbody>
</table>
Comprehensive Data Privacy

Protect sensitive data in both production and non-production

Sensitive Data Discovery & Classification
- Risk Analytics
- Protection Status
- Proliferation
- User Activities

Users

PRODUCTION SUPPORT

Informatica Dynamic Data Masking

Informatica Persistent Data Masking

Informatica Test Data Management

Informatica Data Subset

CRM
CUSTOM
BILLING

PACKAGE
EDW

ERP

PRODUCTION

DEV

TEST

TRAIN

Data Privacy Compliance Validation
Informatica Test Data Management Platform

Test Data Management

- Sensitive Data Discovery
- Persistent Data Masking
- Test Data Subset
- Test Data Generation
- Test Tool Integration
- Test Data Warehouse

Non-Production

- Dev
- Test
- UAT
- Train

Dynamic Data Masking

HP ALM

Risk & Compliance Officers

Offshore, Outsourced

Testers, Developers, Trainers

Cloud

DBA & Infrastructure Managers

Production
Informatica Test Data Management
Robust Environment and Scalable Engine to Comply with SLAs

- **Comply with challenging SLAs** for performance and data volumes with highly Scalable Masking/Subsetting engine
- **Single platform** for all Databases and Applications with extensive connectivity
- **Cost-efficient** with mature administrative and monitoring tools and robust development environment
Manage the Cost of Compliance

With Application Retirement
The Cost of Compliance is the Biggest for Old Apps.

• Prohibitive costs to implements GDPR:
  • Lack of “exotic” skills to develop, tune and admin.
  • HW & Licenses costs to implement new functionality
• Regulatory & Compliance
• Litigation Risks
Decommissioning for Cost of Compliance Optimization

Retire data confidently from any structured data source
Validate completeness of your data before decommissioning
Store retired data in a massively compressed and accessible file archive
Manage retention policies, access data, and purge data permanently
Achieve compliance with all government regulations and industry standards
# GDPR. Defensible Disposition

Enforce data retention policies across the archive

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Informatica Data Archive Capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhere to audit needs</td>
<td>✓ Automate data archive, validation and reporting</td>
</tr>
<tr>
<td>Manage retention policies</td>
<td>✓ Eliminate the need to purchase a separate tool</td>
</tr>
<tr>
<td>Reduce risk of over-retention</td>
<td>✓ Automate record destruction when retention expires</td>
</tr>
<tr>
<td>Streamline compliance</td>
<td>✓ Expired records summary and detailed reports</td>
</tr>
<tr>
<td>Ensure Defensible Disposition</td>
<td>✓ Protect data and enforce Legal Holds</td>
</tr>
</tbody>
</table>

**Compliance Manager**

**Compliance Officers**

**Application Administrators**
<table>
<thead>
<tr>
<th>Data Powers Business</th>
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<tbody>
<tr>
<td>ABS Implementation</td>
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<td>Digital Transformation</td>
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<td>Customer 360</td>
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<td>Move to the Cloud</td>
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<td>Omnichannel</td>
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<td>Universal FE</td>
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<td>Customer Experience</td>
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<td>Fraud/RevA</td>
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<td>API 1st</td>
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<td>Data Privacy (GDPR)</td>
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<td>Regulatory Projects</td>
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<td>Masking: Care Agents</td>
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<td>Marketing Campaigns</td>
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<td>Behavior Analytics</td>
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<td>Product Info Mgmt.</td>
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<td>Data Monetization</td>
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<td>M &amp; A</td>
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<td>Supply Chain</td>
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<tr>
<td>Test Data Mgmt.</td>
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**INFORMATICACA**

**INTELLIGENT DATA PLATFORM**

**Data Stores**
**Business Case**
- What data do we need to share?
- Do we have it?
- What is the location?
- What regulations are they subject to?
- What data protection is in place?

**Value of Informatica**
- Technical and Business Metadata
- Sensitive Data Discovery and Classification
- Dynamic/Persistent Data Masking and Subsetting

**Business Benefit**
- Faster implementation
- Cost-savings
- Risk minimization
Due to re-use of enterprise-wide data protection rules

Make this a repeatable process
Informatica Enterprise Platform for Compliance

- Always current, detailed and reliable compliance status
  - Including executive dash-boards and alerting
- Enterprise-wide single cost- and resource - efficient platform to maintain compliance:
  - Single set of data protection rules across enterprise;
  - Single platform to support a wide range of applications and technology stacks.
- Better support for new business initiatives:
  - New org. structures, processes and tools become a foundation for new initiatives like data monetization etc.
Thanks for your time

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