

A Compliance Toolkit for GDPR

Keeping Private Data Private



The GDPR Framework | Effective 25 May 2018

GDPR, or the General Data Protection Regulation, is a data protection law adopted by the European Union.

Why it Matters to You

Organizations with large-scale processing of personal data **must** appoint a Data Protection Officer (DPO).

If you collect information from EU citizens, you **must** comply with the regulation.

Personal Data Defined

“Any information related to a natural person or ‘Data Subject,’ that can be used to directly or indirectly identify the person. It can be anything from a name, a photo, an email address, bank details, posts on social networking websites, medical information, or a computer IP address.” | eugdpr.org

Primary Goals

Return control of personal information to individuals. Facilitate international business by creating an EU-wide standard.

For example, the right of portability, so that a person can transfer their data to another collector.

The Right to be Forgotten

A critical component of the GDPR is Data Erasure, or the *Right to be Forgotten*, which enables a Data Subject to have his or her personal information erased and free from further dissemination.

Enforcement and Punishment

GDPR, or the General Data Protection Regulation, is a data protection law adopted by the European Union.

Enforcement

GDPR enforcement falls on data protection regulators across the EU.

It can range from encouragement to comply with the law to company-crippling fines, depending on the severity of the violation and jurisdiction.

Penalties for Non-Compliance

An organization can be fined up to 4% of annual global turnover (revenue, not profit) or €20 million, whichever is greater.

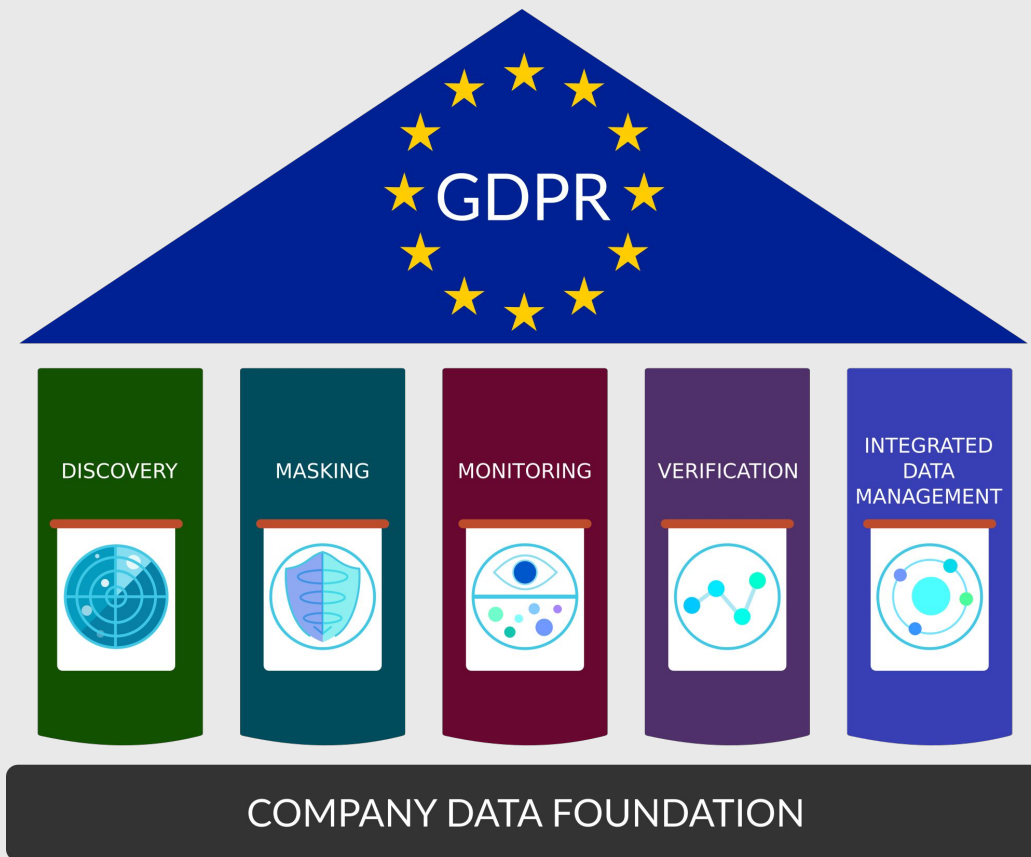
A tiered approach imposes a 2% fine on not having user records in order, failing to notify the governing authority and users in the event of a breach, and not conducting impact assessment.

These rules apply to both data controllers *and* data processors.

The 5 IRI Pillars of GDPR Compliance

By managing electronic data assets across these five paradigms, you can ensure systematic compliance with the GDPR.

IRI Data Protector Suite software enables you to put the pillars to work in support of your GDPR efforts, and to approach security from a data-centric point of view.

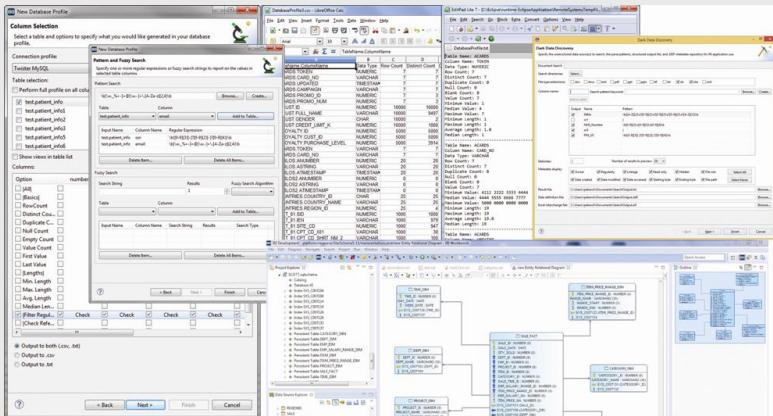




Data Discovery, Deletion, and Delivery

Finding PII

GDPR effectively requires you to be in 100% control of your information. To control them, you have to know where they are. The ability to rapidly search and classify the PII you're looking for are thus essential first steps.



The Right to be Forgotten & to Data Portability

To remove and provide PII and requested data associated with it, you have to know where it is.

Data classification, searching, reporting, extraction, and erasure capabilities in the IRI FieldShield, DarkShield, and CellShield EE products in the IRI Data Protector Suite or Voracity platform can find and erase individual records, and prove it.

In addition, the PII and attendant transactional data can be extracted and provided in a common EDI format. Added bonuses are automatic source data storage, lineage and source metadata collection and reporting.



Data Masking & Role-Based Access Control

Static Data Masking (SDM)

Protects data elements at rest via encryption, pseudonymization, hashing, redaction, etc. These elements typically include DB column or flat-file field values that are considered sensitive.

Dynamic Data Masking (DDM)

Works on a policy basis so that applications which query RDB tables reveal unmasked data only to authorized users, while masking results for all others. The source data remains unchanged.

Use predefined masks

Predefined Masks

Mask Example: 745812/5554 => *4*8*2/*554

Czech PIN



Role-Based Access Control

Role-Based Access Control (RBAC) limits system and database access to authorized users only.

Roles are created for specific job functions, and users are assigned to these roles. Permissions to perform certain operations within the system and architecture are assigned to roles.

By implementing an RBAC system, you prevent data breaches by restricting the power any one user has to what he or she can see or do with data. This is part of keeping PII secure and GDPR-compliant.





Activity Monitoring & Protection

DAM/DAP/DDM Technology

A database proxy system available to IRI FieldShield users offers additional layers of PII security. The JDBC SQL Trail driver and SQL# management application combine to block unauthorized table accesses and SQL executions, send alerts, mask data dynamically, and log all SQL activity into an audit log that can be used to help verify compliance.

The screenshot shows the 'SQL# History Management' interface. It includes a search bar with filters for Proxy Server, DBMS, SQL type, and Session ID. Below the filters is a table with the following data:

User Name	Login Id	Queries	Execution Date and Time	Time Required (m)	Result ROW	Varia
Administrator	admin	select * from orders	2020-03-13 16:37:12	111	200	
Administrator	admin	SELECT ORDER_ID FROM ORDERS	2020-03-13 14:10:36	1796	200	
SCOTT	SCOTT	select * from orders	2020-03-12 12:24:19	2047	-1	
SCOTT	SCOTT	SELECT * FROM "SCOTT"."ORDERS"	2020-03-11 19:17:46	1828	500	
SCOTT	SCOTT	SELECT * FROM "SCOTT"."ORDERS"	2020-03-10 13:06:29	62	500	
Administrator	admin	SELECT * FROM "SCOTT"."ORDERS"	2020-03-10 13:02:40	47	500	

The screenshot shows the login screen for the 'SQL# dataware data operation' system. It features the IRI logo and the text 'Total Data Management'. The login form includes fields for 'user name' (containing 'admin') and 'password' (masked with dots). A 'Log in' button is located at the bottom of the form.



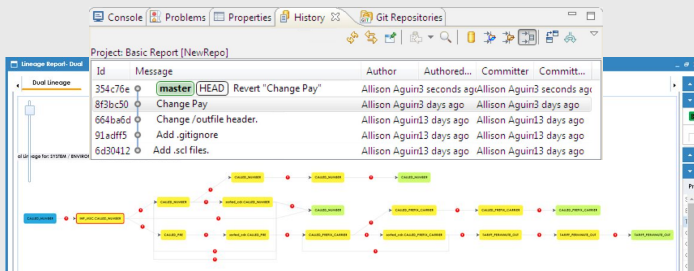
Verification

Lineage

Show the complete history of data including:

- Where it originated
- Where it moved
- How it changed over time

Tracking how data exists and moves enables you to monitor the key interactions with it. Data and metadata lineage can reveal who altered information, when, where, and how.

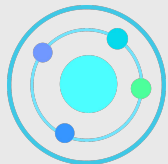


Reporting & Auditing

Comprehensive source data profiling reports, data and metadata extracts, and after-action audit logs allow you to *prove* to regulatory bodies that you know where your data is, who accessed it, what's been done to protect it, and how you handled "Right to Be Forgotten" and Data Portability requests.

Re-ID Risk Scoring

Determine the risk of PII being re-identified through automatic statistical analysis of the quasi-identifiers. Use the report to select and apply blurring and generalization functions to harden the data while preserving its utility. This helps you comply with GDPR Article 29.



Integrated Data Management

Data Integration (ETL)

GDPR requires you to have proof of consent to use PII. ETL processes can automate the work of acquiring disparate data, checking for a consent condition, deleting outdated or incorrect data, and joining/transforming key elements into a central store for use.



Test Data

Don't use production data for prototyping ops or stress-testing apps when you can auto-generate smart, safe test data instead. Realistic, referentially-correct test data lets you simulate production data *and* comply with the GDPR without sacrificing realism.

Data Discovery, Cleansing, and Masking

Article 5 of GDPR requires inaccurate data to be removed or fixed without delay. Being able to validate, change, and unify data -- and producing an audit log indicating the source, target and changes made -- helps you both *achieve and verify* GDPR compliance.

Data Wrangling

Preparing data for BI and analytic applications require that data be filtered, transformed, cleansed, and de-identified appropriately.

Doing all this at once is possible.

IRI | 43 Years of Data Management

Innovating in high-performance data movement and manipulation since 1978 and data security since 2007.

Who We Are

Innovative Routines International (IRI), Inc. is an independent software vendor (ISV) famed for creating CoSort, an engine for DW transformation, DB loads, BI data preparation, and application acceleration.

Today IRI is also renowned for data-centric protection technology from its provision of award-winning data-masking and DCAP products and rapid-response support teams.

How We Help

IRI features a modular approach to data protection and management.

Our products provide the exact degree of specificity you need to achieve your goals and GDPR compliance. Together they form the Data Protector and the Data Manager Suites and the Voracity platform.

IRI also provides data masking as a service, and partners with GDPR consultancies, and both statistical and legal experts for HIPAA security rule compliance.



Total Data Management

IRI Product Offerings Stack



IRI Voracity

An Insatiable Appetite for Data

Consolidate tools and tasks to process, protect, prototype, present



IRI CoSort
Sort, Transform & Report

Speed or replace batch, BI, ETL, sort, and SQL programs



IRI NextForm
Data, File & Database Migration

Unlock data and move between apps, databases, and platforms



IRI RowGen
Smart Test Data Generation

Prototype DBs and ETL, stress-test, outsource, and benchmark



IRI FACT
Fast Extract for DBs

Speed RDBMS unloads for archival, migration, reorg, and ETL

DATA MANAGER SUITE



IRI FieldShield
PII / PHI Classification & Masking

Comply with privacy laws, nullify breaches, govern data



IRI CellShield
PII / PHI Search & Mask in Excel

Profile and de-identify PAN/PHI/PII in Excel® spreadsheets



IRI DarkShield
Unstructured Data Search & Security

Discover, deliver, and delete PII in dark data file formats



IRI DMaaS
Data Masking as a Service

Leverage IRI services to classify, discover and mask multi-source PII

DATA PROTECTOR SUITE



Total Data Management

Trusted Solutions for GDPR Compliance and More

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