SecuPi

Simplified & Centralized Data Protection

Sensitive Data Access Protection and
De-identification for Cross Cloud and on-Prem

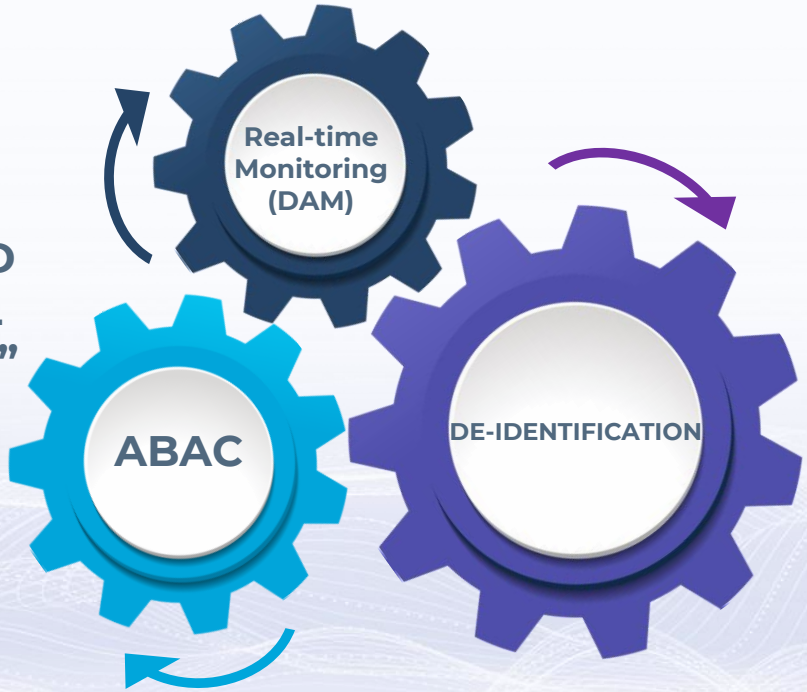
www.secupi.com

Unified Data Security Platform Modules

REAL-TIME VISIBILITY & CLASSIFICATION

- Classification and real-time Monitoring of sensitive Data Usage
- User Behaviour Analytics & Threat Detection
- Production DB Passwordless access using SAML Assertion attributes

(Data Activity Monitoring - DAM)



ATTRIBUTE-BASED ACCESS CONTROL "NEED-TO-KNOW"

(Protection in-use)

- Attribute Based Access Control (ABAC)
- Alerting or blocking unauthorized access

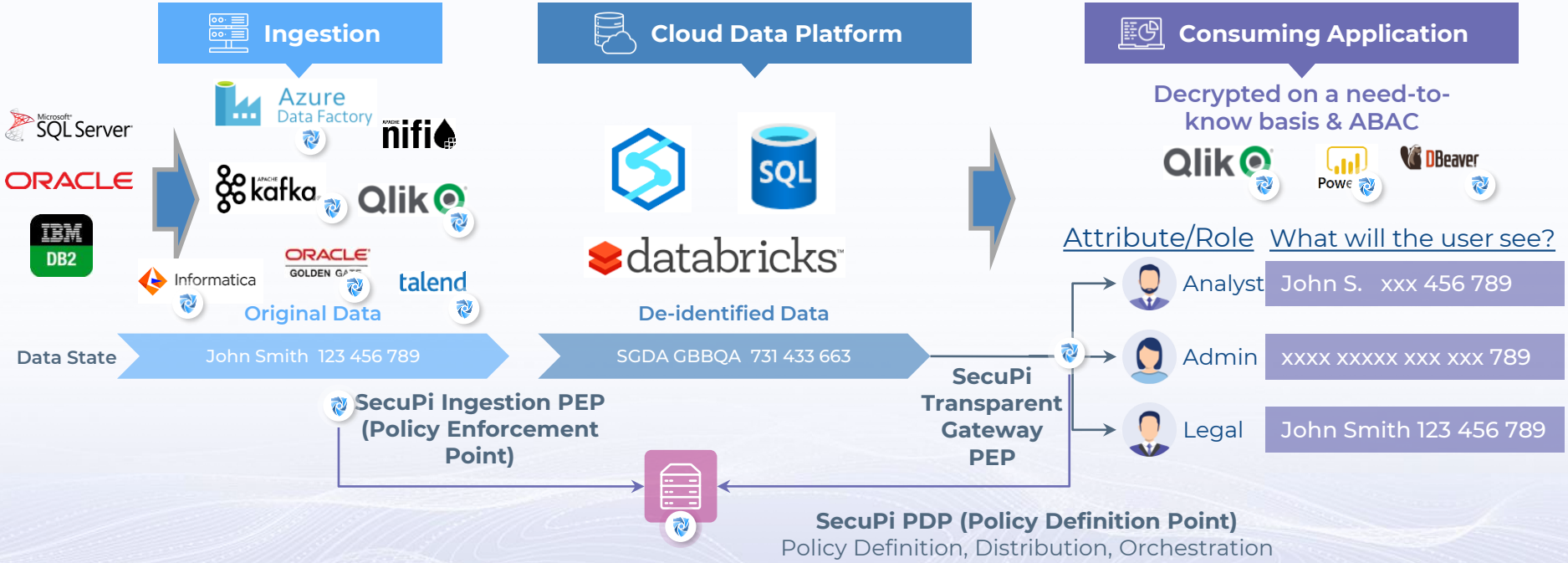
DATA DE-IDENTIFICATION MASKING AND DELETION

(Protection at-rest)

- Acceleration to value from FPE encryption, Tokenization, Masking and Obfuscation
- "Right of erasure" and consent-based retention management

SecuPi de-identifies data for Azure Services with full SoD and fine-grained access control (ABAC)

SecuPi agents support ADF, Nifi, Spark, Kafka, Informatica, Talend etc.,



Note: Customer Data in Azure is Always Encrypted, providing full SoD from Dev, DBAs and Cloud Admins while addressing Data Sovereignty Laws

SecuPi Unified Reversible and Irreversible de-Identification Capabilities

SecuPi Data Protection Capabilities

Deterministic & Reversible Methods

Original Data

4472-8302-9115-3562

4472-9665-3456-2362

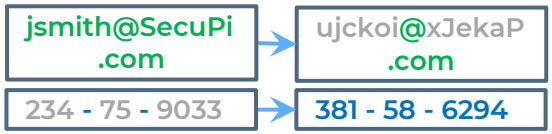
YXNkIGdmc2RmZbmJhc3NkIA==

NTY5MGprbGZzZHM7YTA5MzQ
9MGdmbGtkO2phMDkzMg==

Tokenization and FPE

- Based on NIST standard, using 128, 192 or 256bit enc keys
- Fast, Reversible.
- Preserves Form & Length based on the Data Format
- Can include checksum and validation bits

Original Data



AES Encryption

- Data is converted to binary ciphertext using mathematical algorithm and encryption key.
- Fast, Reversible.
- Non-Format Preserving , hard to use with Database Schemas

AEAD Encryption

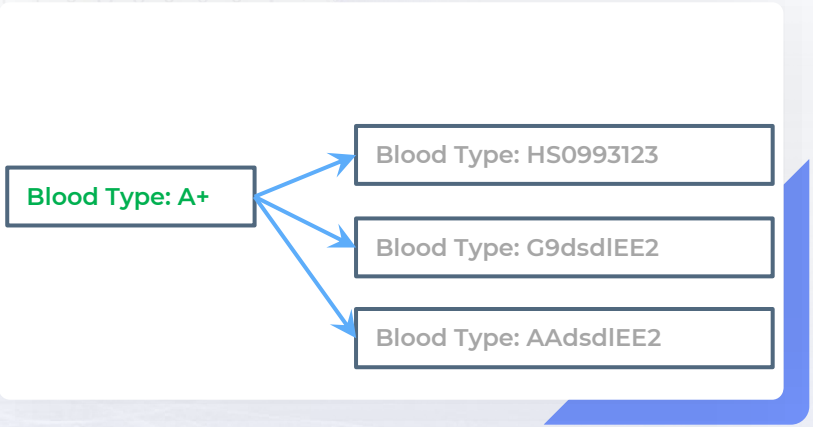
- Like AES with Authentication (storing Key Name + Version as part of the value)
- Ciphertext result is longer than AES
- Fast, Reversible
- Non-Format Preserving, hard to use with Database Schemas

SecuPi Data Protection Capabilities

Deterministic & Reversible Methods

Blurring [for low entropy data]

- Adds Random Noise and Encrypt the value
- Can create Millions of permutations
- Non-Deterministic, Not Format Preserving
- Reversible
- Good for low-entropy fields such as Blood type, Gender



SecuPi Data Protection Capabilities

Deterministic & Irreversible Methods

Bucketing/Rounding

- Group values into buckets (configurable)
- Irreversible
- Good for Low-Environments

Dynamic Masking

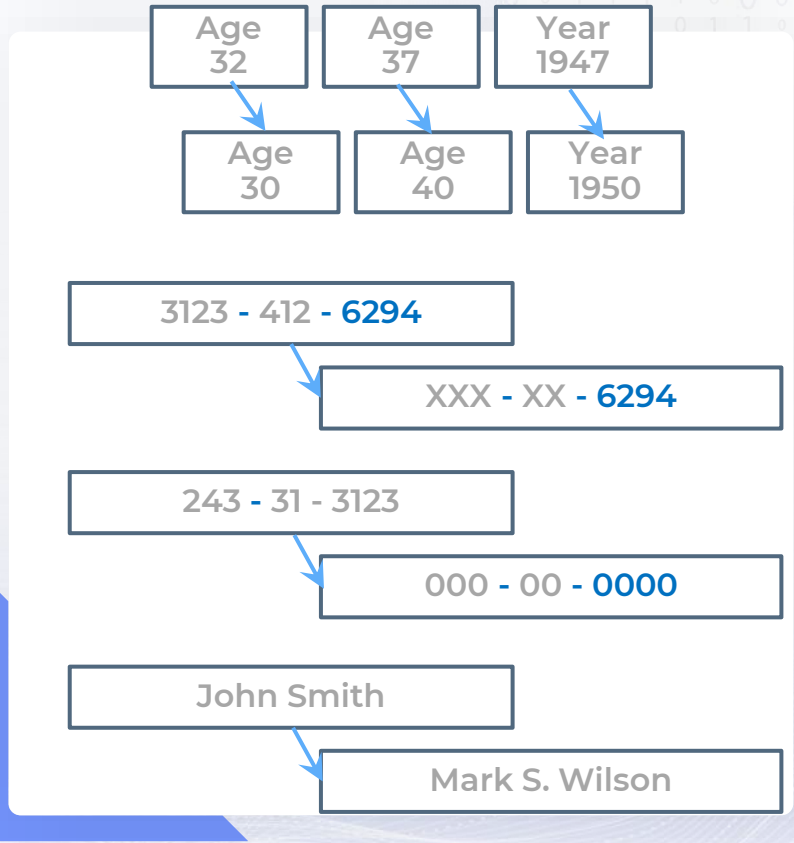
- Transform values into non-readable form
- Irreversible
- Good for Low-Environments / Application Data Minimization

Replacing/Zeroing/Nullifying

- Mask/Hide parts of the result with X, Zero or Random value.
- Irreversible.

Obfuscation

- Data is consistently randomized into a set of values
- Irreversible
- Good for Low-Environment / Testing purposes

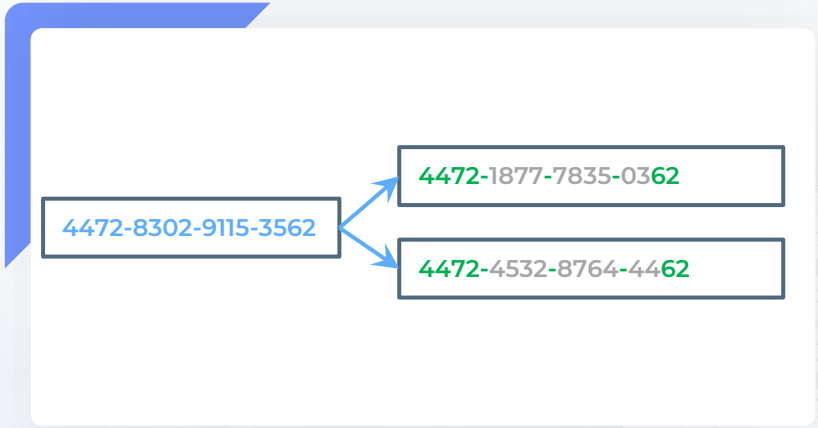


SecuPi Data Protection Capabilities

Non-Deterministic & Irreversible Methods

Format Preserving Randomization

- Use FPE with Random Key
- Format Preserving
- Non-Deterministic (different value each run)
- Irreversible

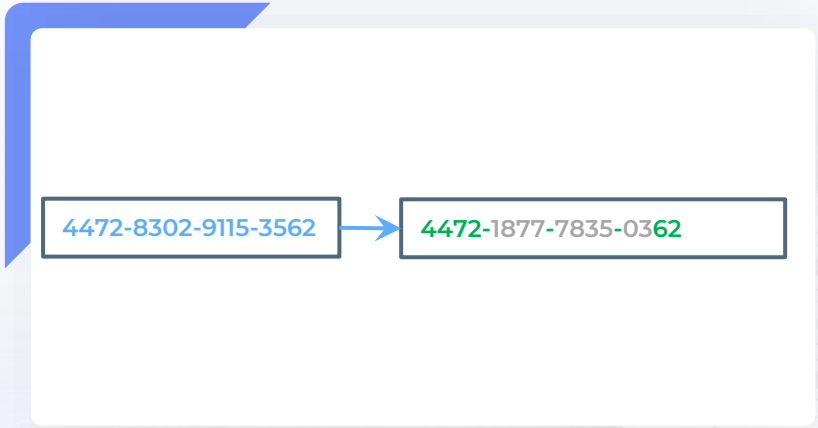


SecuPi Data Protection Capabilities

Non-Deterministic & Irreversible Methods

Format Preserving Masking

- Deterministic (same value each run, hence allow to join)
- Irreversible
- Can adhere to various validation functions, such as Luhn function (for CC), checksum for SSN etc.,



SecuPi Data Protection Capabilities

Deterministic & Reversible Methods

Type-Safe Encryption

- Transform values into a different value in the same Type
- Type of data preserved
  (Integer, Long, Dates, Floats, Doubles)
- Reversible
- Good for Database Types, ETL processes, making sure encryption does not break applications
- Plain FPE may fail in those cases