K2View Fabric for GDPR Compliance

November 28, 2017

K2VIEW

Data without delay.

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What if you could begin protecting consumer data to GDPR standards in just weeks?

Introducing K2View Fabric.

A better, faster way.

Identify, access, export or purge all the data you need to for GDPR compliance.

In weeks, not years.

A real-time 360 DaaS platform serving many big brands

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We help enterprises evolve and win in a data-driven world

- Distributed data management platform that integrates, secures, stores, synchronizes and delivers real-time data as a service
- Founded in Israel in 2009, HQ in Dallas, TX

GDPR Background

- General Data Protection Regulation was adopted by EU Parliament in April in 2016 with enforcement beginning May 25, 2018
- Requires businesses to protect the personal data and privacy of EU citizens for transactions that occur within EU member states (28 states)
- Also regulates the exportation of EU data outside of member states
- Any company conducting business in the EU or companies processing data of EU residents are required to comply
- Failure to comply will result in penalties of PS 20M or 4% of global annual turnover, whichever is greater

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Key GDPR Requirements

Consent (articles 6, 7, 8)

- Companies must get Bill's permission to use his data for each specific function.

Right to Access (article 15)

- Bill has the right to know upon request, what personal data a company is using and how its being used.

Right to be Forgotten (article 17)

- Companies must be able to delete Bill's data and cease using it upon request.

Data Portability (articles 20)

- Companies must enable Bill to transfer his personal data to other companies upon request.

Data Protection (articles 25, 32)

- Companies must be able to provide Bill with a reasonable level of data protection and privacy.

Reporting Breaches (articles 33, 34)

- If Bill's data is breached, he (and authorities) must be notified by the company within 72 hours.

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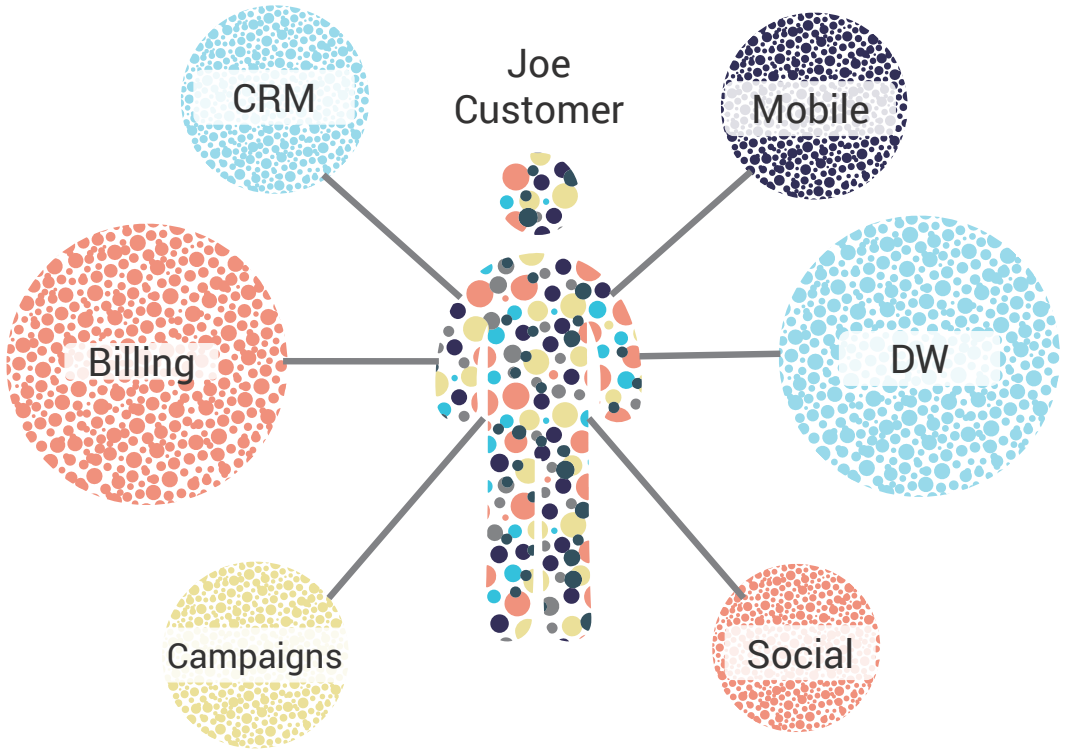
The problem: It's hard to know all the data you have on Joe

- You don't know where it lives
- Which means you don't have the ability to easily protect Joe's data or act on it



But what if you could?

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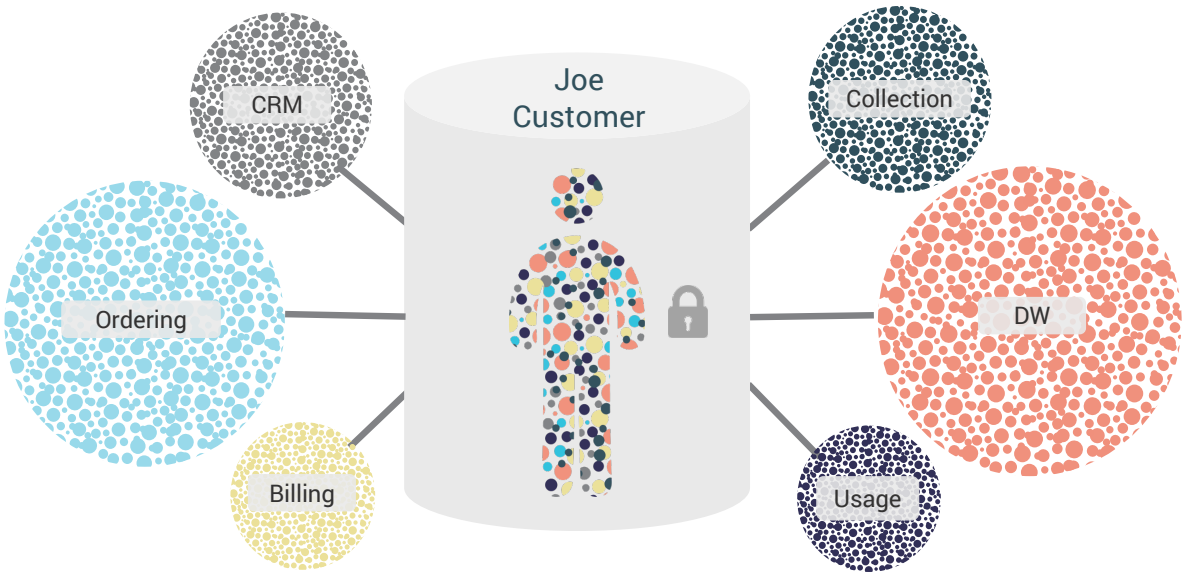
K2View Fabric: All the essentials for GDPR compliance

- Fabric enables enterprises to bring together all of their customer data, regardless of the source, and store it in individually secured micro-databases, that can act as the central control point for all customer data
- Our secret sauce is the way we organize and secure data at the “Business Entity” level (e.g. customer, product)
- This is essentially the core of what is needed for compliance with most of the GDPR articles
- In fact…we’ve issued a patent that protects our unique way of organizing, storing and securing data



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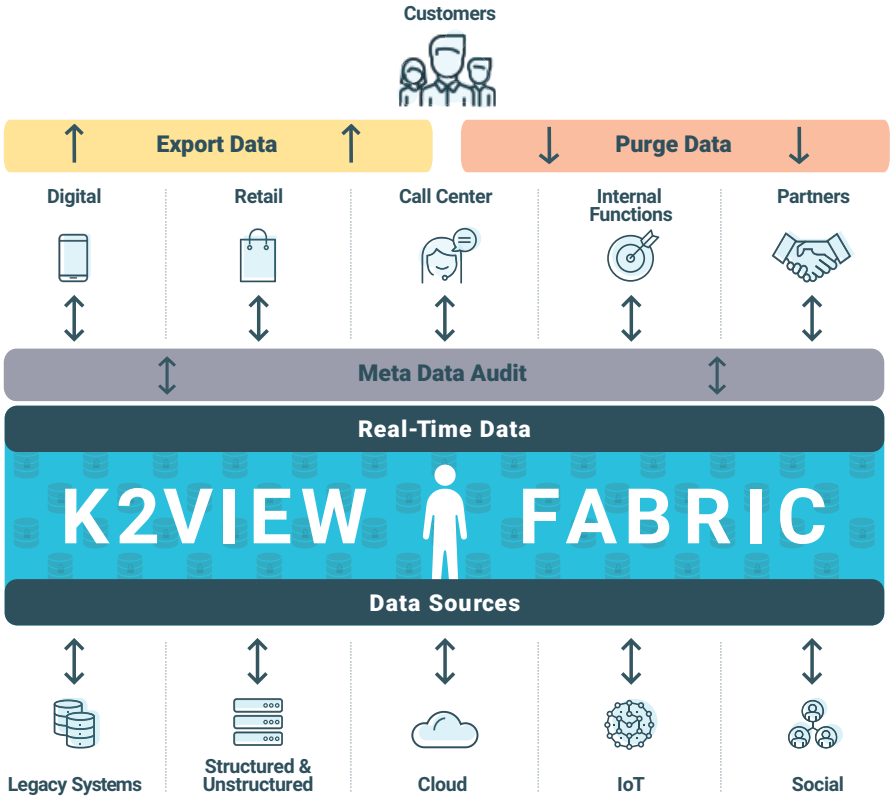
Privacy by design … GDPR compliance progress in weeks

- Rapidly integrate data from any source
- Create holistic, 360˚ data around whatever matters most to your business:
  - Customers
  - Products
  - Network Towers
  - Households
  - Stores/Locations
  - Transactions
  - Devices
- Stored in thousands (or millions) of individually-encrypted micro-databases
  - Can support EU same geography storage requirements
- Then kept up-to-date in real-time
- And easily exposed, exported or purged

Typical project duration: 3 months



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K2View Fabric = GDPR Compliance

Consent (articles 6, 7, 8)

- ✓ Single source and access point for customer data
- ✓ Consent collected, housed and restricted by discreet function that uses customer data
- ✓ Existing consent partners, sources and processes easily incorporated

Right to Access (article 15)

- ✓ All the data a company has on a customer can be held within Fabric
- ✓ Mapping maintained of where all a customer's data lives, the functions/services using it, and a history of all of the changes
- ✓ Provides access to this information via web services for display or reporting.

Data Portability (articles 20)

- ✓ Web services layer for export of customer's data in a number of transferrable file formats including .CSV, XML, ???

Right to be Forgotten (article 17)

- ✓ Capabilities for purging and archiving any data within its scope
- ✓ Because Fabric maintains a complete map and the ability to interact with each of the source systems, it's able to orchestrate the complete removal of any data within its scope

Data Protection (articles 25, 32)

- ✓ Fabric organizes & stores data at an individual customer level, which allows it be protected & secured at that same level
- ✓ Fabric individually encrypts each customer micro-database and we do it down to the data element level, virtually eliminating the risk of a mass breach of customer data

Reporting Breaches (articles 33, 34)

- ✓ If a breach were to occur, it would be done at an individual customer level and Fabric would know immediately and would issue notifications as appropriate

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Benefits beyond compliance

Speed

- Bring solutions to market in weeks or months, not years
- Complex queries executed in micro-seconds
- Scale and availability are concerns of the past

Security

- Each business entity micro-database is individually encrypted
- Data is protected at the data layer, not the application
- Data masked on a business entity level

Savings

- Data is compressed at 90% of traditional databases
- Leverage investments in SQL
- Commodity hardware/OS & standard integration

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GDPR Compliance progress … in just weeks

K2View Fabric was created with Privacy by Design in mind

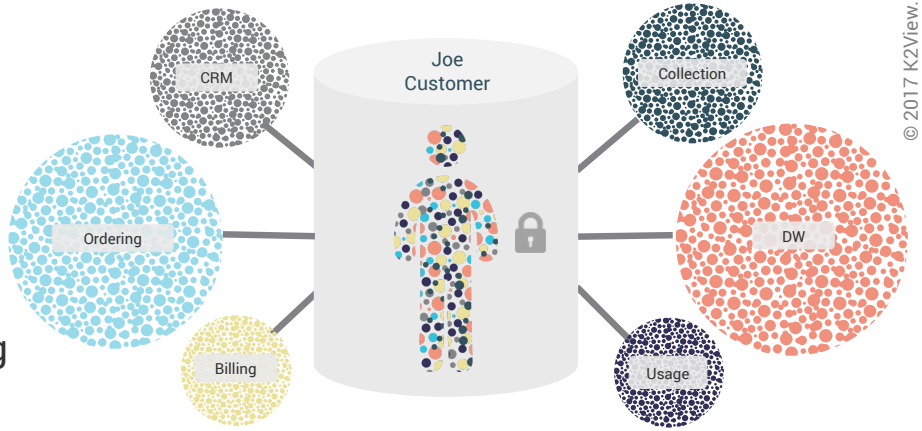
K2VIEW FABRIC

- Real-time, 360 Data platform accelerates your compliance roadmap
- Zero impact to source systems
- All data about a customer stored in individually-encrypted micro-databases

PRIVACY BY DESIGN

- Single source and access point for customer data
- Individually-encrypted micro-database structure
- Consent capabilities by function
- Mapping & history logging
- Archiving, exposure, export & purging capabilities

- Fabric enables enterprises to bring together all of their customer data, regardless of the source, and store it in individually secured micro-databases, that can act as the central control point for all customer data
- Our secret sauce is the way we organize and secure data at the "Business Entity" level (e.g. customer, product)
- This is essentially the core of what is needed for compliance with most of the GDPR articles
- In fact, our unique way of organizing, storing & securing data is patent-pending



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GDPR Compliance progress … in just weeks

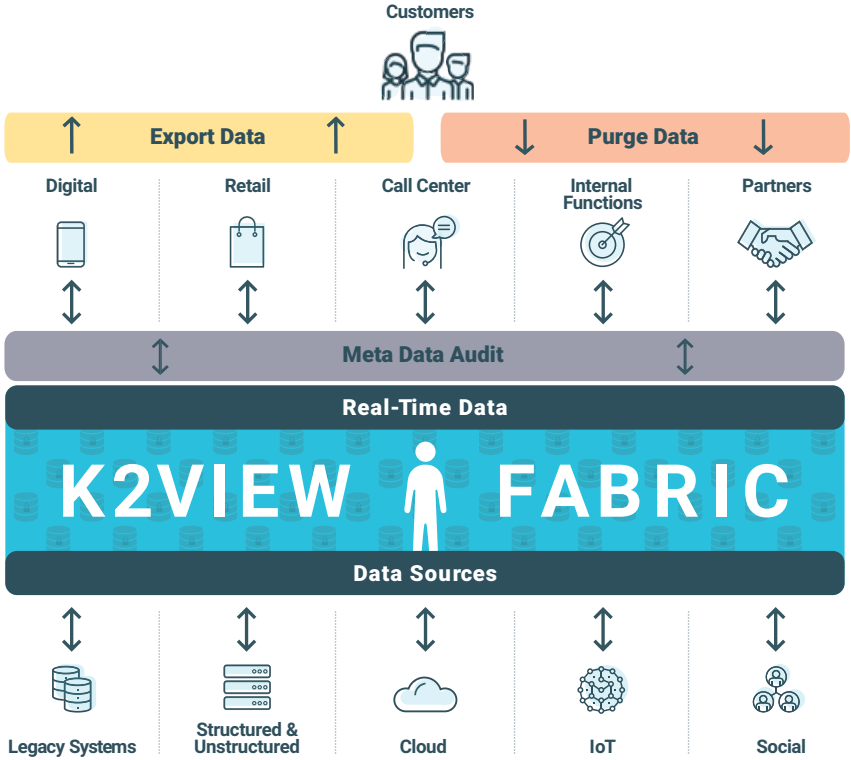
K2View Fabric was created with Privacy by Design in mind

PRIVACY & SECURITY BY DESIGN

- Single source and access point for customer data
- Individually-encrypted micro-database structure for each customer virtually eliminates risk of mass data breach
- Should single micro-DB breach occur, quick notifications issued

CONSENT CAPABILITIES

- Consent collected, housed and restricted by each discreet function that uses data
- Existing consent partners, sources and processes easily incorporated



DATA MAPPING & HISTORY AUDIT

- Mapping maintained of where all a customer's data lives and the functions/services using it,
- Historical audit capabilities of all changes to data

EASY ARCHIVE, EXPORT, PURGE

- Due to mapping and the ability to interact with each of it's source systems, Fabric can orchestrate the archival or complete removal of any data within its scope
- Web services layer for export of customer's data in a number of transferrable file formats

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K2View Fabric: It's not just for GDPR

Once deployed, rapidly power other solutions like:

- **Digital Transformation** – Customer360, omni-channel experience & more
- **Cloud Enablement** – Accelerate migrations or power CRM solutions
- **Network Transformation** – Powered by 360° views of network & customer data
- **Data Orchestration** – For risk management, compliance and more
- **Test Data Management** – Speed up development cycles by as much as 80%

Summary

Fabric was designed to solve the central GDPR problem

- We bring all of the data about a single customer together in a secure micro-database that can act as the central control point for data access
- We're the only solution designed around this unique approach to organizing and storing data
- Fabric provides (out of the box) a complimentary set of tools and capabilities to deliver the enterprise visibility and control to comply

Compliance can begin immediately

- As soon as you connect Fabric to the first source of customer data, you can demonstrate a clear and compelling path towards pervasive compliance with GDPR requirements
- Fabric is designed for speed, making it possible to show material progress in just a matter of weeks

Deployment flexibility

- We can accommodate a variety of implementation models to suit the preferences of our clients and partners
- Premise based or a variety of public, private and hybrid cloud configurations including a SaaS model

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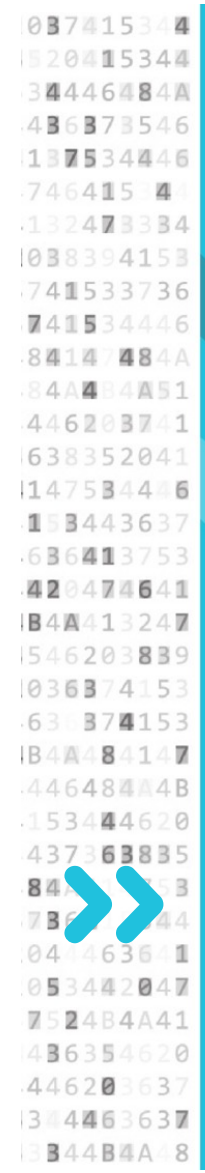
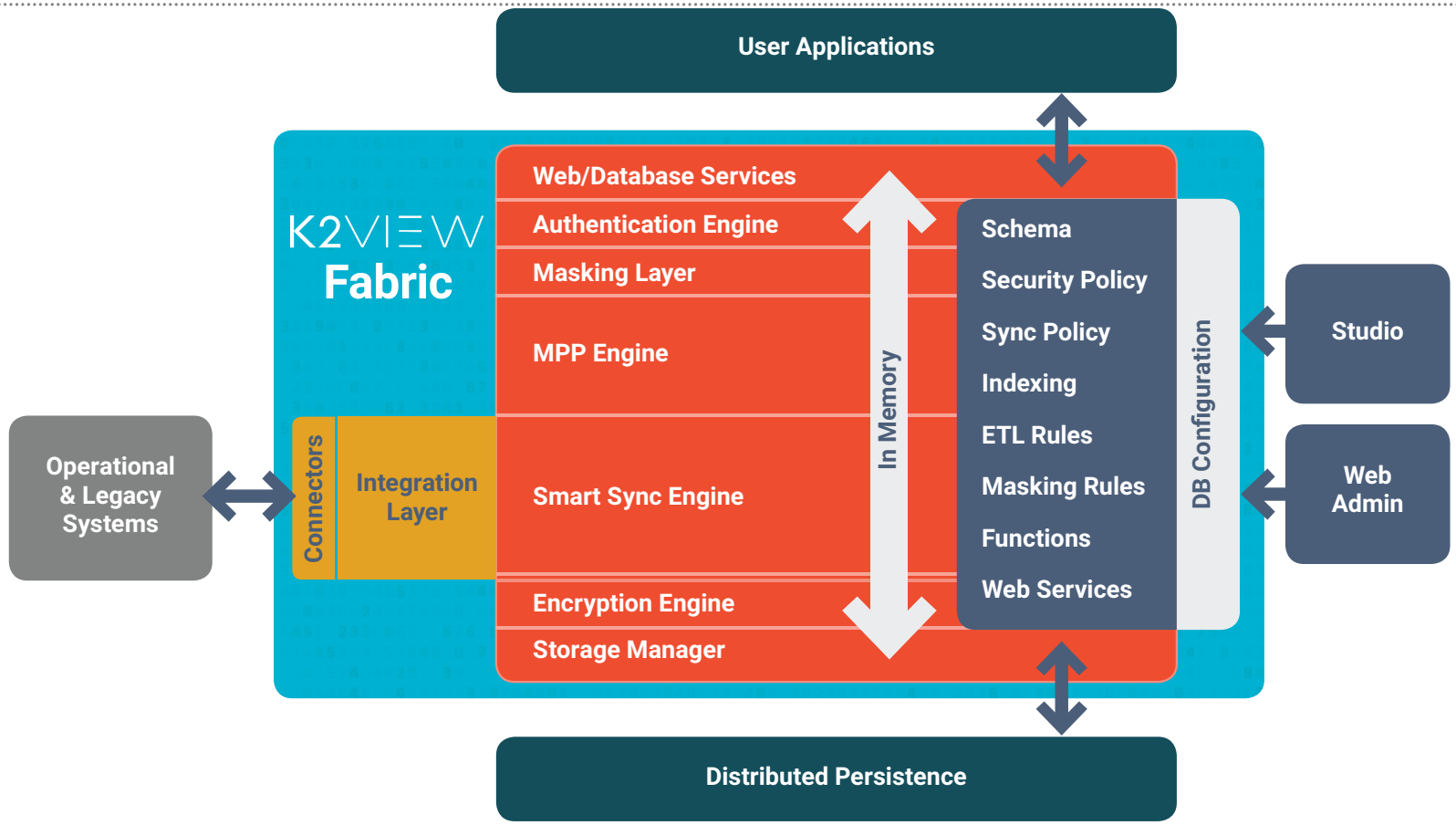
With your permission, we'd like to blow your minds.

Give us 2 weeks, and we'll show you what K2View Fabric can do for your GDPR compliance initiatives with a free Proof of Concept.



Appendix

K2View Fabric Architecture



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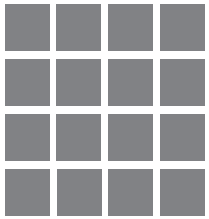
Typical hardware specifications

Hardware Configuration

1 Windows Machine (Studio)
- Server 2008/2012
- 4 Cores
- 8 GB RAM
- 100 GB HDD



1..n Linux Nodes (Cluster)
- RedHat/CentOS 7
- 8 Cores
- 32 GB RAM
- 1 TB HDD

Deployment Options

- On Premises
- In Cloud
- Hybrid
- On VM
- On Physical Machines
- Self contained installers

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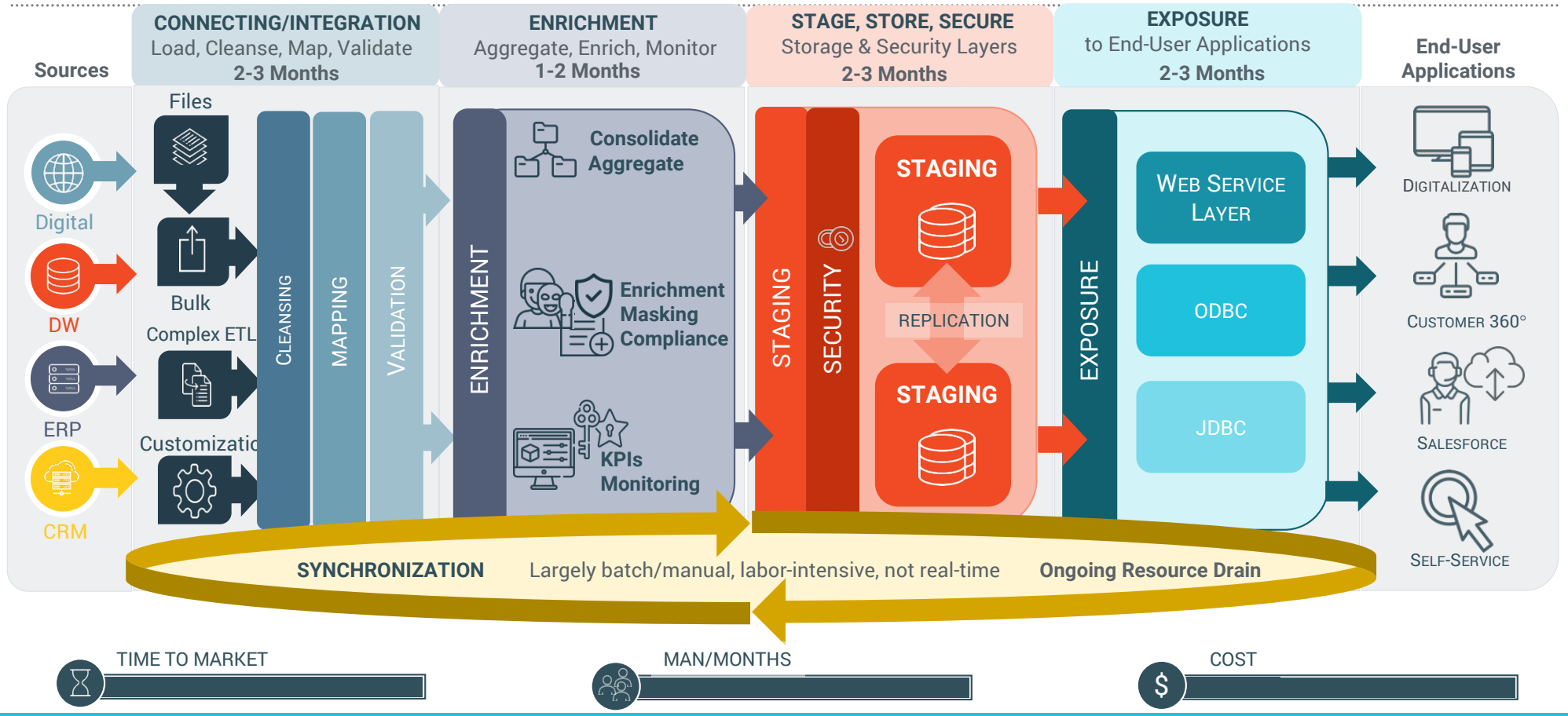
Legacy Architectures don't let you innovate fast enough



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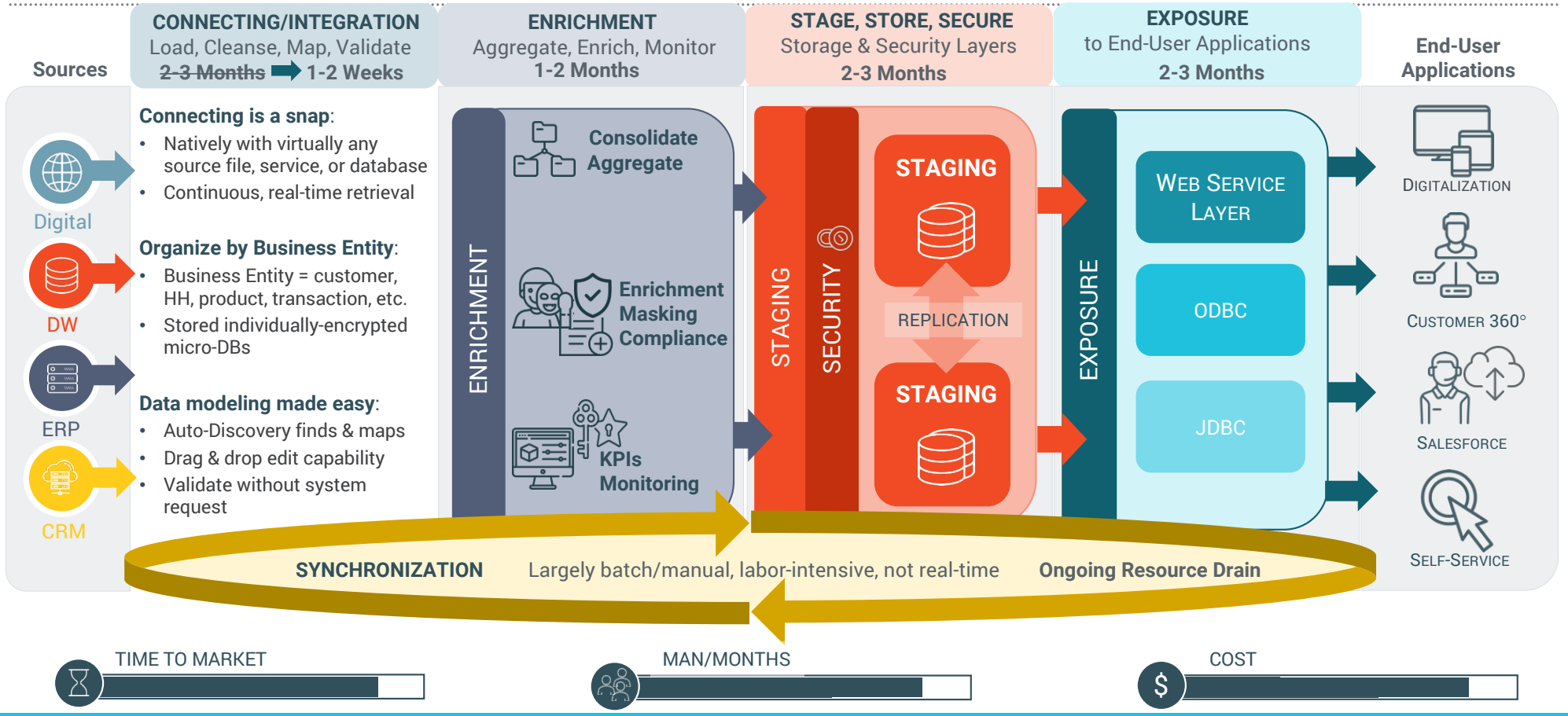
The K2View difference: Connecting & modeling made easy



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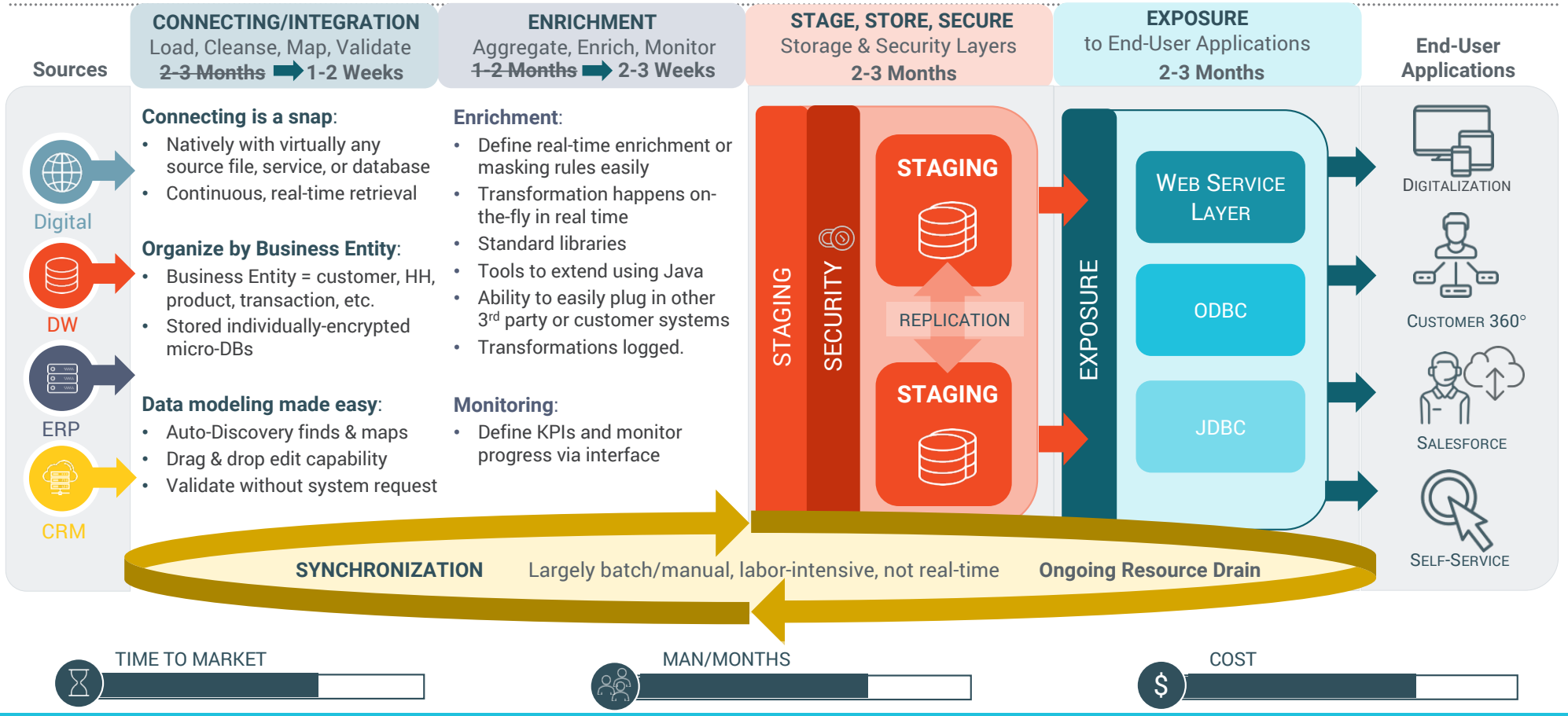
The K2View difference: Easily define on-the-fly enrichment



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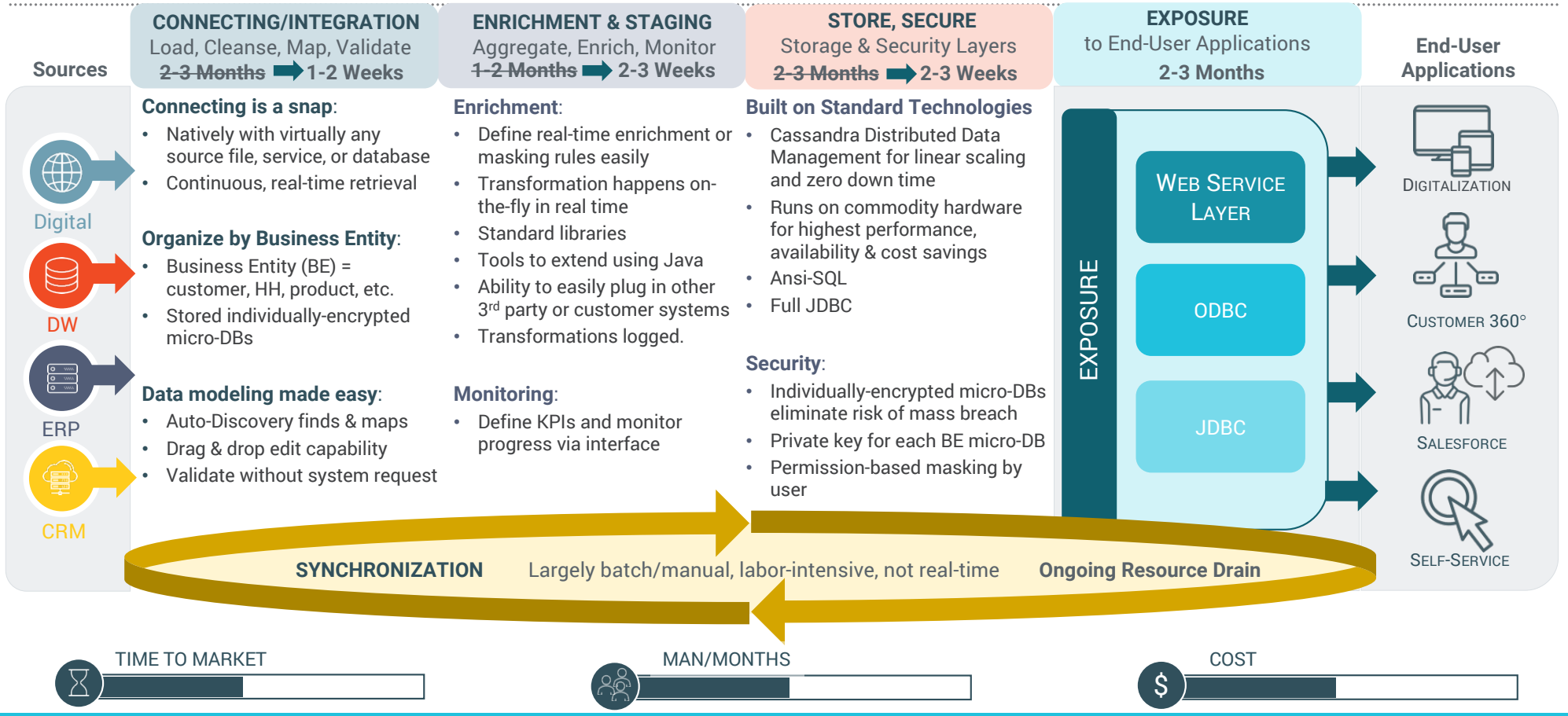
The K2View difference: Standard tech, unsurpassed security



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The K2View difference: Automated exposure & synching

Sources

Digital

DW

ERP

CRM

CONNECTING/INTEGRATION
Load, Cleanse, Map, Validate
~~2-3 Months~~ ➡ 1-2 Weeks

Connecting is a snap:
- Natively with virtually any source file, service, or database
- Continuous, real-time retrieval

Organize by Business Entity:
- Business Entity (BE) = customer, HH, product, etc.
- Stored individually-encrypted micro-DBs

Data modeling made easy:
- Auto-Discovery finds & maps
- Drag & drop edit capability
- Validate without system request

ENRICHMENT & STAGING
Aggregate, Enrich, Monitor
~~1-2 Months~~ ➡ 2-3 Weeks

Enrichment:
- Define real-time enrichment or masking rules easily
- Transformation happens on-the-fly in real time
- Standard libraries
- Tools to extend using Java
- Ability to easily plug in other 3rd party or customer systems
- Transformations logged.

Monitoring:
- Define KPIs and monitor progress via interface

STORE, SECURE
Storage & Security Layers
~~2-3 Months~~ ➡ 2-3 Weeks

Built on Standard Technologies
- Cassandra Distributed Data Management for linear scaling and zero down time
- Runs on commodity hardware for highest performance, availability & cost savings
- Ansi-SQL
- Full JDBC

Security:
- Individually-encrypted micro-DBs eliminate risk of mass breach
- Private key for each BE micro-DB
- Permission-based masking by user

EXPOSURE
to End-User Applications
~~2-3 Months~~ ➡ 1-2 Weeks

Easily expose data:
- Embedded web services layer
- Auto-generate web services to enable quick, simple access to Fabric layer
- No additional development required
- Perfect for micro-services architectures

End-User Applications

DIGITALIZATION

CUSTOMER 360°

SALESFORCE

SELF-SERVICE

SYNCHRONIZATION

Real-time; Smart Synching provides flexibility to synch "as needed based on nature of source system and data.

Real-time, Continuous

TIME TO MARKET

MAN/MONTHS

COST

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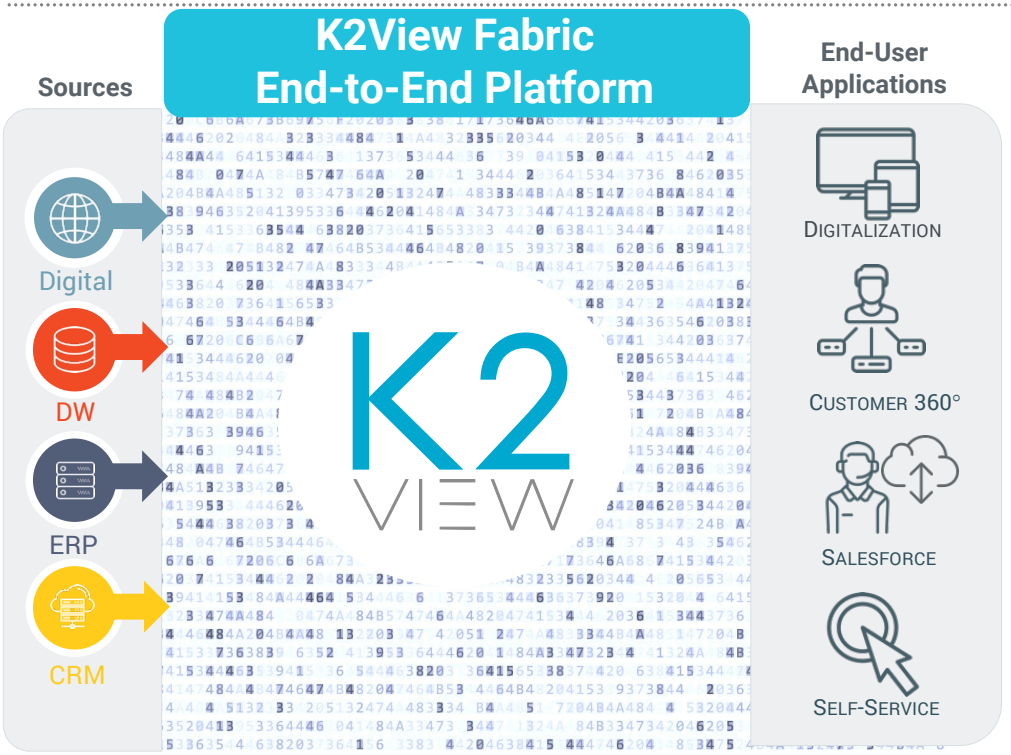
The K2View difference: All the data you need in just weeks



- No complex integrations
- No ETL configuration/set-up
- No system impact/downtime
- No long lead times for data modeling
- No expensive new infrastructure
- No performance or scalability worries
- No risk of mass data breach
- No complex coding of web services
- No manual synching
- No new talent or skills required

40%+ faster time to market

TIME TO MARKET

MAN/MONTHS

COST

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