



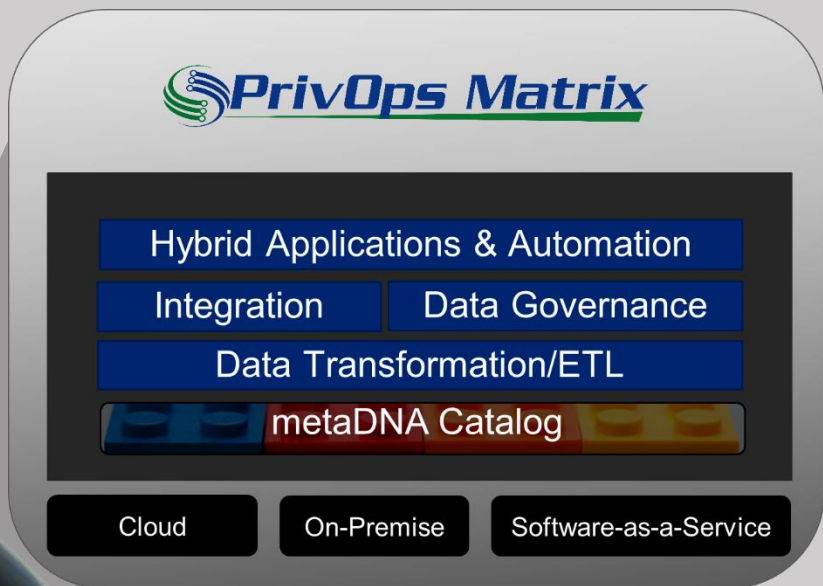
The PrivOps Matrix™

*The Technology Foundation for
Digital Transformation*



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1 Introduction to Digital Transformation with PrivOps

1.1. Digital mastery: Surviving and thriving with *Hyperconvergence & Digital Transformation*

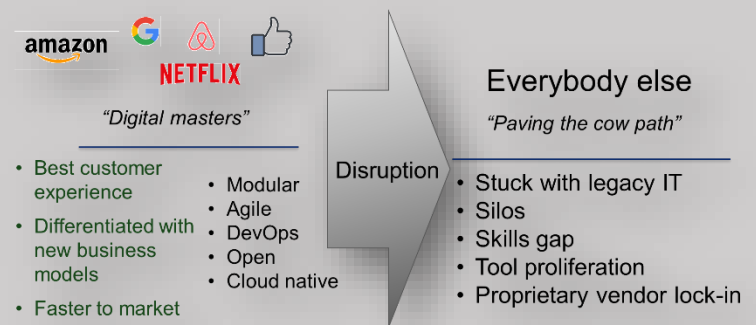
THE KEY COMPETITIVE DIFFERENTIATOR FOR MANY COMPANIES IN THE 21ST CENTURY IS THEIR ABILITY TO SAFELY CONTROL AND USE DATA TO:

- ADAPT TO ACCELERATED CHANGE
- CREATE MORE PERSONALIZED CUSTOMER EXPERIENCES
- ENABLE NEW PRODUCTS & BUSINESS MODELS

“Digital masters”, companies like Netflix, Amazon, Google, and Facebook understand this. Controlling data and putting data to work is a core capability for these companies, enabled by their service oriented, API driven, and modular data architectures.

As they use data to control more and more of the customer experience, they extract more margin from companies that produce traditional products and services, out innovate others by rapidly testing large numbers of new products and features (i.e. A/B testing, lean startup), and use new business models like mass customization or multi-sided platforms to disrupt current industries.

Increasingly, traditional companies struggle to compete because they can’t take full advantage of actionable data being held hostage by traditional and SaaS software vendors, legacy systems, and business silos.



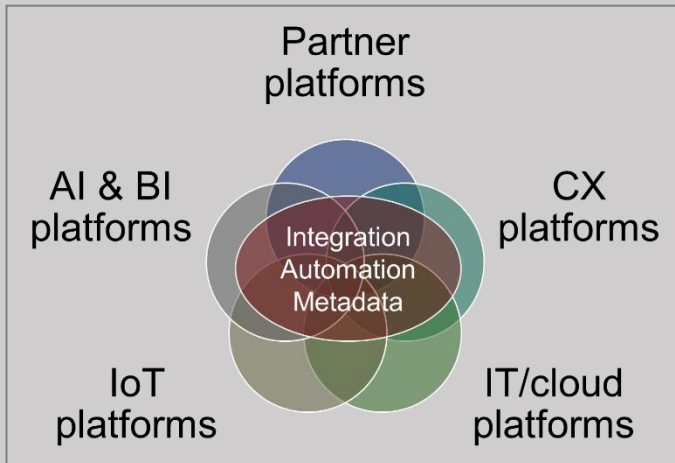
Key problems solved with digital mastery

- Can’t see the business value of data
- Can’t launch new products & services fast enough to stay competitive
- Need to better personalize products and services
- Need to protect sensitive data & comply with a rapidly evolving security & compliance landscape
- No time or capital to deal with legacy processes & technologies
- Need to rapidly reconfigure technology to respond to market changes
- Need to scale products and markets rapidly

1.2. The key to digital mastery: A *business technology platform*

SO HOW DO TRADITIONAL COMPANIES KEEP PACE?

BUILD A DIGITAL BUSINESS TECHNOLOGY PLATFORM.



According to Gartner, the goal of a business technology platform [“is to create an interoperable set of services that can be brought together to create applications, apps and workflows.”](#)

In other words, to achieve digital mastery (and stay competitive), companies must be able to connect, integrate, control and automate far better than in the past. It goes well beyond cloud computing; it requires combining technologies from traditional IT systems, partners (ecosystems), devices (things), customer experience platforms (APIs/Social Networks, etc.), and analytics (Bigdata).

The foundation for any digital business technology platform is a hybrid applications & integration fabric combined with a metadata management system like the PrivOps Matrix™.

Challenges to building a business technology platform

To succeed at building a digital business technology platform, companies need a strategy that:

- Sidesteps the cost of reworking legacy systems
- Breaks the work up into discrete steps
- Aligns business outcomes to investments

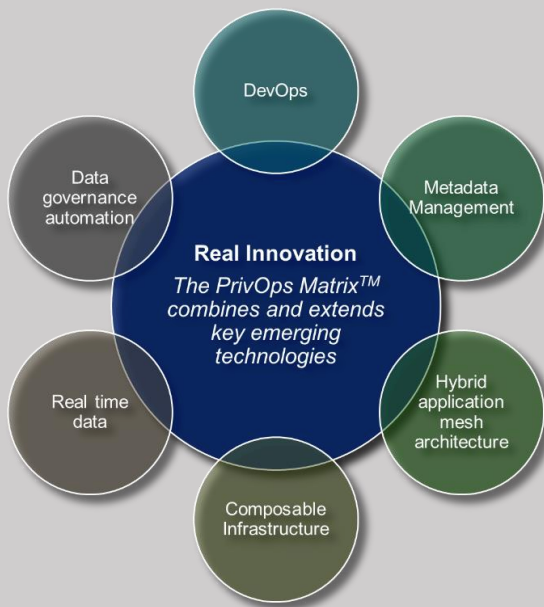
Up to now, lack of technology maturity and lack of harmonization between technology, business processes and organizational structures have made this very difficult. Additionally, determining the ROI and corresponding investment priority is a daunting task.

The current IT industry approach hasn't helped either. Technology vendors often create platform stickiness (lock-in) so they can:

- Sell additional products and raise prices by controlling or limiting how their platforms work with other technologies
- Make it more difficult to switch vendors

In addition, vendor solutions are generally designed to solve a narrow technical problem set; only after the fact are the organizational and business process challenges considered. **These approaches work directly against interoperability and make it more difficult to achieve digital mastery.**

1.3. PrivOps' response to challenges building a business technology platform



PrivOps goal is to provide technology to help companies become more competitive by achieving digital mastery. We created the PrivOps Matrix™ hybrid application, integration and metadata management platform to serve as the foundation for building a digital business technology platform.

Because of the conflict between traditional IT vendors' business models and the need for the extreme interoperability and standardization to support digital mastery, a new approach is needed. We've designed our technology to maximize interoperability, instead of lock-in, by carefully leveraging open source technology and incorporating and extending modern software techniques like DevOps, serverless, APIs and mesh architectures.

We've eliminated the distinction between applications and data.

As a result, automation, integration, and data governance are much easier, and companies become much more agile.

Quantify technology ROI by breaking work into small chunks with clear business outcomes

And once interoperability and standardization are achieved, it becomes possible to gain traction in your organization by being able to quantify the ROI for technology investments by breaking down work into small chunks with clear business outcomes, and prioritize immediate needs with limited scope, like GDPR compliance.

Key problems solved by the PrivOps Matrix™

Problem	Requirement supported by the PrivOps Matrix™
<p>Need to demonstrate the business value of data</p> <ul style="list-style-type: none"> • Projects starved for capital • Return on investment not clear 	<ul style="list-style-type: none"> • Start with a project that touches the entire enterprise but is limited in scope (ex: compliance/privacy, customer 360) • Design business technology platform to support agile, making it possible to break projects into discrete steps directly tied to business outcomes • Enable view of data across the enterprise to demonstrate business value • Automate high cost operational processes to demonstrate business value
<p>Don't have resources to re-platform legacy systems while building out new capabilities</p>	<ul style="list-style-type: none"> • Avoid reworking legacy systems with technology that focuses on integrating across digital interfaces instead of replacing • Improve developer productivity by reducing the amount of coding required while increasing code reuse by using standardized functions and metadata models that federate across and between data domains

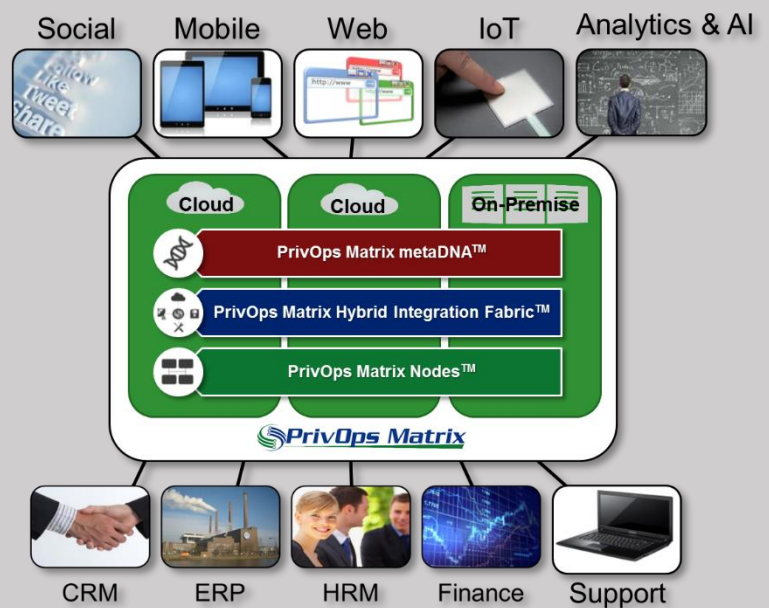
Problem	Requirement supported by the PrivOps Matrix™
<p>Can't switch vendors</p> <ul style="list-style-type: none"> Existing technology no longer supports the business Paying for, but not taking advantage of full functionality Prices rise 	<ul style="list-style-type: none"> Design business technology platform so that any vendor tool is easily replaceable Technology components that are not easily replaceable (i.e. hybrid integration layer, data hub, metadata catalog) should use open source
<p>Can't launch new services fast enough</p> <ul style="list-style-type: none"> To support business growth The technology isn't designed with business processes in mind 	<ul style="list-style-type: none"> Use an architecture that makes it possible to separate projects into parallel workstreams and minimizes the interdependencies between them Increase code reuse and avoid rework
<p>Can't scale technology fast enough to support business growth</p>	<ul style="list-style-type: none"> Use a distributed architecture (distributed database, distributed application architecture) Automate data flows across multiple applications and data domains Automate deployments across multiple clouds, multiple cloud technologies and on-premise Make integration much easier by leveraging the scale open source provides with node.js
<p>Need to reduce risk, maintain compliance, and get better usage of data</p> <ul style="list-style-type: none"> Track where data, metadata, code, and policies came from (lineage) How data is accessed or changed (audit) 	<ul style="list-style-type: none"> Use an automated metadata management approach that utilizes timeseries data objects for storing data, metadata, transactions, code/workflows, and policies

2 Platform Overview - The PrivOps Matrix™

The patent pending PrivOps Matrix™ is an integration, metadata and automation platform you deploy anywhere: AWS, other cloud providers and on premise.

The PrivOps Matrix™ is not intended to replace systems of record, systems of intelligence or systems of engagement inside and outside the organization, but rather to harmonize them.

By integrating, governing and automating data flows between complex systems, the PrivOps Matrix™ serves as the foundation for a business technology platform. With the PrivOps Matrix™, organizations can securely and compliantly monetize data by controlling in real time where sensitive data lives, how it's stored, and when, who or what has access.



2.1 Key Use Cases

Initiative	Business outcome	PrivOps Matrix™ use case
Cloud Governance Automation	<ul style="list-style-type: none"> Minimize security risk for cloud migrations & deployments 	<ul style="list-style-type: none"> Proactive cloud security – Avoid technical debt by automatically applying security policies before deploying to the cloud
	<ul style="list-style-type: none"> Maximize developer & ops productivity Minimize cloud spend 	<ul style="list-style-type: none"> Multi-Cloud cost containment – Prevent overbuying in the first place by controlling user access to resource types, sizes and quantities while making it easy to automate Storage auto-tiering – Automatically move data to less expensive storage without degrading user experience
Salesforce/SaaS vendor migrations & consolidation	<ul style="list-style-type: none"> Minimize cost of switching vendors Improve data productivity 	<ul style="list-style-type: none"> SaaS integration – Take advantage of SaaS applications without being held hostage by being forced to use their platform for integrations and data SaaS migration – Once you own the data and the integrations, it's far easier to move to other vendors when needed SaaS consolidation – For reasons like M&A, many companies have multiple SaaS accounts & vendors. Once you own the data and integration, it's easier to consolidate
Virtual Data Lake for AI/ML & Analytics	<ul style="list-style-type: none"> Minimize data lake infrastructure cost Improve analyst productivity 	<ul style="list-style-type: none"> Distributed data fabric <ul style="list-style-type: none"> Integrate seamlessly with tools to rationalize, cleanse & analyze data via AI/ML Pull only data needed for queries in real time – avoid aggregating unneeded data Only cache (store) data you use frequently Avoid over-provisioning cloud resources
GDPR & Data Governance Automation	<ul style="list-style-type: none"> Monetize data Mitigate compliance risk 	<ul style="list-style-type: none"> Sensitive data masking – Filter sensitive personal data automatically when passed to internal and 3rd parties based on consent & permitted use GDPR request automation – minimize operational and security risk by automating GDPR tasks like Right to be Forgotten, consent changes, etc.

2.2 Components: The PrivOps Matrix™



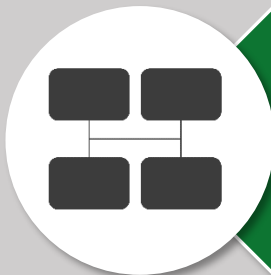
PrivOps Matrix metaDNA™

A unique data & metadata management system that federates across all data domains with a standardized data model (ontology) and general-purpose programmable functions



The PrivOps Matrix Hybrid Integration Fabric™

The first truly distributed control, integration, automation and orchestration fabric built as an event driven (runtime) services mesh built on open source node.js. It consists of workflow/policy automation and data transformation (ETL) with Matrix Workflows™, and cloud orchestration with Matrix Infrastructure™



PrivOps Matrix Nodes™

A resilient and scalable physical architecture composed of nodes, a combination of appliances and database cluster instances. The database component utilizes open source Apache Cassandra™, which seamlessly works with cloud providers, on-premise solutions, containers, and orchestration tools

The PrivOps Matrix™ was designed with two core elements – the Matrix Hybrid Integration Fabric™ and the Matrix metaDNA™ catalog. The first is an application architecture designed to optimize constructing hybrid applications.

This is combined with metaDNA™, a next generation data & metadata management system, which improves on traditional metadata management systems in several very important ways. A key difference is that whereas traditional metadata management systems store descriptive metadata, metaDNA™ not only manages descriptive metadata, but also manages across all data domains including things like customer records, data models, configurations, policies (rules), & software application code as well.

The Matrix Hybrid Integration Fabric™ and the Matrix metaDNA™ catalog are not separate physical components, they're seamlessly integrated to form PrivOps Matrix Nodes™ in a distributed mesh architecture where resilience (disaster recovery) and scalability are built in by design.

The PrivOps Matrix™ also utilizes a hybrid open source model. It's built on open source software trusted by some of the world's largest technology companies, but also includes proprietary components. This is not a problem though, as PrivOps provides options for one-time purchases of the proprietary components, including source code. With the right to use and customize these components, organizations are no longer held hostage by predatory vendors more interested in profits than helping their customers innovate.



PrivOps. Set your data free, set your company free