

ICP for Data is IBM's next generation offering for Enterprises to leverage the economics and agility of Cloud practices wherever needed. It is a specially engineered platform that serves up capabilities from IBM's rich data and analytics portfolio, modernized for cloud nativity. ICP for Data delivers a tightly integrated solution with a unified experience for managing enterprise data at scale to build out a trusted analytics foundation.

IBM Cloud Private for Data

White Paper

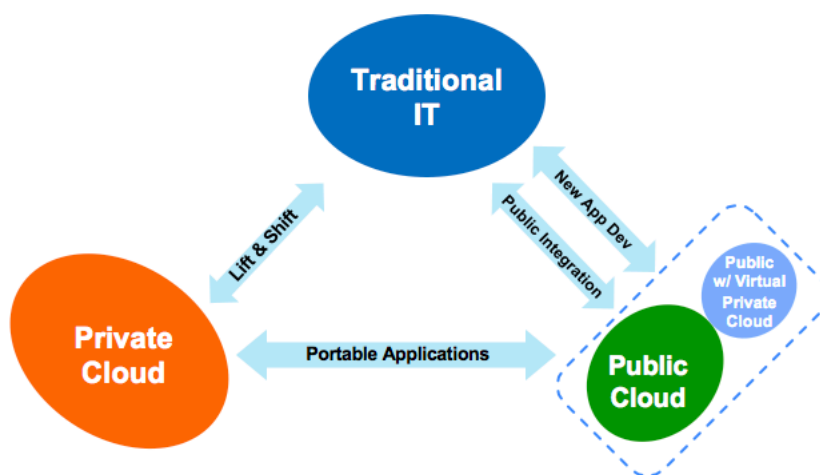
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INTRODUCTION

IBM is an industry leader for data & analytics software in terms of both breadth and depth of capabilities. It has a wide array of offerings built organically and through acquisitions over the past 30 years. Historically, IBM marketed and sold these capabilities as individual products grouped into three segments: Collect, Organize and Analyze.



Over the past few years, there has been a steady shift in how software is developed and consumed with increased adoption of public cloud. However, many enterprise customers are wary of fully embracing public cloud. Part of this is due to regulatory and compliance requirements, while part of it is cultural - Data gravity is also a factor given most of enterprise data currently resides on premise and moving it to public cloud is not a viable option in the short term. Despite these concerns, customers are looking to modernize their workloads to prepare for a cloud future. With the advent of private cloud, customers can now realize benefits of cloud behind their firewall.

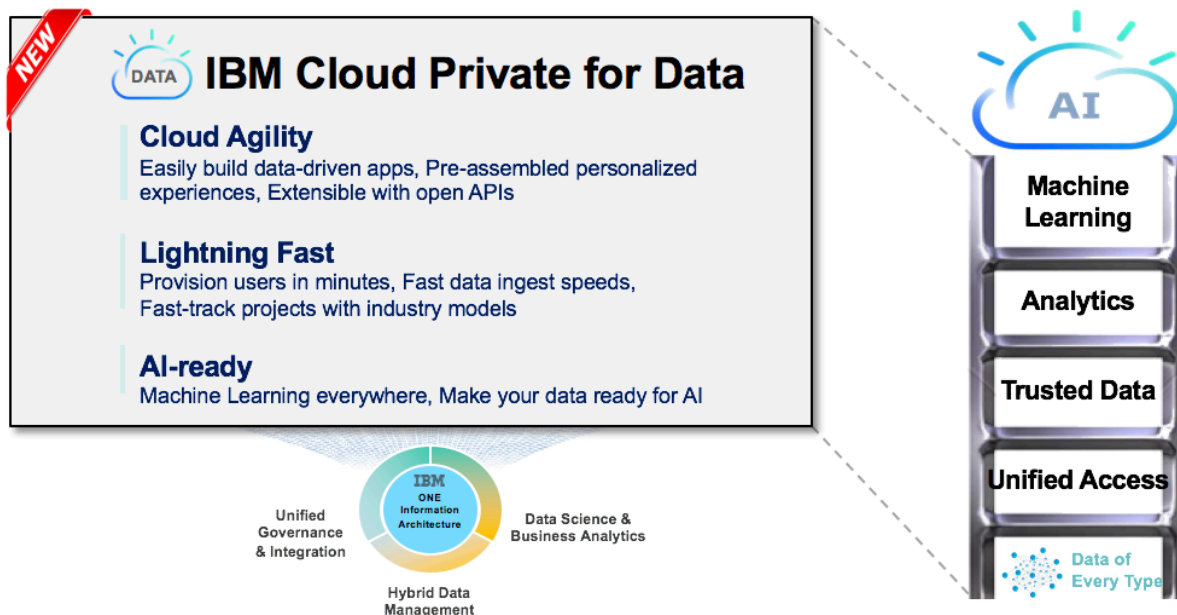


“IBM Cloud Private for Data” is our next generation analytics offering that includes end to end capabilities from IBM’s data and analytics portfolio spanning all three segments of Collect, Organize and Analyze. It is tightly integrated targeting all key user personas (Data Engineer, Data Scientist, Data Steward, Application Developer, Business Analyst, CXO etc.) while providing a seamless user experience.

VALUE PROPOSITION & BENEFITS

There are two compelling use cases for “ICP for Data”:

1. **Getting your data ready for AI:** Every enterprise is interested in leveraging AI to improve decision making. However, realizing AI vision requires a modern data infrastructure with self-service, governance, collaboration and automation infused throughout. ICP for Data provides a quick and easy means to build the AI ladder to accelerate enterprise AI journey. As our GM Rob Thomas famously said, there is no AI without IA (information Architecture).



2. **Private Cloud Adoption:** As customers look to embrace cloud and modernize their workloads, ICP for Data provides a modern data platform to collect, organize and analyze data behind client’s firewall. It comes bundled with ICP, IBM’s private cloud offering while also supporting other vendors such as Redhat Openshift.

KEY BENEFITS

Among other things, IBM Cloud Private for Data allows clients to

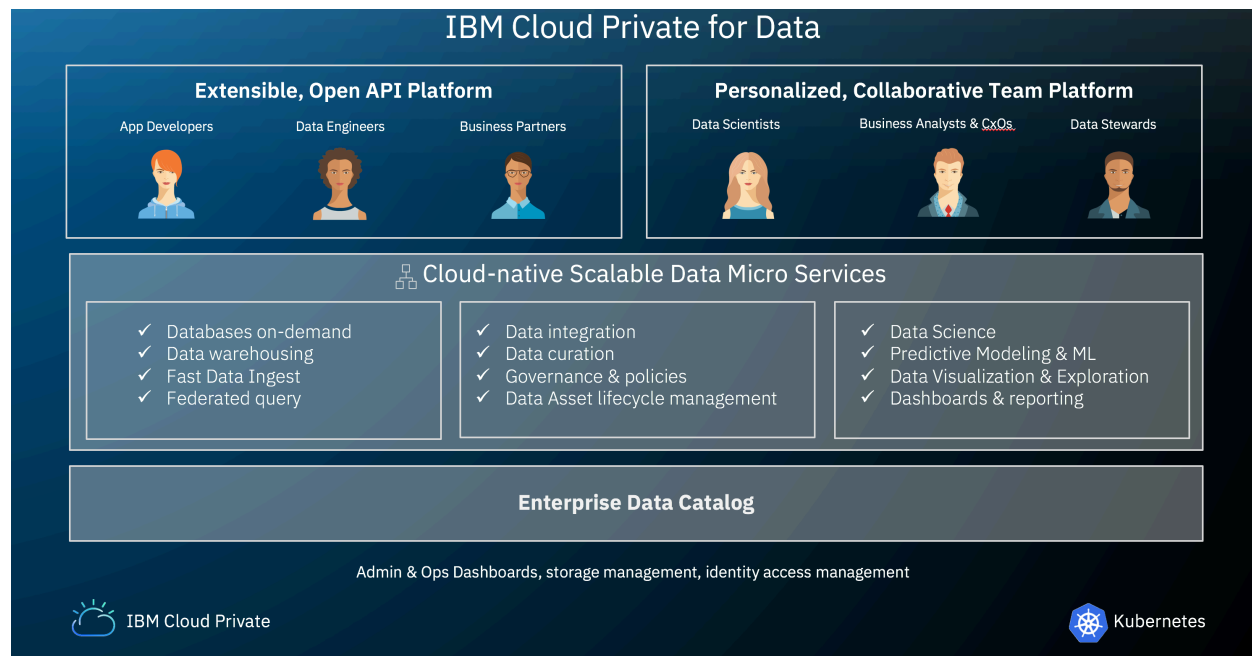
- ❖ Modernize data infrastructure: cloud native, behind the firewall
- ❖ Enhance workforce productivity: Provision & scale in minutes
- ❖ Reduce cost of managing multiple product stacks
- ❖ Realize lightning Fast Ingest: Ingest more than 250 billion events a day
- ❖ Manage data at scale with automation, governance and collaboration infused throughout

OFFERING DETAILS

“IBM Cloud Private for Data” offers a tightly integrated collection of data and analytics micro-services built on cloud native architecture (based on Kubernetes). It includes key capabilities from our entire Analytics portfolio including Data Science Experience, Information Analyzer, Information Governance Catalog, Data Stage, Db2 family etc. It is built to inter-operate with Watson studio on public cloud so that underlying data, meta-data and ML models can easily be ported back and forth to meet the needs of customers.

This gives our customers an option to either buy standalone offerings or an integrated experience with cloud benefits such as Resiliency, Elasticity / Scalability, Serviceability, Portability etc. behind their firewall.

ICP for Data comes bundled with IBM’s private cloud offering & will support other clouds such as Red Hat Openshift making it easy for customers to run their workloads on any cloud.



IBM Cloud Private for Data

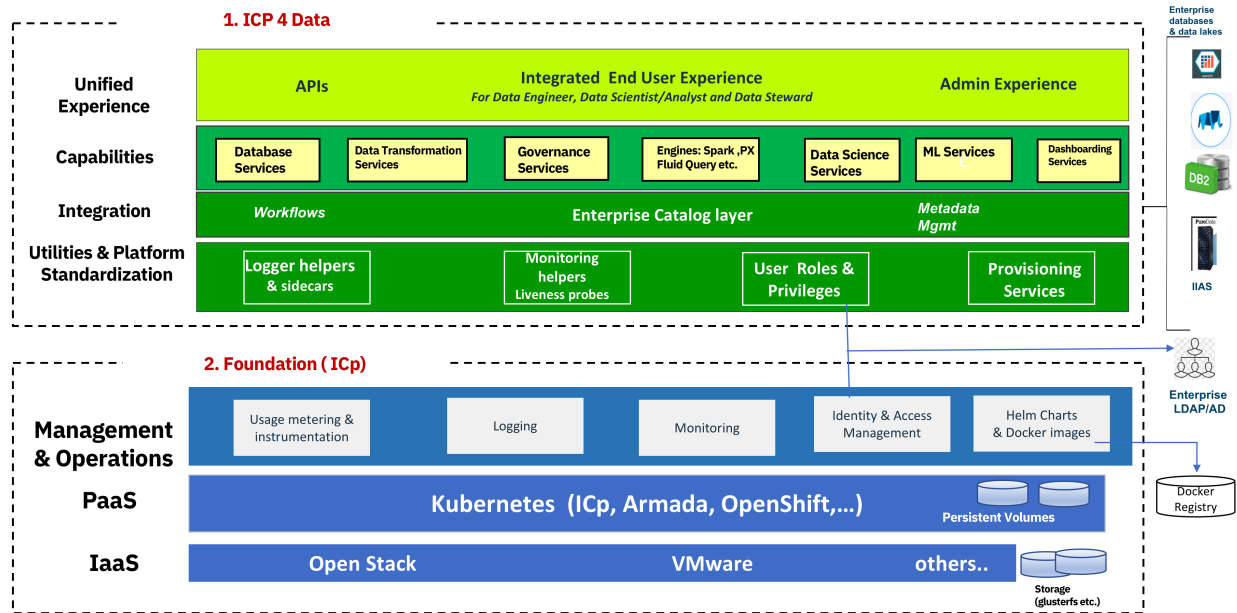
	GA Launch	2H 2018 & Beyond
Platform	End-to-end, governed, data & analytics solution	<ul style="list-style-type: none"> • "ICP for Data" appliance • Industry accelerators for banking, insurance & healthcare • BCBS 239, HIPAA, PCI, GDPR ready
Collect	<ul style="list-style-type: none"> • Federated data access 	<ul style="list-style-type: none"> • DB2, Db2 Warehouse & DB2 Event Store • Data Virtualization
Organize	<ul style="list-style-type: none"> • Enterprise asset catalog • Data Integration • Data shaping & transformation (self-serve) • Curation for analytical assets 	<ul style="list-style-type: none"> • "Data curation experience & task workflow engine • Cognitive elements built into data integration & shaping • Machine enforceable governance
Analyze	<ul style="list-style-type: none"> • Build analytical models • Build & manage ML models • Visualize insights through reports & dashboards 	<ul style="list-style-type: none"> • Full feature Business reporting & dash-boarding • Statistics • Decision Optimization

PS: Please note that IBM's statements regarding its plans, directions, and intent are subject to change or withdrawal without notice and at IBM's sole discretion. Information regarding potential future products and capabilities is intended to outline our general product direction and it should not be relied on in making a purchasing decision.

TECHNICAL ARCHITECTURE

Kubernetes serves as the foundation for ICP for Data, and is designed to meet the expectations of enterprises to realize the benefits of both agility and cloud-like economics in the security of their own controlled data centers. It enables us to better manage resources for elasticity and *enforces* the best practices of micro-services, integrate-ability with service discovery and resilience. The de-facto standardization of Helm as the package management solution for Kubernetes ensure effective modularizations, version management and at the same time promoting a familiar portable method of installing, upgrading and managing software-as-a-service releases on Kubernetes.

While IBM Cloud Private Platform is the pre-eminent Kubernetes distribution, ICP for Data offers a fully pre-integrated set of analytics capabilities that are externalized as Kubernetes services and take advantage of pod replications, elasticity and load balancing. The use of Docker images and the practice of rolling upgrades (and downgrades) of deployments make continuous delivery of individual services from IBM Analytics much more realistic. Users will be able to safely test-drive cutting edge versions of services in the same cluster as a production service on a prior version without business impact.



RESOURCES / LINKS

- ✓ “ICP for Data” Official website: <http://ibm.biz/data4ai>
- ✓ Two min introductory video: http://ibm.biz/zen_exp
- ✓ IBM Cloud Private Official Website: <https://www.ibm.com/cloud/private>
- ✓ Blog from Rob Thomas ~ ICP for Data: http://ibm.biz/zen_blog1
- ✓ Kubernetes Basics: <https://kubernetes.io/docs/tutorials/kubernetes-basics>