Fujitsu Agile Analytics

Enabling rapid, agile analytics that drives valuable data insight

In the information age we live in today, the volume and variety of data available for analysis is vast. Knowing what sources to interrogate and how to process the data quickly and accurately is critical for decision makers. But we live in a world where technological advances and data trends change in days and weeks. The challenge of keeping ahead of this change is forcing organisations to rethink how they can enable rapid, agile analytics that drives valuable data insight.

Highly agile approach delivers information advantage

Addressing this challenge requires a highly agile approach to analytics. This is especially true of military organisations and intelligence functions who rely on data feeds and information to function effectively. Previously, data would be analysed manually by a team of users trawling through a range of sources in the hope of finding a connection or trends. Such methods are both inefficient and very time consuming.

Performing rapid analytics in often difficult operational environments requires an innovative, new approach. Recognising this need, Fujitsu has developed a unique approach that allows organisations to interrogate and analyse huge volumes of data from different sources in a fraction of the time, compared to traditional manual techniques and processes, enabling agile application deployment, machine learning and deep learning workloads, real-time data warehousing, and security and governance. It is a key component of a modern data architecture for data at rest.

More data, greater insight, less time

The approach provides users with the capability to take information from a wide range of different data sources, that can be tailored to any operational need by Apache Hadoop, a massively scalable platform for storing, processing and analyzing large volumes of data, designed to deal with data from many sources and formats in a very quick, easy and cost-effective manner. The engine is continually scanning the relevant newsfeeds for these entities, while automatically applying a layer of intelligence to the results as it searches for links or correlations that are statistically relevant.

This approach greatly increases the volume of data being interrogated in a fraction of the time, and the resulting analysis drives a far greater level of insight that would not have previously been possible. Data sources from different trusted levels can also be layered, allowing users to make sense of all data using a rich eco-system of big data tooling and information available, trusted or not. Such analysis generates incredibly powerful insight that analysts can then use in a far more meaningful way to inform future decision-making.

Scalable, repeatable architecture deployed in minutes

Deployment times can be dramatically cut from weeks, to just minutes thanks to a scalable, repeatable architecture. Scaling and processing power can be provided using Fujitsu cloud services, a next generation cloud platform specifically created to enable efficient, easy and cost-effective enterprise level digital transformation. The approach can either be adopted in a private cloud environment or at a local level on a stand-alone platform, such as a laptop.

Iterative digital development

Iterative development cycles allow functioning capability and software to be used at regular intervals or 'sprints', delivering incremental benefits every 2-3 weeks, instead of maybe 4-5 years with more traditional, 'waterfall' approaches. This form of digital development means that the capability can be continually evolving alongside your ongoing operational requirements, even in deployed environments which may be remote or severely disadvantaged from a communications perspective.

In these circumstances connectivity and technical support can be limited. Deployment times can also be short, particularly in support of contingent operations or humanitarian relief. As such, having the capability to commission and use data processing and analysis tools quickly can deliver a real information advantage.

Low-cost deployment and interoperability

Fujitsu's Agile Analytics approach specifically focuses on the identification and use of Free and Open Source Software (FOSS). This not only drives down capital expenditure costs associated with more traditional analytics deployments, it also allows organisations to recruit or train staff with generic, yet reusable technical skills, such as Python and JavaScript, as opposed to niche or proprietary languages.

While the platform has been designed for use in fixed situations, it has the in-built flexibility to be used in deployed, operational scenarios too. Components can be extended or even swapped out if required, for instance if it is necessary to use standalone or offline. This allows new tools and components to be evaluated, providing ultimate flexibility to the solution.

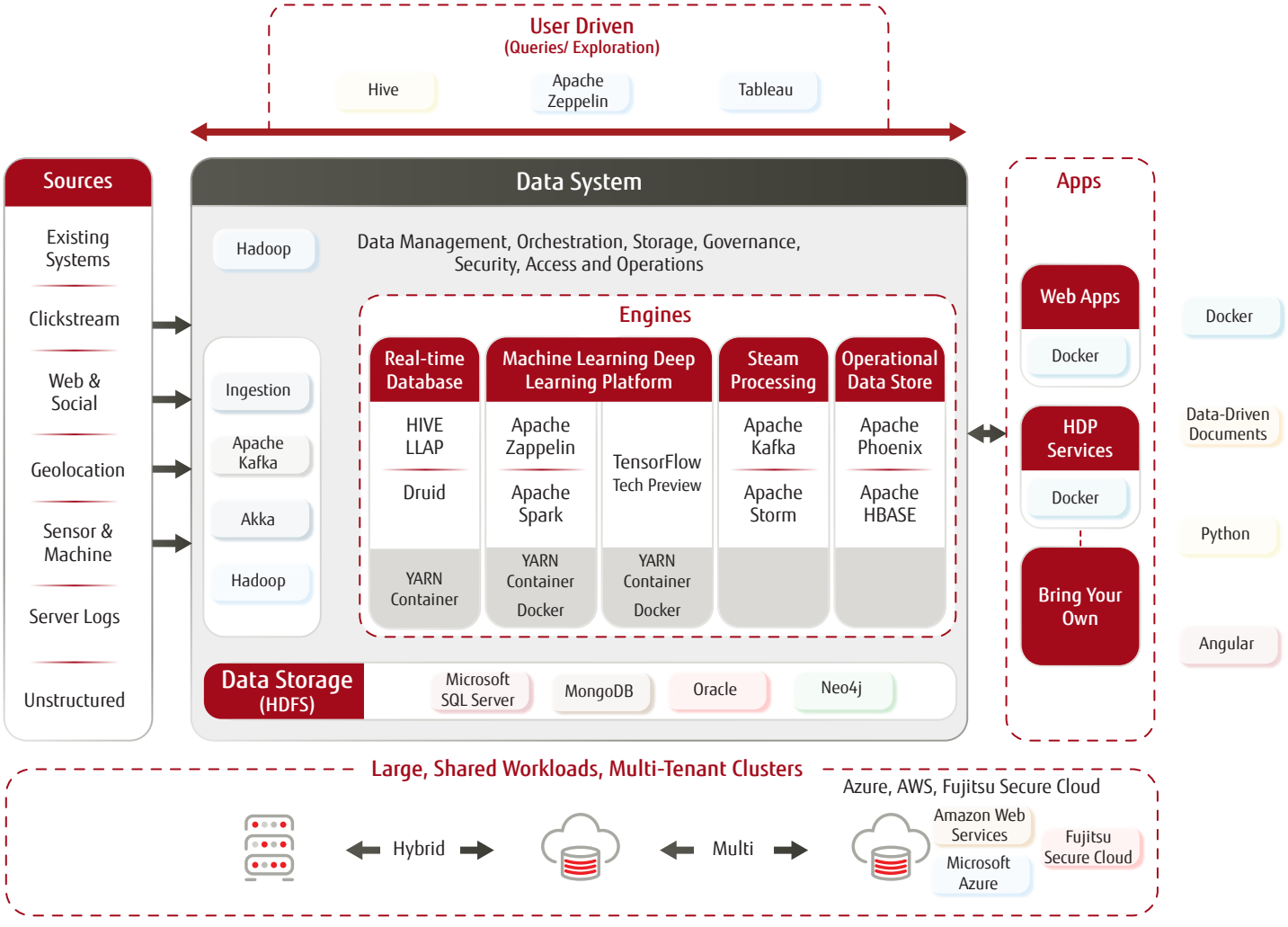

Figure 1: Agile Analytics Components

Enabling rapid, agile analytics that drives valuable data insight

Fujitsu's innovative Agile Analytics approach is based on an open and scalable architecture that enables rapid, agile analytics to drive valuable data insight.

- **Speed and volume** allows organisations to interrogate and analyse huge volumes of data from different sources in a fraction of the time compared to traditional manual techniques and processes
- **Rapid deployment** deployment times can be dramatically cut from weeks, to just minutes thanks to a scalable, repeatable architecture
- **Data sources** a wide variety of data sources can be interrogated and tailored to any feed which is completely configurable to suit operational requirements
- **Analysis enrichment** automated intelligence is applied to trends and correlations to tune data in support of statistical analysis to further improve insight
- **Scalability** this approach can scale up, from a standalone deployment in disconnected or remote environments, through to a fixed or enterprise-wide network and estate
- **Iterative digital development** the capability can continually evolve alongside your ongoing operational requirements, delivering incremental benefits every 2-3 weeks, instead of maybe longer timescales with more traditional, 'waterfall' approaches
- **Low-cost, low risk** crowd-sourced technologies help to reduce start-up cost while reducing risk, providing organisations with a means to implement an inexpensive 'analytics-ready' solution that can be deployed on a range of hardware platforms and hosting models
- **Open source software** use of well-established FOSS tools such as Python, Spark, Kafka, Tensorflow, and JavaScript do not require niche training or skills adoption.

Why Fujitsu?

For over 50 years we have innovated with the MOD, Government Departments and intelligence communities, co-creating new technologies and capabilities. As a result, Fujitsu has around 4,000 security cleared staff and the experience to deliver and manage both generic industry offerings and those tailored to specialist needs at OFFICIAL, SECRET and ABOVE SECRET classifications.

Enabling *Your* Information Advantage

In today's complex, digital operational environment, never before has information been such a key asset in securing operational advantage. Fujitsu's vision is to provide customers with the means to translate complex data into useful information upon which to base critical decisions and actions. Transforming this ever-increasing pool of data into meaningful, useful information through analytics, automation and genuine Artificial Intelligence is critical to achieving this goal.

Fujitsu is fully committed to working closely with our customers, and through the use of co-creation will seek to enhance capability both through the acceleration of existing processes, and also through the delivery of truly new capabilities and ways of working. Our approach is based upon maximising both existing investment and best-in-class innovation, delivering the full spectrum of capabilities needed to enable your information advantage.

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