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WHY NEUTRAL INFRASTRUCTURE IS CRUCIAL TO SECURE DATA EXCHANGE

Analysts predict an enormous surge in data in the coming years, spurring businesses to monetize IoT. As they capitalize on this opportunity, maintaining a competitive advantage means solving a big data challenge—how to leverage valuable external data sources while maintaining a secure, controlled environment where it can be shared.

Data marketplaces: a new model for value creation

A potential solution is the use of data marketplaces that define rules for data exchange and ensure that agreed-upon rules between the parties are automatically executed and followed. Using sandboxes can further optimize exchange in a data marketplace. These act as a neutral place where data and algorithms can meet. This solution allows data and intellectual property to remain under the control of the owner while interacting securely within the sandbox, out of sight of external actors.
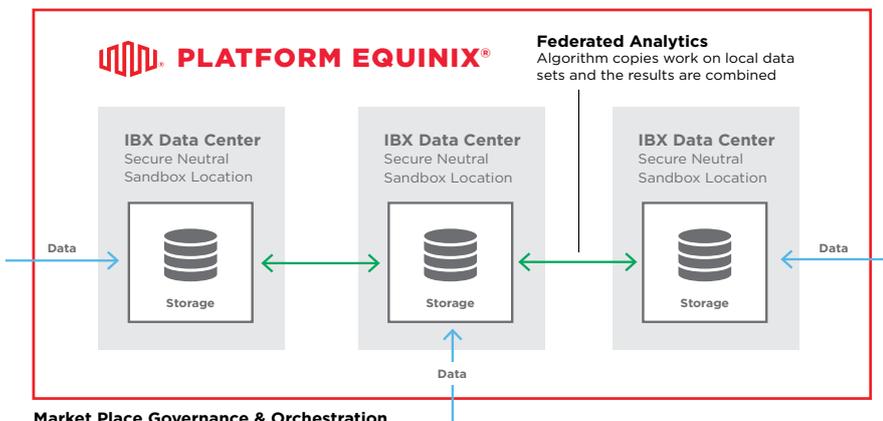

Data marketplace example shows components and implementation of global, secure data analysis.

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Key benefits of a neutral infrastructure

Multiple data sets, many locations, better owner control
Federated analytics applications enable running the same form of analytics on multiple data sets through different locations and combining the analysis into one consolidated result. In a neutral data marketplace, this solves the need to move large data sets over long distances and improves owner control.

Security and control for all involved
A neutral infrastructure ensures security and control for all parties. This can be provided in a sandbox or with federated analytics capabilities and/or can be in a public cloud or in geographically spread neutral data centers.

100 billion+ IoT devices are predicted to exist by 2030

> *"Neutral infrastructure ensures that both sandbox and federated analytics applications are able to run in a trusted and secure location for all parties."*

Field test in the aviation industry

Equinix, as a global data center company, has implemented this extended architecture for data generated by airplane engines. The data was used to train an algorithm for predictive engine maintenance. Data sets were hosted at three locations globally, and a sandbox was set up where the algorithm and the data could meet.

This infrastructure shows how extended architectures facilitate secure, global data analysis: The data marketplace is able to govern transactions, create the sandbox, execute the analytics and finally, control data exchange. The federated analytics solution delivers similar quality results to those of central analytics. In addition, the amount of data moved across the world was less than one thousandth of the data moved in the case of a central setup.

These promising results show that multiple challenges in the global exchange and analysis of big data can already be met today. Similar initiatives are not only being developed in the aviation industry, but also in the financial, healthcare, automotive and government sectors.

Why are data marketplaces essential to successful AI?

Location
Big data analytics are at the source of the data

Security and control
Data access is enabled in a trusted, secure environment

Cost and scalability
Neutral infrastructure platform is globally scalable and cost-efficient

For more information on leveraging data marketplaces for successful AI, visit

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