Data Hub

NVIDIA DGX POD

NVIDIA. **DIGITAL REALTY**

Platform
DIGITAL™

Accelerate Enterprise AI Development with Data Exchange

Businesses are transforming with the power of AI, requiring a new AI infrastructure architecture, one that localizes data aggregation, staging, analytics, streaming, and management at global points of business presence in support of AI application development.

This improves performance and data compliance control, necessary to support exploding volume, variability and velocity of data creation, processing and storage. The strategy brings the users, networks, systems, and controls to the data, which removes barriers of data gravity and creates centers of data exchange to scale AI development.
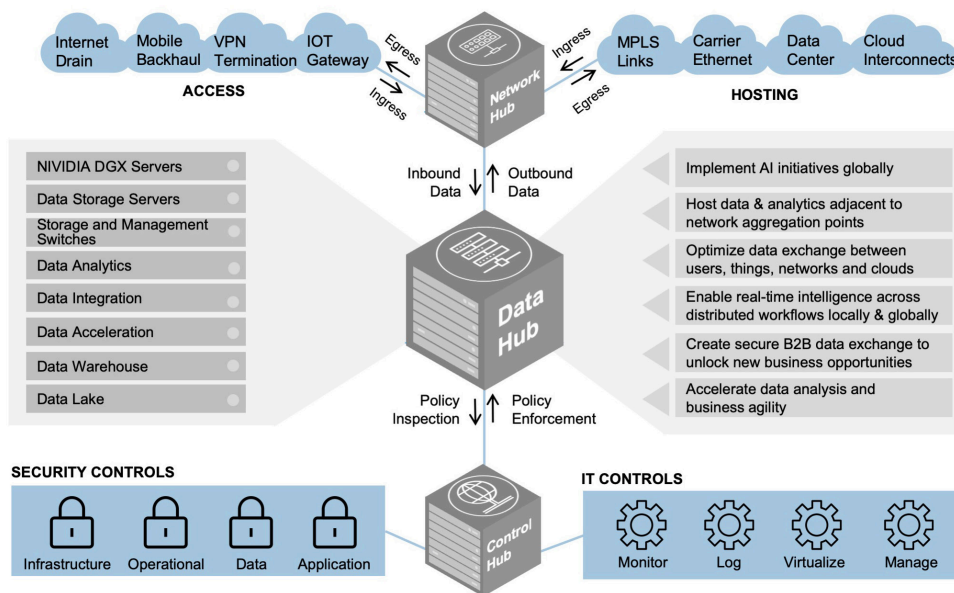

Fig 1. PlatformDIGITAL™ Data Hub Solution

DATA HUB FEATURING NVIDIA DGX POD AT A GLANCE

Deploying Data Hub with NVIDIA DGX POD™ enables customers to accelerate their AI initiatives, hosting critical compute and data infrastructure in proximity to users, networks, clouds, to address data gravity and compliance to scale digital business.

KEY BENEFITS

- Implement AI-Ready infrastructure across the globe
- Deploy regional data lakes and distributed data warehouses
- Maintain compliance and sovereignty
- Integrate public and private data sources
- Distribute business intelligence
- Connect global data ecosystems

ENABLE CENTERS OF DATA EXCHANGE WITH NVIDIA DGX

By deploying Data Hub on PlatformDIGITAL™ enterprises create centers of data exchange to solve global coverage, capacity and connectivity needs associated with supporting AI development across their business. These centers of data exchange are an ideal place to support analytical and AI development workflows. Accelerated computing, combined with high-performance storage and enterprise-grade security, enables faster AI model iteration which results in faster ROI on AI investments.

To enable this solution as a turnkey bundle, Digital Realty has integrated the NVIDIA DGX POD - the world's leading solution for enterprise AI infrastructure - as part of the PlatformDIGITAL Data Hub solution. This unified solution provides best-in-class IT infrastructure paired with a seamless global ecosystem with consistent experience, security and resiliency.

DATA HUB STARTER KIT AND NVIDIA DGX POD

This turnkey bundle includes the necessary components and services to rapidly plan, deploy and scale AI infrastructure using your Data Hub with NVIDIA DGX POD. The pre-configured solution accommodates a typical enterprise deployment of a Data Hub with NVIDIA DGX POD to solve placement, connectivity and hosting of critical data infrastructure in proximity to users, networks, clouds and devices. This enables enterprises to support their analytical and deep learning workflow, optimizing the placement of data and compute at global points of business presence .

STARTER KIT AT A GLANCE

Get started quickly with a pre-packaged Data Hub with NVIDIA DGX POD configuration based on best practices to speed deployment and results.

DATA HUB FEATURE SET

- Secure colocation for data infrastructure footprint (expandable)
- Secure, direct interconnection to clouds, carriers and partners
- Global access to operational environment via portal/API's
- Streamlined contracting vehicle for multi-site deployments
- Cabinet installation and remote hands services
- Industry Standard Compliance (ie. ISO, SOC, PCI)
- Discounted pricing for starter kit specific configuration

NVIDIA DGX POD FEATURE SET

- Best-in-class AI-ready IT infrastructure
- Integrated suite of optimized deep learning software

CONFIGURATION DETAILS

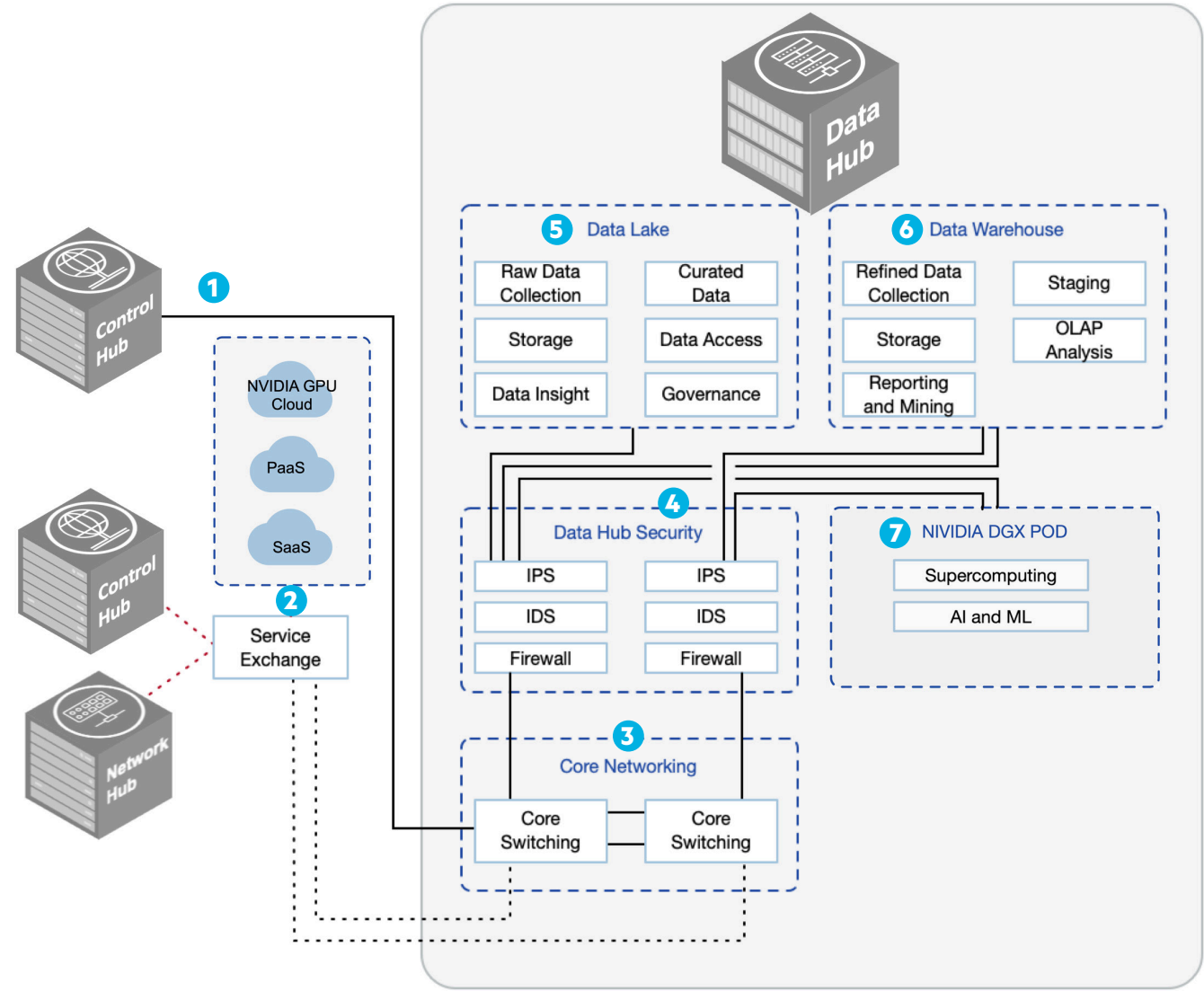| #	COMPONENT	PURPOSE
1	500 sqFT Private Cage or Hall	Security (secure physical isolation)
2	2 Cabinets, 35kW/Cabinet	NVIDIA DGX Pod (fit for purpose)
3	10 Cabinets	Expansion Capacity (fit for purpose)
4	3 Fiber Cross-Connects Package	Direct Connectivity (physical)
5	2 x 10G Service Exchange Ports	Ecosystem Connectivity (virtual)
6	Card Reader + Biometric Authentication	Security (secure physical access)
7	Aisle Containment Doors	Cooling and airflow management
8	Installation Services	Design/Install (speed to deploy)
9	Remote Hands Bundle (10 hrs)	Move/add/change (ease to maintain)

WHY NVIDIA DGX POD AND DIGITAL REALTY

The NVIDIA DGX POD eliminates the design complexity and lengthy deployment cycle associated with AI infrastructure, giving data scientists the most powerful tools for AI exploration in a platform that scales. Now enterprises can develop powerful AI solutions in a matter of days - not weeks or months – dramatically shortening time-to-insights from data.

Digital Realty provides PlatformDIGITAL, the single global data center platform to solve global coverage, capacity and connectivity needs of AI development, by bringing the users, devices, networks and clouds to the data to remove data gravity barriers and scale digital business.

Data Hub with DGX POD brings together industry-leading AI infrastructure with an a platform that simplifies and speeds innovation across the enterprise.
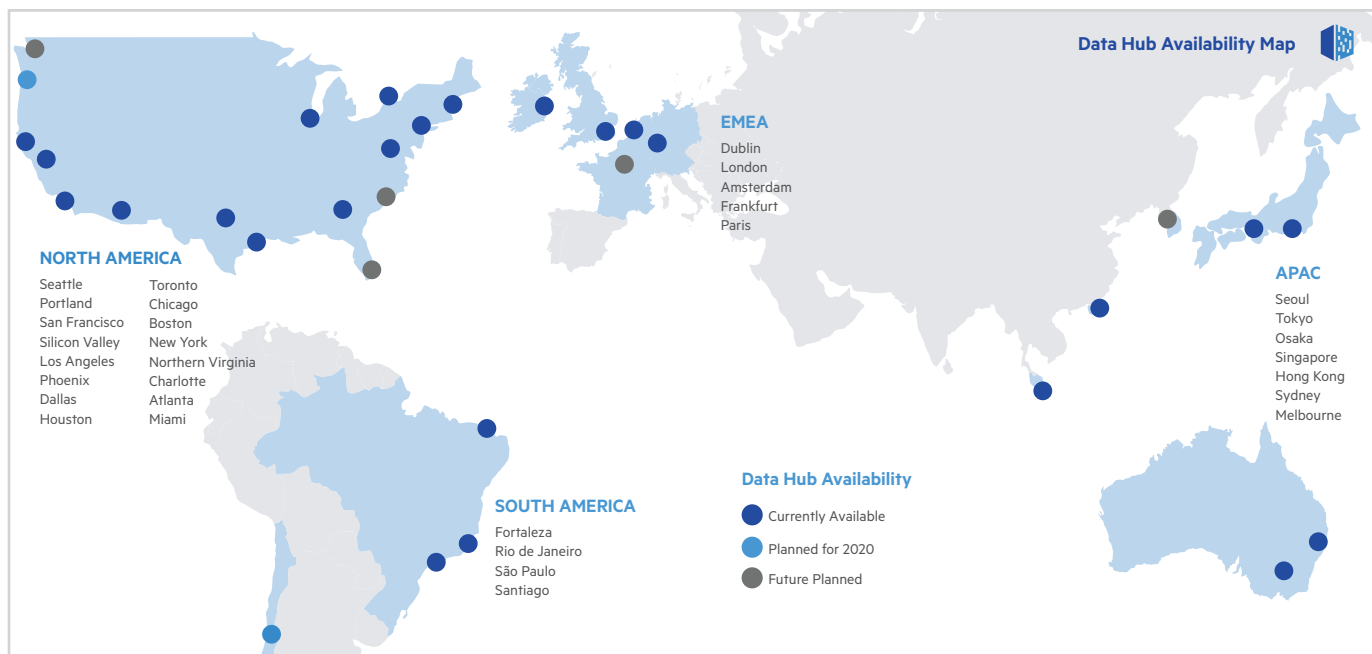
DATA HUB REFERENCE ARCHITECTURE

1 The Data Hub located in close proximity to the Control Hub connects using a Campus Connect or Metro Connect.

2 A Control Hub housed in another metro location connects back to the Data Hub using Service Exchange, powered by Megaport. Trusted data from Network Hubs flow to the Data Hub for further analysis and modeling. Service Exchange enables virtual cloud connectivity to the cloud resources supporting Hybrid IT, including NVIDIA GPU Cloud.

3 The Core Switching infrastructure terminated connectivity into the Data Hub and enables access to the cloud for deep analytics and archival storage.

4 Due to the value and sensitivity of enterprise data access needs to be strictly controlled and logged.

5 Data Lakes analyze and curate raw data for Data Scientists to use.

6 Refined Data sits in the Data Warehouse for Business Professionals to use.

7 NVIDIA DGX POD located directly adjacent to data store for direct access. DGX Pod enables AI and ML implementation, complex modeling and simulations, fraud detection and risk analysis.

Platform DIGITAL™

IMPLEMENT DATA HUBS GLOBALLY ON PlatformDIGITAL™

Data Hub Availability Map

EMEA
Dublin
London
Amsterdam
Frankfurt
Paris

APAC
Seoul
Tokyo
Osaka
Singapore
Hong Kong
Sydney
Melbourne

NORTH AMERICA

Seattle	Toronto
Portland	Chicago
San Francisco	Boston
Silicon Valley	New York
Los Angeles	Northern Virginia
Phoenix	Charlotte
Dallas	Atlanta
Houston	Miami

SOUTH AMERICA
Fortaleza
Rio de Janeiro
São Paulo
Santiago

Data Hub Availability

● Currently Available
● Planned for 2020
● Future Planned

WANT TO LEARN MORE?

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ABOUT DIGITAL REALTY

Digital Realty supports the data center, colocation and interconnection strategies of customers across the Americas, EMEA and APAC, ranging from cloud and information technology services, communications and social networking to financial services, manufacturing, energy, healthcare and consumer products. To learn more about Digital Realty, please visit digitalrealty.com or follow us on LinkedIn or Twitter.