CDAO

Chief Digital Artificial Intelligence Office

Federated Computational Governance

February 2024

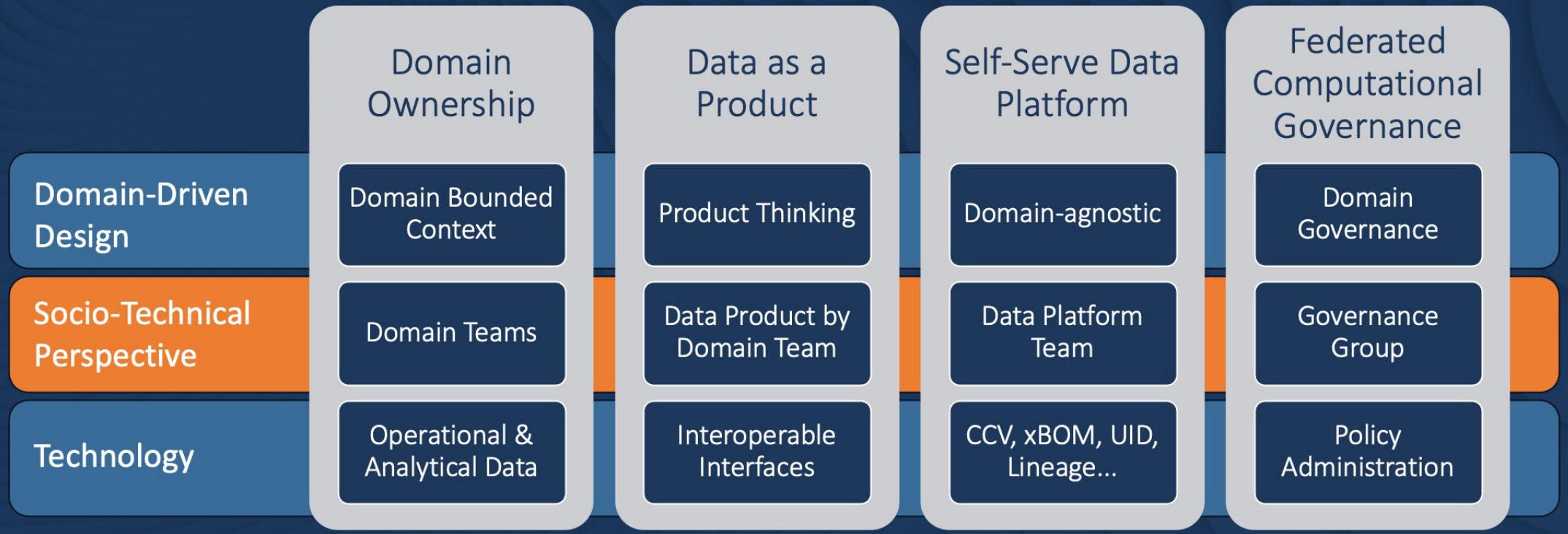
Data Mesh Vignettes

Army Best Squad Competition at Fort Stewart, Georgia, Sept. 28, 2023. (U.S. Army photo by Spc. Theron Smith)

- At the Edge
- Command Centers
- Lessons Learned

What is a Data Mesh?

A data architecture and organizational **concept** that treats data as a product and decentralizes data ownership and architecture.



A Change in Mind Set

Why Data as a Product is Key!

- Ownership and Accountability
- User-Centric Focus
- Standardization and Consistency
- Lifecycle Management
- Value-Driven Approach
- Collaboration and Communication
- Innovation and Evolution

Producer-Consumer Promise

The Rules of the Data Mesh Road

Federated Computational Governance

Why Federated Computational Governance?

- **Necessary for self-service in a data mesh**
  - Harmonized policies enable fluid movement of data (e.g. highway...)
  - Supports on-demand data access
- **Speed**
  - Policy distribution (instant) and adjudication (compliance) continuously and automatically
  - Adapt to dynamic strategic and operational environments
- **Preserves data sovereignty and control**
  - Enforce data management policies
  - Nested sovereigns can cross-talk and execute access control dynamically

Power of Data Mesh is the Ability to Computationally Enforce Federated Governance

What can you do?

- Collaborate with us on FCG best practices
- We are open to seeing solutions or hearing your input on what we presented here

What are we doing now?

- Learning from Data Product Team deployments
- Learning with industry, interagency, and international partners
- Experimenting with proofs of concept
- Learning from CJADC2 and DIL

Learning by Doing

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