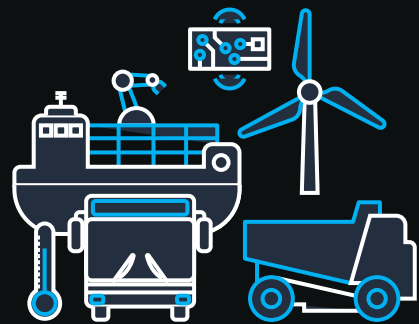aws

Digital Twin Framework: Deploying Digital Twins on the Cloud

September 17, 2024
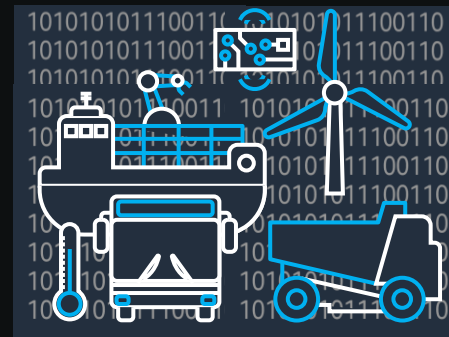
Adam Rasheed, Head of Emerging Technology
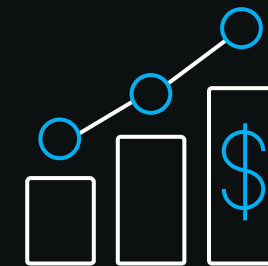Stephen Litster, Head of HCLS Compute Specialists

Digital Twins

A living digital representation of a physical system that is dynamically updated to mimic the structure, state, and behavior of the physical system to drive business outcomes
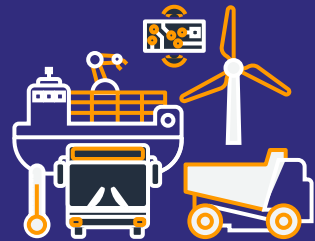

PHYSICAL SYSTEMS

CONNECTED WORLD

DIGITAL TWINS

BUSINESS OUTCOMES

aws

Digital Twin Levels

https://aws.amazon.com/blogs/iot/digital-twins-on-aws-unlocking-business-value-and-outcomes/
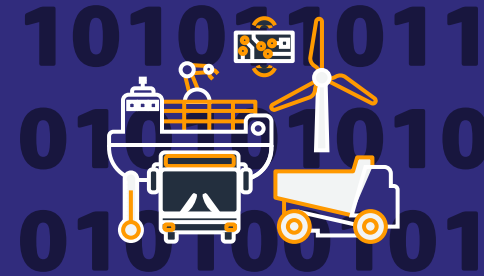

Engineering design and visual representation.

L1 DESCRIPTIVE

Integration of IoT, asset history, and maintenance data.

L2 INFORMATIVE

Predictions of unmeasured quantities and future states based on historical data.

L3 PREDICTIVE

Updatable models to drive actionable insights.

L4 LIVING DIGITAL TWIN

DT Levels framework adapted from: Verdantix, Five Digital Twin Strategies For Industrial Facilities, 2019.

aws

Digital Twin Framework

https://aws.amazon.com/solutions/guidance/digital-twin-framework-on-aws/

A **unified architecture** which spans **data collection & contextualization, spatial data lakes**, & **predictive modeling** for digital twin applications