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Revolutionizing Naval Operations with Generative AI

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Abstract:

The Navy's reliance on Artificial Intelligence (AI) and Machine Learning (ML) continues to grow, transforming operations in areas like Condition Based Maintenance Plus (CBM+) and Supply Chain Management. Generative AI (Gen AI) offers unprecedented potential to further revolutionize naval capabilities.

This talk explores how a secure, robust and scalable data platform, delivers AI as a Service and empowers the Navy to harness the power of Gen AI.

By addressing critical challenges such as data security, model governance, and operational efficiency, our solution enables cost effective development and deployment of robust Gen AI applications. Key platform features should include:

• Robust Security and Governance: Ensuring the protection of sensitive data and maintaining control over AI-generated content.

• Model Management: Streamlining the development, deployment, and monitoring of AI models.

• Optimized Performance: Delivering high-performance AI inference at the edge.

• Seamless Data Integration: Facilitating access to diverse data sources for training and inference.

AI and Gen AI are only as good as the data, it’s important for the Navy to ensure data is: Clean, unbiased, trusted and available. Trusted, high-quality data inputs are essential to drive quality data outputs (AI Products). Data movement capabilities address the first mile problem from Ship-to-Ship and Ship-to-Shore, including in DDIL situations.

Cloudera provides support for the entire data lifecycle from data ingestion through Gen AI, AI and ML. By leveraging Cloudera and capitalizing on data mesh capabilities available at different classifications in CANES, the Navy can unlock the full potential of Gen AI, driving innovation and operational excellence across the Fleet.