Monday, March 2, 2020
10:30 a.m. – 10:50 a.m.
Leveraging Pentaho for Tactical & Strategic Intelligence

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Abstract:
Tactical and strategic intelligence together encompasses the present status and the future direction of an organization - one without the other is aimless. Strategic intelligence enables decision-makers to have an insight on emerging trends and patterns and thereby prescribe relevant corrective mechanism based on available alternatives and a more complete knowledge of the present environment. Tactical intelligence keeps a pulse on the present and implement steps to leverage existing real-time opportunities and resources. Hitachi Vantara Federal (HVF) can architect effective solutions to accelerate this via Pentaho and our innovative Data-As-A-Service offerings.

Pentaho helps gather data from a plethora of data sources technologies (databases, sensors, APIs, streaming data, unstructured data such as audio, video and text/logs) and perform descriptive, diagnostic, predictive and prescriptive analytics to meet the missions and goals of the agency. The flexible and open architecture of the product's design principles enable it to work seamlessly with other analytics and visualization applications downstream, as well as leverage existing scripts and processes as part of the data pipeline. Machine learning-based model formulation and refinement can be similarly included as part of the data exploration and deep dive.

The presentation will include a demonstration of the Pentaho product capabilities using the United States Coast Guard open dataset related to marine casualty and pollution as a proof-of-concept. The analysis will study the incidents by a variety of factors including vessel or facility type, injuries, fatalities, pollutant details, location, and date.

Dataset:
Marine Information for Safety and Law Enforcement (MISLE)

The Marine Casualty and Pollution Database contain data related to marine casualty investigations reportable under 46 C.F.R. 4.03 and pollution investigations reportable under 33 C.F.R. 153.203. The data reflect information collected by U.S. Coast Guard personnel concerning vessel and waterfront facility accidents and marine pollution incidents throughout the United States and its territories.

Link: https://homeport.uscg.mil/Lists/Content/DispForm.aspx?ID=211