



Centrilogic

Customer Story: Port of Halifax



The Business Problem and How We Helped

Over 1,500 ocean-going cargo ships enter the Port of Halifax every year. They are from the world's largest shipping lines. And they transport billions of dollars worth of cargo to and from 150 different countries. The Halifax Port Authority (HPA) is accountable for the long-term planning and development of infrastructure, including digital infrastructure, to maintain and grow activities within the port in a responsible, sustainable way. Many different stakeholders depend on their PortControl system to provide accurate and up-to-date information on operations across the entire port.

THE DATA STRATEGY GOAL

PortControl relies on data coming from many different internal and external legacy systems. These inputs are often delayed and contain errors. There is a lot of manual intervention to match and correct them before they can be properly consumed. HPA called on Centrilogic to help them develop a new Cloud-based Data Strategy and then create a plan to implement it.

“Our ultimate goal is to have our new data platform (HPA Integration Hub) be an accurate and up-to-date central repository for the status of all operations across the entire port. And this data will be updated automatically, in real-time, for analysis and planning by all our stakeholders,” said their Director of IT.

WHY THEY CHOSE CENTRILOGIC

“Before we selected Centrilogic as our Data Partner, we talked to several different software companies who specialize in Data and the different Clouds. In the end, we chose Centrilogic and the Microsoft Cloud (Azure) because Centrilogic was highly recommended by Microsoft, they have a very deep and experienced technical team, and we loved the way they listened to and collaborated with our staff.

For us, this is the beginning of a multi-year project that will fundamentally transform how we plan for the growth of the Port of Halifax. And we are looking to Centrilogic to help us get there.”

Derrick Whalen

Director of IT, HPA (Halifax Port Authority)

THE BUSINESS PROBLEM

“From the Shipping Lines to the Railways, many different stakeholders depend on us for accurate and timely data across all port operations”, said Derrick Whalen, Director of IT at HPA. We try to provide that, but our source data is coming at different times, in different forms, and from different internal and external legacy systems. So to get a true view of current operations, you often have to manually search through different data sources.

We wanted a way to pull all the key data together from those disparate systems, and automatically synchronize and clean them up. Then our stakeholders could see everything in one place, through ‘a single pane of glass’. But we needed help to do this. So that is why we turned to Centrilogic.”

HOW WE HELPED

THE FIRST STEP

The first step for the Centrilogic Consultants was to meet with business stakeholders from all branches of HPA. Then they developed a detailed user centric data map that showed the data flows across all port operations. This gave HPA a clear understanding of the Current State of their data sources and processing. It highlighted the problems with the current data and systems.

CATALOGUE AND ANALYSIS

The Consultants also catalogued all the key operational data, showing what files and formats each of the data were in and importantly, what data could be relied on as being accurate (vs needing cleansing before it could be used).

At the end of the analysis, the Centrilogic consultants had also identified a number of legacy and manual processes that were preventing the accumulation of accurate, timely data. They recommended that for some of the sources of data, old systems should be modernized and streamlined so the incoming data could move more directly, more cleanly into the HPA Integration Hub. And they developed a Proof of Concept to show how that could be done.

Creating a vision for a cloud-first data platform with real-time updates

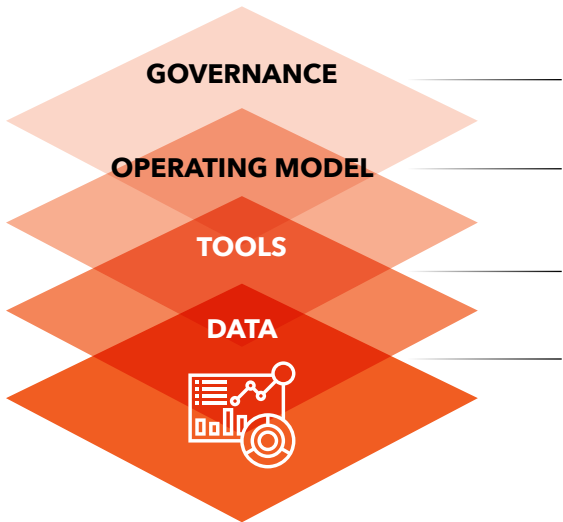
The Centrilogic Consultants then produced a vision of a Future State showing how to aggregate all the key data into a single place for analysis and planning purposes. Their vision was for the HPA Integration Hub, was an enterprise, cloud first data platform that would ingest all the key data from many different sources, then provide real-time updates to different consumers as the data changed.

Simplify and modernize with a multi-phase Implementation Plan

Based on their experience, the Centrilogic Consultants created a multi-phase Implementation Plan to simplify and modernize HPA's data assets. The vision for this was based on a reference Architecture recommended by Microsoft for Cloud Scale Analytics. The Plan included a specification for the ideal team that HPA should assemble to work with Centrilogic on the implementation. Centrilogic also laid out Data and Azure learning tracks for each HPA Team member and there were clear definitions of the roles and responsibilities for all HPA and Centrilogic Team members.

This multi-year plan has now been approved by the HPA Executive Team. Together, HPA and Centrilogic have kicked off the implementation of the new HPA Integration Hub.

FOUR KEY LAYERS OF DATA VISION



Develop effective policies and practices to securely manage and protect data assets for internal and external consumption

Organize and operate facilities to ensure the right people are working on insight generation activities that deliver value

Identify and deploy appropriate enterprise data and analytics technologies and make them available across the business

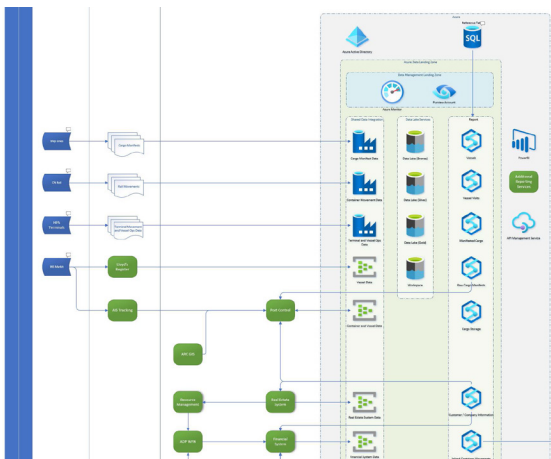
Ensure consumable data is **available, understood, and trusted** by users across the business

2

KEY TECHNOLOGIES



- Azure Data Factory
- Azure Data Lake
- Azure Purview
- Azure Databricks
- Azure Synapse
- Azure DevOps



HPA Integration Hub
HPA's Enterprise Data Platform

"Today, every company needs to think of themselves as a Data Company," said Dave Judd, Centrilogic's Data Practice Lead. "But most organizations are currently only looking at **less than 30%** of their key data. Our project with HPA is aiming to provide them with real-time access to over 90% of their key data."

"Microsoft estimates that every company's data footprint is now **doubling every 2-3 years**. So if you are not starting now to develop a comprehensive Data Strategy, your problem is just going to get bigger and more difficult as time goes on."

Dave Judd
Data Practice Lead, Centrilogic