



# Statistics Canada

Microsoft Azure Case Study

# Tidal Accelerator delivered >\$2.6m in cost avoidance for Statistics Canada with a transformative migration approach to Azure

## About Statistics Canada

Statistics Canada is the national statistical agency of Canada. It is responsible for collecting, analyzing, and disseminating statistical information about the Canadian population and economy.

The agency conducts a wide range of surveys and censuses to gather data on topics such as population, labor force, income and spending, housing, and economic activity. The information collected by Statistics Canada is used by government agencies, businesses, and researchers to make informed decisions, and is also made available to the public through various publications and online resources. Additionally, Statistics Canada also plays a role in the coordination of international statistical activities and the development of statistical methods and standards.



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## Customer Challenge

Statistics Canada's migration effort was driven by both pivotal deadlines and desired business outcomes. The former included both a fixed data center exit date and the approaching end-of-life of its AIX infrastructure.

The organization also had 14 ambitious business outcomes it hoped to achieve through the migration, including improved organizational agility, operational reliability, security improvements, and a shift from capital to operational expenditures. Tight deadlines and their ambitious business outcomes necessitated creativity, efficiency and a solution that could address multiple project goals.

To address these multiple factors and tight deadlines, Statistics Canada pursued a transformative migration to the public cloud. However, balancing the 14 objectives and

tight timelines presented a challenge to the organization and required negotiation and prioritization across the project stakeholders. Furthermore, without rapid progress, Statistics Canada would be unable to meet the deadline or achieve its desired business outcomes.

Addressing the modernization initiative early on, Statistics Canada delivered leading solutions for [Data Analytics as a Service](#) and eight other cloud-native applications. These early wins demonstrated the viability and benefits of transformational cloud deployments. However, the customer had 440 applications left to migrate, which included a mix of legacy systems, custom-built applications, and large datasets. Tidal was engaged to provide expert guidance, software and tools, and support to accelerate these migrations.

## Partner Solution

Tidal delivered a comprehensive application assessment on 50 mission critical applications in less than three months.

Using **Tidal Accelerator** and **Tidal Tools**, the team analyzed systems, application source code, shell scripts, and Oracle and SQL Server databases to develop a data-driven migration plan in collaboration with Statistics Canada.



After analyzing the application dependencies, data flows, and affinity grouping, Tidal created five cross-functional migration teams within Statistics Canada that operated in an agile methodology.

This type of organizational alignment was a first for the organization.

Using Tidal's design recommendations, Statistics Canada implemented landing zones that met each application team's requirements and conformed to the latest Cloud Adoption Framework. The use of best practices and separation of concerns provided the teams with autonomy and agility while also minimizing the potential blast radius from security and other misconfiguration incidents.

Tidal Experts demonstrated how to deploy modern tools and architectures for efficient cloud deployments. This resulted in replatforming the AIX databases and refactoring the applications to run on Red Hat Enterprise Linux on Azure and other cloud native services and architectures.



Now empowered to deliver, the teams were also able to adopt Azure native services, such as Azure Key Vault for secret management, Azure Blob Storage and Azure Monitor. Application environments were deployed and managed iteratively by the migration teams using Terraform for infrastructure as code, delivered by GitLab pipelines.

For lift and shift workloads, Tidal applied its orchestration to



Azure Migrate-powered Rehost migrations. The Tidal approach to automation scaled out existing migration scripts to support hundreds of migrations in parallel. This automation included testing of VMs before cutover and was executed via GitLab pipelines. Tidal managed each of the 37 migration waves via code and employed git tags for kicking off migration executions, allowing for predictable migrations at scale.



## Results and Benefits

Over approximately **18 months, 39 project sprints** were conducted providing hundreds of opportunities for **knowledge transfer** to the Statistics Canada application support and maintenance staff who participated in the migration. This **build-with approach left staff with confidence** to continue operating and optimizing applications post-migration.

The results of the transformative migration were impressive, with staff productivity gains including a **168x improvement in SAS-server deployment time** and an **87% reduction in processing time** of critical statistical jobs to just one hour. This allowed business teams to iterate multiple times per day vs once per day previously.

Efficiency gains were also realized via a **59% reduction in net server count**. The associated savings (OS licensing, maintenance, support infrastructure, etc.) accrued to Shared Services Canada (a separate department), but **the direct Azure IaaS cost-avoidance to Statistics Canada exceeds \$2.6 million annually**.



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Tidal's collaboration with the STC cloud architects, and strong technical abilities helped deliver a solution to a technical issue that would have impacted our business partners' ability to deliver mission critical data to Canadian citizens. With Tidal's help, we were able to avoid months of effort in systems modifications and testing.

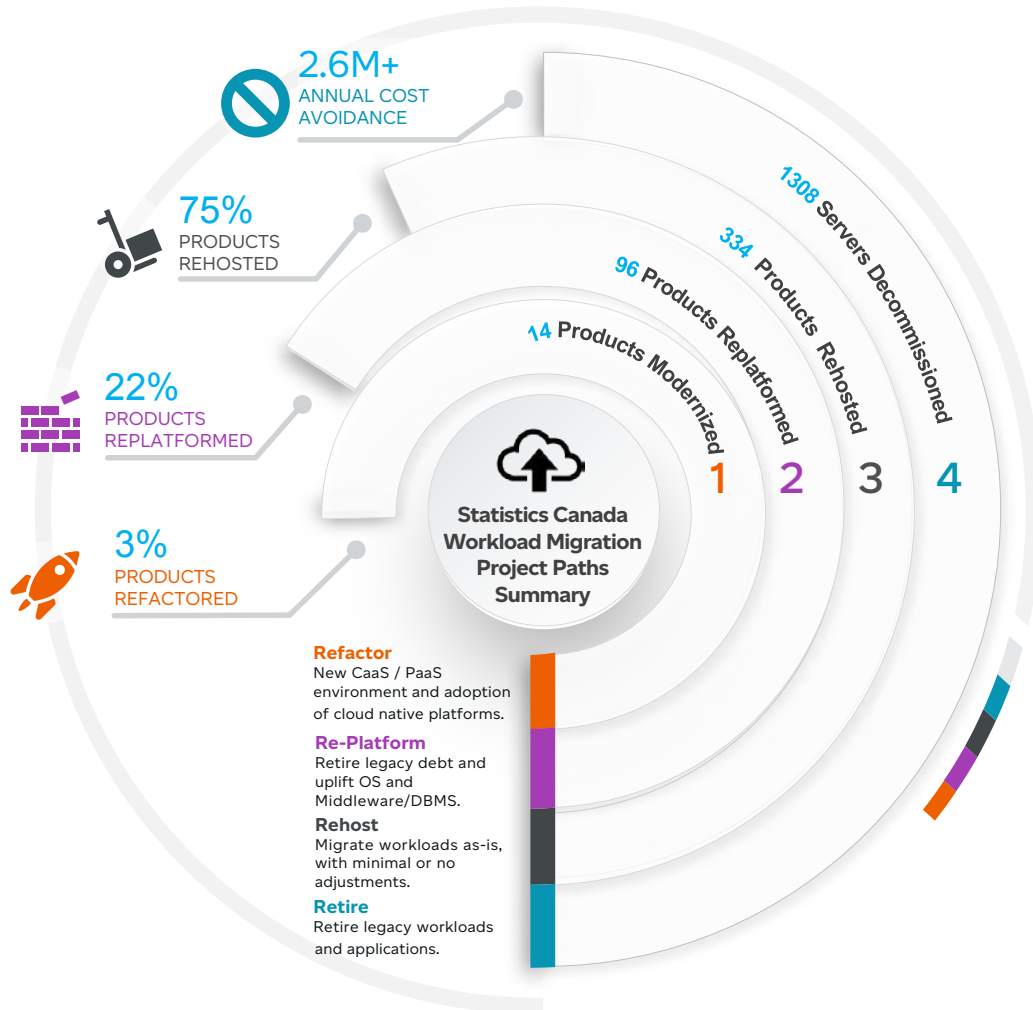
We have nothing but thanks for your team, and would highly recommend Tidal to anyone facing similar challenges in migrating to the cloud.

- Brock Macnab (IT Chief)

## About Tidal

Tidal's mission is to enable rapid transformation from Enterprise IT to the Cloud. The company achieves this with an application assessment platform, using a business-first approach and a purpose-built, scalable framework. The platform is designed and built specifically for enterprises to make high impact changes and informed decisions rapidly in their cloud migrations and transformation projects.

Tidal is a Managed Co-Sell Ready and Gold ISV Partner of Microsoft and a Migration & Modernization Software Competency Partner with Amazon Web Services.



# Ready to see the same cost-saving results for your organization?

Contact Tidal today to learn more about how Tidal Accelerator can transform your migration to Azure.

[www.tidalcloud.com](http://www.tidalcloud.com)

[info@tidalcloud.com](mailto:info@tidalcloud.com)

+1 877 895 7179

