Business challenge

The City and County of Honolulu needed an innovative IT approach that would enable the organization to adopt up-to-date development practices while also building on its mainframe investments.

Transformation

With expertise and support from IBM Business Partner Sirius, Honolulu transitioned to a service-oriented architecture (SOA) and updated its mainframe environment with IBM® z13® technology. Now, the city is an IT leader among government organizations, offering an enterprise platform that spans departments and roles to improve efficiency.

Mark Wong
Chief Information Officer
City and County
of Honolulu

Results

Saves development time and frees resources
with an SOA solution

Launches an enterprise platform
designed to support all municipal business functions

Improves employee efficiency
across the organization with a shared user interface

City and County of Honolulu

Launching an industry-leading enterprise application to boost efficiency

Established in 1907, the City and County of Honolulu is a consolidated city-county government in the US state of Hawaii. The organization serves more than 950,000 constituents inhabiting the city of Honolulu, the rest of the island of O'ahu and several outlying islands. The City and County of Honolulu comprises 26 agencies and is staffed by 8,000 employees.

"Sirius is like an extension of our staff."

—Mark Wong, Chief Information Officer, City and County of Honolulu

SIRIUS

Share this

Legacy IT requiring an overhaul

As the governing body of Hawaii's most densely populated area, the City and County of Honolulu provides a wide range of municipal services to a diverse constituent base. But like many government organizations, the city was relying on legacy IT to support its service delivery.

Honolulu first began using mainframe servers in the 1960s, updating its applications as needed over the decades. By the time Mark Wong took on the role of Chief Information Officer (CIO) in 2013, the city had an assortment of aging enterprise software running in its mainframe environment.

"We had a lot of requirements that we couldn't accommodate because it's very difficult to modify things in the older programs," says Wong.

To move forward, the city needed an innovative approach to enterprise IT that would build on its previous investments in mainframe infrastructure while enabling the organization to adopt up-to-date development practices.

Server upgrades and a shift to microservices

For more than a decade, leading IT solutions integrator Sirius has provided Honolulu with mainframe support and expertise. When Wong came on board as the city's new CIO, he turned to the company for insight.

"I needed a lot of help finding out what new tools were available and what our various options were in evolving our legacy environment," says Wong. "I relied on Sirius to provide me with the answers I needed."

Sirius helped the organization update its mainframe technology with two IBM z13 servers, each running the IBM z/OS® operating system and two IBM Integrated Facility for Linux (IFL) processors running IBM z/VM® technology and the Red Hat Enterprise Linux operating system.

To bring the processing power of the mainframe IFLs and other server platforms together as a single pooled resource, the city created a private cloud environment spanning multiple data centers. Next, the organization began breaking its monolithic legacy applications down into microservices.

The service-based approach allows Honolulu to continue running existing software on the z/OS operating system, convert applications for the Linux operating system and develop brand-new Linux-based solutions. "The larger vision is to meet the application needs of the entire city with one platform," says Wong.

One platform for all city applications

In 2017, Honolulu officially launched Lōkahi, the enterprise platform that will ultimately support all city business functions. "We're coming on two years since we started rolling this out, and it's already very comprehensive," says Wong. "The mapping portion of Lōkahi has over 14,000 layers in it, which is a huge amount of information compared to what most cities can access."

With its new service-based approach, the city saves an enormous amount of development time, freeing valuable resources for other tasks. "Now, if we're writing something like a date routine that figures out where the holidays are or the official business days for the city, we write it once," says Wong. "Previously, every single application would have to have something like that coded in, but now everything's in a common API library."

Plus, the integrated architecture has significant benefits for municipal employees. With a common user interface across departments, city workers can shift into new roles more quickly and easily. And the shared interface offers a critical advantage during urgent situations.

"Let's say you work in the police department and you use a piece of software every day for your daily tasks," says Wong. "If it's the same application for emergency operations, you don't have to try to remember how this thing works when you're under pressure. If everybody in the city is using the same application every day regardless of what state of operations we're in, we can operate more smoothly under all conditions."

Continuing to evolve the city's IT environment and expand the Lōkahi platform is a substantial effort. "This isn't just dressing up some existing applications and throwing a modern Web page out in front of it," says Wong. "It's rearchitecting and redesigning the whole thing— different hardware, different applications, different databases, different development style."

"IBM is moving in the same direction we are—an approach that's web-based, built on standards and with emerging application platforms—and Sirius is critical in helping us go down this road together."

—Mark Wong, Chief Information Officer, City and County of Honolulu

With a lean IT department and a steady focus on keeping costs low, Wong considers Sirius a key collaborator in moving forward. "Sirius is like an extension of our staff," says Wong. "IBM is moving in the same direction we are—an approach that's web-based, built on standards and with emerging application platforms—and Sirius is critical in helping us go down this road together."

Take the next step
To learn more about the IBM solutions featured in this story, please contact your IBM representative or IBM Business Partner.

About Sirius
Founded in 1980 and headquartered in San Antonio, Texas, IBM Business Partner Sirius is one of the largest IT solution integrators in the US. The company's certified experts install, configure and support solutions built on products from the world's leading technology brands. With sales locations across the US, Sirius employs over 2,700 people and serves more than 5,000 organizations that range from small businesses to large enterprises.