

# Local Health Department Consolidates Six Arrays to One Converged System and Finds Ease and Economics in the Face of an Uncertain Budget



TACOMA-PIERCE COUNTY HEALTH DEPARTMENT CASE STUDY



Tacoma-Pierce County  
**Health Department**  
Healthy People in Healthy Communities

**Government**  
[www.tpchd.org](http://www.tpchd.org)

## Challenge

With six arrays nearing their end of life, the Health Department needed a short- and long-term strategy for simplifying storage management and containing costs.

## Results

- Consolidated six arrays with one converged platform, reducing management time
- Reduced storage management to zero and accelerated VM creation by more than 10x
- Eliminated a rack of equipment, resulting in just under \$10K/yr in power savings
- 6x data reduction
- Reduced used capacity by two-thirds
- Lowered CapEx while gaining headroom for growth

“When I saw the Datrium demo, my jaw dropped. What drew me was the ease of use with no LUNs to manage, increasing IOPs as I add hosts, the affordability, and the fact that there’s no latency between the server and storage.”

**Ken Pi**  
Senior Engineer

## Company Challenge

### Aging, High-Maintenance Arrays

Tacoma-Pierce County Health Department tackles known and emerging health risks through policy, programs, and treatment to protect public health for the 832,000 residents of Pierce County, Washington. As a public agency, Tacoma-Pierce receives approximately 40% of its funding from federal and state grants and 40% from permits and fees, with the remainder of funding coming from a mix of local government funds and other sources. The Health Department aims to be an effective steward of its limited public funding resources.

Given that situation, the IT team tirelessly works to enhance performance and get the most value for end users. When Ken Pi, Senior Engineer, arrived at the Health Department in 2016, he found a patchwork of six different storage arrays, all of which were nearing their end of life. Parceling applications across arrays required careful decision making and provisioning a virtual machine could take a couple of hours.

## Results

### From Six Arrays to ‘Hands-Free’ Management

Through the course of his career, Pi has tried most of the major storage solutions on the market, including Dell EqualLogic, NetApp, EMC, and Nimble. When he heard about the Datrium Automatrix platform, he was admittedly skeptical, but a demonstration quickly addressed his concerns.

“My experience of working with many storage vendors over the years is that they often don’t deliver on promises,” Pi says. “But when I saw the Automatrix demo, my jaw dropped. What drew me to Automatrix was the ease of use with no LUNs to manage, increasing IOPs as I add hosts, the affordability, and the fact that there’s zero latency between the server and storage.”

After selecting Automatrix, the Health Department replaced the six different storage arrays with one system and simplified every aspect of storage management. The team now manages storage centrally in vSphere and doesn’t need to administer LUNs or other storage artifacts. In a single browser window – instead of four previously – engineers track detailed VM performance analytics, without having to hop back and forth between applications.

“You’ll be surprised at the money you’ll save with Datrium. It’s simple, affordable, and I have greater peace of mind that it’s back there.”

**Ken Pi**  
Senior Engineer

Previously, it took Pi a couple of hours to create a VM. Not so anymore. Now he spins up new VMs by simply clicking default on a template, which takes minutes. And having one pool of storage removes time-consuming assessment and decision-making about where to place VMs for available capacity and balanced performance. “Now you just fire up the VM, and it’s automatic,” Pi says. “It saves us a ton of time. It’s the most hands-free system I deal with.”

#### **Automatrix Shrinks Footprint, Delivers Needed Economic Benefits**

Datrium now supports most Health Department applications and over a hundred virtual machines. Using Automatrix with always-on global deduplication and compression, the Health Department reduced used storage capacity by two-thirds and gained plenty of headroom for growth.

Not only does storage efficiency reduce cost and management time, but the combination of removing arrays and servers reduced power usage by 4 KVAs or 1,000 volt-amps – a savings of just under \$10,000 per year. It also freed up considerable space in the storage room. “We used to have this huge pile in the server room, and now we’ve reduced that by almost a full rack,” Pi says. “Everyone is impressed that some software in hosts and that one little data appliance can do so much.”

In Pi’s experience with NetApp and Nimble, VM-based applications always pushed IOPs to the limit. With Automatrix, IOPs stay at just a fraction of the maximum. Latency, in turn, has dropped significantly. Automatrix maintains a complete set of VM data on the host (“Compute Node”). Compute Nodes provide local VM and I/O processing resources, and all reads stay in local flash, which maximizes speed.

For Pi and the team, Automatrix provides a more affordable, lower-risk infrastructure strategy – and more effective use of public funds. Upon installation, Automatrix enabled the Health Department to reduce its capital costs while offering plenty of room for capacity and performance growth. Next, the Health Department plans to add a second Datrium product for its offsite disaster recovery site, tapping Datrium’s built-in cloud data management capabilities.

“You’ll be surprised at the money you’ll save with Datrium,” Pi says. “It’s simple, affordable, and I have greater peace of mind that it’s back there.”

#### **About Tacoma-Pierce County Health Department**

Tacoma-Pierce County Health Department’s mission is to protect and improve the health of all people and places in Pierce County. As part of our mission, the Health Department tackles known and emerging health risks through policy, programs, and treatment to protect public health. The department is one of only 163 accredited health departments in the country and among six in the state to have met or exceeded the Public Health Accreditation Board’s quality standards.

Learn more about Datrium at [www.datrium.com](http://www.datrium.com).

