

Government

North America

SAN DIEGO SUPERIOR COURT

Enabling High Availability & Automation for Public-Facing Infrastructure

Business overview

This county-level court system operates multiple public-facing services, such as case lookups and record access, for a broad regional population. With over a dozen courthouse locations and hundreds of judges and staff, the system supports tens of thousands of daily visitors to its online platforms. Reliable uptime and rapid responsiveness are critical to its mission of providing uninterrupted public access.

Challenges

The court's web services were frequently overwhelmed by heavy automated queries from third-party data miners, causing outage events multiple times per month. These interruptions degraded public access and disrupted court operations. Traditional mitigation strategies, such as blocking or rate-limiting, either failed or unacceptably restricted legitimate use. A single outage was estimated to cost around \$1 million in lost productivity and services.

Key challenges included:

- Frequent downtime of critical public web applications
- Overload caused by automated, high-volume traffic
- Inadequate protection via simplistic blocking strategies
- Heavy reliance on manual, reactive incident management

The solution

The court adopted containerization on Docker Swarm, managed through Portainer, to enable scalable, automated deployment and resilience.

- Containerized web apps meant each service ran in isolated, restartable units
- Auto-scaled container clusters absorbed traffic surges during audits or heavy usage
- Portainer's intuitive GUI, along with Active Directory integration, drove rapid adoption across Windows-centric IT teams
- Team productivity surged: key admins reported 50% faster task completion compared to CLI use

Annual savings

\$10M

Public data access acceptance

+30%

Faster task completion

50%

Key results

- Outages dropped from multiple per month to just one in 12 months
- Availability increased from “three nines” to “six nines” (~99.9999%)
- Mean time to recovery shrank from hours to minutes thanks to automated health checks and container self-healing
- Productivity gains translated to roughly \$10 million in annual savings
- Public data access acceptance increased by 30–40%, as the system could now safely handle mining traffic without downtime

Key Takeaway:

By containerizing critical services and using Portainer to automate and scale deployment, the court dramatically improved uptime, reduced incident response time, and delivered more reliable public access, all while cutting operational costs and boosting IT efficiency.

“I am able to quickly look at what’s going on, get a holistic view of everything. Very quickly I look at the stack and services - instead of digging up docker commands, it’s all automated.”

Joshua O'Brien, Systems Engineer

Whether you're managing at scale or building
at the edge, we're here to make it simple.

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