Miami-Dade County

Miami-Dade County addresses every phase of county business, delivering premium computing at a cost that optimizes taxpayer dollars. The county manages more than a petabyte of data, serving a variety of platforms, including IBM System z mainframes, IBM Power Systems, HP blades and a variety of other Wintel servers. SUSE® Linux Enterprise Server for System z provides the county with an extremely scalable, cost-effective and well-supported operating system.

Overview
Located in the southeast part of Florida, Miami-Dade County is home to an estimated three million residents. As the area’s largest employer, the county offices employ 25,000–30,000 people.

Challenge
Like many government agencies, Miami-Dade County has faced financial constraints in recent years. “We’re responsible for serving the needs of millions of citizens,” said Adrienne DiPrima, manager of Strategic Technologies Support for Miami-Dade County. “With so many people out of work, businesses closing and homes under foreclosure, we need to provide more services with less funding.”

To fulfill a diverse set of needs, the county’s IT department now supports more than 60 mission-critical applications, including payroll, human resources, courts, property taxes, financial systems, facilities management, criminal justice and more.

Solution
The county’s IBM mainframe had already proven itself a stable and cost-effective platform for many years. “The IBM System z has a small footprint with a huge payback,” said DiPrima. “We have compute-intensive applications and billions of lines of code running on the System z. It performs very well, responding to spikes and heavy processing on the fly. With the IBM System z, there is no practical limit to what you can do.”

To support its growing needs, the county upgraded its two IBM System z990 machines to System z10, running five z/OS LPARs and two z/VM LPARS dedicated to SUSE Linux Enterprise Server for System z. “The price/performance of SUSE Linux Enterprise Server for System z is significantly lower than other UNIX platforms,” said Anita Nolan, senior operating systems programmer, Strategic Technologies Support for Miami-Dade County. “The IBM System z10 also consumes 30 percent less power over our previous System z mainframe, and orders of magnitude less than other platforms.”

Miami-Dade County now runs Cognos, HostOn-Demand, CCL and Tivoli applications on SUSE Linux Enterprise Server for System z. Having a Linux-based open enterprise brings greater agility to the IT department. “With SUSE Linux Enterprise Server for System z, we can quickly respond to user needs,” said Nolan. “The ability to

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ADRIENNE DIPRIMA
Manager, Strategic Technologies Support
Miami-Dade County

Success Story

Miami-Dade County at a glance:
The most populous county in Florida

- Industry and Location
  Government, United States

- Products and Services
  SUSE Linux Enterprise Server for System z

- Results
  + Gained agility to quickly provide new services as needed
  + Maximized IT staff efficiency; managing the z/Linux infrastructure with less than one FTE
  + Ensured continuous availability for business-critical applications
“With SUSE Linux Enterprise Server for System z, we can be quick to respond to user needs. The ability to virtualize our Linux workloads and clone the server image makes it easy to roll out new services quickly.”

ANITA NOLAN
Senior Operating Systems Programmer, Strategic Technologies Support
Miami-Dade County

virtualize all our Linux workloads makes it easy to roll out new services quickly. In just 15 minutes, I can get a test machine ready to go. In addition, our System z/OS disaster recovery procedures can be easily expanded to protect the z/Linux workload.

Today all of the county’s z/Linux-based mainframe systems are virtualized using z/VM. “Virtualization is straightforward and requires minimal effort with SUSE Linux Enterprise Server for System z and z/VM,” said Nolan. “If users want to move their server from one security zone to another, we can easily accomplish this by modifying their network access, as opposed to physically moving the network links to the server. What’s more, virtualization gives us the ability to pool resources and prioritize critical workloads so they have faster service than others.”

Results
SUSE Linux Enterprise Server for System z helped the county optimize its IT resources. The county can confidently support compute-intensive, mission-critical applications, and quickly adapt to new needs.

“Running SUSE Linux Enterprise Server for System z is financially beneficial, but the biggest advantage for us is in the support arena,” said DiPrima. “SUSE provides a fully supported operating system. The company’s close technical cooperation with IBM and their mainframe expertise are very valuable to us. We could download a free distribution of Linux, but if it’s 3 a.m. and we have an issue, there’s no one to call. Having a fully supported operating system with a large vendor’s technical staff behind it is critical.”

The IBM and SUSE solution also helps the county keep support costs low. “SUSE Linux Enterprise Server for System z provides a very efficient platform,” said DiPrima. “We have two people supporting the entire z/VM and z/Linux infrastructure on a part-time basis, compared to more than a dozen required to maintain each of our AIX and Windows environments.”

In addition, the county has found the Linux operating system helpful for supporting regulatory compliance. “The sensible SUSE approach to the Linux roadmap helps us stay in line with emerging regulations,” said Nolan. “If we have to apply updates due to new PCI compliance regulations, we just go to the SUSE site to find the right patches. We don’t have to constantly upgrade release levels to remain compliant.”

The county is bringing more critical applications onto its Linux-based System z10 platform. “Running them on Linux on System z makes perfect sense. All we have to do is clone the system and bring data repositories online and we can have the applications up and running quickly.”