DYNAMIC SYSTEMS HELPED A LARGE FEDERAL SYSTEMS INTEGRATOR BUILD A

HYPER-CONVERGED INFRASTRUCTURE SOLUTION

TO MEET INTERNAL CUSTOMER COMPUTE DEMANDS AND SIMPLIFY IT ADMINISTRATION

ABOUT THE CLIENT

Industry: Government
Location: Undisclosed

DYNAMIC
SYSTEMS INC

AT A GLANCE

Challenge

A large federal systems integrator supporting secure DoD programs wanted to upgrade their legacy systems to meet internal customer compute demands, but they lacked the necessary manpower and expertise.

Solution

Dynamic Systems helped the client engineer an Oracle-powered hyper-converged infrastructure

Results

- Exceeded internal customer compute demands

- Delivered a solution that simplified IT administration

- Identified a trusted technology partner capable of delivering the right solutions

Overview

Dynamic Systems Inc. built an Oracle-powered hyper-converged infrastructure to enable a large federal systems integrator to meet internal customer compute demands and simplify IT administration.

Challenge

The system integrator's internal customer requirements for faster, more reliable, and consistent computing capabilities continued to increase at an accelerating pace.

The legacy IT infrastructure, however, suffered limited critical processing capabilities, causing large delays in program execution and overall internal customer dissatisfaction.

Further complicating the situation, the IT organization's data center infrastructure management group lost a number of talented resources and planned to lose more in the near term due to pending retirements.

Internal customer requirements for faster, more reliable, and consistent compute capabilities continued to increase at an accelerating pace.

Legacy IT infrastructure causing large delays

Client lost a number of talented resources and planned to lose more in the near term due to pending retirements.

Combined, these issues left the internal customers dissatisfied and running out of patience while an over-stretched IT organization failed to deliver the necessary performance and level of support.

Solution

Dynamic Systems engaged with the client at the behest of an OEM. The OEM's representative needed a seasoned partner to add to the team who could instill the confidence and trust this customer sought to help ground a highly charged situation.

Our Senior Sales and Engineering Team members assisted the client to reimagine their technology infrastructure and then architected, quoted, and mapped a solution roadmap to deliver a new generation of technology performance as well as reduce the IT organization's on-going administrative task burden.

The department maintained the IT infrastructure supporting many Oracle-based applications and databases in a secure environment. To overcome the limitations of the legacy IT infrastructure and the lack of staff, the customer preferred a technology and architecture refresh while minimizing the number of manufacturers to reduce administrative complexity. The solution also needed to encompass Test/Dev, Production, and Disaster Recovery requirements.

With the number and size of databases growing rapidly, the database platform became a key component of the architecture. For this component, Dynamic Systems recommended the Oracle Exadata Database Machine. As one of the first ever hyper converged systems, Exadata brings together compute, storage, networking, and database software to create a high performance and flexible platform for database workloads.

With the database tier addressed, focus turned to the middleware tier. Previously, the customer built their own virtualized middleware tier environment and did not relish the thought of doing so again. To reduce the time to operation, Dynamic Systems identified another engineered system, Oracle Private Cloud Appliance (PCA), to address the flexibility, performance, and expandability needed for the middle tier as well as other ad hoc computing requirements. Rather than taking months to become operational, the customer started running virtual machines on the PCA within hours of powering on.

Shared storage and backups remained as the last pieces of the puzzle. With the ability to support direct connections to the internal high speed backbone networks of both the Exadata and PCA, the Oracle ZFS Storage provided the ideal platform for Oracle Database RMAN backups, Oracle VM repositories, and shared storage using iSCSI, NFS, and CIFS protocols.

Following the best practices outlined in the Oracle Maximum Availability Architecture, instances of each of these components exist in Test, Production, and DR sites. Oracle Database Data Guard provides real-time replication between environments while native ZFS Storage Appliance replication services provide data protection for middleware applications and transferring backups offsite.

Results

Leveraging Dynamic Systems' expertise, the client reaped the following benefits:

Exceeded internal customer compute demands

By introducing a hyper converged infrastructure solution from Oracle centered around a consolidated compute, storage, and networked platform, the client met and exceeded their internal customers' processing requirement demands.

Delivered a solution that simplified IT administration

The solutions' maintenance and update processes reigned in the effort and time associated with administrative tasks to levels not seen in years.

Identified a trusted technology partner capable of delivering the right solutions

Internally, word spread about the newly adopted platform and its capabilities in an unexpected and very pleasant way. Soon, members of other technology departments approached the group inquiring about openings in the department. Ultimately, the department hired several talented and motivated replacements for the retired and retiring workforce.