

CSRA



Cancun Systems Helps Government Agencies Accelerate Time-to-Insight From Hours to Minutes While Significantly Reducing Infrastructure Footprint



About: CSRA Inc. provides information technology services to U.S. government clients in national security, civil agencies, and health care. In fiscal year 2016, CSRC received \$6.9 billion in contract awards.

CSRA was formed through a merger of CSC's North American Public Sector business and SRA International in 2015,

Industry: Government

Headquarters: Falls Church, VA

Web: www.csra.com

Business Challenge

The explosive volume and variety of information, coupled with the need to get to answers quickly, is a daunting challenge for government agencies. Too much information can paralyze decision making and slow productivity. Whether it's the FBI, Department of Homeland Security or the Centers for Disease Control, faster access to critical information allows these organizations to better protect life, property, and country.

The rapidly increasing amount of data is making it difficult to effectively garner insights for security and intelligence purposes. This is especially true for social media analysis due to volume of posts and the high resolution content generated every second.

For example, as the Boston Marathon bombing was unfolding, it was critically important for the FBI to establish situational awareness by assessing tweets and cell phone vide in real-time. Whether a terrorist attack on domestic soil or a situation in a remote country, the ability to quickly extract high quality insights to make timely decisions is critical.

Cancun MemoryLake™: An In-Memory Software Platform for Accelerated Insights

As one of 12 companies selected to present at CSRA's prestigious Emerging Technology Day, Cancun Systems showcased an innovative, transparent software platform that allows government agencies to achieve faster insights and control the escalating costs of big data initiatives.

Cancun's MemoryLake™ software platform delivers an SDML (software-defined memory lake) that enables applications to run up to 10X faster, allowing customers to accelerate time to insights and enjoy tremendous infrastructure efficiencies. In addition, the fact that Cancun does not require any changes to existing applications or hardware is an important feature of the software platform.

“Cancun’s MemoryLake™ technology intelligently pools memory and storage resources so jobs can take advantage of memory-speed data access. As a result, we were able to accelerate our time-to-insight and eliminate infrastructure inefficiencies.”

– David Vennergrund, Director of Data Science, CSRA

Business Benefits

- ✓ Accelerate time-to-insight from hours to minutes to better help protect life, property, and country.
- ✓ Ingest data seamlessly, from multiple sources like HDFS, NAS, cloud, etc., to extract higher quality insights.
- ✓ Reduce infrastructure footprint by more than half or query more data on existing infrastructure.
- ✓ No change required to existing applications or infrastructure.

“Cancun demonstrated the ability to do the same job with less infrastructure, which can lead to a lot of efficiency and cost savings for us and our customers.”

- David Vennergrund, Director of Data Science, CSRA

Business Benefits

The business benefits provided by the Cancun's MemoryLake™ SDML platform fall into three main categories:

Faster Time to Insights: The ability to query more data faster and quickly extract insights has a significant impact on the mission. *“By accelerating insights in the intelligence community from hours to minutes, and from minutes to seconds, Cancun has proven its potential to save lives,”* said Sandra Ambrose, CTO at CSRA. *“Cancun's MemoryLake™ technology intelligently pools memory and storage resources so jobs can take advantage of memory-speed access to data,”* said David Vennergrund, Director of Data Science at CSRA. *“As a result, we were able to accelerate our time-to-insight and eliminate infrastructure inefficiencies.”*

Deployment Simplicity and Flexibility: Cancun's MemoryLake™ provides unified data access. This means organizations can seamlessly consume data from various sources (on-prem, public, or hybrid cloud) and of various types (social media, live feeds, etc.). *“We were excited to see how the Cancun software could digest data from multiple sources, and the results proved it out,”* said Ambrose. *“Plus, we can get to answers more quickly since data does not first have to be replicated into a cluster.”*

“The fact that deployment is simple and frictionless is also a big plus,” said Vennergrund. *“We experienced a significant performance boost and immediate cost savings, and without having to change our existing infrastructure or apps.”*

Infrastructure Efficiency and Savings: Typically, most big data sets are much larger than the physical memory capacity of the cluster causing a bottleneck in memory and storage I/O. This leads to poor application performance, inefficient architectures, and expensive scaling requirements. Cancun's MemoryLake™ SDML platform makes intelligent usage of available resources across memory and storage and allows analytics workloads to access data at the speed of memory but at the cost efficiency of disk. This allows organizations to query more data faster and more efficiently. *“Cancun demonstrated the ability to do the same job with less infrastructure, which can lead to a lot of efficiency and cost savings for us and our customers,”* according to Vennergrund.

Conclusion

Cancun Systems has demonstrated that government agencies can immediately benefit from faster insights and enhance infrastructure efficiency making them a powerful ally in the battle to protect life, property and country.

