

Oracle's Secure Cloud Infrastructure

Complete, Modern, Flexible and Secure Private and Public Cloud on SPARC Servers with Oracle Solaris

Business Enterprises today need to become more agile, meet new and increasing workload and security requirements, while reducing overall IT cost and risk. To meet these requirements many companies are turning to cloud computing. To remain competitive companies need to formulate a strategy that can easily move them from traditional on-premises IT to private or public clouds. A complete cloud strategy will likely include both private and public clouds because some applications and data might not be able to move to a public cloud. Moving to the cloud should not create information silos but should improve data sharing. Any cloud strategy should make sure that it is possible to integrate on-premises, private cloud and public cloud data and applications. Furthermore, any on-premises cloud deployments must be able to easily migrate to public cloud in the future.



Oracle's Cloud Strategy

Oracle understands the need for IT organizations to move to cloud computing but it also recognizes that moving to the cloud is a multi-step journey that starts with standardization and consolidation of IT infrastructure and ends by moving applications and data to the cloud. Therefore, Oracle provides solutions for all steps of the journey using the same technology for each step greatly simplifying moving to the cloud. The goal is to make sure that any application deployment on Oracle hardware and software is not a dead end but a step in moving to the cloud. Therefore, all Oracle public cloud solutions use the same technology as Oracle's on-premises solutions. Oracle offers a full suite of public cloud services, from IaaS compute services to PaaS and SaaS offerings that use the exact same technology as would be used for on-premises or private cloud deployments. Oracle is the only IT vendor that has complete on-premise and private and public offerings, using the same technology for both.

SPARC Cloud Solutions

Oracle SPARC servers have been an important part of traditional enterprise applications for many years. Oracle now offers the high availability, manageability, security and scalability of SPARC servers in a dedicated IaaS compute service. Oracle's Public Cloud SPARC compute service uses the same SPARC and Oracle Solaris technology that is used by customers deploying on-premises applications or deploying private clouds. Customers that are currently using SPARC servers on premises have a clear path to the public cloud. Customers that deploy SPARC servers today know that they can easily migrate in the future to the Oracle Public Cloud and not have to change their applications or give up any of the key SPARC enterprise capabilities. SPARC customers that deploy a mix of on-premises, private cloud and public cloud can easily integrate applications and data across their various application environments.

"The cloud has not only changed the function of IT; CIOs and other IT leaders are also seeing a shift in responsibilities. For one thing, the cloud has allowed IT department heads to take less costly risks", said Michael Davis, CTO at CounterTack Inc., a cybersecurity company that uses a mix of cloud and on premises applications.

REAL TIME ENTERPRISE DECISIONS MADE IN REAL TIME

Realize the business benefits of real time analytics by taking advantage of the SPARC S7 and SPARC M7 Software in Silicon capabilities:

- Data analytics run on operational databases—no extracting and transforming and loading OLTP data into a data warehouse— which enables real time decision-making
- SPARC S7/T7/M7 servers with Software in Silicon are optimized for Oracle DB In-Memory to accelerate data analytics
- SPARC S7 and SPARC M7 Software in Silicon speed up data analytics by as much as 10x for faster data analytics and better business decisions

Oracle SPARC technologies for on premise cloud include: Oracle SPARC SuperCluster M7 and MiniCluster S7-2 systems, SPARC S7/T7/M7 servers, Oracle Enterprise Manager OpsCenter, Oracle Solaris (with OpenStack support) and Oracle VM Server for SPARC. The Oracle Public Cloud SPARC compute service uses the same SPARC server technology and cloud software as your on premise systems, providing the same Enterprise class availability, security, and efficiency, as well as unique SPARC Software in Silicon features like Silicon Secured Memory, Built in encryption, SQL Query Acceleration, accelerated data de-compression .

Secure Cloud with SPARC and Oracle Solaris

With any cloud environment security is always top of mind. Oracle's SPARC servers, with, Oracle's Silicon Secured Memory (SSM), can prevent security exploits, such as Heartbleed and Venom, that access un-protected application memory. The SPARC S7 and SPARC M7 processors have 15 built-in encryption ciphers that fully protect data at rest and data in motion. With almost no overhead and no extra cost SPARC encryption provides the data protection needed for the cloud. Oracle Solaris includes many key security features such as; role-based access control to limit access to important data and systems, integrated one-step patching to keep systems up to date and secure, and automated security auditing that identifies security holes.

Real-Time Analytics in the Cloud

The SPARC S7 and SPARC M7 processors include database acceleration engines (DAX) that include SQL instructions and inline decompression to accelerate analytics when using Oracle Database In-Memory. Users of SPARC private and public clouds can now run data analytics on operational databases for faster and more accurate analytics, which means better business decisions. Analytics run on SPARC servers with DAX are up to 10x faster than without DAX.

Cloud Management

Oracle Solaris is the operating system for SPARC servers and it is the same whether used in a private or public cloud. Oracle Solaris includes no-cost and low-overhead virtualization, which is critical to any cloud deployment. Oracle Solaris supports the open source OpenStack cloud management software platform. Oracle Enterprise Manager OpsCenter a powerful systems management suite that is used to manage both SPARC systems in the cloud or on-premises in a "single pane of glass"

Cloud Ready

Oracle's SPARC servers simplify the journey to the cloud by using the same technology for both cloud and on-premises deployments. All of the advantages of SPARC servers such as SSM, encryption, virtualization and real-time analytics are available both on-premises and in Oracle's public cloud. No matter where your IT organization is on the journey to the cloud SPARC servers will be an ideal solution.

For more information see Oracle SPARC servers at oracle.com/sparc

ORACLE SPARC SILICON SECURED MEMORY (SSM) AND DATA ENCRYPTION

SSM Prevents security exploits, such as HeartBleed and Venom, which attack un-protected memory.

Stops unauthorized access to memory whether that access is due to a programming error or a malicious attempt to exploit buffer overruns.

Fifteen low overhead, no-cost and on-chip encryption ciphers enables the fully encrypted data center.

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