SPARC has had a longstanding industry reputation of reliability and performance. However, as agencies plan their path to IT modernization, there is a familiar debate over the need to increase performance and the hesitation to replace existing infrastructure – especially one with a trusted name. This is particularly critical as organizations consider how to implement resource intensive applications like AI and data analytics while managing a host of structured data applications without driving up costs. A short-term, band-aid approach may not provide the reliability and long-term performance, but a “rip and replace” is too costly and time intensive. This has left the industry asking, “What now?” To combat these challenges, Oracle is providing a new solution for SPARC users with the introduction of the Fujitsu SPARC M12, which provides mainframe-class reliability with the flexibility of an as-a-Service financial model. This paper examines the economic and performance advantages of upgraded SPARC technology and the flexibility of ViON’s as-a-Service model, which results in a lower total cost of ownership and improved efficiency.

Powerful Performance in a Smaller Footprint

Oracle’s flexible Fujitsu SPARC M12-2 is a high-performance midrange server that supports up to two processors, 24 cores and 2 TB of DDR4 memory. This scalable solution offers high reliability and outstanding processor core performance for mission-critical enterprise workloads and cloud computing. It’s ideal for traditional enterprise-class workloads such as online transaction processing (OLTP), business intelligence and data warehousing (BIDW), enterprise resource planning (ERP), customer relationship management (CRM) and new environments in cloud computing or big data processing. With 2.5 times more processing power than older SPARC servers, SPARC M12-2 can deliver better performance with a smaller footprint – strengthening the financial justification.
The New SPARC M12-2 In Action: A Use Case in Federal Government

When a major federal defense agency needed dynamically scalable processing capability with an on-demand service approach, they turned to ViON for ideas. Oracle and Fujitsu’s new SPARC M12 configuration offered the best path to modernization – especially for existing SPARC users. The SPARC M12 readily adjusts to changes in processing and increases and decreases in throughput requirements. And with ViON’s “as-a-Service” flexible financial model, it can be priced on a utility (“as needed”) basis or tiered structure. This “upgrade” dramatically changed the performance capabilities for the agency – all without requiring a complete infrastructure retrofit.

Performance Metrics Analysis: Fujitsu SPARC M12 Series Increases Performance & Delivers Greater Efficiency

- The new SPARC provides 2.5 times more processing power than previous SPARC servers
- Fewer cores in operation results in lower licensing costs and the ability to reuse licenses for other projects
- With the additional processing power, the newer Fujitsu M12 servers can do more work with far fewer cores
- Significant performance gains for a wide range of applications such as encryption, decimal arithmetic operations and database accelerators built into each CPU core
- The need for fewer cores results in significant server consolidation using a smaller physical footprint
- Superior performance for ERP, BIDW, SCM, CRM, Big Data and Analytics workloads
- Twice the cooling performance of Liquid Looping Cooling (LLC) technology used in Fujitsu M10 Servers ensures safe and stable operations
- Overall, organizations experience a lower total cost of ownership when running the new SPARC
Implications of Upgrading Versus Replacing

The costs of retrofitting infrastructure can be significant with far-reaching implications well beyond the costs of new technology. Retrofitting requires rewriting code, upgrading operating systems and increased potential for downtime during transition. With the new SPARC M12, organizations can dramatically increase performance and reduce costs without retrofitting infrastructure. Most operators are experiencing higher maintenance costs and backup needs while running the legacy SPARC. With the SPARC M12, organizations can migrate off of the older equipment “in the background” while implementing new equipment and maintaining daily operations. The new SPARC gives agencies the quality and longevity they have always expected and trusted from the infrastructure, but now with the performance edge to maintain pace with modernization requirements and workloads.

<table>
<thead>
<tr>
<th>Upgrade</th>
<th>Replace</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain the same reliability &amp; longevity associated with SPARC</td>
<td>Code rewriting required</td>
</tr>
<tr>
<td>Eliminate need to rewrite code</td>
<td>Operating System upgrade required</td>
</tr>
<tr>
<td>Eliminate need to upgrade Operating System</td>
<td>Lengthy procurement timelines</td>
</tr>
<tr>
<td>Migrate while running daily operations</td>
<td>Potential downtime for transition</td>
</tr>
<tr>
<td>Procure quickly and affordably with as-a-Service pricing</td>
<td>Significant upfront costs and training</td>
</tr>
<tr>
<td>Reduce maintenance &amp; backup costs associated with legacy SPARC</td>
<td></td>
</tr>
</tbody>
</table>
Improved Total Cost of Ownership (TCO) with SPARC as-a-Service

Whether replacing or simply updating infrastructure, there inevitably will be costs. Having a technology partner that can provide not only the best technical solution, but innovative ways to maximize the return on investment is essential. ViON can deliver the SPARC M12 as-a-Service, which is a cloud-like solution with even greater flexibility. Agencies can use OPEX funds to upgrade their infrastructure, but pay only for what is used each month, eliminating the large CAPEX investment. ViON’s as-a-Service model helps organizations quickly reach modernization goals, while streamlining procurement and providing fast access and deployment of this powerful new infrastructure.

About ViON

ViON Corporation is a cloud service provider with over 39 years’ experience designing and delivering enterprise data center solutions for public and private sector. The company’s portfolio of IT as-a-Service includes infrastructure, multi-cloud and Artificial Intelligence solutions. To support the multi-cloud evolution, the ViON Enterprise Cloud solution provides a streamlined platform for auditing and managing technology. Customers can compare, procure and control solutions across the entire portfolio via ViON Marketplace™ and gain the support of expert, cleared resources with ViON’s professional and managed services. A veteran-owned company based in Herndon, Virginia, the company has field offices throughout the U.S. (vion.com).

About Oracle

The Oracle Cloud offers a complete suite of integrated applications for Sales, Service, Marketing, Human Resources, Finance, Supply Chain and Manufacturing, plus Highly Automated and Secure Generation 2 Infrastructure featuring the Oracle Autonomous Database. For more information about Oracle (NYSE: ORCL), please visit us at oracle.com.