A Dell APEX solution outperformed comparable Amazon EC2 instances on a decision support workload

A solution using Dell APEX Private Cloud and Dell APEX Data Storage Services Block generated data-driven insights earlier than Amazon EC2 c6i.16xlarge instances with Amazon Elastic Block Store (EBS) storage.

Testing involved a decision support system (DSS) big data workload in two environments whose VMs had the same vCPU, memory, and storage drive capacity:

- An eight-node Hadoop cluster running on Dell APEX Private Cloud General Purpose instances
- An eight-node Hadoop cluster on Amazon EC2 c6i.16xlarge instances

Testing used Hadoop because it is a popular workload to facilitate DSS solutions. For complete configuration details, read the complete report.

The Dell APEX solution took 13.6 percent less time to complete the workload than the Amazon EC2 c6i.16xlarge solution. Higher-performing systems provide insight faster, and dedicated systems can provide predictable performance and a consistent experience. We also investigated pricing and found that the Dell APEX solution offers a simplified approach.

### Read and write throughput

<table>
<thead>
<tr>
<th>MB/s</th>
<th>Higher is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dell APEX Solution</td>
<td>Amazon EC2 solution</td>
</tr>
</tbody>
</table>

#### 24.8% greater read throughput

- Read: 3,477 MB/s (Dell APEX) vs. 2,785 MB/s (Amazon EC2)

#### 19.2% greater write throughput

- Write: 1,634 MB/s (Dell APEX) vs. 1,370 MB/s (Amazon EC2)

The Dell APEX solution also delivered greater read and write throughput while running the set of queries.

Learn more about Dell APEX Private Cloud at Dell.com/APEX-Private-Cloud

---

Copyright 2023 Principled Technologies, Inc. Based on “Dell APEX outperformed comparable Amazon EC2 instances on a decision-support workload,” a Principled Technologies report, February 2023. Principled Technologies® is a registered trademark of Principled Technologies, Inc. All other product names are the trademarks of their respective owners.