



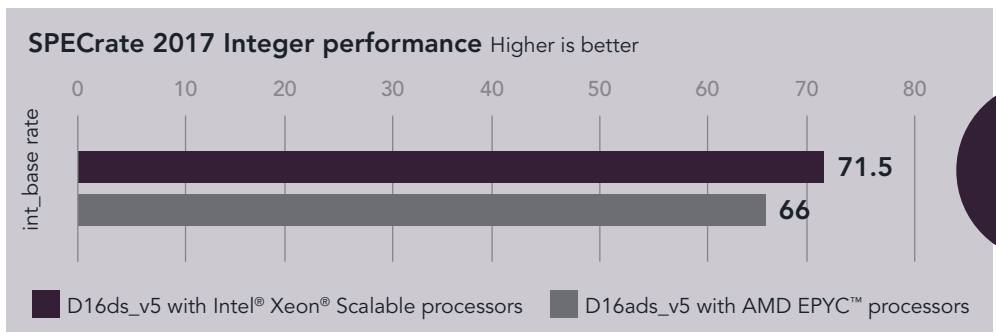
OpenSSL  
Security

# Get a clearer picture of potential cloud performance by looking beyond SPECrate 2017 Integer scores with *OpenSSL*

When we ran OpenSSL workloads on two Microsoft Azure VMs, the performance differences varied considerably from SPECrate 2017 Integer scores

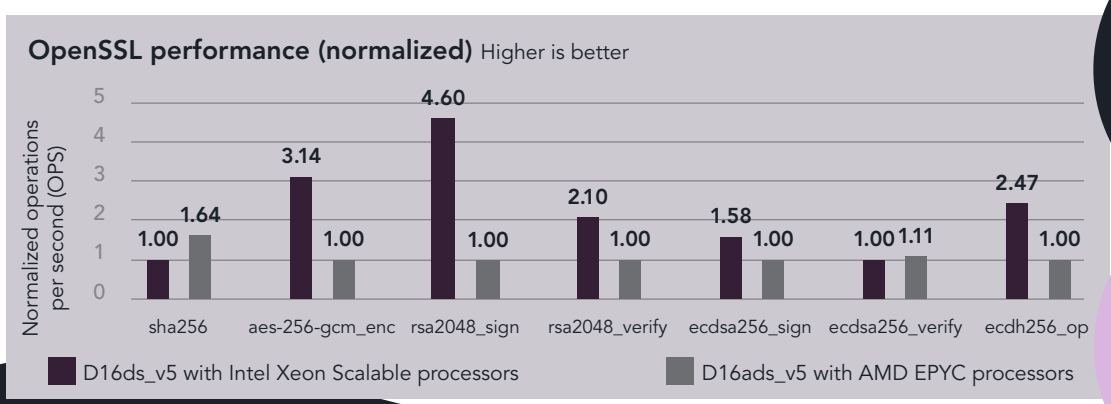
What's the best way to gauge cloud instance performance? Using industry-standard benchmarks such as SPECrate® 2017 Integer can deliver good compute performance data, but it may not paint the same picture as workloads more directly representative of your applications.

Running SPECrate 2017 Integer—which uses a broad range of applications that target the processor, memory, and compilers—we saw the following results on the Azure VMs we tested:



8%  
faster  
int\_base  
rate

OpenSSL is an open-source, general-purpose cryptography library that offers implementation of SSL/TLS to secure communications between clients and servers. With OpenSSL, you can assess the performance of specific cryptographic ciphers and related functions. We saw the following results on the cryptographic functions we tested:



up to  
**4.6x**  
the OPS

## Why test with OpenSSL?

SSL/TLS transactions establish authenticated and encrypted links between clients and servers, requiring additional computational power compared to those that don't need encryption. If your organization plans to run SSL/TLS, testing cloud VMs with OpenSSL can indicate the performance impact this security might have.

*Get the bigger picture when you branch out to specific workloads.*

Learn more about the other real-world workloads we ran at <https://facts.pt/odi9nGQ>

