

# The Ultimate Software-Defined Storage Glossary

A curated ultimate glossary to put you in the know to make it easier to navigate your next project.

#### 1. NVMe

NVMe (Non-Volatile Memory express) is a host controller interface and storage protocol created to accelerate the transfer of data between enterprise and client systems and solid-state drives (SSDs) over a high-speed Peripheral Component Interconnect Express (PCIe) interface.

# 2. NVMe over Fabrics (NVMe-oF)

NVMe over Fabrics (NVMe-oF) is a technology specification designed to enable NVMe commands to transfer data between a host computer and a target solid-state storage device or system over a network, such as Ethernet, Fibre Channel (FC) or InfiniBand.

#### 3. NVMe/TCP

<u>NVMe/TCP</u> is a transport option for NVMe-oF that extends NVMe across the entire data center using simple and efficient TCP/IP fabric.

## 4. TCP/IP

TCP/IP, or the Transmission Control Protocol/Internet Protocol, is a suite of communication protocols used to interconnect network devices on the internet.

# 5. RDMA

Remote Direct Memory Access (RDMA) is a technology that allows computers in a network to exchange data in main memory without involving the processor, cache or operating system of either computer.



## 6. TLC Flash

TLC flash (Triple-Level Cells) is a type of <u>NAND flash memory</u> that stores three bits of data per cell.

# 7. QLC Flash

QLC flash (Quad-Level Cells) is a type of NAND flash memory that stores four bits of data per cell.

#### 8. SaaS

Software as a Service (SaaS) is a software distribution model in which a third-party provider hosts applications and makes them available to customers over the Internet. SaaS is one of three main categories of <u>cloud computing</u>, alongside <u>infrastructure as a service (IaaS)</u> and <u>platform as a service (PaaS)</u>.

#### 9. PaaS

Platform as a service (PaaS) is a cloud computing model in which a third-party provider delivers hardware and software tools — usually those needed for application development — to users over the internet. A PaaS provider hosts the hardware and software on its own <u>infrastructure</u>. As a result, PaaS frees developers from having to install in-house hardware and software to develop or run a new application.

#### 10. HCI

Combine storage, compute, and networking into a single system with <u>Hyper-Converged</u> Infrastructure (HCI). This simplified solution uses software and servers to replace expensive, purpose-built hardware.