Storage in the Enterprise

The modern enterprise has massive amounts of data, innumerable workloads, and very dynamic operational conditions. To keep up, data storage has to provide some very specific benefits.

1. **Reduction of data migration initiatives**
   Enabling data to appear proximal to all your enterprise users and applications, even information that’s in the cloud, means that data doesn’t need to be moved around in less efficient migration processes.

2. **Enhanced data recovery capabilities**
   All sorts of things happen in enterprise IT environments, everything from disk failure and data corruption to intentional ransomware attacks. Leveraging capabilities such as checksumming, snapshots, and rapid backup and recovery, enterprises can ensure data integrity and roll back the data environment to a non-compromised state.

3. **Favorable operational expense models**
   Enterprises are still under enormous pressure to reduce capital expenditures (CapEx) and shift their IT spend to more accounting-favorable operational expenditures (OpEx). Storage needs not only to support SaaS-based workloads but also must offer managed storage services and pay-as-you-go options.

4. **Transparent hybrid cloud architecture**
   Users don’t care where data is stored, whether it’s on-premises, in the cloud, or some combination. They want to navigate the data environment and get to the information they need with the underlying storage architecture remaining transparent.

5. **Elasticity**
   Operational conditions are incredibly dynamic within the modern enterprise. Elastic capabilities enable your infrastructure—and your storage in particular—to adapt to those conditions by increasing or decreasing capacity, compute, and other supporting functions.
One of the most promising trends for enterprises over the next few years is the push toward cloud native services.

These are application services that are designed strictly for cloud deployment and operations.

Every firm eventually uses a combination of on-premises and public cloud-based Kubernetes systems but gaining the benefits of multi-cloud flexibility depends on having good management and monitoring of all deployments.