White Paper

Reinventing Enterprise Storage Systems for the 3rd Platform Era

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IDC OPINION

Enterprises are undergoing massive transformation to remain competitive and fuel business innovation in the 3rd Platform era driven by cloud, Big Data analytics, social business, and mobility.

This digital transformation in turn is significantly disrupting the storage market because traditional, monolithic, and scale-up storage technologies are struggling to cost effectively meet organizations' new storage demands characterized by an enormous increase in data, unprecedented performance challenges, and data management complexities.

According to IDC's worldwide enterprise storage systems forecast, the overall volumes of storage capacity shipped to the enterprise storage systems market will exceed 356 exabytes (EBs) in 2018, up from 69EB in 2013. IDC classifies storage systems into three main groups:

- Entry level – <$25,000 average selling price (ASP)
- Midrange – $25,000 to $250,000 ASP
- High end – $250,000 ASP and above

High-end arrays are optimized for the most business-critical workloads and typically have four or more controllers with mainframe or open systems connectivity.

The increase in the amount of data means a greater need for capacity, bandwidth, and compute resources for IT organizations. In addition, owing to the geographical nature of business, storage investments are driven by the need to organize and distribute files.

But that is not all. In the 3rd Platform era, enterprises' storage needs are also increasingly determined by a wave of new workloads and applications that are mixed, heterogeneous, and dynamic. The performance of these workloads depends on robust data services (serviceability and high performance) as well as a rich set of storage services (tiering, replication, snapshot, deduplication, failover, and failback features for data protection). As a consequence, quality of service (QoS), uninterrupted performance, high availability (HA), business continuity, compliance, and data protection are top priorities for IT organizations.

The new era data challenges, coupled with tight budgets, are also forcing organizations to evaluate storage strategies from a long-term perspective. Organizations are seeking to invest in architectures that help them future-proof their IT investments. IDC believes that the role of storage solutions that can start small but can grow as users' data needs evolve can prove enormously useful. Such scale-as-you-grow storage solutions help organizations avoid both over-provisioning and ending up with a lot of idle infrastructure on one hand, and setting too tight a capacity and performance limit causing them to do a forced migration far ahead of a scheduled upgrade on the other hand. Costly over-provisioning and over-spending are common in legacy environments.