SK hynix Demonstrates Industry's First ZNS-based SSD Solution for Data Centers

Seoul, March 25, 2019 – SK Hynix Inc. (or 'the Company', www.skhynix.com) announced that it has demonstrated the industry's first Solid State Drive (SSD) solution that meets specifications of Zoned Namespaces (ZNS), the technology being considered as a standard for next-generation enterprise SSD (or eSSD), at the recent 2019 OCP Global Summit in San Jose, CA. US.

Open Compute Project (OCP) is a global initiative to discuss diverse technologies including hardware, software, and eSSD standards for creating ultra-efficient data centers. Today, more than 100 major companies around the world related to data centers participate in this project. 2019 OCP Global Summit brought together 3,600 people from many global companies as well as the academic world.

Compared to the existing SSD, the new ZNS SSD boasts 30% improvement in speed and reliability as well as more than four times longer lifetime, which makes it a good fit for the next-gen data centers.

ZNS is a new data management technology promoted by large global data center companies to improve server and storage efficiency. In the existing SSD, various kinds of data such as photos, videos, and music are stored in the same space without any distinction. On the other hand, the ZNS SSD stores data of different usage and frequency of use in separated Zones accordingly, boosting data management efficiency. For example, there is a Zone for music data, another Zone for video data, and another for photo data, etc.

SK Hynix plans to complete the development of ZNS SSD within this year and launch commercial products in the first half of the next year.

"We are jointly developing various memory solutions proposed by major global data center clients, and ZNS SSD is one of them," said Research Fellow Park Kyoung, the Head of Memory System R&D. "SK hynix will continue to strengthen our competitiveness in next-generation eSSD by developing competitive solutions in demand from data center clients in a timely manner."

According to IHS Markit, a market research institute, the SSD market is expected to grow from 32.4 billion USD in 2018 to 51.8 billion USD in 2022, with an annual average growth rate (CAGR) of 12.5%. Particularly, the eSSD market is expected to drive the entire SSD market growth, rising from 18.9 billion USD to 33.9 billion USD at a CAGR of 15.7% during the same period.

■ Information of SK hynix's ZNS SSD Solution

Interface	PCIe Gen3
Protocol	NVMe 1.2.1
Form Factor	M.2 22110
SSD capacity	2TB
NAND Flash	72-layer 3D NAND 512Gb TLC