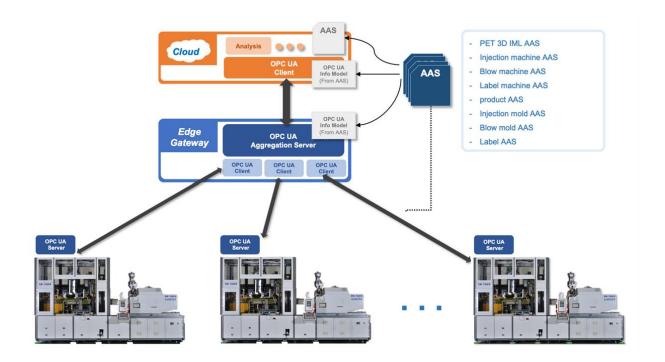
Factsheet AAS-based Pilot Plant



Covering the entire production life cycle

- Reduce costs for installing, maintaining, and building additional equipment and facilities
- Costly high-end solutions become affordable to SMEs and startups
- SMEs reduce follow-up service costs by managing and maintaining the product remotely via AAS interface
- Improving the competitiveness of the products of Korean SME manufacturers

During the 1st stage of the PPP in 2020, an AAS-based data acquisition and storage system was developed and successfully installed in two pilot plants named Shinwoo Costec and Huons. Two pilot plants were tested and validated, and the acquired AAS standard-based operation data was stored in the cloud. In addition, the procedure for the AAS-based data acquisition infrastructure was developed, which SMEs can use for future cloud services. To promote AAS technology to Korean SMEs, guideline on implementing AAS-based data acquisition and storage solutions were developed and distributed. An education program for vendors and users was executed.

Standardized AAS technology for independent solutions

The Ministry of SMEs and Startups in Korea set the goal of expanding up to 30,000 cloud-based data-cenric SMSs by 2022 as part of its smart manufacturing strategy. However, a standardized data management system for SMEs does not currently exist in Korea. Data consistency is of the utmost importance for the analysis and use of data acquired from different SMEs, which guarantees the enterprises independence from the solutions of a specific supplier. In addition, SMEs are able to share expensive high-end solutions such as Digital Twin and Artificial Intelligence and create new values by sharing data from common equipment or processes of different participating companies.

Expand the advantages of AAS to the whole life cycle of production

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In the 2nd and 3rd stages, it is planned to expand the development of AAS-based standard technologies to the entire life cycle of the production process, including commissioning, operation, management, prediction, decision-making, control, etc. A "Reference AAS model repository" will be built to enable wide utilization by various suppliers and service enterprises.

The PPP will be extended in the 3rd stage to cover a broader industry (e.g., injection molding, welding, packaging, thermal treatment, inspection, etc.), targeting suppliers and users concurrently. It is also planned to develop and promote AAS API standards. Using the AAS API, various manufacturing-related services provided by SMEs or larger enterprises can be easily implemented and deployed.

