

#### The digital transformation is changing the world

Efficient data analysis can be the factor that makes or breaks a company today – whether it is involved in industry, infrastructure, energy generation or any of a large number of other sectors.

With MindSphere, Siemens is providing a cloud-based, open operating system for the Internet of Things. On this platform-as-a-service (PaaS), applications (apps) and digital services can be developed, operated and provided.

As a result, the immense amount of data produced by a plant or company can be quickly and efficiently collected and analyzed, resulting in better optimization.

# Recommendations for action derived from data analysis

Regardless of the industry involved, MindSphere makes it possible – using a wide range of apps – to comprehensively analyze the raw data produced by plants and systems. This information can be performance data of a global manufacturing landscape, key figures about trains in operation or the status of a power grid.

Resulting recommendations for action can continuously optimize a facility – in such areas as resource usage. In the area of predictive maintenance, it is also possible to identify potential problems at a very early stage, enabling the right decisions to be made at the right time.

The data obtained can also improve system design, performance and availability. Customers benefit from optimized assets and can prevent errors.

### Use available apps - develop and provide own ones

MindSphere provides a wide range of applications for different purposes and usages (MindApps). In addition, customers and partners can develop, use and operate their own applications on the platform. These applications facilitate new digital services that, on the basis of the efficient use of collected data, create a competitive edge – for instance, in the form of guaranteed machine availability, optimized resource usage and increased productivity.

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### **Simple Connectivity**

With MindConnect, Siemens offers a range of ways to simply and securely link machines, plants and systems to MindSphere. MindConnect Nano enables customers to read data from an asset with the help of a plug-and-play solution and then securely send the data to MindSphere in encrypted form – and to do so frequently after only about an hour of installation time.

## Data as the basis for new business models

The connection of assets to MindSphere facilitates not only the optimal use of energy and resources, for example, but also the implementation of new business models. Examples include the sale of machine hours and availability in place of actual machines.