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Boosting operational data management maturity by 10x to drive efficiency

The struggle to scale operations is real. We know decentralized companies can seize opportunities twice as fast.[1] But can you justify the costs of expanding your operational data management to every little, remote site your company has? Industrial big data is here and it's expanding. That means you need to collect more operations data. But can your existing network infrastructure take the strain? How confident are you, really, in your data management maturity?

Whatever your current practices of data management, you can always take steps to improve your data infrastructure.

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Operational data management grows up hybrid

Many industrial companies have achieved breakthrough results in productivity, quality, and cost savings by integrating their industrial data from the edge, the plant, and the cloud.
It goes beyond traditional data historian technology. When you deploy hybrid data infrastructure, you can address challenges at scale and realize new and expanded value.

Increase work efficiency by better connecting experts across functions

Some industrial organizations have successfully bridged the gap between their operations experts with key partners, like data scientists, to broaden collaboration and access to insights.

For instance, **Drax**, the UK's largest provider of renewable electricity, wanted efficient biomass and renewable production. Using hybrid data management from plant to cloud to support its advanced analytics and artificial intelligence (AI), Drax was able to dramatically reduce data errors and increase predictive data points tenfold, from one million to 10 million per month. This allowed Drax to respond to engineers' requests faster and led to fewer expected outages and projected savings in the millions.

Operational data management evolves beyond traditional data historian needs

The data management needs of operations have rapidly evolved to require more data agility. Industrial organizations realize that they have an increased demand for moving, managing, and manipulating data.
Companies use more data and more analytics than ever before and then distribute this data across ever more complex systems and environments with more concurrent data consumers from more diverse functions.

Seamlessly orchestrate industrial big data across analytics layers

Amidst these evolving needs, many companies have been able to optimize their data analytics with agility and scale for better decision-making.

For example, **Cargill**, the multinational food corporation, used hybrid data management from edge to plant to scale and analyze data from previously inaccessible, small facilities. Cargill was able to tap into data from 400 additional sites and improve its productivity, quality, and uptime.

Enel, the world's largest private player in renewables, used similar edge-to-plant hybrid data management to expand its solar energy data analysis. With its traditional data historian approach, the company knew the increased data volume would overload its existing network, requiring costly and time-consuming upgrades. The hybrid solution empowered Enel to collect, store, and aggregate data from the individual panels before sending the results across its network for use. This increased the granularity of their analysis by an order of magnitude, fulfilling the increased need while requiring fewer resources and deploying faster than alternatives.

Unlock new levels of efficiency with advanced operational data management

By adopting hybrid data infrastructure, Drax, Enel, and Cargill saw dramatic increases in their data management maturity, from 10x increases in data quality and granularity to expanding their data pool to new data from hundreds of new sites.
These data management improvements contributed to increased productivity, quality, savings, and uptime. Recent innovations enable enhanced data connectivity, increased scalability, and reduced administrative overhead, ensuring that your operations run even more smoothly and efficiently.

Boost your data management maturity with our hybrid offering AVEVA PI Data Infrastructure.

[1] Van der Meulen, Nick. (2023). *Realizing decentralized economies of scale*. MIT Sloan Center for Information Systems Research.
https://cisr.mit.edu/publication/2023_0101_DecentralizedDecisionMaking_VanderMeulen

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