



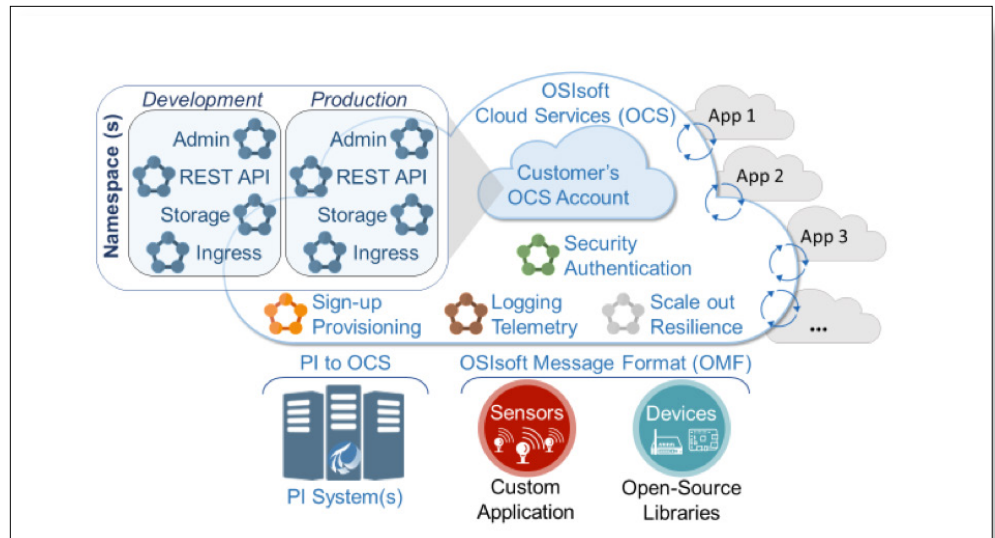
OSIsoft Cloud Services — PaaS (Platform as a Service)

AT-A-GLANCE

OSIsoft Cloud Services (OCS) offers a PaaS (Platform as a Service) that simplifies developing custom applications and connecting 3rd party solutions to use operational data across and beyond your enterprise. Without it, you must rely on alternative cloud-based solutions not optimized for real-time operations data. But, with OCS your apps easily integrate with your existing data infrastructure and can use as much data as it needs without 1) impacting your critical operations and 2) requiring you to optimize the performance of a central system.

BENEFITS

- One place to query all operations data
- Ad hoc experiments with no impact to critical operations
- Connect operations data to the cloud in a few hours
- Platform managed and operated by OSIsoft
- Simple consumption model



OSIsoft Cloud Services (OCS) is a newly developed, cloud-native platform built for real-time operational data.

Flexible, Secure, and Easy Access to Operations Data From Across and Outside Your Enterprise

OCS provides access to operations data across your company with the technology or applications you prefer without the usual hurdles. If you want centralized access to data born within the process control network, you will find a firewall in the way. If you want a centralized database to store the data, you will need to ask IT to setup and manage a database on a VM or assemble microservices running in the cloud. If your application runs in the cloud or you need to provide access to a 3rd-party user, you will need to authorize and manage VPN connections and external user accounts.

Instead, with OCS and the PI System, no code is needed to get time-series data living on the control network into a database in the cloud designed for operations data. And, partners in our OSIsoft Partner EcoSphere are already developing applications that connect to data in OCS with no more effort than it takes to point a spreadsheet to a relational database.

Access to data within the process control network is of course restricted for good reasons. Firewalls defend against unauthorized access. Selective user permissions prevent large data queries that could impact visibility into critical operations. Even if the above were not concerns, setting up and maintaining all the connections to the onsite databases would be time-consuming.

PaaS on OSIsoft Cloud Services (OCS) solves these challenges by allowing your operations team to quickly configure a central location that handles the time-series data stored in your PI Systems, and more. As a result:

- Custom connectivity to data in the control network is avoidable.
- Convincing IT to support a database in the cloud is not required.
- Managing VPNs or external accounts to grant access to applications and users outside of your corporate network are circumvented.

Unlike “Time-Series Databases” Offered by Other Cloud Vendors, OCS PaaS Offers:

Out-of-The-Box Connectivity and Aggregation

A plethora of protocols and legacy equipment exist on the operations floor, and connectivity into the control network is not a given. Don't force you or your IT team into creating a library of custom-code solutions to get operations data to the cloud. Instead, leverage the PI System's 500+ out-of-the-box connectivity options. By design, OCS has out-of-the-box connectivity to your PI Servers, and can scale to ingest all of your PI Servers' data across your enterprise. This connectivity also enables a secure architecture since it only requires outbound rules to exist in your firewall

Use of Microservices Without the Assembly

To leverage cloud technologies, you usually need to assemble a platform's components to create end-to-end capabilities. While this creates some flexibility, it also slows down users from getting started. Microservices for ingestion, analytics, storage (hot, warm, and cold), visualization, and orchestration, all need to be configured and pieced together to serve a broader purpose. With OCS, the approach will always be to have these microservices already assembled underneath the hood, so that users can focus on getting the end value they are seeking. In this first release of OCS, ingestion, sequential data storage, and a RESTful API work seamlessly together with an administrative portal accessed by a browser.

New Sequential Data Store Designed for Operations Data

While usually indexed by time, operations data can contain other dimensions that occur in sequence (e.g. drilling depth, product lot number, etc.). The sequential data store in OCS is built from the ground up to allow for data stream types to have a uniquely defined primary index, as well as secondary keys that enable compound indices. Though the capabilities have grown, users can still expect capabilities typically associated with time series data, like natively accepting out-of-order data, future data, and fast retrieval of high resolution data for any time frame.

Straightforward Consumption Model

When using microservices from large cloud vendors, a variety of metrics define the consumption of individual microservices. Storage volume, ingestion rates, and hourly query rate capacity, just to name a few. It often takes complicated spreadsheets and a lot of assumptions to estimate usage, and costs. For OCS, the consumption has been distilled into a single, meaningful metric: monthly average of data streams accessed. And with it also comes the ability to store much, much more than the amount of data streams accessed for the month.

Interested in creating an OSIsoft Cloud Services account?

Go to <https://cloud.osisoft.com>

FIND OUT MORE



[Watch](#) a demo on how Seeq can connect to and analyze data in OSIsoft Cloud Services

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... we noticed significant performance increases because OCS is optimized for this large amount of time-series data where that's not necessarily the case for MongoDB

— John Rogers
Software Engineer,
DERNetSoft

Maya HTT builds digital twin 3D-based web applications and AI algorithms to help clients solve their industrial operations challenges. The agility, ease, and speed of deployment with OCS for existing OSIsoft clients is impressive. We can now build and deploy an anomaly detection application within one month. We did not have to re-write protocols to connect to systems, nor re-invent a unique security configuration to gain access to data, nor manage a database whether on-premises or in the cloud. These are just examples of some of the challenges OCS has eliminated for Maya HTT as an OSIsoft partner and for the benefit of our joint clients.

— Remi Duquette
Vice President,
Applied AI & Datacenter Clarity LC
Maya HTT

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