

SAP on Public Clouds



The migration to HANA gives companies the opportunity to move their SAP environment to AWS, Microsoft Azure or Google Cloud. Moving SAP to the cloud promises to improve operations, offer better security, and reduce costs, but to experience significant cost reductions, the cloud size needs to change dynamically based on the systems' actual performance and changing needs.

Avantra automates cloud scaling like no one else can, ensuring companies only pay for the cloud resources their SAP systems actually need.

Enterprises and Managed Service Providers (MSPs) are finding that implementing and leveraging the cloud's scaling capabilities is not as simple in an SAP environment. IT and basis teams face the following challenges when trying to manage cloud in an SAP environment, resulting in higher than expected costs:

Scaling out

The cloud environment can be dynamic, but SAP systems do not use new storage resources unless it has a properly configured app server. Adding a new app server is a long and tedious process.

Scaling down

In order to spin down an instance, the SAP application running on it needs to be stopped. But public clouds can't automatically stop SAP, as they don't have visibility inside SAP and they might stop critical SAP activities (e.g. important batch job, active users, etc.) due to lack of visibility.

Multi-cloud & hybrid environment management

Managing an SAP environment that includes on-premise and different cloud providers is complicated. No tool provides complete landscape management and visibility.

Planned maintenance

Planned SAP maintenance windows are very small, but today over 25% of this time is wasted on manually starting and stopping system-by-system (on the cloud and on-premise). During the downtime, systems are not monitored and security breaches will not be detected.

Dynamic performance-based scaling of cloud resources

Avantra automates scaling of AWS, Microsoft Azure and Google Cloud in an SAP environment based on system performance and business requirements.

Cloud providers do not have the visibility level that Avantra has to SAP operations and business processes. This allows Avantra to drive automated decisions about when to start/stop an SAP system element or reduce/increase the size of the cloud environment.

	Type	Customer	Last Modified
ServiceNow authentication	ServiceNow	* Live	Jan 16, 2020 1:36:40 PM
ServiceNow authentication	AWS	ABC Corp.	Jun 25, 2019 6:24:13 PM
New Azure authentication	Azure	Root	Oct 28, 2019 10:11:38 AM
New Google authentication	Google	Riesling	Dec 4, 2019 7:48:44 PM
ServiceNow Tenant ABC Prod	ServiceNow	ABC Corp.	Jun 20, 2019 5:39:47 AM
Syslink AWS Demo Environment	AWS	* Live	Jul 22, 2019 7:40:11 AM
Syslink's ServiceNow Tenant	ServiceNow	* Live	Sep 3, 2019 3:23:48 PM

Growing the cloud environment - ensuring system performance

Avantra monitors cloud environment performance. When additional resources are needed, the platform spins-up on-the-fly, operational pre-configured SAP application servers. The SAP system can then take advantage of this additional cloud capacity. Without these features, SAP systems do not use new resources unless someone manually starts a new app server.

The ability to dynamically and immediately add resources and app servers ensures SAP systems' environment can properly grow as required, without basis team manual intervention. These changes are fully-transparent to the SAP end-user experiencing zero interruptions to everyday operations.

Scaling in and saving costs

Cloud Configuration ✕

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Name	Type
Azure Tenant of Customer A	Azure
AWS Infrastructure of Customer B	AWS
GCP of Customer C	Google

Avantra dynamically monitors performance levels. Based on user-defined KPIs, the system stops SAP instances and their cloud nodes, while ensuring a system will not be spun down if it runs a process critical to business operations. The system can also respond to planned shutdowns or business slow down (nights, weekends) and scale the system accordingly, reducing a large percentage of the business cloud costs. Users can define performance parameters and thresholds in which a system and cloud can be stopped.

Sample KPIs:

- ✓ Number of instances up
- ✓ Number of users
- ✓ SAP response times (per dialog response time, transaction runtime or other)
- ✓ CPU time of OS
- ✓ Delay time of jobs
- ✓ Dispatcher queue
- ✓ Any combination of the above and many others

Managing multi-cloud SAP environment

The dashboard displays metrics for AWS and Google Cloud. For AWS, SAP Systems Up/Down shows 0 Critical, 0 Warning, and 10 OK. Database Availabilities show 0 Critical, 0 Warning, and 13 OK. Google Cloud shows 1 Critical, 0 Warning, and 11 OK for SAP Systems Up/Down, and 0 Critical, 0 Warning, and 0 OK for Database Availabilities. Total Used Disk Space for AWS is 8.47 TB (577.30 GB, 7.13%) and for Google Cloud is 495.78 GB (17.40 GB, 8.16%).

Avantra provides complete performance visibility into an SAP environment, combining different cloud environments and on-premise systems. It provides single sign-on access to on-premise and cloud systems.

To support managed service providers and distributed enterprises, Avantra creates a secured multi-tenant multi-cloud management platform, with landscape-wide visibility and performance transparency all in one tool, while ensuring secured separate access per tenant.

Using one solution for a complex mixed environment simplifies the IT environment and saves resources.

Automating SAP maintenance

The dashboard shows System Load with 1 Active Users Instance 1, 1 Active Users Instance 2, and 1 Active Users Instance 3. Prevent Shutdown Constraints include 1 Important Job Running, 1 Queued RFC, and 1 Unprocessed Idocs.

Frequent software updates to SAP landscapes require planned maintenance. To implement these updates, the systems need to be stopped. Stopping the system is a time-consuming manual task that requires specialist SAP skills and is often done outside normal business hours.

As SAP systems are critical to operations, businesses try to minimize these maintenance windows in which the systems are unoperational. Avantra automates system-wide or partial SAP start/stop based on a pre-defined schedule. It also allows the operators to define the systems start/stop order and timing.

These planned maintenance windows create monitoring, compliance, security, audit, and management information gaps. Avantra eliminates these information gaps. The solution's agents continue to monitor the operating system, database, and third-party applications while the SAP applications layer is down, ensuring no information is lost.

About Avantra:

Avantra simplifies the management of large-scale SAP landscapes. With nearly 20 years delivering SAP system solutions to global IT service providers and enterprises, we know what it takes to provide complete control of complex systems. Whether on-premise or cloud, we pair in-depth SAP monitoring automation with robust yet simple-to-use solutions — allowing our customers to optimize complex SAP systems performance, offer new services, reduce operational cost, and ensure compliance and productivity.

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