

Avantra for Manufacturing Industry

The better way to run your SAP operations.

Introduction

Without people, manufacturing businesses wouldn't be able to run. I want to make that clear. But what people need to ensure their business is running smoothly, are mission-critical IT applications. Applications which keep everything operating like a well-oiled machine, from supply chains and factory floors, to finance and payroll systems.

However, the global COVID-19 pandemic has truly put the resilience of IT operations to the test. While many organizations had business continuity plans in place for outages, not many anticipated the global scale or wide-reaching impact of what we have experienced, which for the manufacturing industry, may have resulted in a simultaneous growth in demand for products.

As a result, manufacturing businesses have had no choice but to turn to technology to facilitate effective and efficient operations. The pandemic has even accelerated innovation and new ways of working for many. All this stress and upheaval has meant moving mission-critical applications to the cloud and an increased workload on IT operations, all to keep up with the rapid pace of change.



John Appleby, Avantra CEO



So how can manufacturing businesses address the current state of play? The answer lies in automation. Without automation, organizations will buckle under the pressure of getting the most out of businesscritical systems and will fail to deploy them in the right way for maximum benefit. They need to be ready to automate now to navigate through these challenging times and continue on their journey to full digital transformation. And that's where Avantra comes in. We help manufacturing companies to achieve true value through automation. As the industry-leading AIOps platform for SAP automation operations, we work with SAP customers to improve business experience, performance, and compliance, focus valuable resources on digital transformation, and reduce operational costs. We support manufacturing companies transforming into self-healing enterprises. Allow us to be your companion on your journey.

What is Avantra?

Avantra helps manufacturing companies to transform into self-healing enterprises by running complex system operations more effectively.

Avantra is the industry-leading AI Operations platform for SAP, delivering services on-premise, in the cloud, SaaS or hybrid.

Avantra improves visibility of performance, reduces operational costs, and provides unmatched insights into landscape health. The result? Our customers get back precious time and resources.



How Avantra benefits your manufacturing business?

When you compare ROI before and after Avantra, you'll see that manufacturing companies save an average of 25% of SAP operational costs in just 1 year.

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We've reduced the time spent on our key SAP operations by about 40%. This means that within 6-12 months, Avantra has paid for itself.

Customer Council Member

Our customers, on average, see a 25% reduction in effort and costs for SAP operations. Given the resources put into SAP operations, Avantra is essentially self-funding within the first year of deployment.

Full-Stack Automation for Manufacturing

How much time does your IT Operations Team spend on repetitive and tedious SAP tasks that could be automated? Studies show it's likely to be 50% or more*. Avantra changes that. Instantly free up your team's valuable time with complete SAP landscape automation any environment and any SAP platform. Avantra makes sure that you're compliance ready across the entire SAP stack.

Out of the box compliance brings you customizable checks that can line up with whatever security needs you might have. No more digging through system logs either, Avantra's tracking is reliable and consistent so that information is always ready when you need it. Plus, tailored reports meet the requirements of an IT audit, however unique.

With much less manual work needed on your side, there is more time to focus on resolving priority issues, quickly. *Source: www.avantra.com/automate

Avantra takes less than a day to install. Our rapid set up is so straightforward that our customers can get set up without us getting involved at all, making Avantra's total cost significantly less compared to our competitors.

Monitoring Automation

With more than 160 plug and play SAP checks, there's no consultancy fees or lengthy projects - Avantra gives back from day one. On top of that, Avantra's highly customized checks and auto-deploy capabilities lets you address your organization's most unique and specific monitoring requirements.

Once deployed, Avantra automatically spots the individual SAP system elements, regardless of version or type. It then applies industry-recognized best practice Basis monitoring checks and thresholds right across the full stack and all SAP systems.

Start/Stop Automation

It's tough enough when you are running many SAP systems, let alone when you're doing that in a dynamic cloud environment. That's why Avantra has deep visibility of your SAP operations, providing dynamic KPI and performancebased cloud scaling that can't be achieved with any other technology in the market. There's no such thing as 'one size fits all' anymore, so Avantra drives automated decisions about when to start/stop an SAP system element and when to scale in or out.



System Hardening

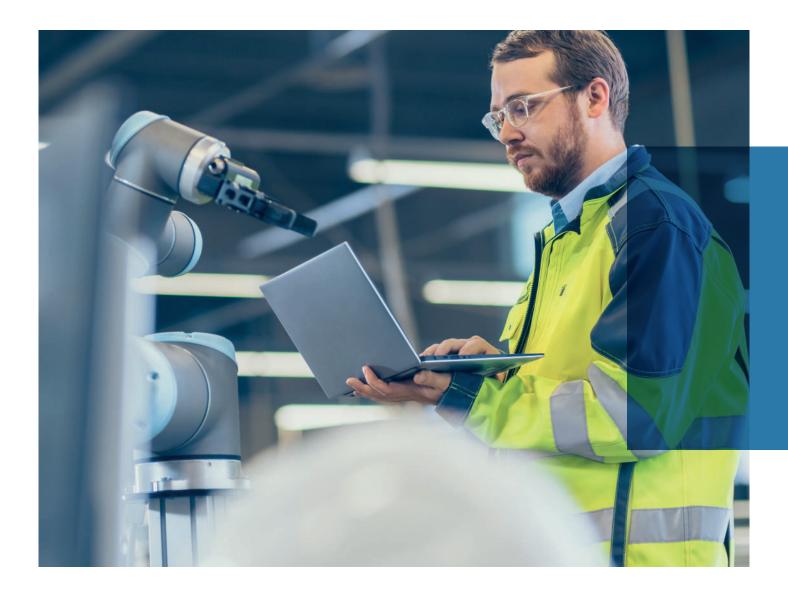
The security of your SAP system is everything. While many 'red alerts' might not need looking into, you don't want to miss the ones which do. Avantra's system hardening and smart notifications lets you decide who receives instant alerts of any unauthorized system access, and if it isn't resolved within time, alert escalation will re-flag the issue.

Best Practice Automation

Secure, productive and integrated, our enterprise-grade product is the result of 20 years of continuous innovation. With a library of best practice automation and highlytailored monitoring alerts, Avantra streamlines the most complex IT operations, adapting to your monitoring and analytics needs, as well as patching and upgrades - that's two of your biggest pain points in SAP system management covered.

Rapid Installation

No projects, no consultants, no six-month or six-figure commitments. Avantra takes less than a day to install. Our rapid set up is so straightforward that our customers can get up and running by themselves, making Avantra's total cost significantly less compared to our competitors. Speak with our Sales Team to learn how you can get started with Avantra.



Actionable Insights for Manufacturing

Your team wants insights they can act on, instantly. Avantra offers just that. It detects anomalies across complex SAP landscapes and cloud based services so that your team can understand the implications of every issue.

Intelligent Alerts

Avantra knows which issues are truly important. It spots warnings before they become critical and lets you customize alerts to fit your environment. What if a long-running job causes a tablespace to fill up fast? Avantra informs the right people, right away. By combining multiple alerts, such as CPU spikes, batch job delays, and SQL queries returning faulty results, Avantra sifts through the noise and detects integral issues early. This way, IT staff have ample time to act before things go wrong.

Intelligent Root-Cause Analysis

Ever missed a key issue whilst wading through irrelevant alerts? Misleading alerts cause havoc for co-dependent system elements. Avantra spots the sources of faulty critical-condition alerts triggered by non-urgent issues and quickly corrects them, speeding up the fix time with instant root-cause analysis.

Resource Forecasting

Avantra's unique forecasting means you can always stay ahead of the game. By analyzing prior landscape-wide resource utilization, Avantra predicts resource consumption so your organization can plan ahead with accuracy.

Audit and Governance

We realize that the security of your system is a top priority. Avantra safeguards organizations with robust audit and governance capabilities. It automatically tracks changes so they are available as and when needed, saving time and effort. Plus, if you need to prove the state of a system in any given period, reports can be tailored to auditing requirements.

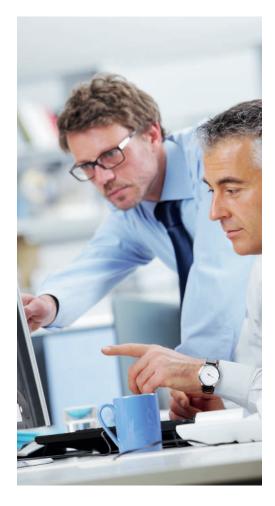
Agent-Based

Put simply, our agent-based solution is more secure than an agentless one. Avantra can provide superior visibility into system performance because information is sourced from its on-server agents. These cover OS, databases, and SAP application monitoring.

No more information gaps due to system or network disruptions. Even for highly-secure and complex landscapes that prevent the use of agents, Avantra can use a remote agent setup - one of our SaaS and web service monitoring features.

www.avantra.com

Avantra sifts through the noise and detects important issues early.



Operational Transparency for Manufacturing

With Avantra, you get a completely clear view of your systems. Real-time dashboards, automated reporting, and integrations to service management systems offer total transparency of your SAP landscape performance and health.

Avantra shows you how each of your systems elements interact within the overarching business process.

Interactive Dashboards

We bring real-time insights to your team's fingertips. Customizable dashboards offer a tailored view for stakeholders throughout organizations. Executives get a clear view into overall system health and IT staff get the accurate intelligence they need to keep systems running seamlessly.

Business Process Monitoring

With any operation, there is always a bigger picture to keep in mind. Avantra shows you how each of your systems elements interact within the overarching business process. This way, IT staff can always know which component is causing problems. Seamlessly connecting to the dashboards, Avantra offers a portable picture of your organization's comprehensive logical business rules.

Notification Escalation

Avantra makes sure that the right people are receiving the right alert at the right time. An open API enables easy integration with other IT monitoring platforms and with ServiceNow. Avantra's intelligent escalation path turns down unnecessary noise for entire teams, letting them focus on what's important.



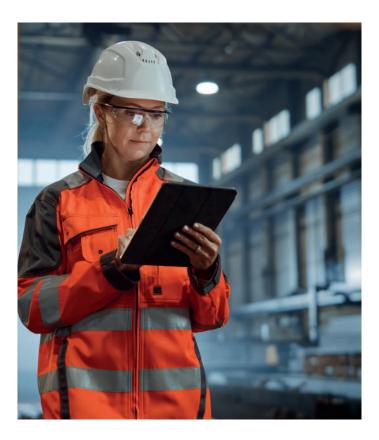
Automated Reporting

With Avantra, your teams can get reports instantly and confidently, without having to tediously make them from scratch. Avantra's custom templates automatically create reports (e.g. SLA reports), which offer insights using common system performance statistics, saving you time and resources.



Technologies and Integrations for Manufacturing

Avantra doesn't aim to replicate other systems, but instead, helps them to work together seamlessly.



Cloud integration

More often than not, SAP systems struggle to keep up with the flexibility of the cloud. As many organizations decide to migrate, most remain partially on-premise, opting for a hybrid landscape. Dynamic infrastructures like these require intelligent management and Avantra gives you just that. Offering native integrations with AWS, Azure, Google Cloud, and Alibaba Cloud, a speedy setup is guaranteed. Avantra can also manage, monitor, and automate the full range of SAP SaaS products, along with third-party non-SAP SaaS applications and web services.

SAP Ecosystem

SAP environments are made up of more than just SAP-supplied products. This can make management difficult. Your ecosystem may comprise of numerous SAP and non-SAP applications, databases, third party applications & web servers, and SaaS solutions. To make things easy, Avantra manages, monitors and automates every component in your SAP ecosystem with one simple and streamlined tool.

ServiceNow integration

Avantra has a certified out of the box integration with ServiceNow. It enables automatic creation of incidents, enrichment of CMDB with SAP specific data and the ability to trigger Avantra automations for rapid remediation of issues. In addition to the ServiceNow specific ITSM and ITOM integrations, Avantra supports integration to many leading ITSM solutions via RESTful APIs.

servicenow

Open APIs

Just as a team is at its best when it works together, complex SAP systems run at optimum when all its software is compatible. Avantra doesn't aim to replicate other systems, but instead, helps them to work together seamlessly. Open APIs and pre-built application integration allow you to access everything, and use Avantra data for whatever purpose you need. Combining our capabilities, we can work together to build better functioning systems.



Who are our Partners?

We've built strong, stable relationships with the world's leading technology companies so that our joint customers can get the best SAP operations possible.

Avantra's intelligent monitoring automation platform identifies the highest priority issues which will impact your business and integrates with IT Service Management (ITSM) platforms to ensure they are prioritized and escalated correctly.

ServiceNow

With our certified integration to the ServiceNow platform, customers can get all the benefits of the ServiceNow IT workflows (ITOM, ITSM, ITAM) across their SAP operations. Using detailed SAP information, Avantra can update incidents and enrich the ServiceNow CMDB automatically and even run automations and remediation triggered by ServiceNow. The result? Improved root cause analysis, dependency mapping, change management and asset management.

Amazon Web Services (AWS)

Available via the AWS marketplace, our close partnership with AWS means that SAP operations on AWS are simplified. Enjoy the elasticity and scalability of the cloud to its full potential, confidently run full-stack automation, and get real-time visibility across all elements of your environment.



Dynamic, cost-efficient and automated, running SAP on public cloud doesn't get simpler than with Avantra.



Google Cloud

Using Avantra to run SAP on Google Cloud, you can get the most out of cloud flexibility and still cut down on costs. Avantra has direct integration to Google Cloud services and can automatically scale environments based on deep SAP integration insights into its performance KPIs. What does this mean for you and your cloud journey? Put simply, a more efficient operation throughout.

Microsoft Azure

With an interface built on the capabilities of both systems, our partnership with Azure gets you the best performance, without compromising. Dynamic, costefficient and automated, running SAP on Azure doesn't get simpler than with Avantra. Deep SAP integration and insights into its performance KPIs means that environments are scaled easily and the entire operation is made simple.

Technical Specifications

Full-stack Automation	Actionable Insights	Operational Transparency	
Best practice daily and real- time monitoring automation	Intelligent alerts	Interactive dashboards for on-premise, cloud, and hybrid systems	
Cloud automation auto- scaling, sync, and performance	Instant root-cause identification	Business process monitoring and visualization	
System hardening, security, and compliance monitoring	Predictive resource planning and analysis	Notification escalation	
Automated system/sub- system start/stop	Audit and governance	Automated customizable and private labeled reporting	
Configuration changes tracking automation	Triggered automations based on event scenarios	Native 3rd party service systems integration	

Avantra Master System Requirements

- All major Linux distributions on Intel x86_64 architecture with PostgreSQL 9.6, 10, 11 64-bit
- Microsoft Windows® Server 2012/2012 R2, 2016, 2019 with Microsoft SQL Server 2012 or higher (US English Language Version)
- Amazon Machine Image and CloudFormation Deployment available

Avantra has been designed with ease of deployment in mind throughout. We do not believe in lengthy deployment projects or costly consultants to deploy and maintain Avantra. Our comprehensive documentation available from <u>https://docs.avantra.com</u> should be sufficient for the majority of deployments which are completable in hours/days rather than weeks/years.

Managed Technologies

	SAP	Non-SAP	
Application	SAP and web client end-user experience		
	S/4HANA, BI/BW, PO, Idocs, ICM, Jobs, Q/TRFC, BCS, Business Objects, SLT	Java-based via JMX others via existing API	
Middleware	SAP R3, SAP NetWeaver, ABAP, JAVA, TREX, Web Dispatcher, Cloud Connector	Java-based via JMX (e.g. Tomcat, WebSphere) Web servers, mail servers, and more	
Database	SAP HANA, SAP IQ, SAP ASE, IBM DB2 Universal Database (LUW), Oracle, MaxDB, Microsoft SQL Server, SAP SQL Anywhere		
os	IBM AIX, Linux, Oracle Solaris, Microsoft Windows		

Daily and Real-time Monitoring Automation

More than 160 out-of-the-box checks (this is a sample, a completelist can be found in the product manual).

Best Practice Templates

Avantra includes a wide number of pre-configured examples across many areas of the system including:

- System Selectors
- Check Selectors
- Monitoring Parameter Sets
- Notification Actions

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Run Automation for Manufacturing

- All SAP supported versions of SAP S/4 HANA and SAP NetWeaver (SID level) - Dialog verification, ABAB and database consistency, long erroneous batch jobs, IDOC, locking, short dumps, output requests, SSL certifications, queues
- SAP S/4 HANA / SAP NetWeaver (Application Server level) - Connectivity verification, thread and memory usage, ABAP dialog processes
- SAP Business Objects supported natively including database monitoring linked to the Business Objects system and 7 out-of-the box checks and one custom check
- SAP HANA Expensive SQL statements, HANA job runtime, delta merges, alerts, landscape integrity, system replication status, peak performance, and usage
- SAP ASE (Sybase) Backup status and runtime, anomalies detection, logs, and used space
- SAP IQ Full monitoring including resources prediction with performance data collection. Also extendable with custom checks based on SQL_ Query and JavaScript
- Oracle Tablespace usage and expensive statements, backups, datafiles status, enqueue deadlocks, timeouts, waits

- SAP SQL Anywhere (Sybase) Backup status and logs, DBspace, transaction logs, connectivity
- Microsoft SQL Server Backup status and logs, DB and transaction logs, expensive SQL statements
- Dedicated support for SAP NetWeaver Applications across the full software stack including BI, PO and MII
- Other SAP Application Layer and Middleware products - Verify connectivity, SSL certificates, as well as the status of connections, queues, and threads of Web Dispatcher SAP Instances, SAP TREX instances, and process chains
- IBM DB2 Universal Database LUW Backup status and logs, index statistics age, tablespace usage, and expensive SQL statements
- SAP MaxDB Backup status, data and log area usage
- Operating systems AIX, Linux, Solaris and Windows - Agent connectivity, cluster switches, CPU, filesystems, memory and space usage
- Technical and OS-related Build your own automated checks using JavaScript, SQL, OS scripts. Verify OS processes, services, log files and network response time

Auto Deploy Technologies

Verify SAP instance profile parameters, Java system properties values, database parameters, client settings and systems change against configurable policies. ABAP security audit log, user authorization, and user profiles.

Business Process Monitoring

BW upload times, IDOC status, SAP jobs anomalies, PI communication channels, qRFP queues and destinations, J2EE services and applications, monitoring SAP reports.

End-User Experience

Verify availability, response times, and SSL certificate expiration of web sites and REST APIs, Integrate monitoring results from specific JMX Monitoring MBeans of Java application servers (SAP and others). Runtime ABAP transaction, connectivity and response time of ABAP and HTTP.

Native Cloud Integrations

Automatic performance-based scale out and down, landscape detection and synchronization. Cloud, multi-cloud and hybrid cross landscape monitoring, automation and management:

AWS	Alibaba	Azure
Google Cloud	ServiceNow	Open API







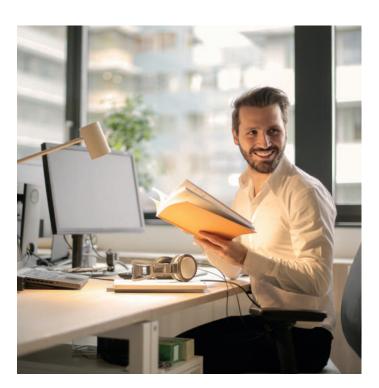


SAP[®] Certified

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SAP[®] Certified Integration with SAP NetWeaver'





Managed and Automated SAP Products

- SAP S/4HANA
- SAP Business Suite
- SAP Business Objects
- SAP BI (Business Intelligence)
- SAP LT (Landscape Transformation)
- SAP PI/PO (Process Integration/ Process Orchestration)
- SAP TREX
- SAP Solution Manager
- SAP WebDispatcher
- mySAP (ERP, SRM, CRM, BI)

- Cloud (PaaS & SaaS)
- SAP Cloud Platform Neo
- SAP Cloud Connector
- SAP Cloud Platform Integration (Neo and Cloud Foundry)
- Generic SaaS services using JavaScript
- SAP Ariba & Concur based on generic SaaS service
- Other SaaS products, such as SAP SuccessFactors or SalesForce, via API (depends on API availability, check api.sap.com)



Please get in touch to learn more about how Avantra can help your business. sales@avantra.com

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