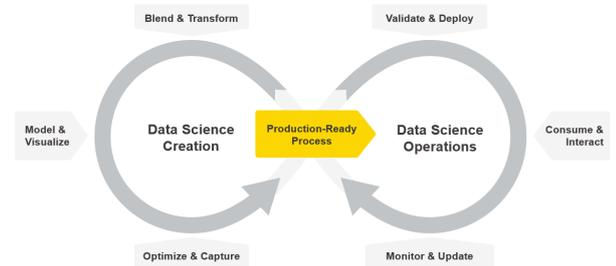


# KNIME Server

## Productionizing Data Science

KNIME Server complements KNIME Analytics Platform and is the enterprise software for team based collaboration, automation, management, and deployment of data science workflows as analytical applications and services.

This can transform teams and entire organizations to leverage the multiple layers of insight from their data at all levels of data maturity. KNIME Server enables all stakeholders in the realm of data practice to work together on a single platform: from data engineers and data scientists, to business users and domain experts, as well as ModelOps, IT, practice leaders and management.



KNIME Analytics Platform for Data Science Creation and KNIME Server for Data Science Operations.

### Integrated Deployment

Integrated Deployment eliminates the gap between the creation and production of data science by creating and deploying production workflows automatically - without manual intervention. It's possible to identify what's necessary for production and not just the model. All nodes and settings are captured to ensure the workflow always remains in-sync.

### Flexible Delivery Options: Automate

Automated workflow execution enables KNIME workflows to be scheduled, triggered, and called via REST / SAAS. Call actions can be done based on status and users have the ability to view, edit, and execute workflows remotely.

### Flexible Delivery Options: Operationalize

The KNIME Model Process Factory enables workflow orchestration, model monitoring, and triggered or manual model retraining. Full blueprints are available on the KNIME Hub, which can be downloaded, modified, and extended depending on the use case.

### Empower Business Users

Guided Analytics enables appropriate levels of automation and human interaction from business users at any stage of the data science life cycle. Data scientists build interactive applications and dashboards in KNIME Analytics Platform, and KNIME WebPortal manages access rights.

### Governance and Compliance

The explainability and interpretability of models is possible via techniques such as LIME, SHAP, Shapely, Partial Dependence / ICE, and Binary Classification Inspector. Data privacy, GDPR compliance, and anonymization is also possible - including guidelines and example workflows.

### Manage Infrastructure and Users

KNIME Server offers central management and monitoring capabilities. Usage and compliance methods as well as activity running of KNIME Server can be customized.

### SSO, Integrate with Security Protocols

OAUTH, LDAP, and AD Integration enable Single Sign On (SSO) to KNIME Server. It's possible to integrate with multiple identity providers and have flexible configurations to map users and groups. Admins can also manage all aspects of KNIME usage.

### On-Prem or Cloud, Scalable, and Flexible

KNIME Server Large supports multiple Executors. Features include: offload compute resources from KNIME Server, scale Executors to computational needs, support Executors with varying configurations, and take advantage of flexible deployment options.

### Expanded Routing, Partitioning Resources, and Monitoring

Group Executors logically - for example by organizational department, match users / groups to Executor groups, partition compute resources by groups, department, or similar, and lastly, enable KNIME Server admins to manage partitioning.

## Cloud Offerings

KNIME Server is available on both Microsoft Azure and AWS.



### KNIME Executor Auto-Scaling Features:

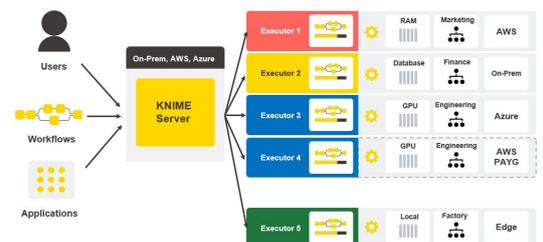
- Uses cloud platforms or Kubernetes auto-scaling capabilities
- Elastic scaling meets demands
- Scales out to meet required capacity and scales in to save costs
- Supported on AWS and Azure in a *Pay As You Go* licensing model

### Mixed Cloud Usage:

- Supplement traditionally-licensed Executors with *Pay As You Go* licensing model
- Meet periodic demand peaks
- Fulfill needs for specialty hardware
- Meet budgeting needs

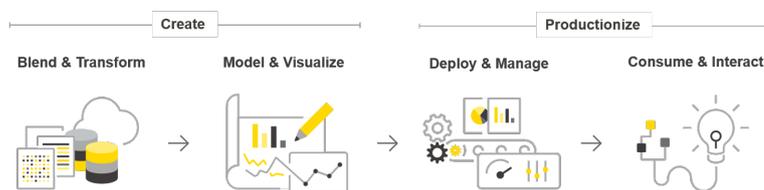
### Hybrid Usage:

- Mix of enterprise data center and cloud deployments
- Meet periodic demand peaks
- Fulfill needs for specialty hardware
- Meet budgeting needs



Choice, control, and definable costs with KNIME Server.

Feature and Description	KNIME Server Small Small teams, exchange and execute workflows remotely.	KNIME Server Medium Use workflows via the browser. Access to REST API.	KNIME Server Large Large teams, multiple installations, global collaboration.
<b>Collaboration</b>			
Share workflows and control access rights	✓	✓	✓
Upload and share components to enable users to reuse most common functionalities	✓	✓	✓
Encrypt metanodes to secure content and protect intellectual property			✓
Customize the node repository to ease use and ensure compliance			✓
<b>Automation</b>			
Execute workflows on KNIME Server	✓	✓	✓
Schedule a workflow or report to be executed at a certain time, or periodically	✓	✓	✓
Modify and execute workflows on KNIME Server to take advantage of well provisioned hardware in a secure environment	✓	✓	✓
Scale workflow execution to multiple machines with KNIME Executors			✓
Use Workflow Pinning for automated routing of workflows with special requirements to KNIME Executors with matching capabilities			✓
Execute big data workflows remotely. Access enabled to Apache Hadoop and Spark from KNIME workflows			✓
<b>Deployment</b>			
Create and deploy Guided Analytics	✓	✓	✓
Deploy workflows via the REST API to allow access from other applications		✓	✓
Number of consumers with access to analytical applications and services via the KNIME WebPortal	No free consumers	Limited consumers	Unlimited consumers
<b>Management</b>			
Manage user credentials locally for individual users and groups	✓	✓	✓
Create workflow snapshots and compare to previous versions	✓	✓	✓
Monitor server activity (running and scheduled jobs), adjust permissions, manage ongoing services	✓	✓	✓
Access detailed summaries of workflows for data lineage		✓	✓
IT operations via central management of settings for multiple KNIME Analytics Platform client installations and customizations		✓	✓
Integrate authentication with corporate LDAP / Active Directory setups, and Single Sign-On (SSO) via OAuth / OIDC			✓
Elastic scaling of computational resources with KNIME Executors, installed on-prem, in cloud, or hybrid mode			✓
Manage dedicated groups of KNIME Executors and assign execution power to teams or groups			✓
Elastic scale-out and scale-in with pay-as-you-go pricing			✓



## About KNIME

At KNIME, we build software for fast, easy, and intuitive access to advanced data science, helping organizations drive innovation. For over a decade, a thriving community of data scientists in over 60 countries has been working with our platform on every kind of data: from numbers to images, molecules to humans, signals to complex networks, and simple statistics to big data analytics. Our headquarters are based in Zurich, with additional offices in Konstanz, Berlin, and Austin. We're open for innovation®, so visit us at [KNIME.com](https://www.knime.com).