EMA Radar Report for Workload Automation Q4 2021

October 2021
By Dan Twing, President and COO
Vendor Profile: Arvato Systems

Overview

Arvato Systems’ streamworks is once again Strong Value. The streamworks platform is based on more than 30 years of data center operations experience wrapped up in a very modern architecture. streamworks stands out for being developed and operated by a data center services company. They were using it before they were selling it to others. All the support personnel actually work on the product in operations roles. streamworks bridges the gaps in new bimodal, hybrid IT environments by offering generic interfaces via REST and message queues and workload analytics, and by supporting continuous delivery processes. Arvato continues to mature streamworks with enhancements supporting cloud-based jobs, increased support for containerized workloads, and other important improvements.

streamworks is a Windows-based, cross-platform workload automation solution supporting all major operating systems, including mainframes. streamworks integrates with business applications, ITSM solutions, LDAP, Java, virtualization, and cloud environments via configuration views in the user interface by using standard APIs and job libraries. streamworks has a fault-tolerant, robust, easy-to-maintain infrastructure made to perfectly scale from small setups to high-performance, high-availability environments. streamworks is open to use the customer’s preferred technique for Windows HA, whether it is Windows Cluster or VMware virtualization. The platform offers one single point of control for planning, maintaining, operating, and monitoring job streams, which can be accessed using intuitive, configurable, graphical user interfaces or by using a REST-based API.

All system- or tenant-wide configurations like users, agents, calendars, time zones, variables, and internal parameters can be performed from one central view. streamworks provides integrated file transfer, job libraries, log parser, and lots of additional logic and functions to reduce the efforts for designing complex, cross-platform, time- and event-based job streams. Jobs and job streams can easily be moved between environments by using implemented streamworks functions, like the export/import interface, environment variables, and workflow capabilities.

Customer Perspectives

“We like the staging or product planning features that allow for tomorrow to look different than today, and this can be staged in advance.”
The whole runtime environment can easily be monitored via specific views for job status, agent or file transfer status, incidents, or forecasts. Streamworks has extensive logging features; any single transaction performed by a user, job, agent, or the system itself can be accessed via the user interface. Furthermore, all log files can be exported from the database for audits or archiving. The integrated, full-featured reporting engine (MS SQL Server Reporting Services), which can be accessed via fat client, web client, or batch, offers workload analytic capabilities. The web-based (HTML5) self-service portal addresses the needs of the business users, giving them the options to start and monitor job streams, to view reports, and to use a graphical visualization of multiple job streams, including critical paths.

Arvato Systems is the global IT services subsidiary of Arvato, a global services company headquartered in Gütersloh, Germany. Arvato itself is a subsidiary of Bertelsmann, which is a media, services, and education company that operates in about 50 countries around the world. Streamworks started as an internal solution to workload automation needs within the IT outsourcing operations of Arvato Systems in 2006. By 2008, Arvato Systems began selling streamworks as a product for license and use by others. They also created a reseller relationship with Beta Systems.
Vendor Profile: Arvato Systems

- Functionality: 58.75
- Deployment & Administration: 71.05
- Architecture & Integration: 51.49
- Vendor Strength: 64.12
- Cost Advantage: 82.45
Vendor Profile: Arvato Systems

Architecture

Infrastructure

The application servers, processing servers and SQL databases can be used as single systems or within a cluster solution.
Vendor Profile: Arvato Systems

Key Features Summary

**Designed by a Data Center for the Data Center**

Streamworks is planned, designed, developed, and operated by an IT service provider’s data center with a strong focus on cost reduction in IT operations and the data center. Seventy percent of the three-year TCO of a WLA solution is the effort and needed workforce in daily operations. Streamworks keeps those efforts low so it can be operated at a very low TCO.

**Fast Install and Low-Impact Upgrades**

Installation can be done from scratch within 3-4 hours. Downtime for a release update is at maximum two hours and can be reduced to less than 60 minutes by a high-availability infrastructure setup. The engine consists of standard Windows services, which can be (un)installed within minutes. The DB is updated by an update script. Agents do not need to be updated when updating the engine. For updates, the agent software can be deployed using the streamworks file transfer and can be changed on an agent site without any downtime or restart.

**Master/Real Job Stream Definitions**

Streamworks uses a unique Master/Real concept to reduce efforts for designing and maintaining multiple similar job streams. A Master job stream contains nearly all needed definitions, but cannot be executed. Users build Real job streams by taking the Master template and adding the missing information (e.g., name of specific database) within minutes. This is more than a copy because the Real job streams are always connected to their Master. If the Master changes, all connected Real streams are changed, too. Thus, mass changes need to be done just once.

**Virtual Plan Data Instead of Specific Dates**

Streamworks’ batch operation focuses on the customers’ business cycle, not on specific dates or time windows. Streamworks uses a virtual date called Plan Date to group all jobs and job streams belonging to one business cycle or day. The business cycle is finished when the last job stream is finished. A preparation process that builds copies of the design data and places them in the runtime area provides new business cycles and days. Job streams can be prepared days in advance, and the prepared Plan Date can be changed without impact on the design data. The go-live of batch releases during non-business days or hours can be prepared during business hours.

**File Transfer Integrated Within Agents**

The Streamworks file transfer function comes as part of the agent software. No additional file transfer software on the agent server is needed. The file transfer is carried out using the agent communication via the Streamworks server, so there’s no need to make new holes in firewalls for servers with installed Streamworks agents. Time is saved since less software needs to be installed and maintained on the server.

**Strong Security and Audit Controls**

Streamworks includes strong security features, such as two-factor access to clients, client and agent certificates, extensive logging of any change or transaction, easy-to-use audit reports, and automated audit data export. All log files can be exported from the database for audits or archiving.
Support Staff Who Know and Use the Product

It’s vital to have access to experienced support staff who actually use the product in the Arvato Systems data center. New customers get help and many best practices in building their operational concept. The support hotline connects customers directly to the administrators of the Arvato Systems streamworks installation, or to the 24/7 system operating in the Arvato Systems data center.

Single Point of Control

streamworks offers one single point of control for planning, maintaining, operating, and monitoring job streams, which can be accessed using intuitive, configurable graphical user interfaces or by using a REST-based API. The whole runtime environment can easily be monitored via specific views for job status, agent, or file transfer status, incidents, or forecast.

Fault-Tolerant Architecture

streamworks has a fault-tolerant, robust, easy-to-maintain infrastructure made to perfectly scale from small setups to high-performance, high-availability environments. streamworks is open to using the customer’s preferred technique for Windows High Availability, whether it is Windows Cluster or VMware virtualization. streamworks is based on modern, modularized .net architecture, which can easily migrate to run in cloud environments using Kubernetes or microservices.
## Evaluation Summary

<table>
<thead>
<tr>
<th>Deployment &amp; Administration</th>
<th>Architecture &amp; Integration</th>
<th>Functionality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of Deployment</td>
<td>Architecture</td>
<td>Features</td>
</tr>
<tr>
<td>Deployment Time/Effort</td>
<td>Business Focus</td>
<td>Automation Design Flexibility</td>
</tr>
<tr>
<td>Conversion Facilities</td>
<td>Scalability</td>
<td>End-to-End Monitoring</td>
</tr>
<tr>
<td>Job Discovery and Import</td>
<td>Dynamic Workload Placement</td>
<td>Compliance Management</td>
</tr>
<tr>
<td>Staff Training</td>
<td>Breadth of Platform Support (including agentless)</td>
<td>Triggering</td>
</tr>
<tr>
<td></td>
<td>Breadth of Application &amp; Database Support</td>
<td>Self-Service Portal</td>
</tr>
<tr>
<td></td>
<td>Disaster Protection</td>
<td>Forecasting, Analytics, Reporting</td>
</tr>
<tr>
<td></td>
<td>Containerized Workloads</td>
<td>Alerting</td>
</tr>
<tr>
<td></td>
<td>Container Deployment</td>
<td>Security</td>
</tr>
<tr>
<td></td>
<td>Mainframe Support</td>
<td>What-If Scenarios</td>
</tr>
<tr>
<td></td>
<td>Shared Server/Multi-Team Support</td>
<td>Conditional Logic and Auto-Remediation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Logging and Auditability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Business User Features</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Big Data Support</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RPA Orchestration</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Support &amp; Services</th>
<th>Integration &amp; Interoperability</th>
<th>Ease of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of Administration</td>
<td>Comprehensive API</td>
<td>Simplicity of GUI</td>
</tr>
<tr>
<td>Console Ease of Use</td>
<td>Cloud Integration</td>
<td>SLA and Policy Awareness</td>
</tr>
<tr>
<td>Upgrade Process</td>
<td>CMDB Integration</td>
<td>Root Cause Analysis</td>
</tr>
<tr>
<td>Test Environments</td>
<td>ITPA Integration</td>
<td>Mobile Device Support</td>
</tr>
<tr>
<td>Automation of Management</td>
<td>Capacity Management Integration</td>
<td>Language Support</td>
</tr>
<tr>
<td></td>
<td>MFT Integration</td>
<td>Available Help Resources</td>
</tr>
<tr>
<td></td>
<td>MFT Integration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Big Data Integration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Media Integration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Heterogeneity Across Environments</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DevOps</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MLOps</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost Advantage</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexibility of Pricing Model</td>
<td>Simplicity of GUI</td>
<td></td>
</tr>
<tr>
<td>Pricing Scenarios</td>
<td>SLA and Policy Awareness</td>
<td></td>
</tr>
<tr>
<td>SaaS Availability</td>
<td>Root Cause Analysis</td>
<td></td>
</tr>
</tbody>
</table>

### Deployment & Administration

- **Ease of Deployment**
  - Deployment Time/Effort: Strong
  - Conversion Facilities: Limited
  - Job Discovery and Import: Limited
  - Staff Training: Solid

### Support & Services

- **Customer Support**: Solid
- **Professional Services**: Outstanding

### Ease of Administration

- **Console Ease of Use**: Solid
- **Upgrade Process**: Strong
- **Test Environments**: Outstanding
- **Automation of Management**: Strong

### Cost Advantage

- **Flexibility of Pricing Model**: Strong
- **Pricing Scenarios**: $$
- **SaaS Availability**: Outstanding

### Architecture & Integration

- **Architecture**
  - Business Focus: Solid
  - Scalability: Outstanding
  - Dynamic Workload Placement: Solid
  - Breadth of Platform Support (including agentless): Strong
  - Breadth of Application & Database Support: Solid
  - Disaster Protection: Strong
  - Containerized Workloads: Limited
  - Container Deployment: Solid
  - Mainframe Support: Strong
  - Shared Server/Multi-Team Support: Solid

### Integration & Interoperability

- **Comprehensive API**: Strong
- **Cloud Integration**: Limited
- **CMDB Integration**: Solid
- **ITPA Integration**: Limited
- **Capacity Management Integration**: Limited
- **MFT Integration**: Outstanding
- **Big Data Integration**: Limited
- **Social Media Integration**: None
- **Heterogeneity Across Environments**: Limited
- **DevOps**: Limited
- **MLOps**: None

### Functionality

- **Features**
  - Automation Design Flexibility: Strong
  - End-to-End Monitoring: Solid
  - Compliance Management: Strong
  - Triggering: Strong
  - Self-Service Portal: Strong
  - Forecasting, Analytics, Reporting: Solid
  - Alerting: Solid
  - Security: Outstanding
  - What-If Scenarios: Limited
  - Conditional Logic and Auto-Remediation: Solid
  - Logging and Auditability: Outstanding
  - Business User Features: Outstanding
  - Big Data Support: Limited
  - RPA Orchestration: None

### Ease of Use

- **Simplicity of GUI**: Strong
- **SLA and Policy Awareness**: Solid
- **Root Cause Analysis**: Solid
- **Mobile Device Support**: Solid
- **Language Support**: Solid
- **Available Help Resources**: Strong
Vendor Profile: Arvato Systems

<table>
<thead>
<tr>
<th>Vendor Strength</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision</td>
<td>Strong</td>
</tr>
<tr>
<td>Strategy</td>
<td>Strong</td>
</tr>
<tr>
<td>Financial Strength</td>
<td>Outstanding</td>
</tr>
<tr>
<td>Research and Development</td>
<td>Strong</td>
</tr>
<tr>
<td>Partnerships and Channel</td>
<td>Strong</td>
</tr>
<tr>
<td>Market Credibility</td>
<td>Solid</td>
</tr>
<tr>
<td>Geographic Coverage</td>
<td>Solid</td>
</tr>
</tbody>
</table>

Active Clients

Product Available In:
English, German

Number of Customers:

- 100
- 1000

Slowly growing with a high number of early adopters.
Favorite Features Mentioned in Customer Interviews

- I like the user interface. It is very easy to use!
- My favorite aspect is the recovery feature on the mainframe side.
- Plan Date can be set up to run a certain way and will not be affected by other changes implemented.
- The REST APIs are very powerful.
- We like their philosophy for Plan Date. The approach is good, particularly for jobs that might connect or overlap over multiple days.
- I like the Windows installer and the ability to customize it. Upgrade time is fast.
- We make good use of Logical Resources because we know what is available for jobs to start.
- I like that Master job and Real job allow for templating.
- We like the staging or product planning features that allow for tomorrow to look different than today, and this can be staged in advance.
About Enterprise Management Associates, Inc.

Founded in 1996, Enterprise Management Associates (EMA) is a leading industry analyst firm that provides deep insight across the full spectrum of IT and data management technologies. EMA analysts leverage a unique combination of practical experience, insight into industry best practices, and in-depth knowledge of current and planned vendor solutions to help EMA's clients achieve their goals. Learn more about EMA research, analysis, and consulting services for enterprise line of business users, IT professionals, and IT vendors at [www.enterprisemanagement.com](http://www.enterprisemanagement.com). You can also follow EMA on [Twitter](https://twitter.com) or [LinkedIn](https://www.linkedin.com).

This report, in whole or in part, may not be duplicated, reproduced, stored in a retrieval system or retransmitted without prior written permission of Enterprise Management Associates, Inc. All opinions and estimates herein constitute our judgement as of this date and are subject to change without notice. Product names mentioned herein may be trademarks and/or registered trademarks of their respective companies. “EMA” and “Enterprise Management Associates” are trademarks of Enterprise Management Associates, Inc. in the United States and other countries.

©2021 Enterprise Management Associates, Inc. All Rights Reserved. EMA™, ENTERPRISE MANAGEMENT ASSOCIATES®, and the mobius symbol are registered trademarks or common law trademarks of Enterprise Management Associates, Inc.