Logistics firm speeds up supply chain efficiency with performance monitoring

China-based Anji Automotive Logistics eliminates delays, improves supply chain efficiency and gains deeper insight after implementing automated software monitoring system

Customer profile

Company: Anji Automotive Logistics
Industry: Manufacturing & Logistics
Country: China
Employees: 17,000
Website: www.anji-logistics.com/en

Business need
In a move to innovate delivery of automobiles and parts across China, Anji Automotive Logistics wanted to eliminate costly delays and improve system performance. To achieve that, the company needed proactive application and system monitoring across its data center.

Solution
The company implemented Foglight solutions to deliver automated monitoring and management of the databases, software and hardware responsible for its logistics services.

Benefits
• Eliminates delays with 100 percent of incident reporting within six minutes
• Instant alerts reduce issue resolution to within 30 minutes
• Automated monitoring significantly improves IT management efficiency
• Ensures proactive monitoring to improve supply chain efficiencies

Solutions at a glance
• Performance Monitoring

“The comprehensive monitoring mechanism from Dell that’s set up to monitor Anji Logistics user experience and all critical infrastructure within the data center such as the Oracle database, WebSphere web application servers and networks has increased our IT management efficiency by 80 percent.”

Yu Yinbing, IT Operations, Anji Automotive Logistics
As a leading third-party logistics company servicing automotive and parts manufacturing enterprises, Anji Automotive Logistics (Anji Logistics) delivers up to 6.4 million automobiles and 100 million automotive parts to over 318 cities across 30 provinces in China annually.

For Anji Logistics, implementing Foglight has redefined the end-to-end monitoring mechanism with regards to the critical internal modules of TMS, WMS, and FMS, including order query, report query and order processing. This has enabled far smoother operation of the system.

Yu Yinbing, IT Operations, Anji Automotive Logistics

With just two dedicated IT personnel, the company relies on an integrated logistics solution that provides customs clearance, commercial inspection, warehousing and transportation services for its partnering automobile manufacturers. The infrastructure platform integrates its transportation management system (TMS), warehouse management system (WMS), and freight management system (FMS).

The company’s platform comprises a large number of physical servers, storage, network and security devices, as well as Oracle databases, middleware applications such as WebSphere and Tomcat, and a number of applications developed on Java and .NET platforms. Each requires daily manual inspection and the addressing of incident reports retroactively after personnel in the sales, finance and warehouse departments had logged issues. With around 50 percent of the incidents unable to be reproduced, this lead to delays in resolving issues and risk of repeated faults.

Greater visibility and fast diagnosis
To reduce time-intensive manual inspection processes and incidents leading to delays and possible outages in receiving orders from its partners, Anji Logistics turned to Dell to help the company implement end-to-end monitoring of its TMS, WMS and FMS modules. Anji Logistics selected a range of Foglight application monitoring and analysis solutions to provide a comprehensive automated monitoring, investigation and reporting system for its IT environment. Foglight fully integrates servers, databases, operating systems, web servers and networks, firewalls and other IT components into the monitoring system, thereby automatically alerting IT personnel of any incident.

Proactive real-time monitoring
Anji Logistics now has the capability to monitor and enhance its user experience by detecting usage and user scenarios and performing conversation analysis. Foglight User Experience Management provides a deep view into the behavior of user environments and speeds up troubleshooting by storing every user transaction into a scalable, big data repository while providing the IT team with graphical query builders and interactive charts to help them quickly investigate transaction activity. Foglight

Products & Services
Software
Foglight Application Performance Monitoring
Foglight User Experience Management
Foglight for Oracle
Foglight Performance Analysis for Oracle
Foglight for Operating Systems
Foglight for IBM WebSphere MQ
Foglight for Java
Foglight for .NET
Application Performance Monitoring delivers the company with a real-time monitoring dashboard that can oversee critical infrastructure and provide proactive alerts to IT personnel ahead of any issues or risks of downtime.

**Improves management efficiency by 80 percent**

With around 50 percent of time previously spent manually inspecting software critical to the company’s data center, Anji Logistics now has an automated alert service that transmits incidents within an average of three minutes. Yu Yinbing, IT Operations, Anji Automotive Logistics, says, “The comprehensive monitoring mechanism from Dell that’s set up to monitor Anji Logistics user experience and all critical infrastructure within the data center such as the Oracle database, WebSphere web application servers and networks has increased our IT management efficiency by 80 percent.”

**Downtime eliminated significantly**

With the introduction of Foglight applications monitoring and analysis solutions, Anji Logistics IT personnel can now conduct in-depth monitoring of the WMS. Warehousing is the most critical service for the company because it involves the physical safety of the automobiles and significant real estate. Anji Logistics owns 27 auto warehouses, occupying a total land area of 4.7 million square meters. The WMS manages information on freight space, the warehouses, ports, materials and automobile positions. In the past, WMS failures often caused 10–20 minutes downtime, which delayed warehousing entry and exit of automobiles, quality checks and stock-taking during peak hours. The inability to conduct in-depth monitoring of physical servers and databases was the main cause of these frequent unexpected outages.

Today, the team can monitor the WMS physical host computer installed with Windows, AIX, Solaris, HPUS and Linux. This involves automatically tracking a host of activities that was previously unavailable, including CPU usage by the operation system, the memory take-up by the WMS applications, file system usage, and network throughput. The teams are now able to make immediate technical diagnoses and proactively eliminate failures. Anji Logistics IT personnel can monitor the Oracle database hit ratio, session conversations, login user statuses, and usage within the shared pool and redo log, database memory, and database CPU — all of which ensures the optimal operation of the database in supporting efficient warehouse processes.

**Resolves issues ahead of time**

Anji Logistics IT personnel now receive proactive alerts from Foglight, which means within a 30-minute time frame, they can eliminate issues that may have previously led to delays in order transmissions from its automotive partners — four times faster than the two hours it took previously. This means that in the delivery of real-time sales from auto manufacturers such as Shanghai Volkswagen and Shanghai GM, which first issue logistics orders via their own auto sales systems, Anji Logistics can ensure its logistic orders are received in its TMS within three minutes of them being placed by its automotive partners.

Yu says, “For Anji Logistics, implementing Foglight has redefined the end-to-end monitoring mechanism with regards to the critical internal modules of TMS, WMS, and FMS, including order query, report query and order processing. This has enabled far smoother operation of the system.”
Optimizes system performance
The traffic from ground transport that centers on highway, railway, and inland transportation, as well as sea transport that focuses on roll-on/roll-off carriers and containers, require 24x7 support from the FMS module. To reduce costs, end customers demand immediate delivery from their suppliers. This means Anji Logistics requires a faultless logistics supply chain system, with the FMS needing to deliver 99.999 percent reliability.

By relying on Foglight software solutions, Anji Logistics IT personnel have established a comprehensive monitoring system in the data center. This ensures various systems such as software, servers, networks, storage and firewalls receive around-the-clock monitoring and continuously operate under optimal performance conditions. Yu says, “Regardless of unexpected web application outage or network failure, delayed database response or Java failure, the IT personnel are able to accurately determine and rapidly pinpoint the root cause of the incident, thus reducing the mean time to restoration.”

Underpins competitive edge
As a result of its focus on improving performance monitoring, Anji Logistics has gained the status of being a Class 5A logistics enterprise in China, the highest possible ranking. The company received the China Outstanding Logistics Enterprise prize, and has become one of the largest logistic service providers in the world. With the strong growth of Anji Logistics’ business and corresponding data demands, its IT system continues to be expanded. This makes performance monitoring from Foglight an increasingly critical component in Anji Logistics’ drive to maintain its competitive edge.

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