elastic | SHIFT④

Shift4 takes payment services to the next level with Elastic Observability on Elastic Cloud

Shift4 has heightened the resilience and availability of its global payments platform with Elastic Observability, using Elastic machine learning anomaly detection to deliver crucial insights into Shift4 systems and those of its customers.

Region
Israel

Industry
Financial Services

Solution
Elastic Observability

Accelerates multi-stage payment processes

With Elastic Observability, Shift4 can optimize the payment experience for retailers and customers thanks to detailed monitoring of multiple transaction stages.

Delivers five-nines availability

With Elastic Observability, Shift4 delivers 99.999% availability for its payment systems that power some of the world's biggest brands.

Improves the bottom line for customers

Shift4 can increase retailer payment approval rates by detecting and addressing issues with machine learning from Elastic Observability.

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Elastic enables Shift4 to improve availability and approval rates for its world-leading payments platform

Shift4 is a leading provider of payment processing solutions, empowering businesses of all sizes to accept payments efficiently and securely. To ensure its world-class platform operates at peak performance, Shift4 has deployed Elastic Observability. This enables the business to grow rapidly and serve customers ranging from small businesses to global brands such as Taco Bell and Starlink.

Since Shift4 generates revenues based on the volume of transactions that pass through its systems, its technology platforms must be highly scalable and resilient so that payment networks can function with minimum disruption.

"To provide a fast, highly scalable, and reliable service, we need 24/7 visibility into every step of the payment process," says Gregory Paks, Senior Vice President of R&D and IT Operations at Shift4. "That's why we chose Elastic Observability."

A boost to the bottom line

Paks began working with Elastic eight years ago. Shift4 was growing fast at the time, and the business needed a more flexible observability platform to replace the incumbent supplier, Loom. The Shift4 team considered several vendors, but Elastic stood out for value for money alongside market-leading functionality and scalability. "Compared with the alternatives, Elastic is more informative and gives us better control over applications and log formats as our systems expand," he says.

Speed was also a factor. A single transaction may need approval from several participants in the payment chain, including payment gateways, retailers, banks, and card schemes. Elastic Observability helps prevent delays by checking that transactions are completed quickly, typically in less than a second.

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> Elastic Observability doesn't just support Shift4's systems. We can pinpoint customer bottlenecks or interruptions before they notice and recommend a solution that fixes the issue.

Gregory Paks
Senior Vice President of R&D and IT Operations, Shift4

As well as payment solutions, Shift4 also offers Point of Sale (POS) equipment for restaurants, small, large, or enterprises, including mobile and contactless technology.

Making good with machine learning

Since deployment, Shift4 has benefited from the release of new Elastic Observability features, including machine learning for anomaly detection. This capability automatically models the normal behavior of data in real time to spot unusual data patterns generated by Shift4's internal systems and payment partners.

This is a highly complex exercise based on hundreds of parameters, but Elastic Observability enables near-instantaneous detection of anomalies while pinpointing the root cause of the issue. This triggers an alert for the appropriate Shift4 team, including the Network Operations Center (NOC), tech support, and business operations.

For example, if Elastic Observability detects an unusual rate of transaction failures, it quickly narrows down the issue to the payment card, bank, and even the geographical area where transactions are affected. This enables all parties to take proactive steps, such as rerouting payments via unaffected regions.

It's also good news for retailers. If Elastic Observability detects that a retailer is experiencing payment delays or failures, then the Shift4 e-payments team can reach out and recommend a solution. This can be anything from techniques to reduce fraud to incorporating the business in a specific country to process local payment cards more effectively. With these Elastic Observability capabilities and better system visibility, Shift4 can help retailers avoid revenue loss from a customer's payment experience.

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Delivering a smooth buying experience

As well as boosting retail transactions and revenues, Elastic Observability also helps retailers protect against reputational damage. Paks gives the example of a marketing campaign driving thousands of customers to an e-commerce website. "There's nothing more off-putting for a customer to go through the ordering process and then have their payment stalled or refused at the last hurdle," he says. "With Elastic, we can detect point of sale and online payment disruption before it interrupts the customer experience."

Elastic Observability also plays a critical role in the performance and tuning of Shift4's own systems and networks. The business's motto is 'never miss an opportunity to get better'. With Elastic, it can address issues, big or small, at lightning speed, and maintain this cycle of continuous improvement.

Paks has now turned his attention to the security and compliance aspects of the business. He plans to deploy Elastic Security SIEM to support Shift4's Sarbanes-Oxley (SOX) team, taking advantage of centralized monitoring and logging offered via Elastic Search AI Platform to streamline auditing and compliance. The same features also assist with IT General Controls (ITGC) regulations, as well as Payment Card Industry (PCI) compliance.

"The real beauty of Elastic is that it offers a unified platform for observability and security," says Paks. "In addition to the quality and accuracy of the technology, we also benefit from the economies of working with a single partner that clearly understands our business and technology roadmap."

> Elastic machine learning and anomaly detection are game changers. It enables us to improve approval rates for our customers, where even a small increase can have a direct impact on their bottom line.

Gregory Paks
Senior Vice President of R&D and IT Operations, Shift4

See for yourself how your business can benefit from Elastic in the Cloud, with a free 14 day trial.

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