



## Mitsubishi Motors Moves Critical Systems to the Cloud with SIOS LifeKeeper for High Availability Protection



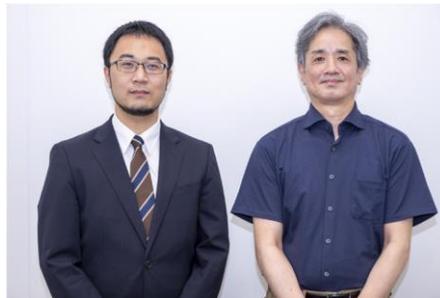
“Even if a problem occurs, LifeKeeper automatically fails over from the primary server node to a secondary system in an instant, and operation continues without any noticeable delays for the users, saving IT time and eliminating service interruption for customers.”

– Hiromasa Tsuboshima, Manager, Business IT Department, Global IT Division, Mitsubishi Motors

When Mitsubishi Motors Corporation revamped its warehouse management system in three locations with new cloud-based systems they needed a new way to provide high availability without adding complexity or slowing performance.

### The Environment

Each Mitsubishi Motors warehouse relies on a management system that handles orders and inventory for automobile parts and accessories sold by dealers, such as floor mats and roof racks. It manages the receipt of parts and supplies, shipment management for domestic and international orders from dealers, and inventory management and allocation within the warehouse location itself.



Hiromasa Tsuboshima (R), Managers, Business IT Department, Global IT Division, and Satoshi Iwasaki (L)

The legacy systems was run on aging, on-premises server hardware that were increasingly prone to problems that wasted IT time on troubleshooting and caused frequent interruption of operations. The existing systems used the hardware manufacturer's pro-prietary redundancy to reduce downtime. If a problem arose with a legacy system, IT personnel would have to manually stop the system and switch operation to redundant hard-ware until the problem was fixed - a process requiring two to four hours of an IT person's time.

Mitsubishi Motors must ensure that any parts or accessories ordered within a defined acceptance period are delivered to the dealerships the next day. Therefore, even short periods of downtime for these mission-critical systems could have a significant impact on the business.

The warehouse management system plays a critical role in ensuring that all orders are processed in time to meet delivery schedules. For example, to ensure next-day delivery of an order entered at 4:29 PM, the warehouse management system has to process and display it by 4:40 PM so that it can be put on the last truck or flight of the day. “We need to recover in less than 10 minutes,” said Iwasaki.

## The Challenge

Hiromasa Tsuboshima, Manager of the Business IT Department, Global IT Division, Mitsubishi Motors Corporation, said, "Our existing systems at three of our six warehouses were on hardware from 2012. We needed to replace them with new systems that would eliminate the drain on IT resources and reduce negative impact on operations." Finding a high availability solution for their new cloud-based warehouse systems was critical to the success of the project. Satoshi Iwasaki, member of the Business IT Department in the Global IT Division at Mitsubishi Motors Corporation, said, "According to company-wide policy, we need to migrate from legacy on-premises systems to the public cloud whenever we build a new system."

## High Availability Software

When migrating the warehouse management systems to a public cloud, Mitsubishi Motor's consulted an outside IT consultant who recommended SIOS LifeKeeper for Linux for high availability. "In our past experience, we always used hardware solutions for high availability," said Mr. Iwasaki. "I had a lot of in-depth questions for the SIOS representative about using software for HA, and SIOS provided accurate, complete answers, which built my trust in SIOS LifeKeeper."

Another key factor in deciding to select LifeKeeper was the optional LifeKeeper Professional Service, which provides an application-aware recovery kit (ARK) tailored to Mitsubishi's specific warehouse system requirements.

The SIOS ARKs enable LifeKeeper to monitor the entire application stack for potential downtime issues. They also orchestrate the application failover in accordance with best practices for smooth operation on the secondary node. "We were able to customize and develop LifeKeeper to meet our requirements, and SIOS was able to respond to all of our requests," said Mr. Iwasaki.

## Fast, Automatic Failover

"Even if a problem occurs, LifeKeeper automatically fails over from the primary server node to a secondary node in an instant, and operation continues without any noticeable delays for the users. It saves IT time and eliminates service interruption for customers," said Mr. Tsuboshima.

Mr. Tsuboshima is in charge of overseeing some of the systems in Global IT Division. Before the upgrade project, he used to receive failure alerts at all hours of the night that required his immediate attention. Today, in the event of a failure, he simply receives a notification of the failover and the systems continue to operate without intervention. The SIOS solution has saved Mr. Tsuboshima and the rest of the IT team many hours of valuable time and eliminated disruptions to service.

## The Results

The benefits of moving the warehouse management system to the cloud while ensuring high availability with LifeKeeper were evident in response to the 2020 pandemic. "Having our systems in the cloud enabled us to manage the systems remotely. "If we had stayed on the old, on-premises system, we would have faced significant added risk of coming into the office during the COVID-19 emergency to fix issues or manage the systems," said Mr. Iwasaki.

Although Mitsubishi Motors continues to shift to the public cloud, many of its systems still use mainframes. "As we consider moving our mission-critical systems, away from these host systems and into the cloud, we will look to LifeKeeper for high availability protection," said Mr. Iwasaki. We will be recommending it to the company in the future."

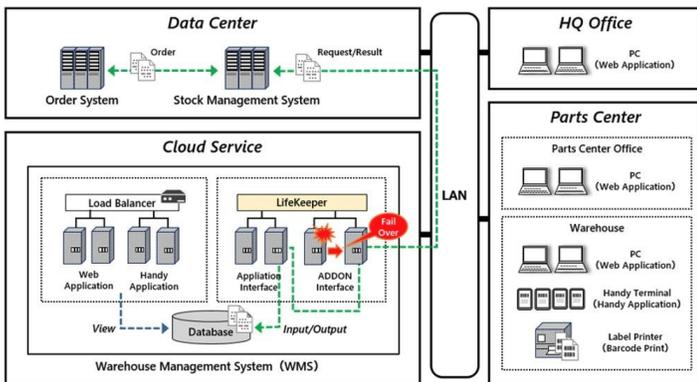


Diagram of the high availability system installed in this project.



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