Case study

Octo Telematics ensures performance and scalability to enable corporate growth

Global insurance telematics brand leader optimizes IT with HP Mission-Critical Converged Infrastructure

Industry
Insurance telematics

Objective
Deploy highly resilient processing and converged storage infrastructure to aggressively expand its customer base and support integrated telematics solutions for insurance companies, car rental and fleet management organizations, car manufacturers, and government agencies

Approach
Implement HP Integrity Superdome 2 Servers running HP-UX and HP 3PAR StoreServ Storage to improve performance and support scalability

IT matters
• Octo can now process more data in less time to better serve its fast-growing global customer base

• Proven server operating system stability enables mission-critical reliability and around-the-clock availability

• Converged storage efficiency allows Octo to reduce overall storage costs

Business matters
• High-performance servers support Octo's addition of more than 151,000 additional customers each month

• A reliable server infrastructure allows Octo to process more than 72,000 data points every minute

• Octo now differentiates its products by maintaining the world's largest insurance telematics statistical database

OCTO

"We deployed HP Integrity Superdome 2 Servers running HP-UX to support our mission-critical requirements for online transaction processing, data extraction, and massive 24x7 data loading on our primary database servers. Integrity Superdome 2 Servers have become basically the core of our IT systems and allow Octo to support 151,000 additional customers each month."

— Paolo Polverari, Data Manager, Octo Telematics

With more than two million active customers and offices worldwide, Octo Telematics is an advanced Telematics Service Provider to more than 100 insurance companies as well as various government organizations and OEMs. Octo creates telematics as a fully integrated solution, and not as a series of components client have to link together themselves. This requires high-performance processing and mission-critical storage infrastructure that can scale efficiently. By deploying HP Integrity Superdome 2 Servers running HP-UX and HP 3PAR StoreServ Storage platforms, Octo has built a reliable and scalable high-performance infrastructure that differentiates it in a highly competitive global market.

Octo Telematics is the global brand leader in providing insurance telematics services as well as pioneering applications in motor rental and fleet management, car manufacturing, governmental sectors, and a fast-growing range of specialist applications.

Insurance telematics allows insurance companies to include input from vehicle sensors when calculating premiums to more accurately conduct risk assessments. Octo's leadership position in insurance telematics is built on the development of a unique and comprehensive end-to end-model.

Founded in 2002, Octo was the first specialized telematics company to provide solutions for the insurance and automotive markets. Now with a major presence in London, Rome, Madrid, Stuttgart, Boston, and San Paulo, Octo has the global reach to drive continued growth in insurance telematics. Instantly processing and analyzing information is central to Octo's ability to serve its customers worldwide.

Unlike its competitors, Octo create telematics as a fully integrated solution, and not as a series of components the client has to link together. Only by assuming total responsibility for every system aspect of insurance telematics can Octo control and guarantee end-to-end reliability. This unique differentiation in the marketplace requires close collaboration between Octo's multi discipline experts and its clients. The ability to process massive volumes of data and conduct detailed analytics allows Octo clients to realize unique benefits. For example:

- Insurance customers can drive claims cost reduction and better value policies for consumers by offering more accurately informed, flexible, and analytically driven pricing models.

- Car rental firms and fleet management organizations can: better predict each vehicle's maintenance needs and activate proactive rectification at a repair depot; enable a more cost effective pay-as-you-drive insurance policy; track and recover stolen vehicles; predict pollution impact; and provide a usage logbook to maximize resale value.

- Auto manufacturers benefit from Octo's expertise as the undisputed global market leader in motor insurance telematics, and work with Octo to develop innovations for telediagnosis and assistance. Octo's manages the world's largest location/driving behavior database, which is leveraged by both manufacturers and public authorities worldwide to improve safety.

Meeting processing and storage demands

Using advanced technology and patented software, the Octo Insight Center develops and manages a complete range of vehicle telematics solutions ranging from automatic crash alerts and on call assistance and the analysis of car accidents liabilities to personal insurance models, such as pay-per-use and pay-per-risk to vehicle telediagnostics, real-time traffic information, road charging, fleet management, and eco driving management.

The Insight Center is the global collection point for all the real time data gathered from the millions of Octo's telematics devices installed in vehicles. The scale of information held here is extraordinary and is the world's largest source of raw telematics data that can be easily analyzed to help clients gain rich and accurate insights.

It holds full data on over 220 billion kms of driving usage and behavioral data, and insight and new data is being added to at the rate of over 72,000 data points per minute. Octo has leveraged the Insight Center resources to locate over 30,000 stolen vehicles, and has prevented the theft of thousands more. The most advanced and secure facility of its kind, the Insight Centre processes this information into useable form and actionable insights and feeds it to numerous use cases such as:

- Local Security Control Rooms that respond and manage vehicle accident alerts, driver calls for assistance, and stolen vehicle recovery or unauthorized driver alerts.

- Insurance companies use the Octo database and its inherent locational, situational, and driver behavioral insights to design personalized insurance policies that much more accurately assess individual risk. This information is used to develop revolutionary insurance products that, for example, actively and accurately reward good driving and can offer unheralded levels of flexibility and value through pay-as-you-drive models or active policy limitations such as late night driving curfews for young or newly qualified drivers.

- Traffic reporting services.

- Information resources for authorities who wish to gain insights into traffic patterns, parking needs, and pollution.

The Insight Center processes and stores a huge amount of information daily, and the company's corporate growth led Octo to upgrade its server and storage infrastructure.

Increasing server performance

Octo was relying on HP server and storage infrastructure, and after evaluating solutions from both IBM and HP, selected HP Integrity Superdome 2 i4 Servers running HP-UX and HP 3PAR StoreServ Storage to improve performance and support scalability.

The HP Integrity Superdome 2 Server family is based on a blade design, a common network fabric, comprehensive cross-domain control, and advanced power and cooling management. It supports Octo's mission-critical scalability and reliability demands for the company's most demanding applications and workloads, while supporting up to thirty-two 8 or 4 core Intel Itanium processors.

HP Integrity Superdome Servers running HP-UX combine resiliency, data protection, and mission-critical services to support the most demanding workloads with unparalleled availability, built-in efficiency, and proven stability.

"We chose HP Integrity Superdome 2 Servers for our most critical IT operations after several tests primarily because of their superior scalability, the bundled solution of the server, operating system, and storage coming from the same vendor, and for the streamlined migration procedure," said Paolo Polverari, Data Manager for Octo. "We've had years of experience with HP server architecture and with HP-UX, so the scalability of the Superdome 2 Servers, the proven stability of the HP-UX operating system in our environment, and especially the kernel instrumentation capability were key advantages that were valuable to Octo."

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To protect its mission-critical HP Integrity and HP-UX infrastructure, Octo deployed HP Serviceguard solutions to monitor the availability and accessibility of its critical IT services, such as databases, standard applications, and even custom applications. Those applications—and everything they rely upon to do their job—are monitored for any fault in hardware, software, operating system, virtualization, storage, or network. HP Serviceguard automatically and transparently resumes normal operations in seconds to enable continuous availability of applications.

Scaling storage resources

The need to manage the world's largest insurance telematics statistical database plus the steadily increasing volumes of data required an increase in storage capacity, and Octo selected the HP 3PAR StoreServ Storage solution. HP 3PAR StoreServ eliminates fragmented and complex silos with a single interoperable set of Tier-1 data services across performance optimized all-flash arrays.

Octo's critical business infrastructure and applications require a single storage infrastructure that could deliver the service levels, application availability, and efficiencies that are necessary to meet customer demands. "We chose 3PAR for its ASIC chip performance and its architectural ability to deliver high levels of performance with mixed workloads while delivering the scalability that Octo needs," Polverari stated. "We also selected 3PAR because of its three-level Adaptive Optimization capability, which allows us to locate the most active data on the fastest storage tiers to optimize performance. Now we can afford mixed input/output workloads much easier, and we save days of manual data reorganization work. We can also use less expensive, high-performance disks, which has allowed us to lower our overall storage costs."

The migration went smoothly. "The technical capabilities of HP's 3PAR experts was one of the most important parameters of our vendor selection process, and the quality of the HP people supporting Octo during testing and during installation, configuration, and live migration was simply excellent," he said.

Customer at a glance

Application
• Insurance telematics solutions

Hardware
• •HP Integrity Superdome 2 i4 Servers
• HP 3PAR StoreServ Storage

Software
• HP-UX 11iv3
• HP Serviceguard Solutions

Ensuring a competitive advantage

Octo continues to grow its business, and now operates in more than 20 countries. The company continues to differentiate its insurance telematics solutions by the powerful data analytics and rich access to historical data it offers its customers.

"Our experience working with HP has been very good in terms of both hardware and software quality," said Polverari. "HP provides strong support and rapid problem resolution, and is a valued partner to our business because our IT department needs resilient, high-end storage and server solutions from a reliable technology partner. Octo is now able to process much more data in less time to satisfy the needs of our customers, and the increased scalability of the HP solution allows us to be much more adaptive to market needs."

Octo has already benefited from major IT improvements from the HP solution. "We've realized greater performance and greater scalability, which is particularly important for supporting the continuous fast growth of our business," said Polverari. "We also do less manual work because of 3PAR's Adaptive Optimization and the automatic balancing of our data to optimize storage resources without the need for manual intervention."

About Octo Telematics

With more than two million active customers, and offices and partners throughout the world, Octo Telematics is an advanced Telematics Service Provider to more than 100 worldwide insurance companies and groups, as well as various government organizations and OEMs. Since being founded in Rome in 2002, Octo's services have achieved widespread acceptance, recently adding more than 151,000 additional new customers each month and processing more than 72,000 data points every minute in maintaining the world's largest insurance telematics statistical database. Octo data presented in this document was current as of the end of March, 2014.

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