

# Consulting Services:

## DevOps, Application Automation, and Infrastructure Management

The business and technical challenges facing today's retail and hospitality managers can certainly seem overwhelming. Keeping up with customer demands for immersive, rich-media experiences and omnichannel payments, while focusing on the latest changes in cloud, cybersecurity, mobile, and IoT, while controlling and potentially reducing operational costs, can leave nerves frayed and resources stretched thin. How can organizations possibly manage all of these changes while supporting legacy systems and aligning with new infrastructures and approaches to application delivery like micro service architectures and containers? The key is found in DevOps, which reflects a new approach to managing enterprise technology change. Whether you're a retailer or restaurant operator that requires omnichannel

payment integration, help with an application configuration management strategy, or wishes to set up microservices and containers, Reliant Consulting Services are uniquely qualified to help you take the next step. By leveraging our broad industry expertise, we can deploy the latest DevOps technologies to manage your infrastructure and system requirements with the speed and reliability you need; whether in store, in cloud, or in a data center.

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### Reliant's Approach to DevOps

DevOps is a broad cultural shift in the management of enterprise technology with a focus on better communications and collaboration between the business units of development and IT operations. This results in more agile, seamless, faster workflows using the

most progressive automation and monitoring tools and approaches available. Today these include continuous delivery, cloud computing, microservices architecture, and containerization. At Reliant, DevOps is the core of who we are and our approach to application automation for retail and hospitality brands. Our Reliant Platform is a patented in-store or cloud platform that uses virtualization and a webscale DevOps infrastructure to automate delivery and management of applications, networking, and security controls. Leveraging the latest DevOps approach is precisely what allows Reliant Platform to more effectively deliver immersive customer experiences and support agile application delivery. This includes in-store web content, digital images, music, along with traditional retail systems such as payment, POS, mPOS, and networking and security controls from one centrally managed platform.



# Key Benefits of DevOps & Infrastructure Management

DEVOPS BEST PRACTICE	DIRECT OUTCOMES
Shorter Time to Service	<ul style="list-style-type: none"><li>▪ Rapid response to new business requests for store systems</li><li>▪ Containerization leads to quicker release cycles</li><li>▪ Much easier to spin up new infrastructure</li></ul>
Increased Cost efficiency	<ul style="list-style-type: none"><li>▪ Savings in initial capital expenditures</li><li>▪ Time to deployment measured in weeks, not months or years, without the need for specialized professional services at the retail site</li><li>▪ No more tangled back-office infrastructure</li></ul>
Operations Improvements	<ul style="list-style-type: none"><li>▪ Operations are simplified through central administration, consolidation of services, and streamlined support</li><li>▪ Pre-validated interoperability means better uptime, connectivity, and overall reliability</li></ul>

## How Reliant Bridges the Gap Between DevOps & Infrastructure Management

While DevOps creates a more agile and seamless way to deploy customer-engaging applications, the approach itself is not a panacea. Retail and hospitality managers may choose to employ DevOps tools and platforms to perform certain manual tasks (containerization, continuous deployment, software configuration) while their infrastructure suffers from multiple, overlapping legacy systems running on older client-server architecture. This scenario is all too common and unfortunately can lead to critical gaps in security and performance making it difficult to deploy and integrate new applications. Here is where infrastructure management comes into play and aligns with DevOps. Infrastructure management is about automating the management of tools, tasks, and workflows in a manner that keeps your whole environment agile, secure, and reliable. By bridging the gap between the store and cloud, Reliant automates the management of technology and transforms how applications and IT infrastructure are delivered to customers. Our systems design is a locally hosted, centrally managed, audit ready solution that provides full infrastructure management and DevOps

oversight of your environment at the physical, virtual, and application levels. Reliant's holistic approach includes:

- System selection and capacity planning.
- Analysis of in-store versus cloud deployment requirements.
- Identifying virtual and physical network ports and services such as VLANs, VPN and firewall.
- Hypervisor selection and configuration to support anticipated virtualization requirements.
- System virtualization details such as operating systems and allocation of hardware resources to support VMs.
- Application-level requirements including desired configuration and centralized control.
- Securing application automation.

## Reliant Brings DevOps to Retail Analytics

From eyeball and smile detection to heatmapping sensors and inventory trackers, IoT is revolutionizing the retail experience and transforming how stores today are promoting and marketing products. Beacons, sensors, smart-shopping carts, and service robots are now part of the new retail technology landscape; designed to track and monitor a customer's every move. The vast amounts of data gathered from these

interactions in turn are then aggregated, sifted, and analyzed to identify customer segments and create future upsell and cross-sell opportunities. But managing all of this technology is not easy; automation, aggregation, and retail analytics are often addressed in silos which leads to serious gaps in compliance and performance. Reliant sits right at the intersection of these in-store technologies. Bridging the gap between DevOps and infrastructure management allows Reliant to offer a more unified view of the data these systems provide to security professionals, marketers, loss prevention staff, and the store operations team.

Leveraging the latest analytics tools such as Splunk enables Reliant to pool all store systems data, extracting those data elements that suit a particular use case. For example, store POS log files often contain security, sales audit, and loss prevention data that can be mined from a single data stream using a single search tool to extract the data necessary for each function. Similarly, a wide variety of IP-enabled devices such as thermostats, fuel tank monitors, and guest wifi access can be added to an automated data stream, yielding additional centrally mined customer insights. Through its integrated approach to DevOps based on a holistic combination of virtualization, centralized management, and comprehensive monitoring; Reliant offers retail and hospitality operators a more effective means to automate the collection and aggregation of retail IoT data.