

3.2.3 Diversey: Managing Linen with the Internet of Things

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In the past few years, the Internet of Things (IoT) has emerged as an effective, accessible new tool for professional use. The IoT combines the global reach of the Internet with the ability to collect in-depth information and directly supervise machines, granting managers universal control over the efficiency of their processes.

The power of the IoT is seemingly endless. Businesses now have greater visibility of key processes, made possible by massive volumes of data from connected products. This introduces exciting opportunities to vastly improve operational efficiency—such as increased uptime and asset utilization—through predictive maintenance and remote management. Increasingly, hotels managers are demanding Internet of Things solutions that enable them to upgrade linen supervision and keep operations running sustainably and economically.

The importance of proper linen management
Proper linen management is crucial in hotels for a variety of reasons. Ultimately, the driving consideration for any organization operating in the hospitality industry must be guest satisfaction. According to a study conducted by Metabolic, quality linen can contribute anywhere from 5 to 20 percent of customer satisfaction ratings. From bed sheets to towels to robes, guests expect these items to be soft and free of stains and unpleasant odors. If linens are not properly laundered, guest loyalty can suffer.

With so much at stake, hotels must prioritize their linen quality. Washing linen correctly the first time—at the proper temperatures and with the right products—helps to remove stains and has numerous benefits, including:

- **Maintaining guest satisfaction:** When washed properly in the first cycle, linen is less likely to slip through quality checks and end up in hotel rooms where it can negatively affect guest satisfaction and the reputation of a hotel.
- **Extending linen life:** Chemicals and high water temperatures can take a toll on linens over time, so getting linens clean on the first attempt is crucial. Furthermore, removing stains using an effective low temp wash process helps prolong the life of linens, keeping them out of landfills.



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- **Enhancing sustainability and productivity:** Re-wash occurs when linen emerges still stained and needs to go through the laundry cycle again. This works against sustainability and productivity goals because it requires more water, energy, chemicals and labor.
- **Reducing costs:** The hospitality industry spends billions per year on hotel linen. If the laundry process is not properly managed, this can drive up costs related to resource use and linen replacement.

The benefits of IoT solutions

So how does the IoT intersect with the laundry process? Today, intelligent dispensers exist that provide numerous benefits for on-premise laundries, including:

- **Seamlessly managing the many moving parts of the laundry process:** Having the right chemistry solution in the right wash program at the right time significantly reduces re-wash levels while also minimizing bottlenecks. Reliable dispensing equipment that harnesses the power of the IoT ensures the right chemistry is used by measuring and calibrating each dosage added to washers.
- **Giving managers visibility of key factors, even when they are off-site:** IoT solutions use remote monitoring so that laundry managers can see in real time what's being washed, how it's being washed and how effectively it's being washed, even if they aren't on-site. A smart dispensing system should provide access to a personal dashboard with 24/7 wash performance insights and updates on water, energy and chemicals. Visibility of the entire laundry process allows hotels to get ahead of common issues that can affect valuable time and labor and provides actionable insights to improve wash results and give managers peace of mind.

- **Alerting managers and manufacturers to potential issues:** The smartest dispensing systems use automated quality checks and alerts to proactively notify managers when washers require attention. IoT-powered dispensing systems regularly check the availability of chemicals, the water flow and the condition of the dispensing system to ensure the quality of wash. As soon as wash standards are at risk, laundry managers will receive a notification—like when chemical levels are running low. Additionally, intelligent dispensing systems can preemptively alert the manufacturer when maintenance is due to maximize uptime.

A new era

Linen quality could be the difference between a longtime hotel guest and a one-time stay. In addition to improving hotel guest satisfaction ratings, proper linen management can also enhance sustainability, productivity and the bottom line. The IoT, although a newer frontier for the hospitality industry, can transform on-premise laundries and linen management by enabling automated decisions, taking actions in real time and improving operational efficiency through predictive maintenance and remote control. With access to key metrics like energy use and operational costs, managers will see at a glance where consumption can be reduced, where chemical dosage can be more consistent, re-wash levels can be reduced and bottlenecks or under usage of machines can be avoided. They will also discover where hygiene compliance is compromised and where sustainability can be encouraged, further taking laundry operations to the next level. By setting thresholds, laundry managers will also be notified when and where overspending occurs. By finetuning processes, the IoT helps hotels transform their laundry program and focus on offering the best guest experience at the lowest operational cost.