

SOLUTION BRIEF

Intel IoT
Retail and Food Service



Safer Foods and Fewer Risks for Restaurants and Retailers

PAR SureCheck* and Intel® Atom™ processor-based devices prevent food contamination and streamline safety checks

"The SureCheck* Advantage solution automates our HACCP processes to improve efficiency, digitize our data, and proactively monitor all of our stores' quality and compliance."

Chris Gindorff
Senior manager of quality assurance and food safety
Lund Food Holdings



The PAR SureCheck* Advantage features an integrated temperature probe, making it easy for workers to accurately measure food temperatures.

Improving Food Monitoring Compliance

Food contamination can put customers—and businesses—at risk. ParTech Inc. is making it easier for grocers and restaurants to check food quality and follow safe handling guidelines.

PAR SureCheck* is a food safety monitoring and intelligent checklist solution. Employees use a mobile device embedded with a suite of sensors, the PAR SureCheck* Advantage, to check food temperature and complete safety tasks throughout the day. The device is powered by an Intel® Atom™ processor for high performance and low power consumption. After data is uploaded to a SureCheck enterprise server, it can be easily retrieved for auditing and other business purposes.

Preventing Food Contamination

Although preventable, foodborne illnesses are shockingly common. In the US, one in six people becomes sick after eating contaminated foods or beverages every year.¹ These infections—many of which are caused by bacteria—can lead to nausea, vomiting, and a bad reputation for the restaurant or store that served the dish. But food poisoning can be far more serious than this, killing more than 3,000 Americans every year.²

In grocery stores, delis, and restaurants, workers are carefully trained to handle food in ways that prevent contamination. For example, foods must be kept at a high or low enough temperature to inhibit the growth of bacteria. These food safety plans are defined as part of an overall hazard analysis critical control point (HACCP) program. However, adhering to an HACCP plan is a time-consuming process that has a high potential for human error and creates stacks of paperwork to be filed and stored.

Percentage of grocers who said records created by PAR SureCheck* devices help them...

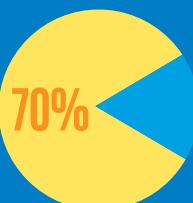
Improve food safety programs

72%

Identify process failures

58%

Make decisions about when to place food on display





PAR SureCheck* takes the effort and risk out of food quality monitoring.

Automating HACCP Plans

One of the world's largest retailers uses SureCheck in stores in the US, Canada, Mexico, and dozens of other countries. Because its grocery stores offer a variety of prepared foods, it's critical for employees to closely follow HACCP procedures. Food must be continually monitored for safety at various phases of production, such as cooking and cooling. These processes are usually performed by following a printed checklist, with results recorded on a clipboard. If a worker is required to take corrective action—such as reheating food or removing an item from a shelf—that action must also be logged. At the end of the day, paper records must be filed so they can be retrieved later in case of an audit.

To save time and reduce the amount of work involved in safety checks, the company recently rolled out PAR SureCheck to 6,000 of its stores. SureCheck helps employees follow HACCP procedures using a specially designed mobile device. When it's time to perform food safety tasks, employees pull up the appropriate checklist on the SureCheck mobile app. The device is equipped with a temperature probe, so workers can quickly and accurately check the temperatures of hot and cold food.

As the employee completes each task, the action is automatically logged in SureCheck's cloud-based software. Temperature data is also transmitted to the software, where it's measured against data sets for HACCP requirements. If corrective action is needed—for example, if a hot food item has become too cold—the employee receives an alert. The employee can then correct the problem, log the action, and have the information saved to the cloud.

By automating food quality and safety monitoring, SureCheck dramatically reduces the potential for human error while saving hours of employee time each day. ParTech estimates that retailers can reduce the time it takes to complete checklists by up to 60 percent, compared with using a pen and paper. SureCheck also opens the door for coaching opportunities and makes employee training faster and easier.

Safer Handling with SureCheck

SureCheck is a flexible, mobile client-based solution. Although retailers can use SureCheck with a variety of devices, the PAR SureCheck Advantage has been specially designed to carry out tasks related to food safety. It features a tethered temperature probe, bar code scanner, RFID sensor, and infrared temperature reader. The SureCheck Advantage also includes a USB port for other types of attachments.

In early 2016, Lund Food Holdings announced that it would deploy the SureCheck platform, along with PAR SureCheck Advantage devices, at its 28 grocery stores. "The SureCheck Advantage solution automates our HACCP processes to improve efficiency, digitize our data, and proactively monitor all of our stores' quality and compliance," said Chris Gindorff, senior manager of quality assurance and food safety.

The SureCheck platform comprises three integrated technologies that are easy to use and quick to deploy.

PAR SureCheck Advantage

This handheld device is based on technology from Aava Mobile and integrates multiple functions. Powered by Intel Atom processors, Advantage offers high performance with low power consumption, allowing for up to 10 hours of battery life. It also has an IP65 rating with a 1.5 meter drop spec, making it both water- and drop-resistant—ideal for harsh environments.

SureCheck mobile application

The latest version of the SureCheck mobile app is compatible with Windows* and Android* devices, giving retailers flexibility in device selection. The app provides intelligent checklists and automatically uploads data to a cloud-based server.

SureCheck enterprise server

The SureCheck enterprise server enables cloud-based storage of safety data, checklists, and HACCP processes. Users simply log in to see accurate records for compliance, reporting, business intelligence, and analytical purposes. This can save a retailer or restaurant days, or even weeks, in the event of an audit by avoiding the need to comb through paper records.

PAR SURECHECK* SAVINGS FOR GROCERS

SAVES
\$3,000
per store each year

- Material costs of paper and paper management
- Product spoilage
- Labor costs (by 30%)
- Labor to support biannual inspections
- Labor to support and train new employees on HACCP/ processes

Source: ParTech survey results, 2015

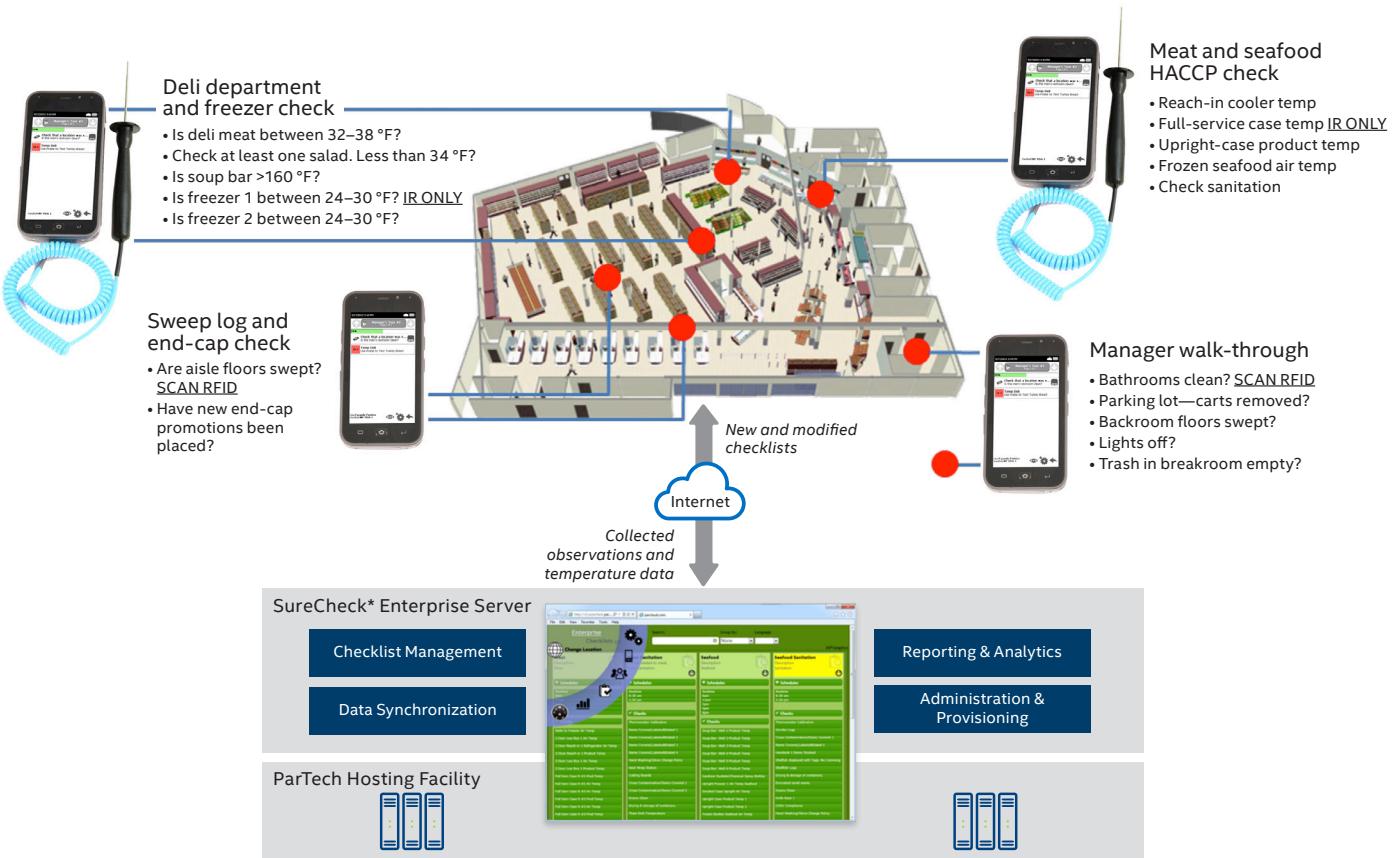


Figure 1. As employees complete each food safety task, data is automatically logged and sent to the SureCheck* enterprise server.

INTEL DISHES UP INNOVATION

Cafes at three Intel campuses have deployed PAR SureCheck* to monitor food safety and quality. With a ramp-up of about a week, staff say the device is as easy to use as an Android* smartphone. SureCheck has reduced the time spent on food safety tasks by about one-third per station.³ It has also helped identify which staffers have performed tasks most efficiently and consistently, giving managers an easy way to review employee performance.

Checklists for Safety and Beyond

In addition to managing HACCP-driven compliance programs, SureCheck can also be used to automate nearly any process in restaurants or retail stores. SureCheck can help to ensure bathrooms are cleaned regularly, that products are displayed correctly, or that trash cans are emptied. By combining an easy-to-use mobile device with automated checklists, SureCheck keeps employees accountable and takes human error out of the equation.

Learn More about IoT Solutions for Retail

For more information about Intel IoT technologies, visit intel.com/retail.

To learn more about PAR SureCheck, visit partech.com.



1. "Foodborne Germs and Illness." Centers for Disease Control and Prevention, Sept. 24, 2015, cdc.gov/foodsafety/foodborne-germs.html.

2. "Estimates of Foodborne Illness in the United States." Centers for Disease Control and Prevention, Jan. 8, 2014, cdc.gov/foodborneburden.

3. Results from pilot at Intel campus in Chandler, Arizona, July 2015.

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