# **ZEBRA**





Customer Caesars Entertainment, Inc. Las Vegas, NV

Partner iCertainty

Industry Hospitality

#### Challenge

Automate food temperature monitoring during cook-chill food preparation and storage process, helping chefs devote more time to preparing world-class meals

#### Solution

- TC56 mobile computers
- Computerized HACCP Enhanced Food Safety (CHEFS®) application by Zebra® ISV Partner iCertainty ZD420 desktop printers

#### Results

- Reduces production and labor costs by 66 percent for some food items
- Enables chefs to spend more time on culinary arts instead of administrative tasks
- Supports processes that extend freshness of previously prepared foods from one to four weeks via cook-chill method

## Caesars Entertainment Automates Food **Temperature Checks**, **Improving Compliance** and Productivity

Zebra mobile computers run Disney CHEFS® powered by iCertainty food safety monitoring application to support high-quality, efficient kitchen operations

Fine dining is the sum total of service staff and culinary professionals working in harmony to prepare memorable experiences. The food, service and ambiance must be perfect. In the restaurant's kitchen, chefs both work to excite the senses and to make sure food follows the highest quality and safety standards.

To support quality, Restaurant Guy Savoy in Caesars Palace Las Vegas implemented a new food preparation and storage process. The new cook-chill process enables chefs to bulk-produce and vacuum-pack broths, sauces and other items to maintain their guality longer.

By vacuum-packing and freezing foods, cook-chill also removes oxygen that breeds dangerous bacteria. For Guy Savoy, this process reduces the odds of food contamination and extends the freshness of stored foods from one to four weeks, all while meeting stringent Southern Nevada Health District's (SNHD) enforcement of the FDA food code requirements.

#### **Measuring Quality**

Keeping food safe also requires chefs to take regular food temperatures and record the data, making it readily available for food safety inspectors. For Guy Savoy's chefs, this process was nothing new, but required significant amounts of time and for chefs to make tedious entries in paper-based records-that's until they found a better way.



The Guy Savoy team asked Caesars' IT Architect Savrithri Panchapakesan for help evaluating solutions. "We started looking at products to help automate food safety," Panchapakesan says. "Our focus was on solutions that are intuitive and tough enough to withstand the rigors of a demanding kitchen environment."

The research yielded a digital food safety application developed by Walt Disney Parks and Resorts in partnership with iCertainty called CHEFS® (Computerized HACCP Enhanced Food Safety.) By delivering the application on Zebra TC56 mobile computers and leveraging Zebra ZD420 desktop printers, Caesars technologists created an end-to-end solution for accelerating and automating temperature recording, tracking, reporting and compliance.

"Zebra devices are rugged and can stand up to harsh conditions, including drops and spills," Panchapakesan says. "Food safety requires a higher degree of reliability and that's a big reason why we chose its mobile computers." Panchapakesan also noted that Caesars previously used Zebra solutions for its guest Wi-Fi® network, creating confidence behind the brand.

#### A Powerful Recipe

Having chosen the Zebra-iCertainty team as its digital food safety solution partner, Panchapakesan went to work on getting the CHEFS® solution approved through the SNHD with help from iCertainty. In parallel, iCertainty deployed temperature sensors in the freezers, including a Low Power, Wide Area LoRaWAN® protocol-based network. This approach was designed to support WAN-compatible devices and provide reliable connectivity.

"We rolled out temperature monitoring as a first step," Panchapakesan recalls. "That was straightforward, and the savings were immediate." The IT team also used 4G hotspots to strengthen connectivity across the temperature sensors, mobile computers, network gateways and a cloud-based server that stores temperature data.

#### **Technology for the Kitchen**

To incorporate the solution into kitchen operations, Guy Savoy provided chefs a pair of two-hour training sessions. "We needed a solution that's easy to use to support users with different levels of technical expertise," Panchapakesan says. "So, we chose Zebra solutions that deliver a similar experience to the mobile devices that chefs are comfortable with using in their daily lives which also accelerated training and adoption." The system was fully operational in less than two months from the start of the project. The Zebra-iCertainty team's ability to work efficiently, openness to feedback and collaboration also added exceptional value to Zebra hardware and CHEFS® software, helping the company get the most from its investment.

#### **Real-time Monitoring**

By using its new, fully integrated measurement, recording and monitoring solution, Guy Savoy now has real-time visibility into food safety. In the event of an out-of-specification temperature reading from a freezer sensor, the kitchen, facilities and operations staffs receive an instant alert and can respond immediately.

When cooking begins, the CHEFS® application starts a sequence predicated on the day's schedule that prompts chefs to take temperature readings at timed intervals throughout the shift. For even greater visibility and to keep safety in focus, IT set up a large monitor in the kitchen to digitally display work in progress for the culinary team.

During preparation, Guy Savoy chefs use Bluetooth® probes to record temperatures before vacuum-packing the food items. The probes transmit the readings to the Zebra mobile computers, which then are sent to the cloud server via cellular signals. Chefs also use Zebra mobile computers and desktop printers to print QR-coded labels for the sealed food items prior to placing them in the freezers to improve tracking.

"The Guy Savoy team can seamlessly work CHEFS® into workflows," says Jeff Lindholm, Chief Operating Officer at iCertainty. "They can quickly validate temperatures and then move the product to storage, which is monitored with IoT elements. That helps ensure, from a compliance standpoint, that the food is stored at the right temperature and that each step leading up to storage and even retrieval is documented."

That real-time data capture capability is critical for reporting. For example, if a food safety inspector shows up for a spot check and asks to see a cook-chill log, the head chef on duty can show all the temperature readings for that day or previous time periods. "We're capturing temperature readings every 15 minutes," Lindholm says. "Data points collected are discrete, clean and can be quickly shared."





#### **Continuing to Win**

Since deploying the CHEFS® system on Zebra mobile computers, Caesars' Food & Beverage Team reports that its staff works more efficiently with new automations, helping to cut production and labor costs for cook-chill food items by up to 66 percent. Most importantly, Guy Savoy's chefs can use the associated time savings to devote more time to cooking world-class cuisine.

With the successes at Guy Savoy, Caesars has more than doubled down with its investment in the Zebra-iCertainty platform at the Bacchanal Buffet, one of Las Vegas' biggest and most popular buffets. The buffet has more than 50 freezers and coolers—that's more than 10 times as many storage units as Guy Savoy.

"With our initial project at Guy Savoy, we've had several takeaways, including a focus on connectivity," Panchapakesan says. "And because we had strong partners and solutions, we're continuing to make investments into the platform and are growing our successes, along with our footprint."



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