Manage kitchen orders with Print or Display?

Weighing the pros and cons to find a customisable solution for you.

It's no secret to anyone that has worked in a restaurant – the kitchen is chaotic. In a series of articles, the HP Retail and Industry Solutions (HP RIS) team will examine how technology impacts the efficiency of kitchen operations, present and future. The assumption from most consumers is that the function of a Point of Sale (POS) system ends once payment has been made. POS software solutions are far more versatile and impactful for business operations. In a restaurant, a POS system pulls the whole operation together, from making payments to placing orders, stock control, and, in some instances, the ability to introduce efficiency to food preparation in your kitchen.

Our first installment in this series of articles will explain the technology seen in many kitchens today – kitchen printers and kitchen display systems.

Kitchen printers are a basic but reliable solution

The low-down

Kitchen printers are straightforward devices that can be connected via wires or wirelessly to your restaurant network. Upon being entered into a restaurant's POS system, the order is automatically printed in the kitchen. Most POS software packages can route each item to its designated printer; if you order a burger and a beer, the burger can be routed to the printer in the kitchen while the beer prints to the bar printer.

There are two types of printer technology used for kitchen printers. The more common type is dot matrix or impact printers, which print onto paper using an ink "ribbon". The alternative is thermal printers, which use heat to print by activating chemicals on specialised paper. While thermal printers eliminate the need for ink replacements, it is important to mind the placement of the kitchen chits, as proximity to excess kitchen heat can activate the chemicals in the paper and turn it black. Restaurants are also using label stock within thermal printers, so the label can be attached directly to takeout items after they are prepared.

+ Pros

Kitchen printers require a smaller up-front investment than a Kitchen Display System. They are great for takeout orders, as you can attach the kitchen ticket to its associated bag of food. Often, you'll see restaurants use kitchen printers alongside a KDS, specifically to print labels for to-go items and receipts for the bag.

– Cons

You will have to deal with the cost and upkeep of consumables such as paper and ink ribbons – the cost is fairly trivial but adds up over the years. Kitchen chits can also get misplaced or mixed up, causing unnecessary confusion in an already busy environment. Kitchen printouts are also static – they can't be modified or easily shifted between stations.

Kitchen Display Systems (KDS)

The low-down

A kitchen display system, or KDS, displays orders digitally in the kitchen on one or more screens. It's common for the interface to allow customisation of font size and colours set for each menu item, as well as most other visual elements. KDS' are dynamic and have substantially more intelligence than a kitchen printer. Orders can be displayed in real time but can also be staggered based on estimated preparation time or meal coursing. As each meal or menu item is cooked, the kitchen staff will "bump" the order via either a touchscreen or a connected keyboard.

Several KDS solutions can display recipes, images and videos to help kitchen staff properly prepare each menu item. To further help with efficiency, some systems have the capability to group similar items across separate orders so cooks can prepare in batches for better throughput. More complex items, such as an entrée with sides, can benefit from the order routing functionality that will route orders between multiple preparation stations.

Restaurants that use a KDS can open a new data stream. With a kitchen printer, you know when an order is routed to the kitchen but not when the order is prepared. With a KDS, you know when an order is routed and when the order is bumped, which provides restaurant managers with prep time statistics throughout the day. This data can be used to examine staff efficiency and identify which menu items can slow your kitchen down.

You will see these kitchen display systems in most fast-food chains such as Taco Bell or McDonald's. The selection of hardware is important to ensure a KDS will function reliably over extended use. Herfy, a major fast food restaurant chain in Saudi Arabia, uses a KDS powered by HP's Engage One Pro to help meet their guests' appetite of delicious food served quickly. "People are expecting a quick service restaurant. We have very tough environments in the kitchen. We have heat, especially in Saudi Arabia, and we have a busy environment." Herfy required a robust device with heat and liquid resistance, a touch screen that is responsive to hands wearing gloves and a large and bright screen for maximum visibility. "We are improving our customer experience, minimizing the lead time and improving the speed of service for customers."

+ Pros

A KDS will help a restaurant operate more efficiently with its visual display, customisable colours and fonts and the ability to show recipes and videos. More advanced features, such as the capability to route orders in a highly customisable fashion, will further enhance the benefits. A good kitchen display system also generates actionable data that will help refine kitchen practices.

– Cons

Kitchen display systems cost more than kitchen printers, so a restaurant should understand the ROI before deciding. A KDS is more complex to configure versus a kitchen printer, and kitchen staff must be trained on its usage to maximise the benefits.

Factors to consider when deciding

As with most things in life, the answer to which technology is a better fit for your restaurant is, "It depends". If you run a smaller boutique restaurant with moderate volume, a kitchen printer is sufficient. If you have a larger restaurant, a complex menu or high volumes of orders, a kitchen video system will help keep your staff operating more efficiently. It's important to select hardware that can withstand the heat, liquids, frequent disinfection, extended hours and other extremes that exist in restaurant kitchens – your best KDS is only as good as the hardware it is running on.