Choosing the Right Kiosk Printer: What to Know Before You Buy

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Self-service technology continues to offer compelling solutions for companies trying to combat the current recessionary downturn. According to a recent Venture Development Corporation (VDC) study, retail, hospitality, and health care industries in North America accounted for more than $2.8 billion in self-service technology investments. And VDC predicts 15% annual growth through 2013, based on the technology's ability to help deployers improve efficiencies, reduce costs, and upsell customers.

As a kiosk vendor looking to deliver on these promises in your next project, you need to consider a number of important design factors such as interface usability, breadth of supported features, ergonomics, and cost. And depending on the application and budget, the project may call for an off-the-shelf, semi-custom, or fully custom solution. As a peripheral, a thermal printer must be flexible enough to accommodate the design decisions aimed at achieving these objectives. And because a thermal printer often produces the receipt or ticket that completes the customer interaction, it must perform reliably or risk system downtime.

Focusing on printer integration parameters, application requirements, and reliability demands is the key to identifying the right model to support your overall design goals. And it will help you sidestep design headaches, avoid painful deployment hiccups, and minimize overall project costs.

The need for integration flexibility

Interface connectivity and driver support are examples of basic integration needs that should be readily addressed by the manufacturer. Supplying a common UNIX printing system (CUPS) driver, for example, to support a Linux-based software application, should be routine. Beyond these issues, mechanical orientation and real estate availability are hugely important determinants in printer selection.

Many self-service applications impose strict dimensional limitations. In typical retail and hospitality environments, for example, adding system depth to

accommodate a peripheral is not an option. How the printer is mounted, and access requirements for paper replacement are also important considerations. To tackle these challenges, ideally you should engage the printer manufacturer early in the design process. By exploring all available avenues up front, you are more likely to avoid delays and minimize costs.

Initially, you'll likely want to consider a very small form factor printer with enough flexibility to fit into a tight space. As another alternative, for a higher volume project you might also want to look at a heavy-duty kiosk printer mechanism and controller board, as opposed to a complete kiosk printer. Although additional design work is required to develop a custom mounting design, this a la carte solution offers even more design flexibility at a much lower per unit cost.

Whether you opt for a complete kiosk printer or mechanism with controller board, the manufacturer should also be able to supply tools to facilitate faster integration, such as 3-dimensional drawings.

Meeting application requirements

Media support requirements should be identified early on and paper width and thickness are the most basic questions, along with roll size. For planning roll size, do some basic calculations based on expected volume, maintenance requirements, and costs. Very

large rolls are available at up to ten inches in diameter for high transaction volume environments. On the other hand, many printer models cannot support this big of a roll, or they may require you to purchase special attachments, increasing the price of each printer.

Most importantly, you want to avoid using paper that has not been fully qualified by the printer manufacturer. Cutting corners with cheap paper may provide up front benefits, but any savings will quickly evaporate when the unqualified paper begins leaving excessive residue build-up on print heads out in the field, triggering unwanted maintenance calls.

You may also need special coatings, pre-printed graphics, or security markings. A reputable printer manufacturer will have strong relationships with experts from paper converters and manufacturers who can give you valuable insights.

Reliability drives down total cost of ownership

Downtime for a kiosk spells disaster. It can trigger an expensive service call, sap customer goodwill, and prevent transactions, hurting revenue. For this reason it is absolutely critical to choose a proven product from a reliable manufacturer. According to Francie Mendelsohn, president of Summit Research, an international kiosk consulting firm, "You really get what you pay for. It just makes sense to pay a little extra for reliability. Go with a robust, reliable company. You need something of good quality that's not going to fink out on you."

Minimum service life ratings for total printing and total cuts provide a good baseline indication of how a printer will hold up over time. For a benchmark, consider minimum ratings for 150 km of printing and 1 million or more cuts. This level of durability is roughly equivalent to 1 million printouts, which greatly exceeds usage requirements in very high transaction volume environments.

Avoiding paper jams is also critical to ensuring reliability. Because self-service environments can be so demanding, look for a product designed with precision engineering, using heavy-duty components, validated by rigorous production quality control systems. Also look for important features such as operating sensors for monitoring capability, and the option for a looping presenter. By preventing the user from accessing the receipt before it is printed and cut, the looping presenter is critical for avoiding illegible printouts and paper jams.

The bottom line: engage the printer manufacturer early in the process and ask lots of questions about the available options to address your integration, application, and reliability needs. This will put you in the best possible position to meet your design goals and successfully complete your project on-time and within budget.