



Title: **Opening Up Proprietary Data Capture Systems**

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## **Opening Up Proprietary Data Capture Systems**

It used to be that any organization requiring a network infrastructure relied on proprietary, end-to-end architectures in order to ensure data integrity and security. This has obviously changed in recent years, with many industry experts coming to believe that the added flexibility, availability and diversity of open systems make them a more desirable option. For the point-of-sale, warehouse management and automatic identification and data capture (AIDC) markets, this shift has signaled the need for plug-and-play system elements that eliminate incompatibility issues, which has in turn fostered a more diverse range of products in support of multiple software platforms.

In this discussion, *open systems* refers to general purpose products based around Microsoft® Windows® CE, Mobile 5.0, Pocket PC, etc., as opposed to closed *proprietary systems* that are custom developed and programmed for specific environments and applications. In comparing these approaches, it is important to remember that each has its advantages and champions. In order to select the best solution, or judge when a switch from one approach to another is appropriate, customers should carefully reflect on the following points:

**Integration and ease of use.** In general, a Windows-based product, with its familiar graphical interface and integration with common network systems (PCs, servers, etc.), wins in the usability and deployment categories. Keep in mind, however, that this does not necessarily reflect integration with retail or vertical specific applications. If an organization has custom applications that are required or already in place, then a custom proprietary solution might be the better option.

**Efficiency and security.** A proprietary system is the hands down choice in this category, offering lower overhead and greater memory, processor and battery efficiency. A custom application might operate well on a low-powered device, where a graphical Windows-type device will take considerably more horsepower and juice to keep plugging along. As to security, a proprietary device is much less likely to be susceptible to viruses or data theft than a Windows-based device.

**Flexibility vs. focus.** Windows mobile devices have become the flexible, all-purpose workhorses of the AIDC market, offering a broad range of hardware types, compatible software applications, etc. Proprietary systems, in contrast, are naturally more focused on a specific application. Flexibility is always good as long as key requirements are met, so in this category the application should drive the choice.

**Life cycle.** Although it may appear counter-intuitive, proprietary systems have a considerably longer life cycle in the AIDC market. A robust proprietary solution that is usually upgradeable over time may last for years or even decades in a retail or warehouse environment. In contrast, devices running Windows, Palm® and other systems are often locked into a current product version; there may be minor bug fixes, but the next major version of the operating system will not run on older devices, making them effectively obsolete.

**Cost.** The issue of cost is typically a draw: low-powered proprietary handhelds are inherently less expensive, but Windows-type systems with their broad availability and application compatibility may offer a lower total solution cost.

When faced with the choice of open versus proprietary, there are no clear-cut answers. Open, Windows-type systems are truly more flexible, but they may not offer the best solution for a specific application. On the other hand, if a general purpose solution can meet an organization's needs, now may be the time to consider moving to a standard Windows CE or Pocket PC device. As in all things, however, mileage may vary.

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