



Top 10 Considerations for Choosing the Right Secure Issuance Solution

Summary

With security concerns ever on the rise, today's enterprise corporations, healthcare facilities, educational campuses and government agencies are seeking reliable, scalable and cost-effective solutions for producing secure ID badges on-demand. These credentials come in many forms and can serve one or more purposes – from a simple photo identification (ID) card to badges that allow for physical access via wall-mounted card readers or even multi-functional, smart cards that incorporate more complex technologies, such as access to networks or protected data via a laptop or mobile device; tracking an individual's time and attendance; or cashless vending.

Because the spectrum of available secure issuance solutions is quite broad, understanding your technology options and choosing the right solution can seem like an overwhelming task. This white paper aims to simplify this process by providing you with the top ten things to consider as part of your evaluation process so that you can narrow your selections and ultimately choose the right secure issuance solution to best meet your unique needs.

1. Security

Security should be paramount and its importance can never be overly stressed, especially as you evaluate your options - for it is precisely the reason that you are seeking a secure issuance solution in the first place. And there are many levels of security to consider. Many printing solutions can support a full range of visual and technical security elements that can help ensure that your organization's identities are always secure and tamper-proof. But which ones are right for you? How secure do you need your credentials to be and how much should you invest?

Identifying your security needs and determining the appropriate technology and budget to address them can be challenging. To determine the appropriate level of credential security to implement, it is often helpful to assess your risks. What would happen if credentials were compromised by counterfeiters and unauthorized parties gained access to the sensitive areas within your organization?

Beyond the obvious safeguarding of personnel, consider the impact if your organization's confidential data was accessed and compromised. Such sensitive information could include databases, financial systems, customer and/or patient records or classified documents. The most serious breaches can result in theft of proprietary information or financial fraud that can cause an organization to sustain irrecoverable losses that can cost into the millions. Given the potential for such losses, it is absolutely essential that those that have access to your organization's buildings, personnel, and systems are known, vetted, and easily identifiable with robust credentials that cannot easily be duplicated.

As such, it is highly recommended that you evaluate solutions that support a variety of security technologies. These can range from standard or custom holographic overlaminates and those that encompass more complex visual security features, such as morphing images and microtext to those that support encoding for mag stripe or embedded smart chips.

Selecting a secure issuance solution that can support a broad range of credential security measures ensures that your investment is protected. As your security needs change or increase over time, you need only purchase new consumables or accessories – but your core printer investment remains intact.

Another often over-looked aspect of a secure issuance solution is the security of the card printer itself. The first level of a secure card issuance system should limit operator access to its physical components. Mechanical

locks should restrict access to printers, including card input and output. This will prevent cards printed with sensitive personal information and protected credentials encoded on the card from being removed from the printer. Further, physical locks should be placed on all access points to protect ribbon and film consumables so that these materials are not accessible to would-be counterfeiters.

Electronic security is also critical. Ideally, operator access to each printer is controlled via personal identification numbers (PINs) and print job data packets should meet or exceed advanced encryption standards, such as (AES) 256 bit data encryption, to ensure system privacy, integrity and authentication to the final issuance endpoint.

Selecting only those secure issuance solutions that meet the aforementioned requirements will ensure that you make the best choice to bolster the security not only of your card program but of your overall organization.

2. Credential Durability

Ultimately, the efficacy of any secure issuance system comes down to how effectively the issued credentials meet the demands of use over the desired life of the card. When considering card durability, think about the expected length of your card life and the environments or conditions to which cards will be exposed. Is the end credential an employee badge that will be worn outdoors and exposed to the elements? Or perhaps a magstripe card that may be swiped through card readers multiple times a day for access to secured locations? Knowing how the card will be used and for how long can help you determine the level of durability you'll want to incorporate into your solution.

One option is simply to leverage high definition printing (HDP[®]), or re-transfer printing. HDP print technology can provide distinct advantages over direct-to-card printing (DTC[®]) if you are not planning to use overlaminates. The HDP film that is used in the re-transfer printing process inherently protects printed images, creating more durable credentials and providing clear visual evidence if tampering is attempted.

Of course, another option is to laminate your cards. Overlaminates are available in varied levels of thickness and will extend card life. Highly durable overlaminates can extend card life by as much as ten years.

For those organizations that may not require as much durability as is provided by lamination, or in situations where the use of overlaminates is cost-prohibitive, a third and viable option might be to use a high durable, on-card film with a HDP card printer. A high durable film is three times more durable than standard re-transfer films and can extend the life of a card by two to four years – all without requiring additional investments in separate lamination hardware and protective card overlaminates. By forgoing these additional products, organizations can reduce the cost of card personalization equipment by up to 45 percent and the cost of materials by 25 percent or more.

Whichever level of durability you need, it is recommended that you evaluate only those solutions that can offer all of the above as options. This will provide you with more flexible and cost-effective choices.

3. Card Printing Volume

How many cards will you be printing and at what intervals? Will you only need new cards printed intermittently throughout the year or will you be printing large batches of cards at a time, several times a year? These questions are important because not all printers are created equal. Some models are equipped to print larger volumes over time but only intermittently, whereas others were built to print significant volumes in single large batch runs. Still others were designed for smaller volume demands or even hand-fed, one-at-a-time print jobs. As such, you'll want to be sure that you select a printer that was actually designed with your needs in mind.

For larger overall volumes or significant batch runs, you'll also want a card printer that supports large yield consumables, such as color ribbons or laminates. This will maximize productivity as your operators won't constantly be changing out and replacing materials. When supporting higher volume demands, it is also recommended that you select models that have large capacity input and output hoppers so that batches can run uninterrupted before card stock must be replenished.

4. Simultaneous Functions and Card Throughput Speed

Other critical factors you'll want to consider are whether or not you wish to employ multiple simultaneous applications to your cards, such as encoding and lamination, and at what rate finished cards must be disbursed.

With sophisticated microprocessors at their cores, many contemporary card printing and encoding systems are capable of performing multiple operations simultaneously, yielding card throughput efficiency and speed. Each individual station can work independently, yet simultaneously with other printer/encoder units, to seamlessly print visual personalization, encode data via one or multiple technologies – magnetic stripe, smart card, or proximity – and finally, to apply layers of secure, protective lamination.

Multiple print mode settings introduce varied card throughput rates, based on the organization's card design. Higher card personalization throughput for cards requiring only graphics, may be alternated with higher definition, high resolution image and text quality requirements - and the flexibility to print at more traditional card throughput speeds.

Another feature that can enhance throughput is a dual input hopper. This is a particularly useful feature when you need to print more than one kind of card – with different kinds of credentials – at one time, such as in the case of printing IDs for government employees versus contractors, or student IDs versus staff in an educational environment. In these instances, when one card type is being issued, the printer will pull blank cards from the full hopper, while the second hopper is being refilled, enabling continuous operation. If multiple card types are being issued, each printer can automatically select between two card blanks to produce the correct credentials for each card request, eliminating the need for manual hopper changes during multi-card-type production.

Only you can determine what options will best meet your needs, but if you have specific application or throughput requirements, you'll want to evaluate only those solutions that were designed to perform to those expectations.

5. Flexible Interoperability

When thinking about your ideal secure issuance solution, think about it holistically. What other ways might an ID badge be used in your organization? What other systems / functionality do you need to keep in mind when selecting a secure issuance solution? Whether your organization seeks to migrate simple ID badges into multi-functional technology cards or to increase security by tying into a Physical Access Control System (PACS), it is highly recommended that you carefully consider providers that offer a full spectrum of interoperable secure identity solutions. Providers that only focus on stand-alone badge-printing products limit your ability to incorporate and take full advantage of newly available, complementary technologies.

Additionally, products that were not built with this kind of cross-system compatibility specifically in mind may not always operate as intended. This can potentially open gaps or expose weak points in your security infrastructure. By selecting a solution that at its core, supports interoperability, you ensure that your previous investments will still be relevant, that you can incorporate additional technologies into your infrastructure as needed, and that they will work together harmoniously to enhance your enterprise security and reduce risk.

6. Connectivity

Do you have a need for remote or wireless printing? Do you require solutions that allow you to do mobile, on-the-spot printing and encoding of secure IDs? If so, look for solutions that can support multiple connectivity options spanning USB for single PC connectivity, Ethernet for network printing, and Wi-Fi® for convenient wireless card printing. This will ensure you have the flexibility you need to print from any location and easily change locations or connectivity methods as needs change. Because many available products do not support all three connectivity types, be sure to check with your dealer or integrator to ensure your final selection will fit seamlessly into your computing environment.

7. Operational Convenience

Today's secure issuance solutions are quite sophisticated and as such, they require routine maintenance to perform optimally, particularly when issuing potentially thousands of ID cards a day. Advanced printers are engineered to minimize operator time and effort required for maintenance, thus maximizing uptime and system throughput. But when repair is necessary, the more quickly a technician can identify the problem and implement a solution, the more quickly that printer gets back online – which in some instances can be mission-critical.

Best-of-breed printers and encoders are equipped with automated diagnostic systems that can alert even non-technical operators to issues that arise, making it easier and quicker to resolve any problems that may surface. Alert mechanisms like andon lights or graphic displays / touch screens, however, are not limited solely to indicating when repair is necessary. These features also alert your operators when materials are low or cleaning is required, which will help to lower the total cost of operation while reducing downtime.

8. Modularity and System Scalability

You will also want to consider only fully modular, field-upgradable solutions that can support new card personalization and security needs as your requirements change over time.

Why is this important? Planning for the future of both the enterprise itself and chosen card printer technology is key for any organization. However, as the size of the business increases, this foresight becomes even more crucial. Solutions should be modular with the ability to add features that allow for technology migration or program expansion. For example, printers with built-in encoders that can assign permissions to your door or your data at the time of card printing combines what previously were multiple processes into a single, in-line card personalization step. Doing so significantly boosts issuance speed, reduces the chance of “human error” in encoding the wrong permissions onto a particular card, and increases the user's convenience and efficiency. Opting for field-upgradeable units enables organizations that already own a card printer to add an encoder at any time so they can leverage smart card benefits well into the future.

As with large businesses, the idea of versatility comes into play with the mid-size firms as well. Mid-size companies often require electronic personalization and encoding to support their technology migration needs. Printer and encoder solutions should be capable of accommodating the addition of a magnetic stripe to the card as well as more robust card technologies to support an organization's transition from one technology to another.

As your organization grows and your card issuance needs increase or require migration to more advanced card technologies, a field-upgradeable and truly scalable solution can be expanded in defined increments to meet those demands as they are required, further reducing your total cost of ownership for years to come.

9. Quality

It goes without saying that when you're talking about security solutions, quality is paramount. Solutions worth considering are those that are produced out of ISO 9001-2008 certified facilities. An ISO 9001-2008 registration certifies that the provider's quality system governing the design, manufacture, sales and distribution of their products has been verified by objective third-party audits.

In addition to superior quality standards, it is recommended that you only consider those solutions that include full, multi-year warranties on printers and lifetime warranties on related critical accessories such as printheads. This will help you reduce your costs in both the near- and long-term, too.

10. Partnering with a Leader and Innovator

As you evaluate various solutions, it is important to consider the provider's longevity and innovation in the industry as these are good indicators of what you can expect going forward. You should seek manufacturers with a long-time reputation as a trusted source for innovative solutions, technologies, and services - ideally with more than a 20-year history. These providers exemplify stability and customer trust. Ideal providers will also

have been leaders in the industry since its infancy and thus, have had a hand in shaping what the industry has become with technology innovations that other providers only duplicate.

So, how will recognize such a provider? First and foremost, the provider's product developments will reflect a rich history of customer-inspired innovation, evidenced by its long list of inventions and issued patents. They will also have multiple industry firsts under their belt, such as bringing the industry's first re-transfer, high definition printer to the desktop. Or perhaps they were the first to develop a truly industrial desktop printer for increased security and streamlined, large-scale issuance. Innovations such as these that were developed with the consumer's needs in mind demonstrate true thought leadership and dedication to the best interests of its customers – both of which are qualities that will prove beneficial to any enterprise that selects solutions from such a provider.

Conclusion

Although the spectrum of available secure issuance solutions can seem overwhelming at first glance, by understanding your technology options and taking the aforementioned ten factors into consideration, you will be able to effectively narrow your selections and confidently choose the right secure issuance solution to best meet your unique needs.

About HID Global

For more than 20 years, enterprise corporations, government agencies, healthcare facilities, financial institutions, transit authorities, small-to-medium businesses, K-12 schools, Colleges and Universities have all relied on HID Global to deliver the world's broadest, feature-rich portfolio of card printers/encoders for custom card personalization, creating high-quality color photo IDs and encoding smart cards. With the industry's first fully modular, scalable and future-proof Direct-to-Card (DTC®) and High Definition Printing (HDP®) printer portfolio, along with its complete line of visual security products and accessories, HID Global's secure issuance solutions meet the customization needs of organizations worldwide and lead the way in secure issuance innovation.