

# CHANGING APPEARANCE OF CARDS EXPOSES SOME UNDERLYING TRENDS



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Have you noticed the recent changes that have taken place in the look of some financial transaction cards? While some of this is due to the EMV chip cards that are now approaching reality (in the United States) with their large-scale replacement runs, I am mainly referring to the printed personalization data. A number of large issuers have converted their standard embossed cards to flat printed ones that have the cardholder information printed in various locations on the front surface. In a further change, a major brand has issued a flat card product with all the personalized data printed on the back surface of the card. While flat card printing could be considered an accelerating trend, it could also be a natural result of the move the brands have made to give more control of the card surfaces back to the issuing financial institutions.

Another potentially significant trend is the effort underway to increase the use of digital commerce and secure

identification. While all the present programs specify that a physical card be issued with every digital wallet or mobile driver license, the specifications for these companion cards could be affected by the rise in digital technology. One step in this direction might be the new Visa Quick Read card layout. Visa has announced this new card format, available to card issuers and member banks, that provides a user-friendly format for the diverse card use in today's market. This new format changes the front side of the card allowing the issuer to group all the important card information (account number, expiration date and security code) in one location for easy access when the card is used for online and telephone purchases.

Still another trend may be the work in process to perfect the manufacturing process for interactive cards or cards with devices (electronic) that are internal to their construction. Cards to support one-time password applications are being delivered in small

quantities today. Increasing manufacturing efficiencies, thereby reducing costs, might cause a significant jump in orders and deliveries. Other applications for interactive cards can be supported if the manufacturing costs are reduced to the point that a positive economic return on investment is realized.

A final observed trend might be the need for an increase in card service life due to the higher cost of these new generations of cards. Three failure mechanisms can be identified: card body fracture, delamination and failure of the electronic components in an interactive card. Card life is not always determined by the ability of the card to last longer due to new technologies or manufacturing processes since marketing departments often need to try something different to excite the cardholder to move their card product to the "top of wallet" position. However, the floor level where we have confidence that the card will last for the minimum desired issuance period

is what needs to be considered. New card materials, new lamination processes and perhaps new adhesives are subjects for consideration. Manufacturing cards with a layer that contains electronic components may require consideration of cold lamination, while the components themselves will require special handling throughout the manufacturing and personalization process.

Changes to the card personalization process cannot be theoretically disruptive because they are caused by the changes in the manufacturing process that result in fundamental changes to the personalization equipment. If a secure ID card needs a “ghost image,” a consideration for laser engraving technology results. Eliminating card embossing requires we print the personalization information on the card using either thermal or Drop on Demand (DoD) print technology. The use of digital printing technology is not restricted to personalization data only. Full card digital printers are being delivered that can print as many as 40 different artworks on a single sheet. These large format digital printers

provide unheard of flexibility for those applications where short run card manufacturing is paramount.

After reconciling these potentially disruptive events and trends to present processes, we realize that the business we are doing today is the business we will be doing tomorrow and for many years to come. Embossing is not going away anytime soon. Stack laminators will run as many cycles tomorrow as yesterday. But flat card printing is accelerating and will need to be integrated into our manufacturing and personalization processes.

Finally, an interactive card observation: The plastic card manufacturing and fulfillment industry needs to understand interactive cards in their most simple form. Is it really a card? Can the present day card personalization equipment handle this form factor without failures? What level of testing will be required in an interactive card

personalization machine and how much can be done in parallel? We have seen chip card machines with a large number of parallel encoding modules to keep the total throughput of the machine high. Is this technique applicable to cards with electronic components? Getting involved in these discussions early allow the industry to progress with minimum setbacks yet not be left at the starting gate.

Somehow the future is always just around the corner. 

