

CENTRAL ISSUANCE OPEN HOUSE

Jan 31 – Feb 3, 2023 | Japan



ENTRUST

SECURING A WORLD IN MOTION

AGENDA

Time	Room	Session	Speakers
9:00 – 9:15	Presentation area	Welcome	Suzanne & Michael
9:15 – 9:35	Presentation area	Entrust Updates	Dan Good
9:35 – 10:00	Presentation area	Industry Trends Affecting Payments and Credentials	Dan Good
10:00 – 10:30	Presentation area	Adapt to Industry Trends	Denise Stewart
10:30 – 10:45	Presentation area	Break	
10:45 – 11:45	Presentation area	Central Issuance Software Solutions	Dennis Chan Anirbban Goswami
11:45 – 12:30	Showroom	Central Issuance Software Demonstration - PAS, DPP, DSS and Rainbow Decking	Dennis Chan David Kuk/Masayuki Koshiro
12:30 – 13:30	Lunch area 23F	Lunch	
13:30 – 14:15	Presentation area	Recent and Upcoming Product Releases	Denise Stewart
14:15 – 14:45	Presentation area	Design a Card Package	Courtney
14:45 – 16:00	Showroom	Product demonstrations - MX6100: UV Curable & Flat Card Technologies	Denise Stewart, Taylor Lam/Ricky Cheung Masayuki Koshiro
16:00 – 18:00	Product > Diamond Services > Emerald	Voice of Customer	Team



ENTRUST UPDATE

Dan Good



**SECURING
A WORLD
IN MOTION**



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WHO WE ARE TODAY

\$850M+

in revenue

2,800+

colleagues

50+

years of innovation

1,000+

partners

44

global offices



ENTRUST

1187



ENTRUST

ENABLING TRUST

100M+

protected workforce
and consumer identities

24M+

SWIFT messages
encrypted and
secured daily

202

countries/nationalities
which have had their
citizen identities
verified

20B

payment cards
issued

690K

websites secured
globally

95%

of IT professionals
say Entrust is
highly respected

10B

ID cards activated for
students, employees,
and citizens



ENTRUST

OUR PORTFOLIO OF SOLUTIONS

We accelerate growth and digital transformation by securing identities, payments, and digital infrastructure.



STRONG IDENTITIES



SECURE PAYMENTS



TRUSTED INFRASTRUCTURE

STRONG IDENTITIES



We help **establish and maintain trusted user and machine identities.**

To enable organizations and governments to issue, manage, and secure digital and physical identities for users and machines.

Identity Verification • ID Issuance
User Identity • Machine Identity
Digital Signing



ENTRUST

SECURE PAYMENTS



We help secure
modern payments with the
issuance of secure digital and
physical payment credentials
so financial customers can pay
how and when they like.

Digital Onboarding • Financial Issuance



ENTRUST

TRUSTED INFRASTRUCTURE



Our solutions use **trusted identities, applied cryptography, PKI, and other advanced security technologies** to prevent cybersecurity threats, protect data, and enable digital life.

Trust Policy Management • Multi-Cloud Security • Application Security
Database Security



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MARKET TRENDS

Dan Good



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TRENDS AFFECTING PAYMENTS



Sustainability & ECO-friendly initiatives



Rapid growth of flat card personalization



Association Inclusivity & Brand updates

Growing Issuance Volumes / Supply Chain Impacts

ECO FRIENDLY APPROACHES BY THE INDUSTRY



Reduce

- Amount of packaging, energy and waste

Reuse

- Recycled substrates packaging etc.

Improve

- Designs, processes etc.

Avoid

- Harmful chemicals in supplies and other consumables



INCREASING ENVIRONMENTAL COMMITMENT



/sustainable
News and resources on ESG data and technology, impact investing and Sustainable Finance initiatives and best practices.

Register now
Conference and Hackathon

News
All company news >

News in your inbox
For Finextra's free daily newsletter, breaking news and flashes and weekly job board.
[Sign Up >](#)

Related Companies
Gleescke & Devient >

G+D pledges to end use of virgin plastics in cards by 2030
21 July 2022
Source: G+D
Gleescke+Devient (G+D) pledges to replace all virgin plastic in its payment card products by 2030 at the latest to further support consumers and banks to fulfil their own sustainability aspirations.
Being the first in the payment industry to make such a commitment, G+D will compose

10x
[Webinar] How can corporate banks innovate their core banking platforms?

TCS
Climate Risk Management in Its Pathway to a Sustainable Future
A strategy that financial institutions need to manage climate change risk

Who We Serve **Insights** **About** **Dev**

PRESS RELEASE

10.01.20

IDEMIA launches GREENPAY, a sustainable end-to-end offer portfolio for financial institutions

Sustainability in Card Issuance

Recycled PVC
Industrial plastic waste and scrap can be re-used, reducing the proliferation of plastic in landfills. Recycled PVC can be used with any of our star cards.

Bio-Sourced Plastic Substitute
Polylactic acid (PLA), which is derived from renewable resources such as cornstarch, can replace 80 percent of the petroleum-based PVC in a card and is available with any of our standard contact or contactless chip options. Consuming less energy to produce, PLA results in lower carbon footprints and greenhouse gas emissions than PVC. It's also biodegradable, recyclable and can be incinerated without generating toxic gasses. Fiserv also offers environmentally responsible disposal of used cards as an optional service.

Recovered Ocean-Bound Plastic
Plastic waste can be recovered from land areas where it otherwise would be likely to enter the ocean. The recovered material is turned into high-density polyethylene and used to construct the card core. This option reduces single-use plastic and the amount of plastic entering the ocean and can appeal to cardholders who are cognizant of marine life and preservation. The option is currently available only with select contactless chips.

Sustainable solutions for payments



“Our goal is simple: We want to help banks offer more eco-friendly cards to consumers, and we are taking concrete steps to bring about that change. This way, everyone benefits – *it's better for the environment, it's better for business, and it meets evolving consumer needs.*”

- Ajay Bhalla, President of Cyber & Intelligence, Mastercard



Individuals Businesses Innovators Everyone

Leading by Example People + Possibilities Supporting Communities Preserving Our Planet

Together, we can do more for our planet

We've achieved carbon neutrality in our operations and transitioned to 100% renewable electricity. And now we're working to drive sustainable commerce and support urgent climate action and the transition to a low-carbon economy.



THALES
Building a future we can all trust

Defence and Security Digital Identity and Security Aerospace Space Transport Transverse markets Specific solutions

ne / Markets / Digital Identity and Security / Banking & Payment / Cards & Payment

The life cycle of an eco-friendly bank card: supporting your sustainable practices



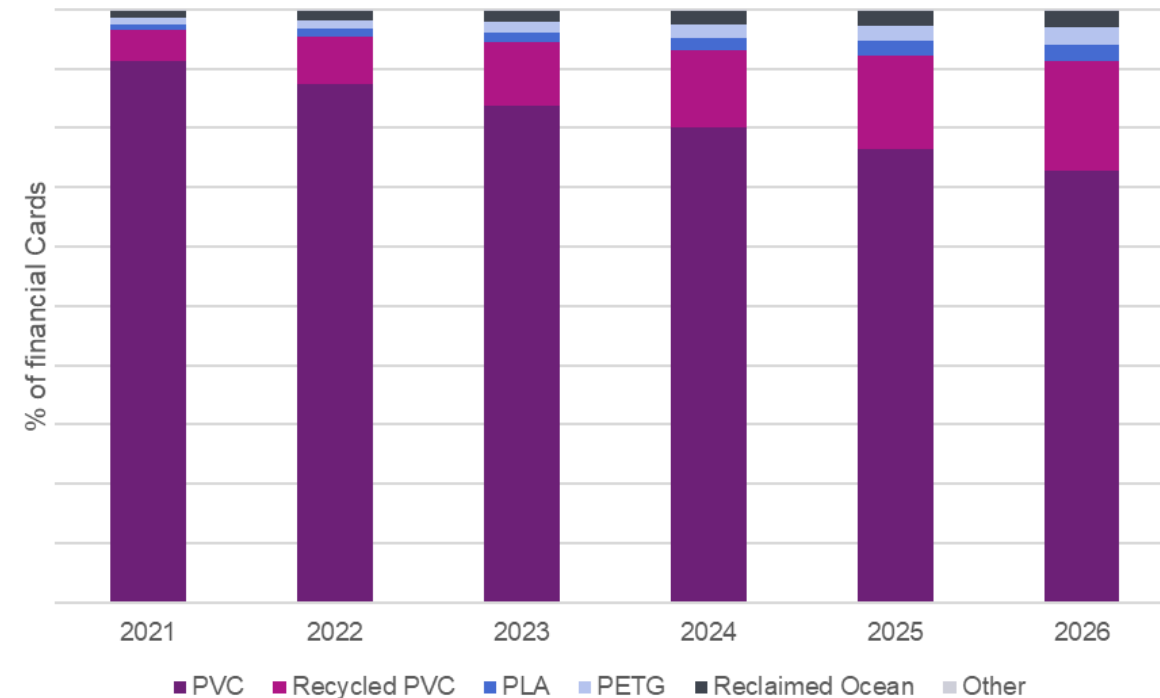
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ECO SUBSTRATES ON THE RISE – 30% BY 2026



- ▶ **Recycled PVC (rPVC)** – largest replacement of first use PVC. Most affordable and compatible with existing perso
- ▶ **PLA (Polylactic Acid)** - a truly biological and biodegradable material
- ▶ **PETG (Polyethylene Terephthalate Glycol)** - less environmentally toxic manufacturing and disposal process than PVC
- ▶ **RECLAIMED AND OCEAN BOUND PLASTIC**

Payments Market Material Migration



Source: ABI Research, 2022

CONSUMER PREFERENCE, SECURITY AND BRAND IMAGE DRIVE FLAT CARD GROWTH

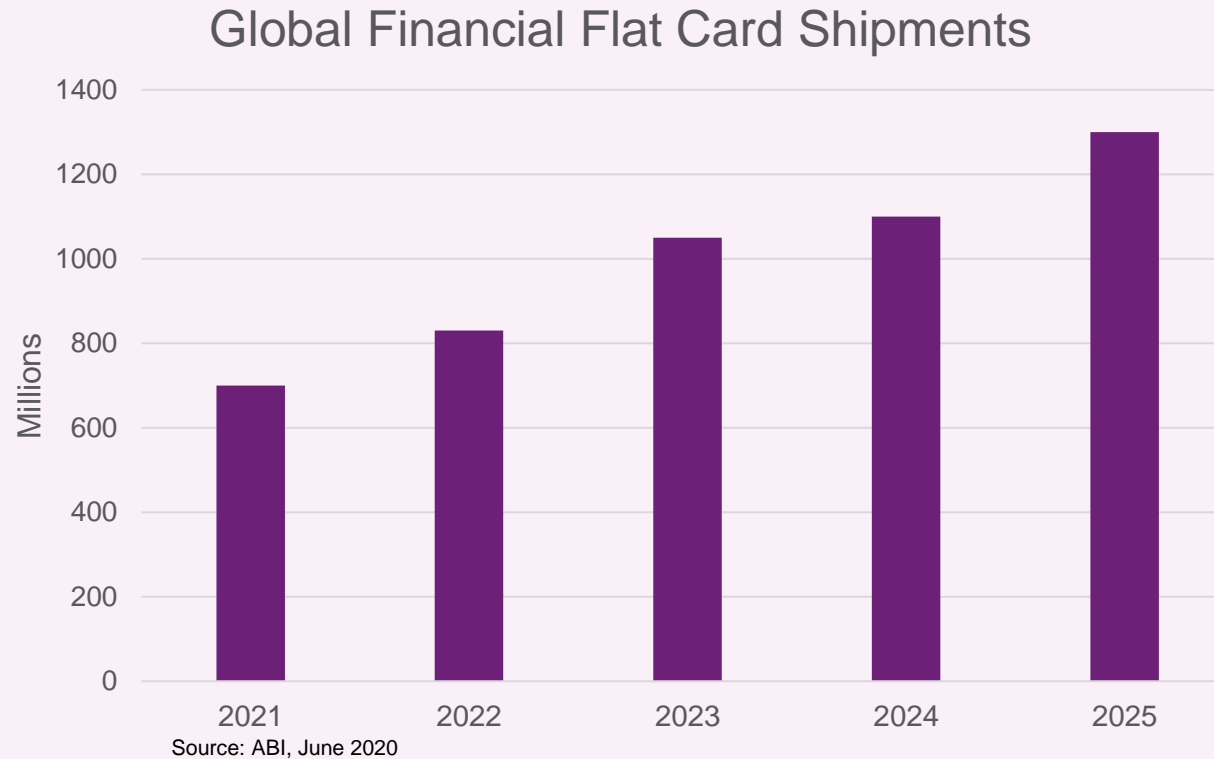


- Increasingly, **credit and debit card portfolios** are shifting to flat card designs (unembossed).
- More design flexibility and longer card life are **driving new, innovative card layouts**.
- Consumers prefer the **look and feel of flat cards**, and contactless migrations catalyze a portfolio refresh.

CREDIT CARD	BEST FOR	CREDIT SCORE	ANNUAL FEE	WELCOME BONUS
Citi® Double Cash Card	Best Flat-Rate Cash Back Card	Excellent, Good	\$0	None
Chase Sapphire Preferred® Card	Best Entry-Level Travel Card	Excellent/Good	\$95	100,000 bonus points
Chase Freedom Flex™	Best Cash Back Card	Excellent, Good	\$0	\$200
American Express® Gold Card	Best Card for Dining	Excellent/Good	\$250	60,000 Membership Rewards® Points
Chase Sapphire Reserve®	Best Flexible Travel Rewards Card	Excellent	\$550	60,000 bonus points
The Platinum Card® from American Express	Best for Luxury Travel Benefits	Excellent/Good	\$695	100,000 Membership Rewards® Points
Delta SkyMiles® Reserve American Express Card	Best Airline Credit Card	Excellent/Good	\$550	50,000 Bonus miles + up to \$100 back in statement credits
United Club™ Infinite Card	Best United Card	Excellent	\$525	Earn 75,000 Bonus Miles
The World of Hyatt Credit Card	Best Mid-Tier Hotel Credit Card	Good/Excellent	\$95	Up to 60,000 points
Hilton Honors Aspire Card from American Express	Best Hotel Credit Card	Good/Excellent	\$450	150,000 points
Amex Everyday® Preferred Credit Card	Best Entry-Level Rewards Card	Good/Excellent	\$95	15,000 points
Amazon Prime Rewards Visa Signature Card	Credit Card For Amazon	Good/Excellent	\$0 with Prime Membership	\$100 Amazon.com Gift Card
Discover It® Secured Credit Card	Best Secured Credit Card	New/Rebuilding Credit	\$0	Cashback Match™
Bank of America® Travel Rewards credit card for Students	Best for Students	Good/Excellent	\$0	25,000 points

13 out of 15 “Best credit cards” are flat
Forbes, 2021

EMBOSSING MOVES TO FLAT



- ▶ 36-50% flat card penetration by 2025
- ▶ Differentiated card products – branding and flexibility of design
- ▶ Many technology options available to market wants and needs

FINANCIAL BRAND INNOVATIONS DRIVING FLAT CARD GROWTH



► Entrust **UV-Curable solutions** helping to support this migration since 2018

- Shipped over 350 Durable Graphics Printing Modules
- Shipped over 160 Drop on Demand Printing Modules



METAL CARD EXPLOSION



Chase Sapphire Preferred

2016

2017
Multiple Releases



EXPLOSION
2018-2022

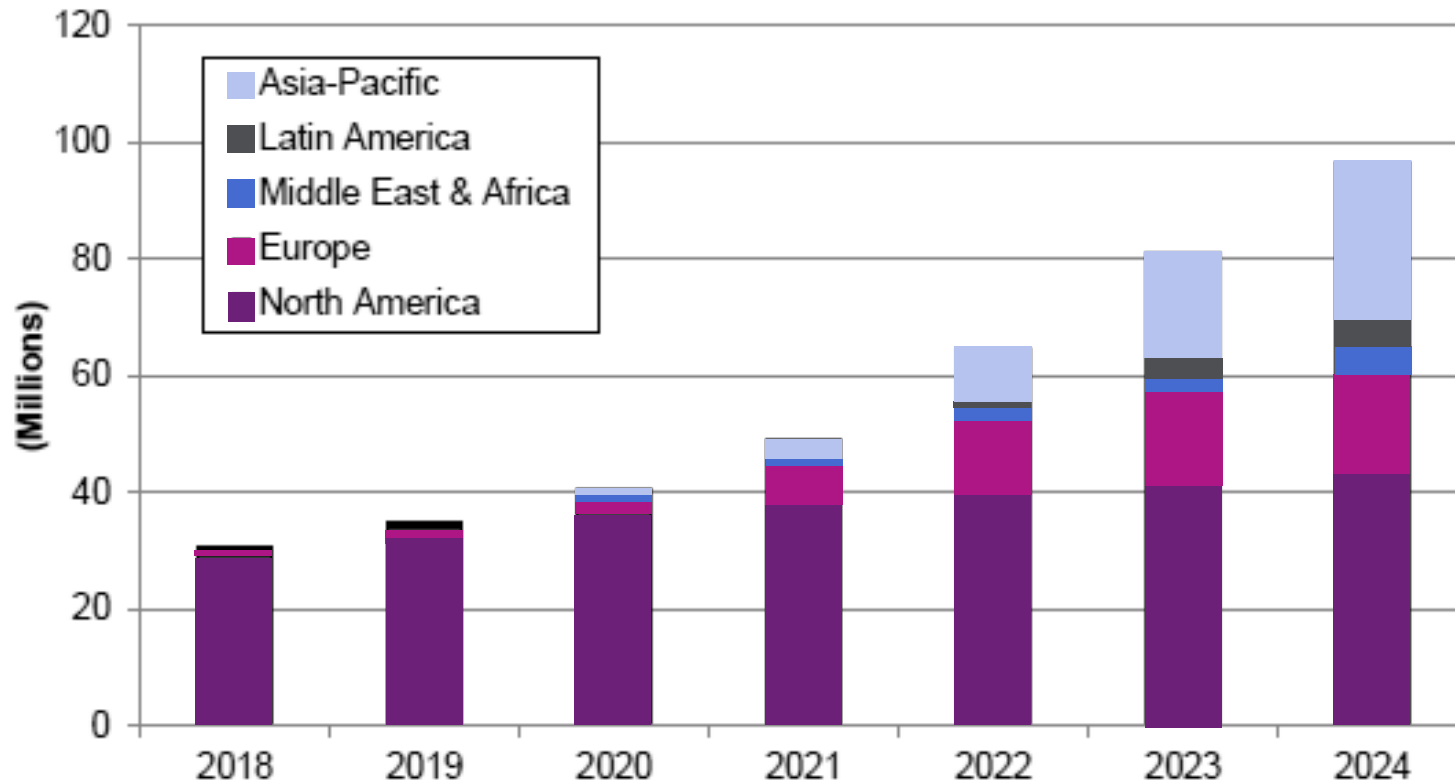


METAL CARDS BECOMING MORE WIDESPREAD



Metal Payment Card Shipments by Region
World Markets, Forecast: 2018 to 2024

(Source: ABI Research)



Growth drivers over the next 5 years include:

- Australia
- New Zealand
- Malaysia
- Singapore
- China
- Japan
- Korea
- Brazil
- Dubai
- Majority of Europe
- US is leading the way

Differentiation is playing a KEY role in the rise of the metal card market

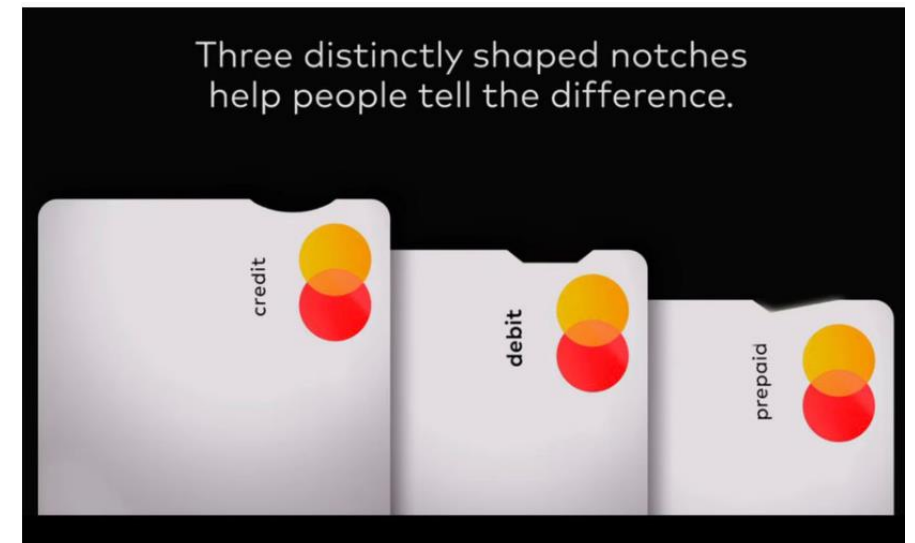
ASSOCIATIONS

› Inclusion

- Everyone, everywhere - Visa
- New card formats – Mastercard
- Working Toward a Brighter Future - Discover

› Environmentally Friendly

- ECOLYTIQ + VISA Sustainability-as-a-Service®
Ecolytiq brings financial institutions Sustainability-as-a-Service® offerings in consumer environmental foot-printing, context-based education and access to impact offsets.
- Mastercard
 - ❖ Formed a strategic partnership with fintech startup Doconomy based in Sweden
 - ❖ Created Carbon Calculator – snapshot of carbon emissions generated by purchases made by consumer



<https://www.youtube.com/watch?v=XqloeDvSSgg>

TRENDS AFFECTING CREDENTIALS

CENTRAL OR REGIONAL ISSUANCE



Central recommended by ICAO, when possible

COMMON TECH FOR CARD AND PASSPORT



Example: EU Regulation 2019/1157

SECURE COLOR ON POLYCARBONATE



New ways to add a secure color portrait on polycarbonate without sacrificing quality or durability

COMMON TECHNOLOGY FOR CARD & PASSPORT

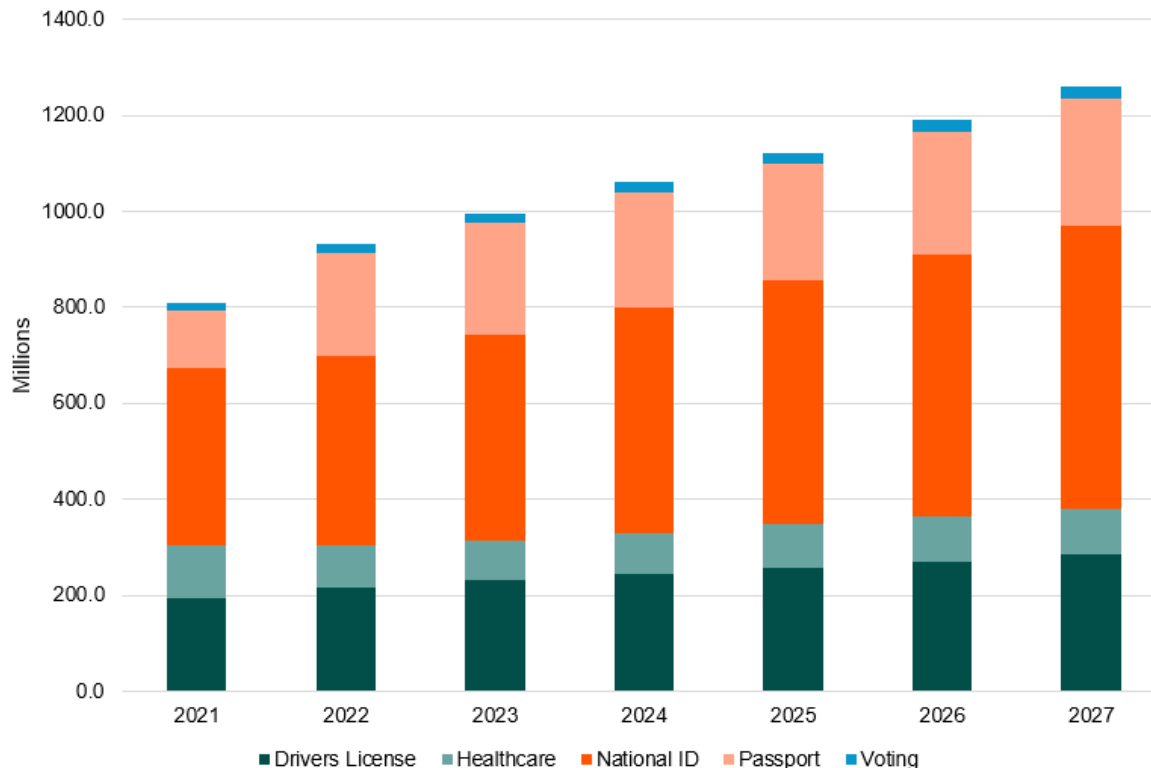


- Increase in RFP's that include card and passport
- Security regulations setting common standards for substrates and security elements
 - EU2019/1157
- Utilizing the same personalization technology
 - Drop on demand
 - Laser engraving

POLYCARBONATE CREDENTIALS



**Total Polycarbonate Credential Shipments by Application,
Millions
World Market: 2021 to 2027**



Driver's License: PC benefits well documented. South Africa, plans for a PC driver's license were announced in late 2021, which, alongside other projects, contributes to shipment volumes for PC driver's licenses being forecast to hit 143.2 million in 2027 from 97.0 million in 2021.

National ID: PC has a strong foundation National ID market. The durability of PC in national ID application, which typically sees significant usage and the need for durability. This is exacerbated when a national ID credential incorporates multiple functionalities and replaces healthcare and/or voter's cards, as its usage will increase.

The EU making PC a mandatory substrate for national ID cards in member states

Healthcare: Driven by Covid-19 and Germany's mass issuance, shipments expected to drop with minor growth in future years



PAYMENTS AND IDENTITY MARKET SUMMARY

- Financial markets rapidly moving to new tech
 - Migration from embossing to flat with UV Curable Technologies
 - Led by rapid adoption in US and now globalizing to all regions
- Environmentally conscious initiatives gaining momentum
 - Alternative substrates to minimize first-use plastics
 - Packaging and inks to enhance biodegradability
- Government programs seeking increased security and common technology
 - Rapid growth of polycarbonate substrates to lengthen ID life cycle
 - Combination of color and laser tech to improve security
 - Lean-in to central issuance use case for increased security and control

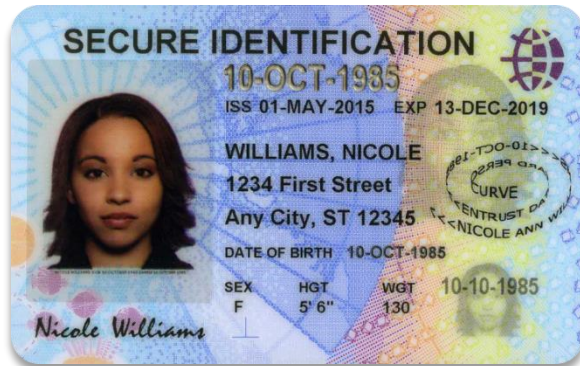


ADAPTING TO THE TRENDS

Denise Stewart

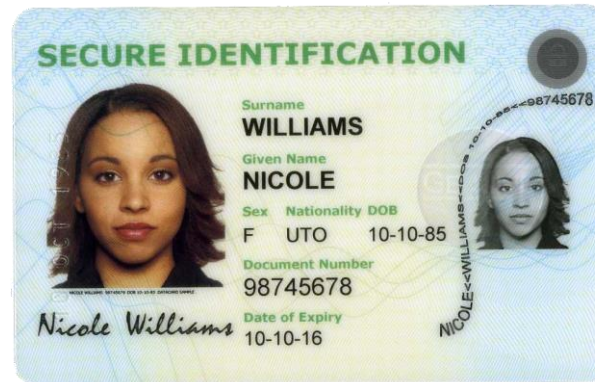
CREATE A SECURE COLOR CREDENTIAL USING POLYCARBONATE, LASER AND COLOR

Direct-to-Card



- Lower cost than most solutions providing a PC laser engraved card with a color photo

Retransfer



- Medium cost when compared to other solutions providing a PC laser engraved card with a color photo

Drop on Demand



- High cost when compared to other solutions providing a PC laser engraved card with a color photo

Application of standard MX Series Modules; no need for unique card substrates or lasers

ECO FRIENDLY APPROACHES BY THE INDUSTRY

System designs to reduce material scrap, supply waste & rework

Reduce

Sustainability of material by using additive in plastic cores & cassettes

EcoPure

Biodegradable Additive

Reuse

Improve

Avoid

- Materials within the card substrate
- Recycled packaging for supplies



Harmful substances by continuing work with vendors to identify and remove from products



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ECO FRIENDLY



[Solutions](#) [Products](#) [Partners](#) [Support & Services](#) [Resources](#) [About](#)



[CONTACT SALES](#)

LEGAL AND COMPLIANCE

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG)

CEO Commitment

[Carbon Reduction Plans and Reporting](#)

[Contact Us](#)

CEO Commitment

Letter from our President and Chief Executive Officer, Todd Wilkinson

To our customers, colleagues, partners, and communities:

As the leading provider of trusted identities, payments, and digital infrastructure, Entrust has been committed to protecting identities and data for more than 50 years. Our goal is to carry this commitment from our innovative products and services to the way we run our business, advance our company culture, and support our communities – both in our industries and the places where we live and work.

That's why the Entrust Environmental Social Governance (ESG) program arises from the values expressed in our tagline – to *Secure a World in Motion*. Our ESG mission promotes security and identity in a fast-changing world with concrete programs that support the environment; promote diversity, equity, and inclusion; ensure ethical business conduct; and positively impact the



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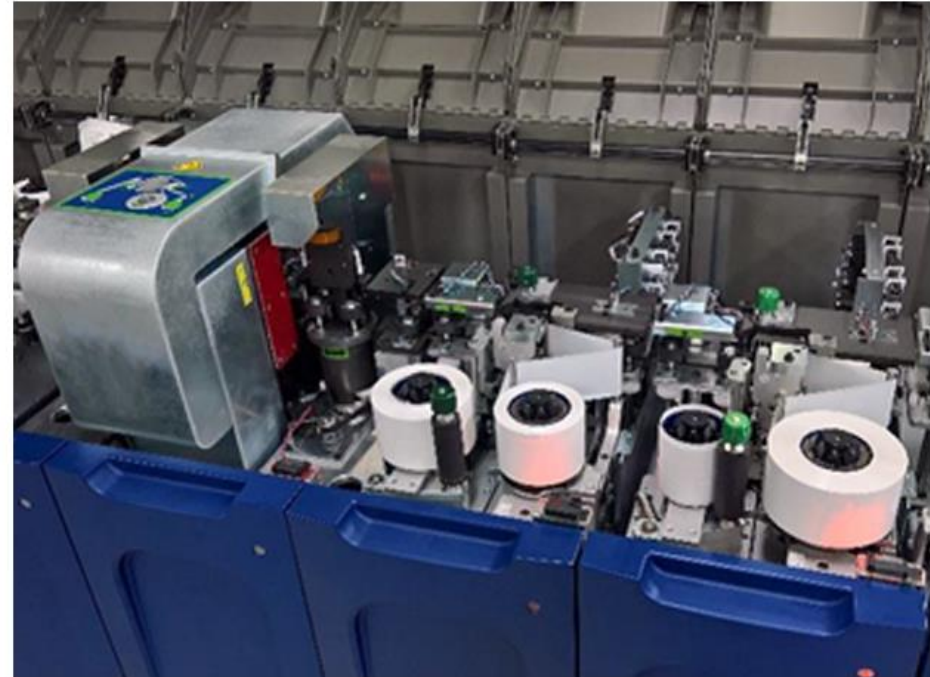
PREPARE FOR FLAT CARD

Drivers

- › Flat card personalization is not in region yet but **want to be first** to offer UV-curable technology
- › Need to market capabilities but **don't have card volume** for large capital equipment purchase
- › Have been asked about capabilities but **don't have budget** for large capital equipment purchase

Available to You

- › Durable Graphics Printing



PRINT ON DEMAND MORE IMPORTANT THAN EVER

Drivers

- › Card manufacturers have long lead times
- › Approval from association to obtain to print on demand
- › Need association approval to print brand logos
- › Problems sourcing preprinted forms

Available to You

- › Retransfer and DoD edge-to-edge printing solutions are approved by the associations
- › Brand kits exist if customer is interested in print marks/symbols if interested
- › MXD color printers available to print in line only what is needed at time of job



Build a redundancy plan using the technologies already available in the market

NAVIGATING CHIP CURRENT SHORTAGES

Drivers

- › Increased lead-times forced bureaus to purchase from **multiple card manufacturers**
- › Bureaus now hold great **variety of different chip stocks**
- › EMV perso solution requires jobs to be broken apart by chip type

Available to You

Adaptive Issuance EMV Data-Prep and Perso

- › Ability to mix and match cards with different chips into same job
- › Stock management greatly simplified
- › Supports one-step and batch process

COMPLETE METAL CARD SOLUTION

- › Card Input Module designed to handle metal card
- › Simplified laser card setup optimized for financial card
- › Optimized laser for financial applications
 - Laser 450F and Laser 425F
- › Card Output Module enhanced for heavier cards
- › Middle panel card attaching for MXD610 Card Delivery System



REACH YOUR CUSTOMERS WITH ONE-TO-ONE PERSONALIZED MARKETING MESSAGES

The label is
the most read real estate in the card package

Financial institutions can take advantage of the label in marketing space ...and bureaus can offer a revenue generating, value added service while driving increased operational efficiencies

- › Grab attention with 1:1 marketing
- › Change messaging on the fly
- › Designs with eye catching, high quality, color images



ENSURING TRUSTED CONNECTIONS BETWEEN GOVERNMENTS AND THE PEOPLE THEY SERVE

Connect directly with citizens by customizing the most-read real estate in the card package—the LABEL!



The **DATA CARD® Color Label Module** enables issuers to deliver one-to-one, personalized messages using vibrant color labels and designs to:

- Create specific calls to action
- Provide customized offers
- Reach segmented age groups or regional demographics
- Provide easy access to e-gov services on your website and through your apps

Add a QR code to your labels to enable your citizens to immediately connect to your webpage or apps from their mobile device.

Customized labels communicate important messages and provide easy access to e-gov services that enable citizens to:

- Go mobile
- Renew their driver's license
- Apply for an enhanced driver's license (eDL)
- Access the nearest service center
- Schedule a skills (road) test
- Request copies of birth or marriage certificates
- Register vehicles and plate permits
- Order personalized plates



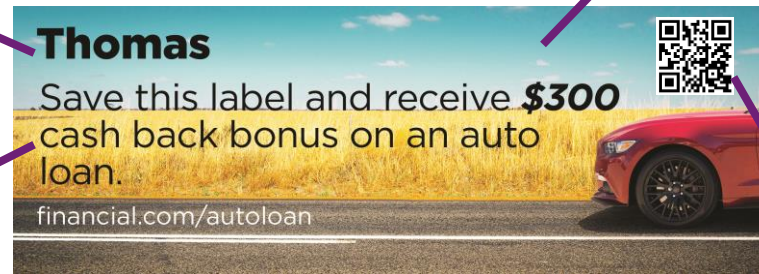
PERSONALIZATION IS THE KEY

Personalized name

- Bring out the feel-good feeling by addressing the customer by their first name
- Reiterate that they are not just another customer

Creative background image

- Aligned branding and imagery with the card design and card theme
- Use color to call attention to the personalized message



Defined messaging

- Short and concise message attracts the attention of the customer
- Relevant message entices customer to learn more

Drive customer to act

- Provide a QR code to drive the customer to your website to learn more or for easy activation

CENTRAL ISSUANCE SOFTWARE SOLUTIONS

Dennis Chan & Anirbban Goswami

PRODUCTION PROCESSES ARE COMPLICATED

› Machine performance

› Tedious manual processes

› Complicated data security



ADAPTIVE ISSUANCE PRODUCTION ANALYTICS SOLUTION



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PRODUCTION ANALYTICS SOLUTION

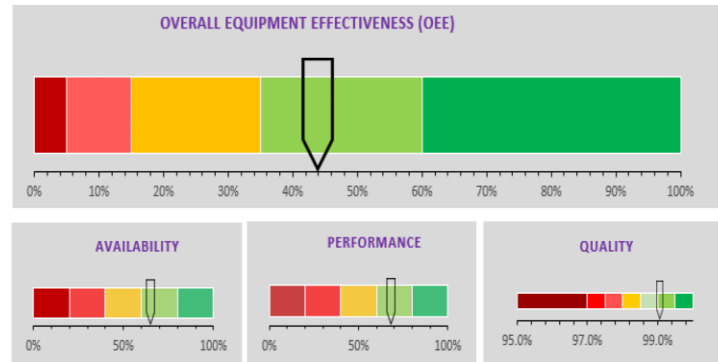
ADD DIGITAL INTELLIGENCE TO YOUR CARD ISSUANCE OPERATION

A solution for card personalization **process control and improvement**

Software



Entrust Analysis/Report



Expert-by-your-Side
Consulting hours



PRODUCTION ANALYTICS VALUE

**REAL TIME
INFORMATION**



**Ability to react quickly to
production abnormalities**

MAXIMIZE EFFICIENCY



**Clear visibility of
important manufacturing
KPIs**

**UNDERSTAND YOUR
COSTS**



**Breakdown metrics per
product/customer**

**EMPOWER CONTINUOUS
IMPROVEMENT**



**Understand what stands
in the way of production
excellence**

The tool you need to operate at peak performance

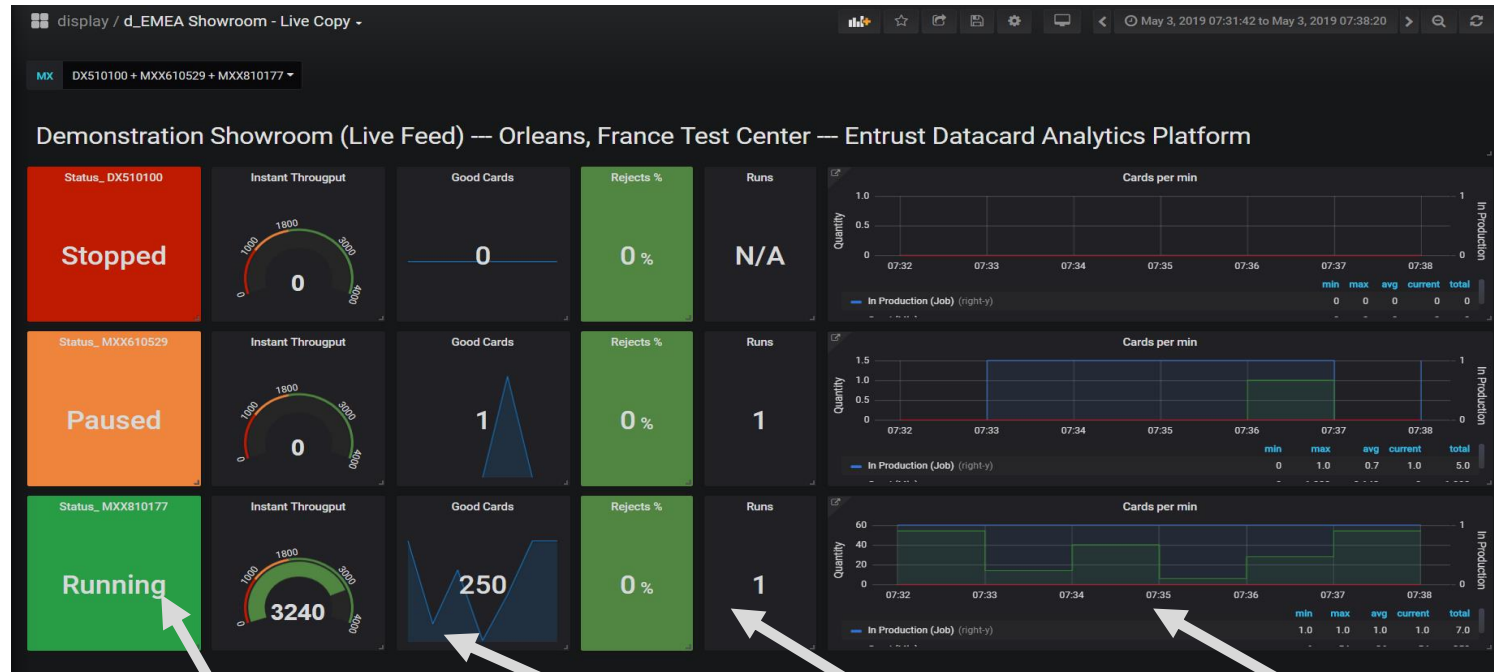
PRODUCTION ANALYTICS VALUE

Powerful platform to harvest data

- Provide high level overview

Data analysis and consulting

- Receive detailed recommendations

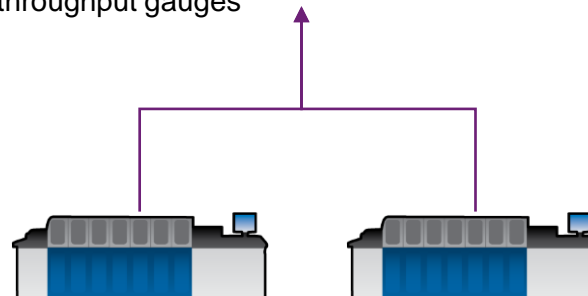


Live machine status indicators

Dynamic machine throughput gauges

Real time reject reporting

Historical machine production job tracking



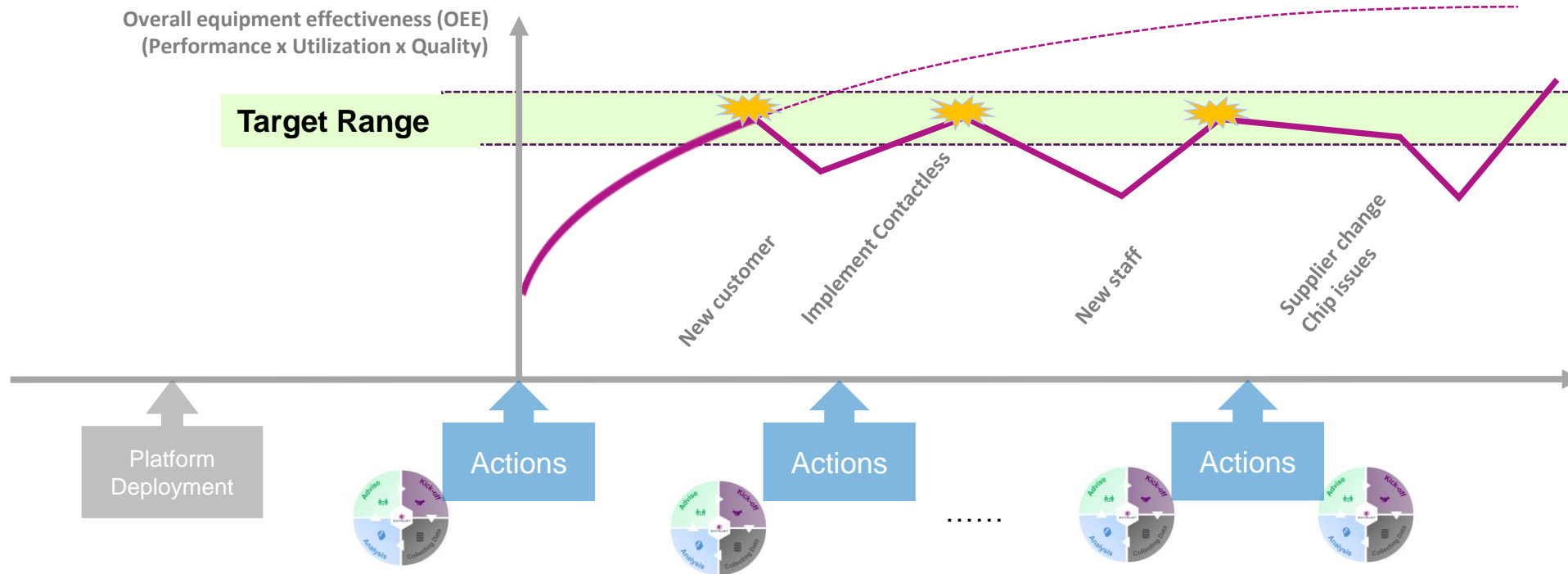
Keeps your platform up to date

- Receive new features and updates

Expert By Your Side
EBYS

- Implement an improvement plan

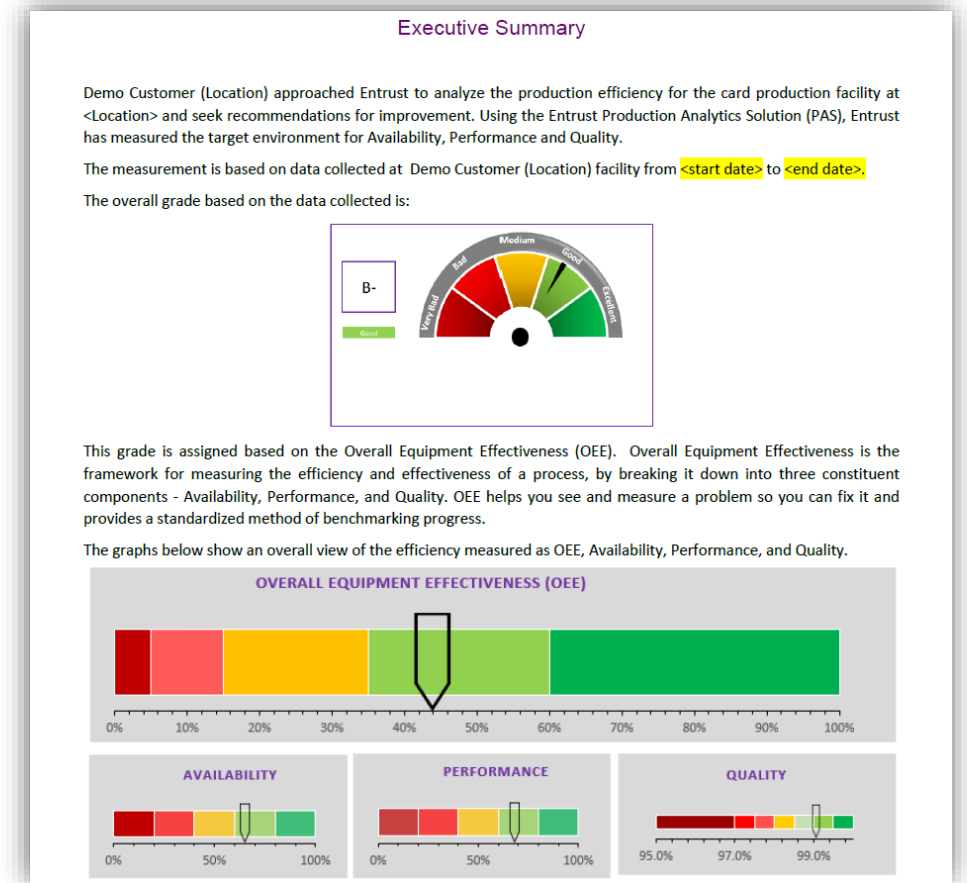
ONGOING ENGAGEMENT & EFFICIENCY IMPROVEMENT



- ❖ Recommendations are specific and have value.
- ❖ EBYS Consulting time supports development of implementation plans
- ❖ Changes always occur, impacting Performance, Availability, Quality
- ❖ Engagements are repeated to support continuous improvement.
- ❖ API(s) to enable diverse use cases

ANALYSIS/REPORT

- ▶ Receive a comprehensive report as an outcome of the consultancy engagement
- ▶ Will include objective analysis of your operation
- ▶ Data driven analysis PLUS distinguished industry knowledge

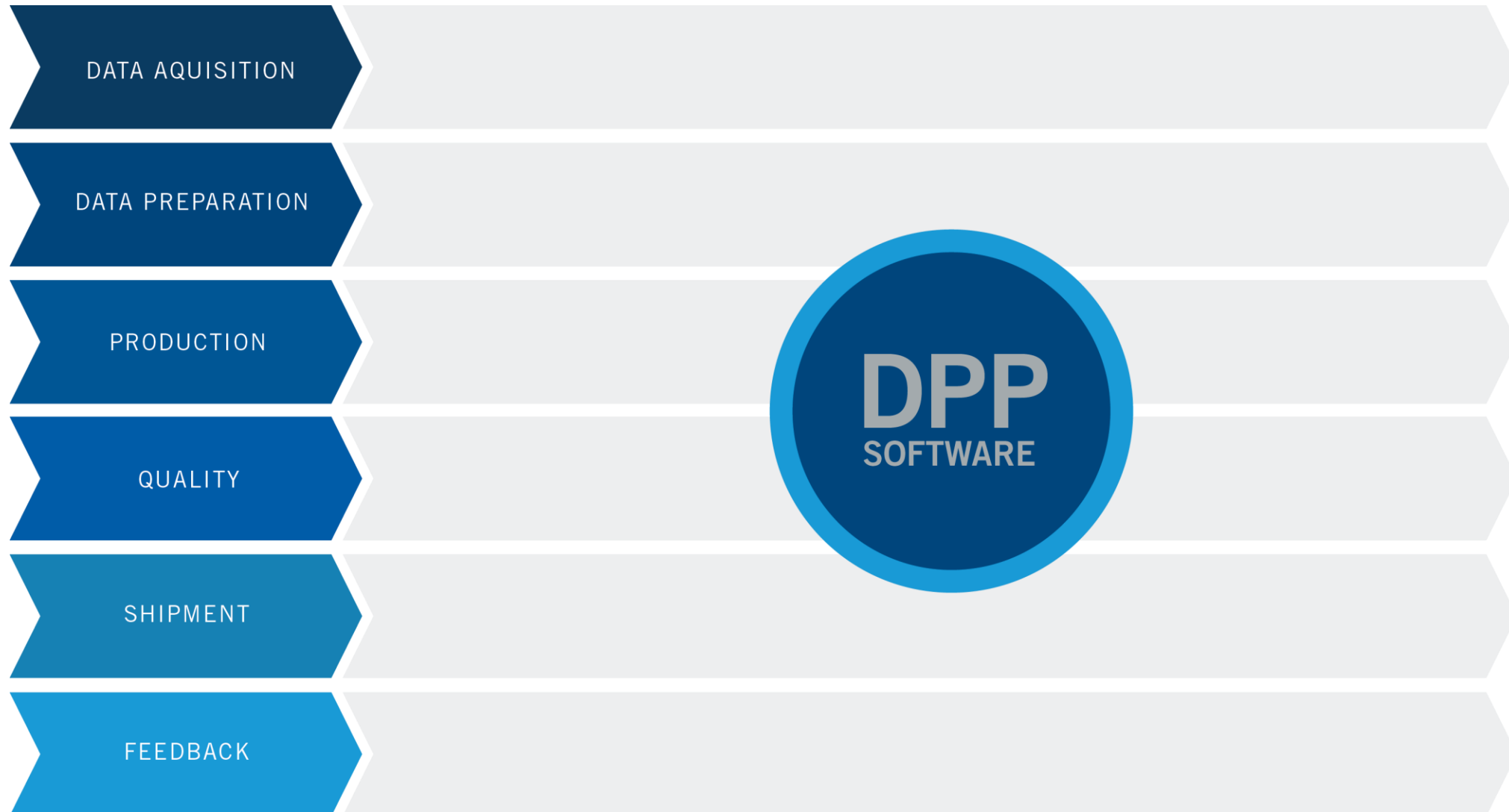


ADAPTIVE ISSUANCE DATA PREPARATION AND PROCESSING (AI DPP)

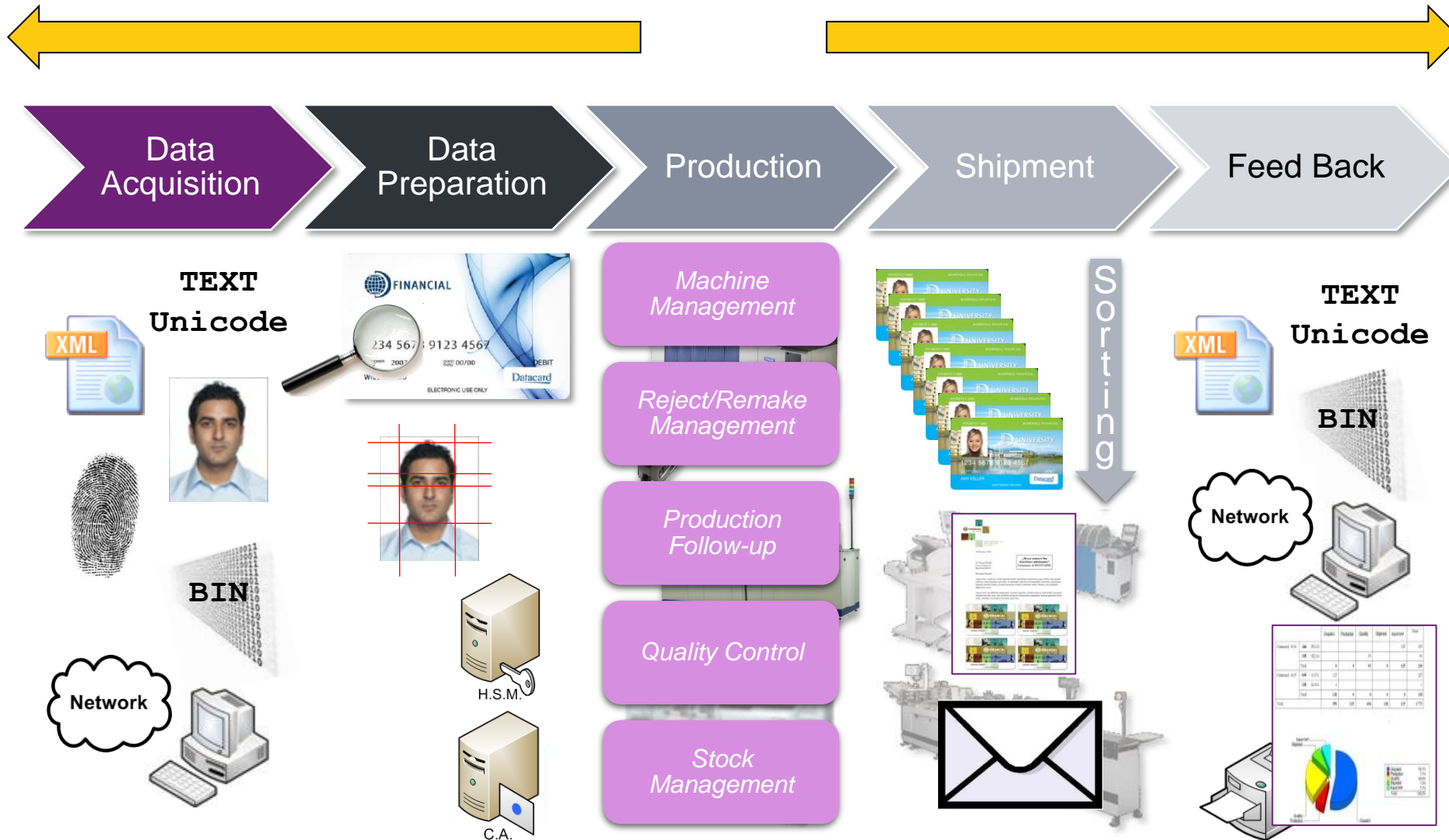


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SIMPLIFY AND AUTOMATE COMPLEX PROCESSES



DATA PREPARATION AND PROCESSING CONCEPT



DATA PREPARATION AND PROCESSING USE CASES

- ▶ Encrypt – Encrypt the sensitive card holder data
- ▶ Data Prep – Convert/reformat host data
- ▶ Merge – Merge host data files
- ▶ Sorting – Sort card holder data according to branch code/area code
- ▶ Split – Split card holder data into MX job files using similar supplies (3rd party machines, rainbow decking job or normal job)
- ▶ Job distribution- Direct jobs to machines automatically
- ▶ Reporting- Create customized production report



ADAPTIVE ISSUANCE DATA SECURITY SOFTWARE (AI DSS)



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DATA SECURITY SOFTWARE

As data becomes more exposed to internal users, are you doing enough to protect your data in transit and at rest within your facility?

If the answer is “no” there are steps you can take right now



PHYSICAL SECURITY

-  Presence of a card
-  Movement/logistics
-  Security of the premises
-  Personnel authorization
-  CCTV surveillance



LOGICAL SECURITY

-  Data transfer
-  Data access
-  Data storage
-  Data destruction
-  Key management

What if there is a breach in your logical security?

Best practices for security include establishing multiple lines of defense

- › Data can be threatened even in the most physically secure building and networks
- › A current area of weakness is when **card production data is in transit to and at rest**
- › Data is more vulnerable as it is exposed to more stakeholders during the production process

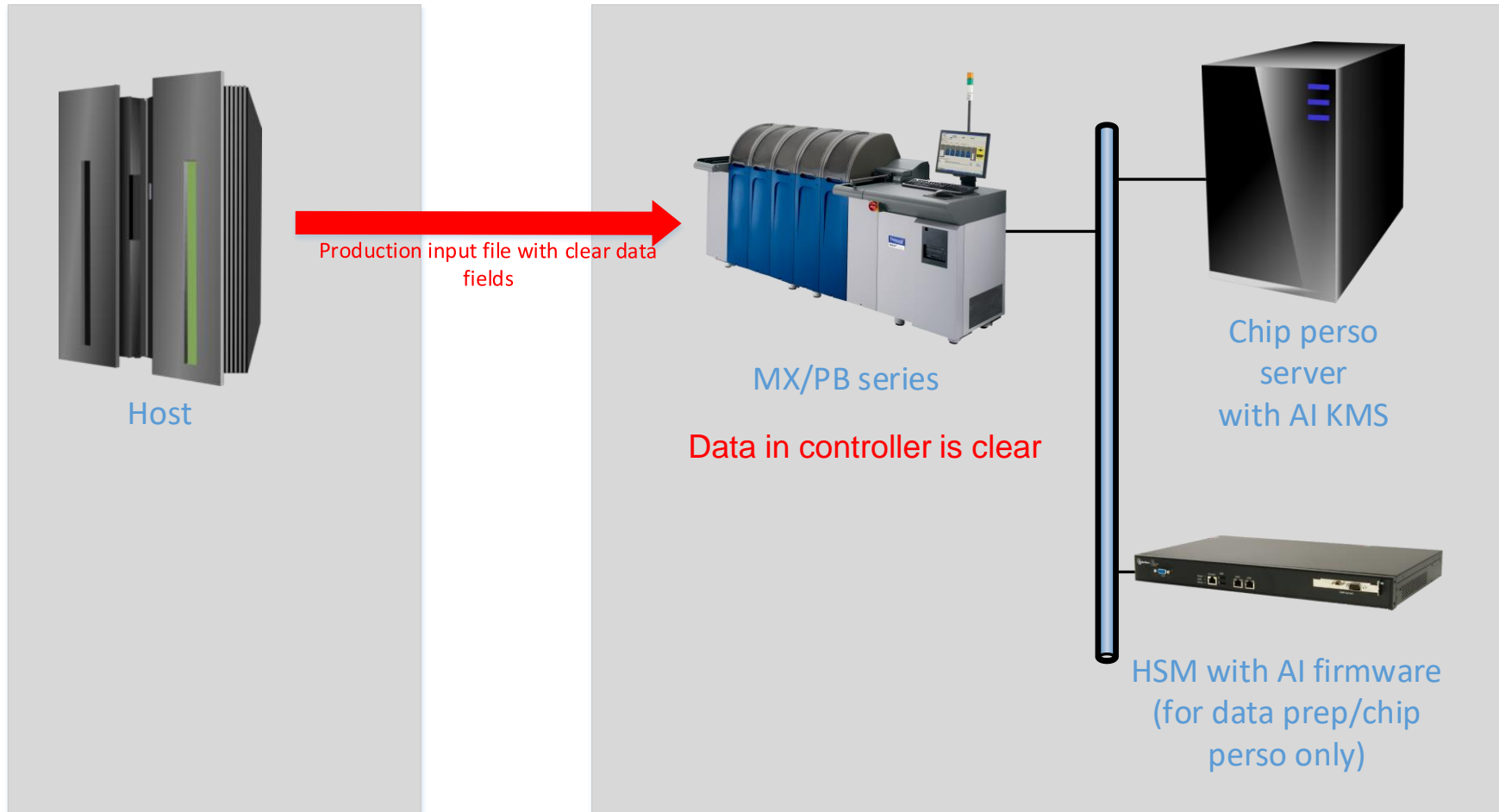


DATA SECURITY SOFTWARE CONCEPT

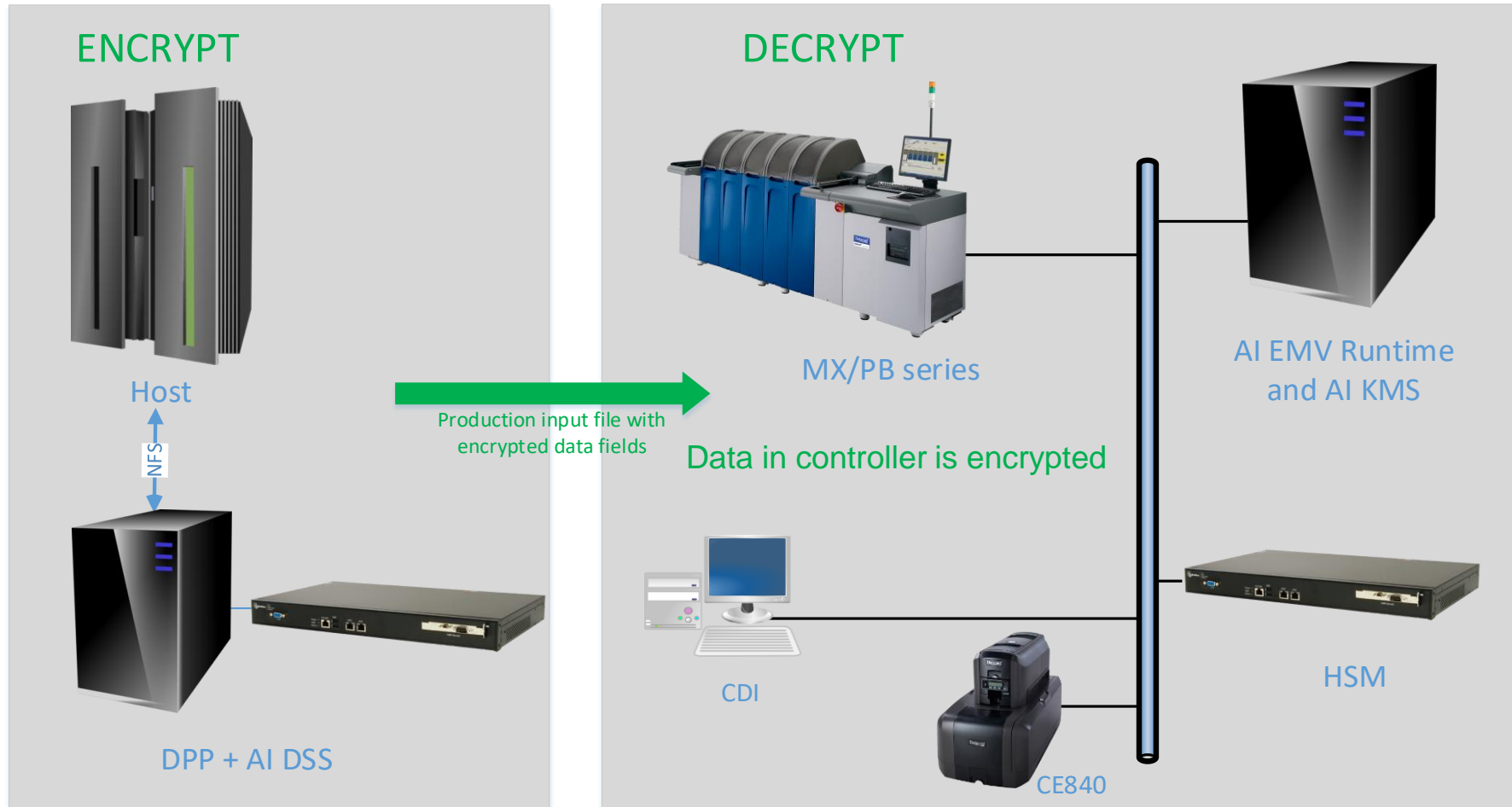
- ▶ Protect confidential data at rest and in transit
 - From Host, which will encrypt any data field considered as confidential within a production input file
 - Any enciphered data will be decrypted on the fly on Entrust personalization equipment
- ▶ AI DSS solution integrates with:
 - Entrust CI/DI/IFI equipment
 - DPP
 - 3rd party system



WITHOUT DATA SECURITY SOFTWARE



WITH DATA SECURITY SOFTWARE



KEY TAKE AWAYS

WHAT NEXT

Step 1: Evaluate your existing setup

Step 2: Determine your approach

Step 3: Take advantage of existing capabilities

Step 4: Invest in solutions meeting your needs

Step 5: Maximize the value of your investment

WHY INVEST

- Optimize your operational expenditure
- Automate your process for error free operations
- Address Data Security to build trust
- Track data real time to achieve consistent productivity
- Upgrade with latest technologies to build a “WORLD CLASS” setup

WE PROVIDE COMPLIMENTARY BUSINESS CONSULTATION SERVICES TO DISPLAY THE ROI AND BENEFITS OF THE INVESTMENT YOU DECIDE TO MAKE

IF INTERESTED, PLEASE CONTACT DENNIS CHAN AND ANIRBBAN GOSWAMI FOR A DETAILED DISCUSSION



ENTRUST

BUREAU SOLUTIONS BUSINESS CONSULTING SERVICES

Entrust Business Consulting aims to provide complimentary support to customers with respect to qualifying business led objectives, such as, efficiency management, process improvements, automation, new technology adoption etc.

Our consulting services include support for the following:

- **Business case modelling**
- **Return on investment**
- **Operational analysis**
- **Production system evaluation/automation**
- **Data security and encryption**
- **And more**

BUREAU SOLUTIONS BUSINESS CONSULTING SERVICES

To enquire about Entrust Consulting Services, please contact your Entrust Account Manager or alternatively Anirbban Goswami



Singapore based Anirbban Goswami is the Regional Business Consultant for Entrust Asia Pacific & Japan. Anirbban has over 18+ years of experience in delivering impactful consulting assignments across banking and the payments industry. Prior to Entrust, Anirbban worked as a consultant for both Deutsche Bank and McKinsey & CO.

RECENT AND UPCOMING PRODUCT RELEASES

Denise Stewart

PLATFORM UPDATES FOR MX SERIES SYSTEMS

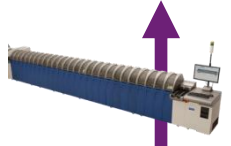





UV-Curable Technology

Datacard Systems

DoD Gen 2

Duplex DoD

Durable Graphics

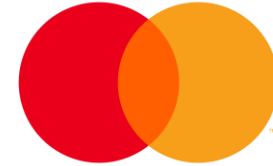
	MX9100 <ul style="list-style-type: none"> • 4,000 cph • Modular / flat card system 	X Fastest color technology		X Speed dependent on length of personalization
	MX8100 <ul style="list-style-type: none"> • 3,000 cph • Modular / scalable offering full functionality 	X	X Simplex 3,000 cph Duplex 2,000 cph	X
	MX6100 <ul style="list-style-type: none"> • 1,800 cph • Modular / scalable with inline retransfer printing 	X	X Maintains system speed	X
	MX2100 <ul style="list-style-type: none"> • 1,200 cph • Modular affordability 	X	X	X
	MX1100 <ul style="list-style-type: none"> • 600 cph • Entry level / point product/ non-modular 			X
	Desktop Sigma Printer <ul style="list-style-type: none"> • 60 cph (w/ durable graphics) • Flat card system for low volume issuance 			X



SIMPLIFY CARD INVENTORY WITH LOGO PRINTING



- › Retransfer technology has been approved since release of **Artista® VHD Retransfer Printing Module Gen 2**
- › New vibrant blue brand mark available 10/2022
- › Old blue brand mark retirement in 10/2027
- › Recently approved printing using new vibrant blue brand mark **Drop on Demand technology on the MX Series systems**



- › Retransfer technology has been approved since release of **Artista® VHD Retransfer Printing Module Gen 2**
- › Recently removed their name from the brand symbol
- › Approved printing using **Drop on Demand technology on the MX Series systems**

OTHER BRAND PRINTING APPROVED SCHEMES

› French National Scheme

- Issuer needs to obtain approval
- No kit available
- Credit Mutuel Bank approved with **Artista® VHD Retransfer Printing Module Gen 2**

› Russian MIR card (National Payment Card System)

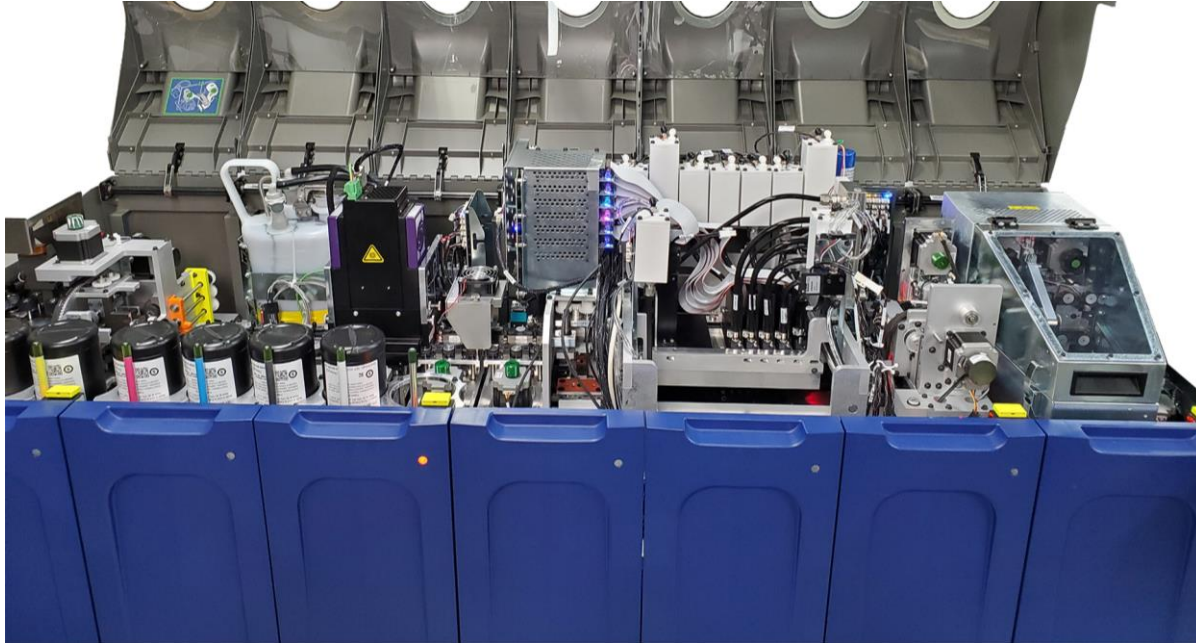
- Approved globally for digital printing

› Drop on Demand technology on the MX Series systems has not been discussed at this time



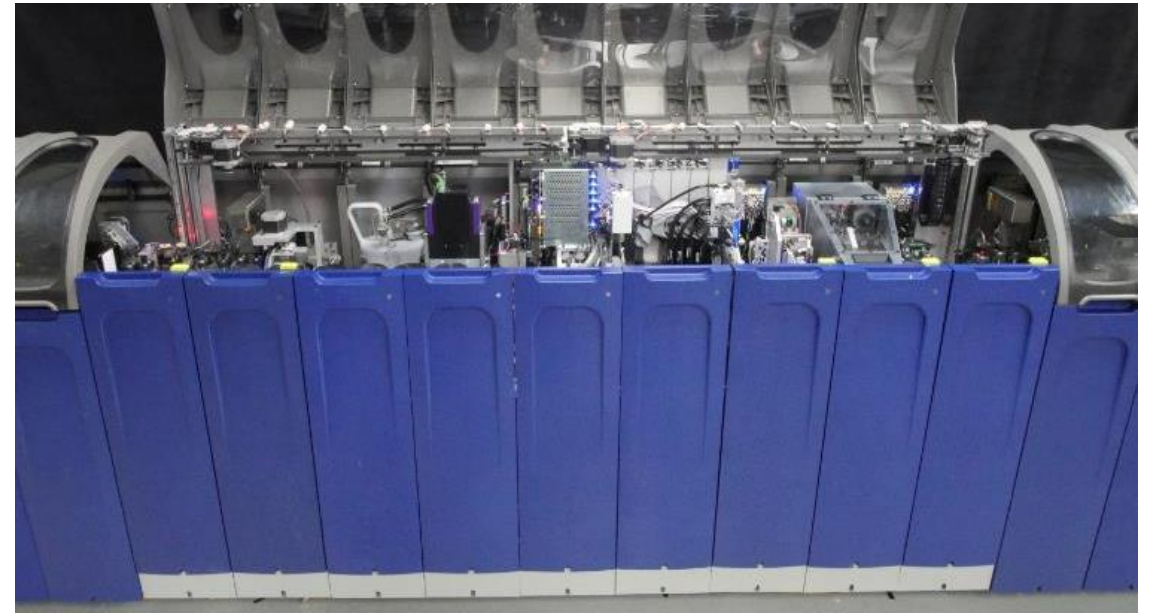
DROP ON DEMAND PRINTING OPTIONS

DoD Printing Module Gen 2



- › Single sided printing
- › Size (70 in./177.8 cm.)

Duplex DoD Printing Module



- › Card handling allows dual sided printing in one module
- › Size (90 in./ 228.6 cm)

Designed for the Financial Industry and selling strong!



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ADD DURABILITY & SECURITY WITH DOD INKS

Using Varnish or UV-Fluorescing Inks



Varnish or UV-F
when not illuminated



UV-F Green
Photo Box
with DOE



UV-F Blue
Grey Scale Image
with DOB

- › They look the same when not illuminated
- › They can be debossed as with data specific details
- › They can be layered over other elements on the card

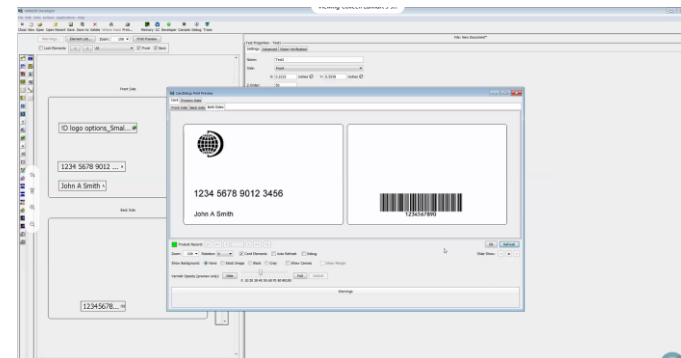
NEW FAMILY OF LASERS

Government

- › Laser 450 G and Laser 430 G optimized and enhanced for market
- › Majority of bids call for laser technology
- › Adoption of polycarbonate growing
- › Focused on grayscale engraving of photos and security elements

Financial

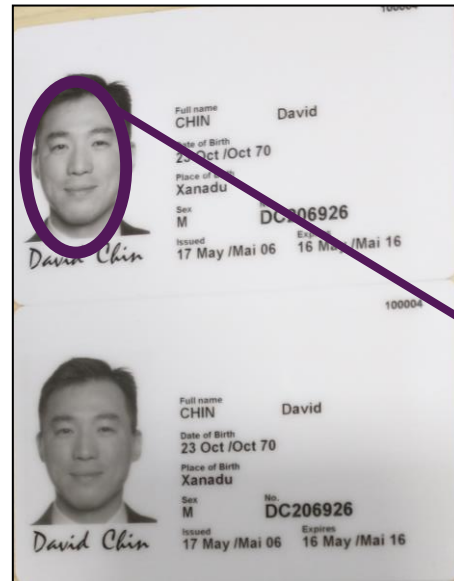
- › Laser 450 F and Laser 425 F optimized simplified for the market
- › Uses standard card setups commonly used by financial card issuers
- › Focused on high quality alphanumeric text



NEW FAMILY OF LASERS

LASER 450G / LASER 430G MODULE

- ▶ Government specific laser to deliver high quality engraving
- ▶ Precision Control Architecture (PCA) translates to even crisper, grey-scale engraving
- ▶ PCA is more than the laser assembly – it's the entire solution of firmware, software and optics
- ▶ Common fiber laser technology between card and passport systems
- ▶ Long-life laser diode saves space and lowers operating costs



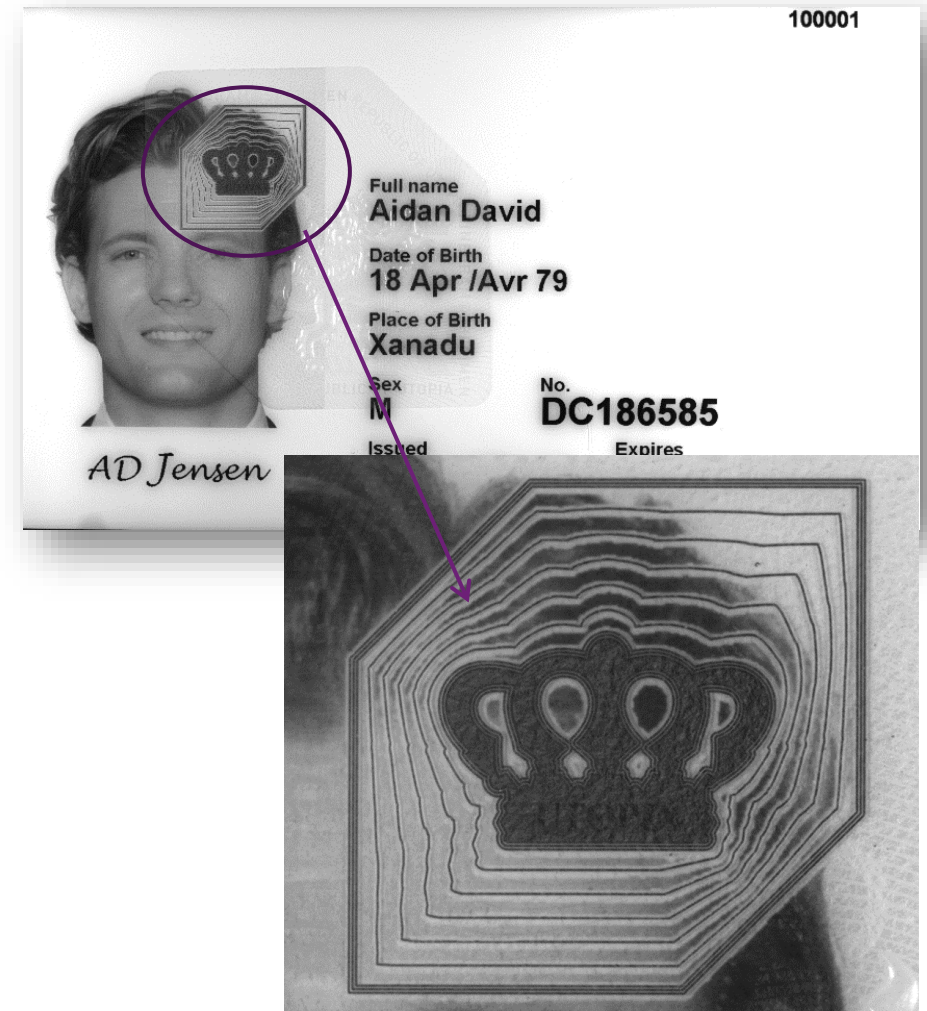
With PCA



Without PCA

FIGHT AGAINST FRAUD WITH DYNAMIC MASKING

- ▶ Lasing with high precision in and around, but NOT ON the hologram features
- ▶ This is available in the Laser 450G or Laser 430G design using the High Precision Vision Registration Kit
- ▶ This technology:
 - Is very durable
 - Is very difficult to do
 - Is secure
- ▶ Applicable to passports and cards



CARD DELIVERY TREND

ELEVATION OF THE CARD CARRIER

DRIVE TO DIGITAL WEB CONTENT ELEVATING THE CARD CARRIER

The **CARRIER** is a one-to-one marketing opportunity

The **CARRIER** is cutting through mailing clutter and is golden real estate

The **CARRIER** is not just a standard form letter

- Drive to digital content increasing
- Drive customers to web-sites with QR codes
- Increase in on-demand high color quality card carriers to help catch customers attention
- Increase on vertical card placement
- Cross-sell financial services via messaging and recognizable branding
- Communicate rewards programs and conditions



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KONICA MINOLTA C7100 PRINTER TO SUPPORT CARD CARRIER PRINTING

Key Features

- Ideal for high-end color card carriers
- 100 PPM full-color laser printer
- Near edge-to-edge printing
- 1,200 dpi output for high-quality color-laser printing
- The Cost Per Page (CPP) agreement must be in place prior to shipping the printer to the customer site.
- Professional installation by Konica Minolta is required



NEXT GENERATION MODULES

- › Modules have received additional sensor and firmware enhancements for even better card tracking capabilities
- › Improved accessibility for service technicians
- › Enhanced airflow through the module and entire platform
- › Simplified some designs to remove wear parts
- › Added user touch points for greater ease of use



CARD SCANNER MODULE GEN 2

- › New scan head allows for OCR-A and OCR-B font reading capability
- › Supports additional 2D bar code formats including QR and Aztec



QR code -
better phone readability



Aztec code –
better phone display

- › Easier setup with live view scan head and auto calibration
- › Supports the new electronics and firmware updates

ELECTRONIC PERSONALIZATION UPDATES

Magnetic Stripe Gen 2

- Adopted the latest card entry mechanism for service simplicity
- Added track sensors to better monitor cards
- Updated firmware

Barrel Smart Card Personalization Gen 2

- Simplified design to remove wear item parts
- Added green touch points for manual intervention of card advancement
- Continues to ship with Adaptive Issuance software bundle



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GRAPHICS PRINTING MODULE GEN 3

- › **Quality near edge printing at production speeds**
 - Enhanced card movement improves overall speed and accuracy of printing allowing for the standardization of one print mode
- › Better **automated** ribbon control and print head movements
- › **Touch points added** for ease of use when operators are advancing ribbon supplies helping to reduce scrap rate due to wrinkled ribbon
- › **Improved service accessibility** by providing access to all components in the front of the system
- › Requires
 - Card cleaning for best printing
 - Use topcoats and laminates for durability



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DURABLE GRAPHICS PRINTING GEN 2

- › Provides high quality, UV-cured printing of card holder data for financial applications
- › **Enhanced card movement** improves overall speed and accuracy of printing
- › Better **automated** ribbon control and print head movements
- › **Touch points** added for ease of use when operators are advancing ribbon supplies helping to reduce scrap rate due to wrinkled ribbon
- › Improved **service accessibility** by providing access to all components in the front of the system
- › Requires a card cleaning



EMBOSSING GEN 2

- › Hard to improve on design that has made us #1 in the financial market
- › Continue to support standard emboss wheels
- › Updated electronics, firmware and software



DATACARD® H-VISION SOFTWARE

- This is the software that supports the cameras within a MX Series System or MXD Series systems
- Replaces current vision software that has shipped with MX Series and MXD Series Systems since 2013
- Benefits of moving to H-Vision software
 - Allow ability to read Open Type Fonts in the Quality Assurance, Vision Verification Gen 2 and Vision Verification Gen 3 modules
 - Better meets new security compliance requirements
 - More extensive font libraries
- Available with release of controller software v10.10

Upgrading allows Entrust to continue to support You

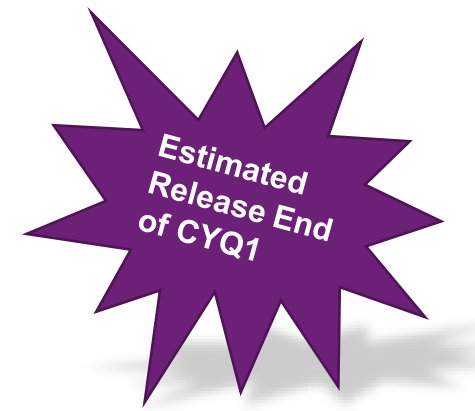
NEW INSERTERS

Datacard® MXi215™ Insertion Systems

Datacard® MXi115™ Insertion Systems

Features	MXi212 / 112	MXi215 / 115
PM Cycles	250K PM	500K PM
Envelope thickness	6 Mil	10 Mil

- › New integrated fingers
- › Reduced Product Maintenance Cycle
- › Updated Electronics
- › Replaces the MXi212 & MXi112 systems



THE VALUE OF A SOFTWARE MAINTENANCE AGREEMENT (SMA)

v 10.9 rel
11/2022

MX Controller Software Version	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8
Date of release	Apr-19	Oct-19	Apr-20	Aug-20	Oct-20	Apr-21	Nov-21	Mar-22	Jun-22
Adaptive Issuance Version	6.6	6.7	6.7.1	8.2.2	8.2.3	8.2.4			
Date of release	Jul-20	Dec-20	Mar-21	Jul-21	Dec-21	Jun-22			

v 8.2.6
rel.
12/2022

- ▶ Entrust is committed to developing new features and upgrades that are offered multiple times a year
- ▶ Technical support experts quickly resolve issues
- ▶ Access to quarterly software updates
- ▶ For more detail see **CI23Q1-mx-series-system-controller-software-booklet-br**



DESIGN A CARD PACKAGE

Courtney Peterson

BUILD A CARD PACKAGE

Design a Card Package

We invite you to experience our Design a Card Package where you can choose from all the newest financial and government issuance trends.

- Horizontal and vertical cards
- Metallic personalization and full card printing
- Traditional and full color labels
- Carrier printing in black and white or brilliant colors

The card, label and carrier are your first touchpoint with the cardholder. The more you understand the options, the more your design opportunities grow.

Note: All color and graphic technologies options require durability. The only durability option shown in the experience at this time is varnish.

[Refresh your browser to clear your selections.](#)

Choose a Market

Choose a Style

Choose an Orientation

Choose a Background

Choose a Personalization

Choose a Varnish

Choose a Label

Choose a Carrier

Share

Government

Style: **Pre-Printed**

Orientation: **Horizontal**

Background: **None**

Personalization: **Color and Laser**

Varnish: **None**

Label: **Edge-to-Edge**

Carrier: **Spot Color**

Card Printed Using: **(Pre-printed)**

Personalization Printed Using: **DataCard® Artisan™ VHD Retractor Printing Module or Drop on Demand Printing Technology with Laser 350 Module**

Varnish Printed Using: **None**

Label Printed Using: **Color Label Printing Module**

Carrier Printed Using: **Riso 7330R. A variety of card placement options are available including dynamic vertical and horizontal placement and the ability to attach more than one card to each carrier.**

REIMAGINE CITIZEN MAILINGS

Using 2x4
15x4 STREET CAR
20x4 STREET CAR

You know the importance of delivering high-quality direct mail to your citizens and need a simple way to manage them while maximizing operational efficiency and minimizing costs, downtime and operational risk. So, get it done to improve your operations and explore your options!

Not all printers are created equally.

Leverage on-demand variable printing capabilities with the RISO heat printer, which seamlessly integrates with DataCard® card delivery systems. Optimize productivity with minimal downtime and take advantage of DPM's 24-hour printing to ensure timely mail and complete the highly targeted rights effective citizen communications.

PRINT DESIGN & IMAGES IN FULL COLOR
Requires DataCard® Riso 7330R and associated RISO heat printer.

PRINT OR SAVE AS PDF

[Previous](#)

Guides the user through design considerations

Low risk way to learn and discover

Educates on printing technologies

Provides an electronic sample of design choice

<https://metroconnectionsbooth.com/entrust/>



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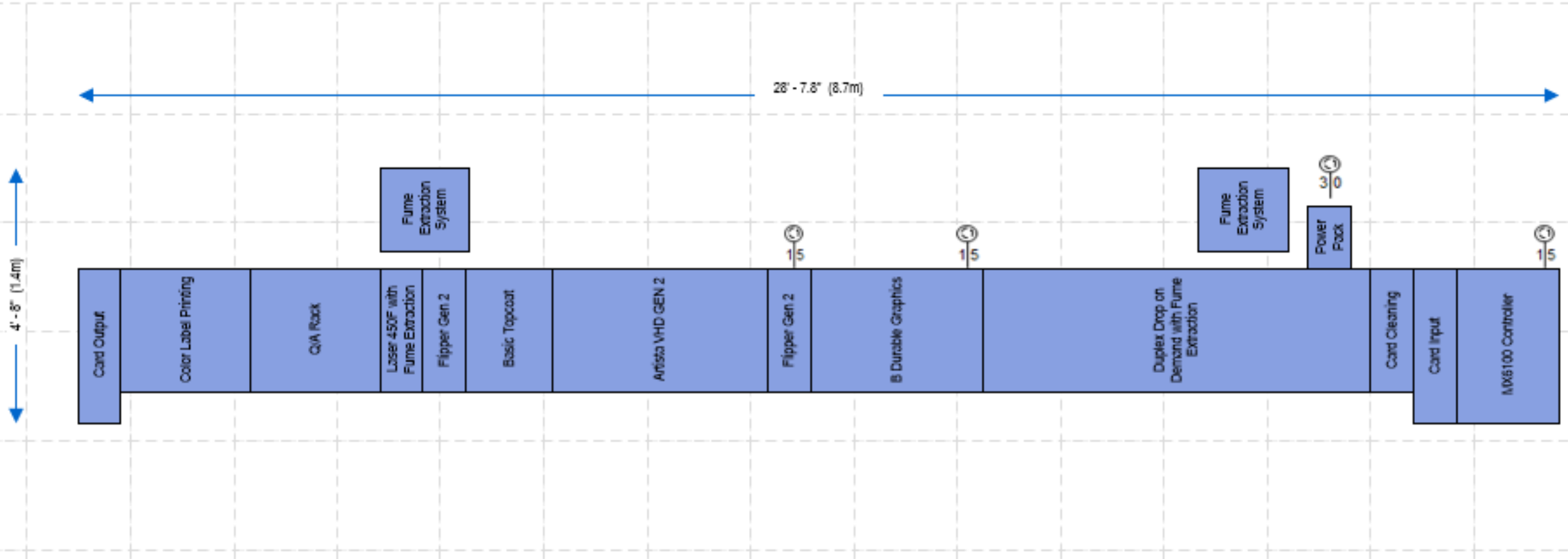
MX6100 CENTRAL ISSUANCE SYSTEM DEMONSTRATIONS

Denise Stewart



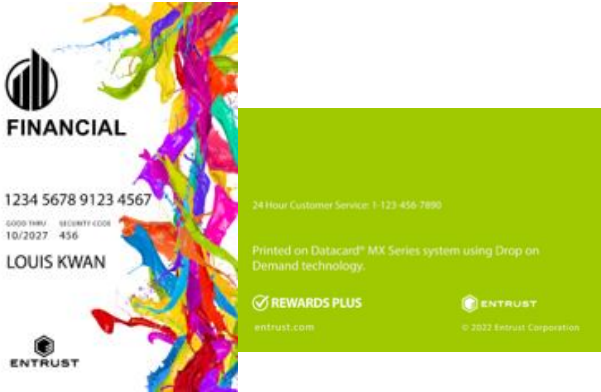
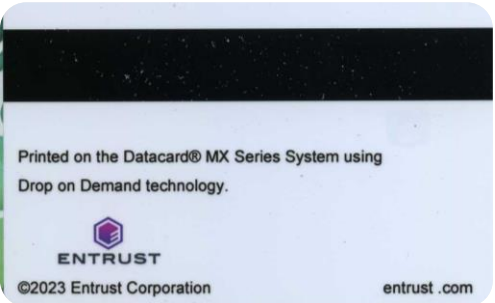
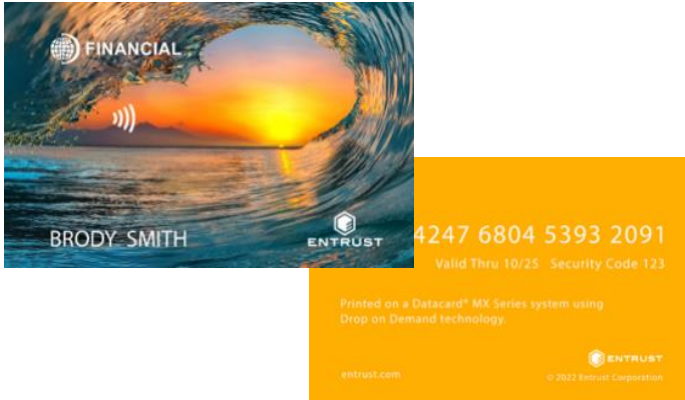
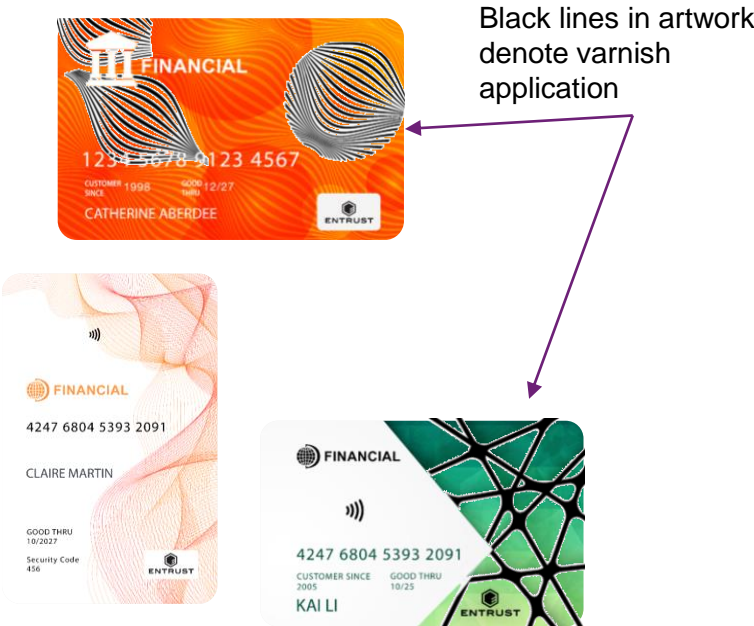
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SYSTEM CONFIGURATION



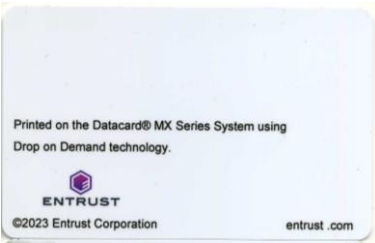
DEMO 1 – PAYMENT CARDS PERSONALIZED USING DUPLEX DROP ON DEMAND

- Using blank white cards to print edge to edge front and back of card
- Varnish application to add texture to the design
- Quality printing of card holder data
- Supports a variety of flat card formats



DEMO 2 – IDENTITY CARDS PERSONALIZED USING DUPLEX DROP ON DEMAND

- Using blank white cards to print edge to edge identity cards
- Capable of producing a variety of formats
- Adding Varnish for durability of the photo image and additional security features
- High quality printing of citizen data



DEMO 3 – PAYMENT CARDS PRINTED WITH UV-CURABLE DURABLE GRAPHICS

- Uses Preprinted Card Stock
- Supports a variety of layouts on the front or back of the card
- Ability to add a second module to print both sides of a card in line



DEMO 4 – COMBINING TECHNOLOGIES DOD & LASER FOR A PAYMENT CARD

- Using blank white PVC card with laser engravable layer
- Create designs using edge to edge technology; use enough whitespace to prevent color technology to overlap laser



DEMO 5 COLOR LABEL PRINTING

- Using preprinted card and personalized card holder data
- Adding a label to the card by using a blank white label and printing it with inkjet technology



THANK YOU



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