

Your Passenger's Journey. Our Solutions.

Materna IPS takes pride in offering customized solutions to meet the unique requirements of airports and airlines worldwide. We understand that each location comes with its distinct needs, and our commitment lies in crafting adaptable solutions tailored to address these specific challenges. Whether it's the intricate demands of one airport or the diverse requirements of multiple airlines, we ensure our solutions are customized to perfection. Quality that originated in Germany.

One Source

At Materna IPS, we believe in providing a comprehensive and unified experience for our clients. Despite our IT-centric focus, we deliver a complete package of seamlessly integrated hardware and well-proven software solutions. From the initial stages of creation and installation to the ongoing operation, every aspect is carefully sourced and managed under one roof. This approach ensures efficiency, consistency, and a streamlined process for our clients, making Materna IPS a reliable and allencompassing partner for their aviation needs.

Reliable Partner

Our track record speaks volumes about our reliability. With over 30 years of experience in managing global aviation projects, Materna IPS has become a trusted partner for our customers. Our team of seasoned experts brings a wealth of knowledge and expertise to the table, ensuring that our clients receive top-notch solutions and support throughout every phase of their projects.

IATA Strategic Partner

As a long-standing member of IATA, we actively shape the aviation landscape,

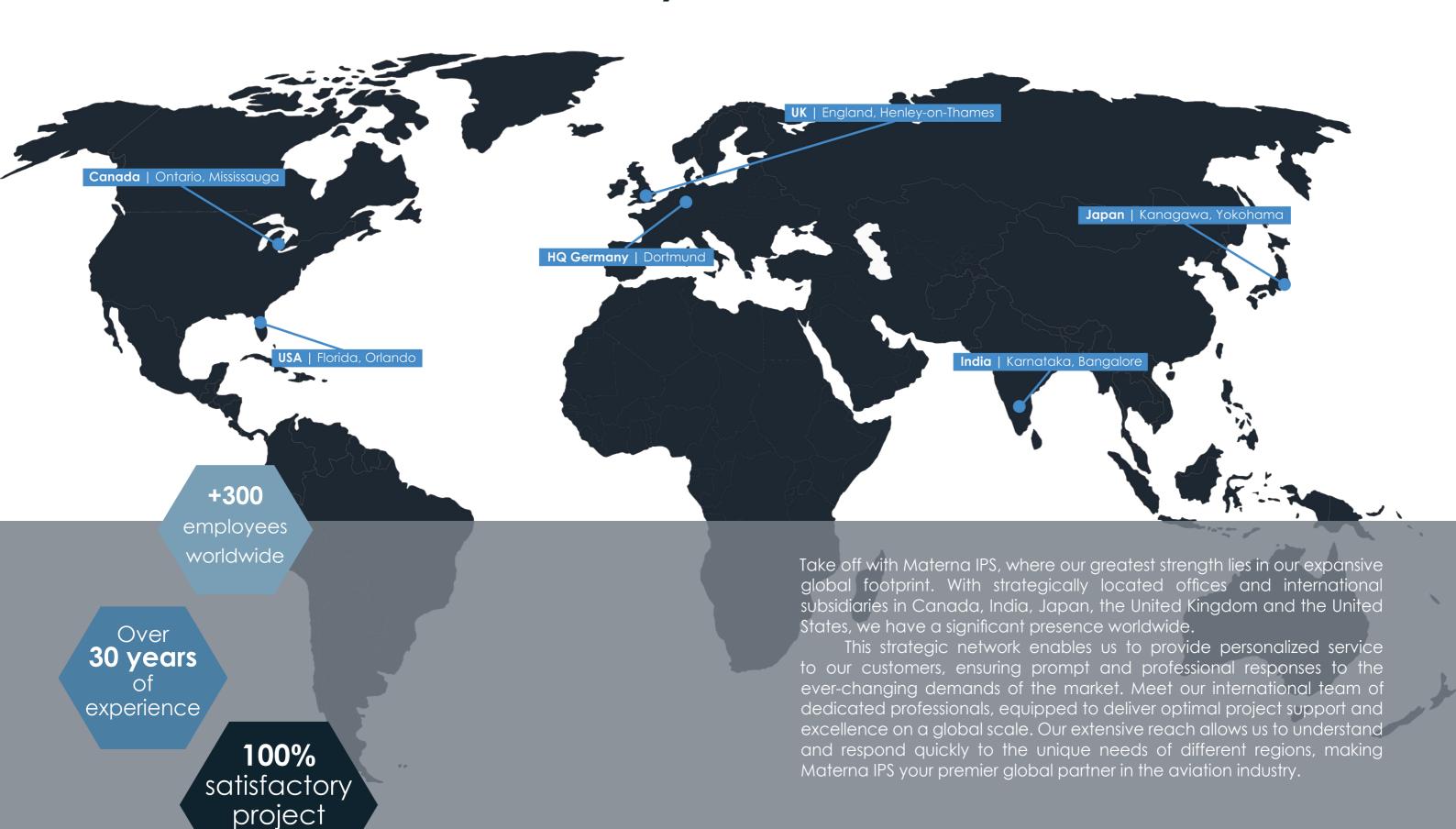


Our involvement in the IATA CUSS Technical Solutions Group (CUSS-TSG) since its inception in 1999 underscores our commitment to actively contribute to the development of CUSS standards, solidifying our role as a dedicated partner in advancing aviation solutions.



From Our Talents To Your Runway.

delivered



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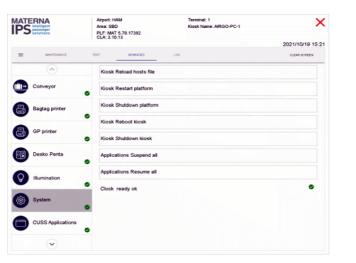
IPS Passenger

CUSS - Global standard, seamless flexibility.

Materna IPS' systems is based on the international Common Use Self-Service (CUSS, IATA RP 1706c) standard.

Materna IPS CUSS platform has proven its flexibility and reliability in numerous global check-in and self bag drop installations. It is used not only by airports but also by airlines and ground handling companies.

CUSS provides a runtime environment with standardized interfaces to access and control kiosk peripherals. The key benefit is the reusability of CUSS compliant applications that can be deployed on CUSS kiosks worldwide, regardless of the kiosk vendor.



IPS PassengerExample of the standardized IPS Passenger interface.

CUSS Manager

The IPS CUSS Manager is an essential, flexible tool to configure, control and maintain the IPS CUSS Platform. This application enables airports and airlines to manage and control SBDs/kiosks in multi-airline scenarios. The IPS CUSS Platform includes a browser-based management software package as an integral part. Providing a diverse range of remote management and administration features.





Your Benefits

IPS Passenger

- Organized dashboard
- Enhanced manageability
- Maintains consistency of services
- Structured environment with standardized interfaces
- Reduced costs via simplified development and installation

CUSS Manager

- Easy control of SBDs/kiosks
- Quick health status overview
- Local and remote operation
- Role-based access control
- Comprehensive administration features

White Label SBD Application

Elevating standards, tailored flexibility.

Materna IPS focuses on delivering SBD applications and systems that meet industry standards while also providing flexibility for enhancement, customization, and branding.

The IPS White Label SBD application is Graphical User Interface (GUI) that can easily be adapted to the specific needs of airline and airport customers.

While the default languages are English and German further languages can be added. Stylesheets allow for changes of customer logos, colors as well as animations. Furthermore, all texts can be amended without having to make changes within the application.

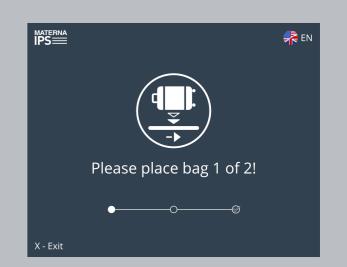
The IPS Self Bag Drop applicaprovided with a standard multi-lingual tion offers a specific disruption mode allowing the continuation of operation during a DCS outage or airline network communication failure.

Your Benefits

- Service continuity in disrupted scenarios
- **Multi-lingual GUI**
- DCS support
- Supports customer branding
- Support of payment functionalities

Example of the Materna IPS GUI:













Materna IPS GUI

Demo of the intuitive standard multi-lingual Graphical User Iterface (GUI).

10 | SUITE

Airport

Management Tools

Professional - with precision and ease.

Introducing our suite of professional airport management tools. In addition to providing consulting services and self-service hardware and software to the aviation industry, we specialize in delivering customized technology solutions for efficient airport operations. Our Touchpoint Tools are designed to support daily operational tasks and provide statistical data and system configuration capabilities to improve overall airport management efficiency.

Data Manager

The IPS Data Manager is a near real-time reporting solution for airlines and airports to monitor customer behavior and experience at the self-service devices.

The tool provides an overview of performance analytics including traffic numbers, failures, or peak loads through its intuitive dashboard. The platform is built on a secure web portal and multi device compatible. It is optimized for desktop but also compatible with tablets and smartphones. Furthermore, it offers multi-client support, enabling the separation and visibility of data for various airlines, airports, or users.



Ground Manager

The IPS Ground Manager provides service staff with a quick and configurable overview of all applications and self-service devices as well as their status.

The application displays alerts for assistance requests or errors simplifying the daily life of floorwalkers assisting passengers with self-service devices. It also provides on-site kiosk and passenger management via mobile phone or tablet. The application is available for Android, iOS on smartphones or tablets.



Application Manager

The IPS Application Manager enables the configuration and maintenance of server-based applications.

As a web application, the Materna IPS Application Manager enables airlines to configure kiosk and SBD applications in an object-oriented manner. It streamlines the control and maintenance of Materna IPS applications while offering both, time-based and time-limited configurations.

The Touchpoint Tool includes file management capabilities for downloading and uploading application resources such as images, videos, and document templates.



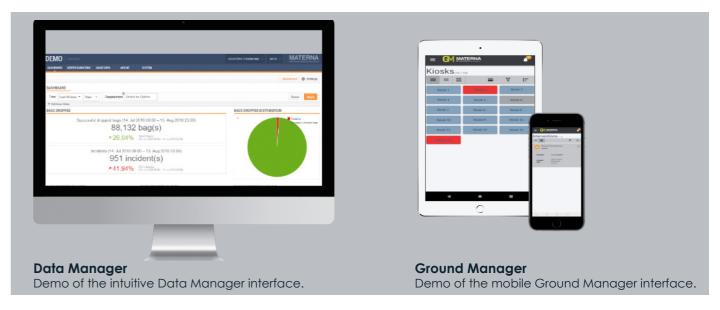
Gate Manager

The Gate Manager is a web-based application set which allows configuring, administering and managing the IPS Gate solution for self-boarding and secured access. The IPS Gate Manager provides status monitoring and controls for security access and boarding gates to help airports and airlines to meet high security standards in the aviation sector. It also enables passenger tracking, which is helpful for an optimized workflow in terms of departure times.



User management allows for the definition of access levels and rights for sepcific user or user roles.

Example of the Touchpoint Tool Interface:



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IPS Bio.Pass

Elevating travel security, simplifying Identification.

With the growing popularity of biometric authentication technology in airports, Materna IPS, as a system integrator, is leading the way in creating a convenient and secure travel experience.

Our expertise lies in the integration of various biometric software solutions at different passenger touchpoints. Working with trusted hardware partners, we customize authentication solutions to meet our customers' specifications. Materna IPS offers airports and airlines an easy-to-use, fully integrated solution for streamlined passenger identification.

IPS Bio.Pass utilizes facial recognition for biometric enrollment and ensures secure authentication through trusted ID checks, enhancing overall verification. The suite encompasses several use cases, but they typically begin with enrollment and the capture of essential data such as biometric images, passport data and boarding pass data.

1:1 Verification

In the second use case, ID check, the passenger's image on the government-issued ID card is verified against the image generated at the kiosk. The 1:1 identity verification results can be used for enrollment in the gallery of the day or transferred to another application (SBD, CKI).

1:N Verification

In the 1:N matching use case, a live facial capture of the passenger is compared with an existing dataset. The database is presorted, often by flight data, to ensure rapid matchina.

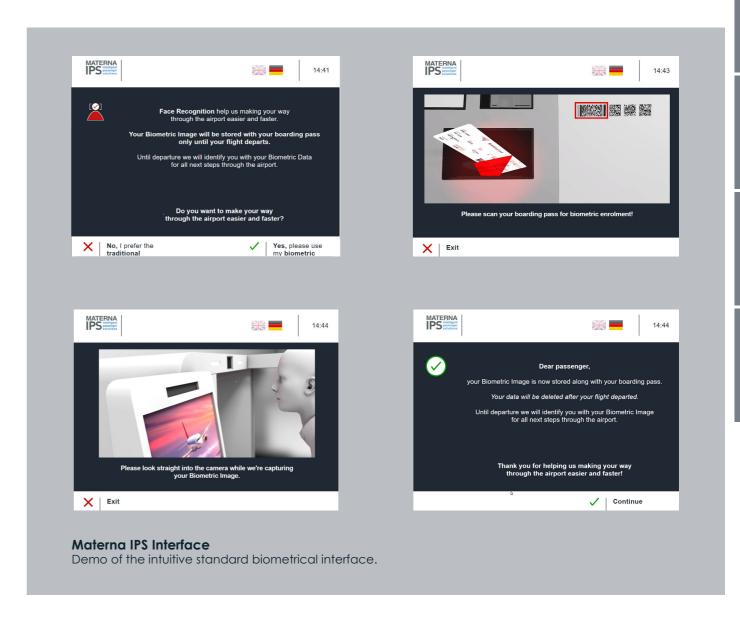
Identification Use Case

In the identification use case, a live facial image of the passenger is compared to the gallery. This database is pre-sorted, often by flight data, to ensure a quick matching process.

Your Benefits

- Full coverage of biometric use cases
- Paperless journey
- Improved safety by reducing errors
- Optimization of workflows and travel experience
- Cost-effective investment

Example of the IPS Interface:



IPS Connect

Advanced data exchange.

IPS Connect is Materna IPS' solution for harmonizing data exchange between systems.

cloud-based infrastructure the platform provides a structured and API based approach for accessing IT resources and services. It simpli- system, which supports multiple serfies airport operations by eliminating the need to construct and manage extensive infrastructure for each service integration.

IPS Connect can integrate various passenger touchpoints at the airport, including but not limited to check-in, self-bag drop, security access, and boarding. This centralized configuration streamlines management and monitoring. The Data Manager facilitates streamlined management and offers an intuitive dashboard displaying statistics of passenger touchpoints.

IPS Connect.Airport

The cloud-based platform streamlines airport operations by eliminating the need for extensive infrastructure construction and management for each service integration.

With Materna IPS Connect. Airport, all passenger touchpoints throughout the airport can be inte-

The IPS Connect Platform, as part of grated via a single service API layer. IPS Cloud Services, provides an inter- The platform offers central data storface for communication based on age and collection. This centraliza-CUWS RP 1741. Characterized by its tion ensures a cohesive structure and therefore better control of IT environments and security.

> The flexibility of the innovative vice providers through a single interface, allows airports to choose from a wider range of hardware vendors.

IPS Connect.Airline

Materna IPS Connect. Airline offers multiple bundles including various sets of functionalities.

While the IATA RP 1741 standard only offers a limited number of functionalities, the IPS Connect. Airline solution provides an extended set of services. It enables the checking of passenger status and service eligibility. The configuration of Check-in windows, as well as individual baggage allowances and flight restrictions. Furthermore, additional pooling concepts can be implemented.Integrating technologies such as the integration of IPS Bio. Pass and smart payment options are available.

Your Benefits

IPS Connect.Airport

- Greater choice of hardware vendors
- Central data storage & collection
- Seamless integration for new touchpoints
- Near real-time overview of performance
- **Enhanced security**

IPS Connect.Airline

- Shortened integration process
- **Centralized configuration**
- Seamless integration of 3rd party systems
- **Cost efficiency**
- Multiple add-ons



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IPS Agent

Unlock shared efficiency.

The CUPPS compliant IPS Agent solution provides an airport with a flexible, multi-access, Common Use Platform check-in counters, boarding gates, sales desks and backoffice positions.

IPS Agent provides the capabilities of airlines sharing the same equipment. It allows any airline or handling agent to use any workstation, at any time and is based on industry standard computing and Local Area Network (LAN) technologies.

It includes a console with a familiar user interface consistent with other windows- or web-based tools. Accessibility via the browser offers great flexibility, as it can be performed from

any authorized workstations without the need for special components and applications.

Materna's IPS Agent is certified with CUPPS V1.03 in accordance with the current ITPS document.

Bag Manager

The Bag Manager application is the smartphone solution for baggage tagging for a smoother experience during peak season. An airline agent scans boarding passes using the built-in camera and identifies passengers. The Bluetooth-connected printer immediately prints baggage tags, which are then activated. The agent attaches baggage tags and takes labeled bags from passengers, enabling them to continue



Bag ManagerExample of the applicatrion interface.

their journey carefree. While the application can be used at the airport directly, the bag drop process can also be started at the hotel, as well as on the bus or train route to the airport.

Your Benefits

IPS Agent

- Extensive Reporting
- Dashboard view of the system
- Reduced operational costs
- Proactive maintenance and resource planning
- Diagnostic tool set with remote trouble shooting

Bag Manager

- Relief during peak times
- Support in the event of system malfunctions
- Off-airport passenger service

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Flex.Go

Maximum flexibility - designed to meet your needs.

With maximum flexibility, the Flex.Go series is designed as a comprehensive solution, providing innovative technology for seamless passenger handling in customizable configurations.

Customers can select either a pure self-service or a hybrid version and choose from different housing options such as side-or front-loading units with either single or double lanes.

Flex.Go can handle both oneand two-step processing, and also offers technologies like biometrics (IPS Bio. Pass), chip and PIN payment or add-ons such as RFID.

The camera system achieves unparalleled accuracy in determining baggage dimensions, conveyability checks, tub detection and baggage classification ensuring maximum performance.

Your Optional Features

- Single or double unit/hybrid version
- Side- or frontloader (integrated)
- Various material options
- 19" TFT touchscreen with customizable front glass
- Conveyability check
- Surveillance
- Smart payment
- Touchless.Connect
- RFID

Your Benefits

- Maximum flexibility
- One- & two-step SBD
- State-of-the-art, customizable design
- ADA/PRMD compliant
- Modular set up

Suite



IATA CUSS v1.3|v1.4|v1.5

SBD Application

IPS Bio.Pass (optional)



Flex.Family

Designed to redefine the airport experience.

Introducing the Flex.Family, a cutting-edge product portfolio that revolutionizes the travel experience with its innovative self-service bag drop kiosks. Designed for seamless efficiency, these state-of-theart solutions feature easy-to-use interfaces, fast processing capabilities and sleek, modern aesthetics. Elevate your travel journey with the Flex. Family, where convenience meets sophistication, providing a hassle-free and expedited check-in process for passengers while optimizing operational efficiency for airports and airlines alike.



Flex.Drop

The Flex.Drop is specifically designed to easily retrofit self bag drop functionality to existing infrastructure such as baggage handling systems (BHS) or counters.

It features a 17" touchscreen, integrated built-in bag tag printer, and boarding pass shower scanner, enabling both one- and twostep SBD processes. The front-opening printer box is accessible and allows for quick service or

Optionally, Flex.Drop offers biometric identification, a full-page document scanner and can be customized with a variety of housing materials.



wheels!

Flex.Kiosk

Based on the Flex.Go SBD series, the Flex.Kiosk provides effortless passenger processing. It serves dual roles, either as a 19" touchscreen check-in kiosk or a 13.3" touchscreen tagging machine.

Flex.Kiosk's design, appearance, and built-in technology is space-saving. The exterior and interior are fully customizable in terms of material, color, and input devices.

The multiple printer setup, full page document scanner, and boarding pass shower scanner allows Flex. Kiosk to handle both oneand two-step processing. The Flex. Kiosk is ADA/ PRMD compliant. Add-ons, such as biometrics, RFID, smart payment, and Chip and PIN payment technologies may be utilizied.

its flexible design, osk adjusts to any customer needs and can be installed in various locations.



Flex.Tag

Based on the Flex.Go SBD series, the Flex.Tag kiosk is designed for the first step of a two-step SBD process.

The kiosk features a 13.3" touchscreen with adjustable height and customizable front glass. It comes with an integrated boarding pass shower scanner and is ADA/PRMD compliant.

An optional dual printer setup automatically switches between paper rolls to ensure efficient use of both. Flex. Tag can be upgraded with IPS Bio.Pass and Touchless.Connect.

Suite

IATA CUSS v1.3|v1.4|v1.5 **Check-in Application SBD** Application Tag.Go Application IPS Bio.Pass (optional)

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Flex.Kiosk 4D

The Flex. Kiosk 4D shares the same design language and offers bag tagging functionality combined with a full conveyability check.

Equipped with high-resolution industrial cameras and innovative detection logic the Flex. Kiosk 4D provides advanced conveyability check features. These include baggage volume measurement, classification and multiple bag detection.

A bag tag printer and an integrated scale complete the first-step-process. Passengers can not only tag their bags, but also receive airline-specific information about their baggage.

Flex.Beam

Flex.Beam, a component of the Flex.Go solution, is an ideal solution for retrofitting and expanding existing SBD installations by automatically scanning both bag and bag tags. This camera system features a slim housing and is installed approximately 2 meters above the conveyor belt. The system uses multiple high-resolution industrial cameras to detect objects.

Single mounted cameras are responsible for reading bag tag barcodes. An additional stereo camera set can be mounted in the center of the unit. It captures two images of baggage items from slightly different angles for simultaneous depth information.

Flex.Beam not only accurately reads bag tags, but also provides advanced handling details such as baggage volume measurement and classification.





IATA CUSS v1.3|v1.4|v1.5

Tag.Go Application

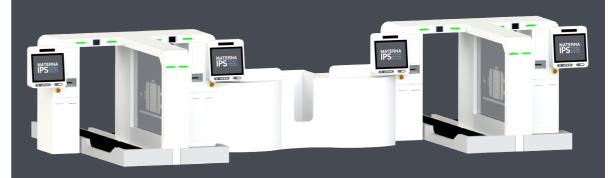
IPS Bio.Pass (optional)

Materna IPS Camera Software

Flex.Family Options



Flex.Go double unit, wood finish



Flex.Go hybrid unit



Flex.Beam with Drop.Go B

Pax.Go

Aesthetic excellence meets versatility.

The highly adaptable, state-of-the-art kiosk provides both check-in and self bag drop functionalities, paired with a visually appealing design.

Pax.Go seamlessly blends into modern airport terminals with its sleek design, optional screen size of up to 32", and sophisticated LED strip lighting.

It comes equipped with a full-page document scanner and integrated printing, as well as the latest technologies such as biometrics, RFID, and chip and PIN payment. Pax.Go can handle both one-step and two-step passenger processing.

In addition, its modular concept allows components or devices to be upgraded at any time to meet local requirements.

Your Optional Features

- Smart Payment
- Touchless.Connect
- Customizable for corporate branding
- ADA/PRMD compliance
- Touchscreen scalable up to 32"
- RFID
- Additional printer for automatic switchover



Your Benefits

- Suitable for check-in & bag drop
- Adabtable to changing requirements
- State-of-the-art design
- One- & two-step SBD
- **Enhanced passenger comfort**

Suite



IATA CUSS v1.3|v1.4|v1.5 **Check-in Application SBD** Application IPS Bio.Pass (optional)

Tag.Go

Effortless, customizable, and compact.

The Tag.Go kiosk is designed to handle the first step in the SBD process. Its minimalist design enhances the check-in area.

Checked-in passengers scan their boarding passes and print their bag tags immediately. Its lean profile and clean design allows for easy integration into any airport environment.

Tag.Go can be customized to meet the airport's requirements, including biometrics, custom RAL colors, and built-in scanners and printers.

Your Optional Features

- Customizable for corporate branding
- Touchless.Connect
- ADA/PRMD compliance
- Full page boarding pass scanner
- PEID
- Customizable front glass (color)



Your Benefits

- Efficient bag tag printing
- Small size and 13.3" touchscreen
- Enhanced passenger comfort
- Modular setup
- Elegant, compact and efficient design

Suite



IATA CUSS v1.3|v1.4|v1.5
Tag.Go Application
IPS Bio.Pass (optional)

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Tag.Go Mini

Maximizing the benefits, minimized in size.

The kiosk's space-saving design, passenger-friendly interface, and integrated LED technology guarantee a smooth travel experience.

Tag.Go Mini as a first-step only device is specifically designed for the usage via BYOD. Passengers use their smartphones without extra app installation, thanks to Touchless.Connect (Android, IOS and others).

Its compact size allows for multiple mounting options, including wall, counter, or freestanding.

Extra customization includes smart payment, custom RAL colors, built-in scanner and printer.

Your Optional Features

- Various mounting options
- Customizable for corporate branding
- Touchless.Connect
- ADA/PRMD compliance
- Additiobnal printer setup (column mount)
- Customizable front glass (color)
- Several material options



Your Benefits

- Efficient bag tag printing via BYOD
- Multiple mounting options
- Compact design and 7" touchscreen
- Different use cases
- Modular setup

Suite



IATA CUSS v1.3|v1.4|v1.5
Tag.Go Application

Drop.Go A

Think seamless: Upgrade your bag drop systems.

The compact size and discreet design make the Drop.Go A perfect for existing airport infrastructure. Its minimal footprint allows for convenient mounting options, especially at existing counters.

As the second step of a two-step SBD process, passengers simply scan their bag tags and drop their baggage at this touchpoint.

Upon request, the Drop.Go A can be upgraded in terms of functionality and security options as well as customized, e. g. Cl colors.

Your Optional Features

- Various mounting options
- Customizable for corporate branding
- Touchless.Connect
- ADA/PRMD compliance

Your Benefits

- Advantages of 2-step bag drop process
- Seamless integration
- Optional upgrades
- User-friendly and intuitive
- Continued utilization of existing counters

Suite



IATA CUSS v1.3|v1.4|v1.5

SBD Application

IPS Bio.Pass (optional)

32 | SBD | 33

Drop.Go B

One- or two-step? Boost your bag drop systems.

The Drop.Go B is configured to perform both one-step and two-step SBD processes.

In addition to various mounting options, this unit is equipped with printers allowing passengers to print bag tags and receipts on the spot. The attached handheld scanner allows for quick scanning of bag tags.

Drop.Go B has various mounting options and is equipped with a handheld scanner and printers. Therefore, unlike the Drop.Go A, passengers can also print their bag tags and receipts at this touchpoint as well as drop off their bag.

This device comes with several customizable features, such as optional biometric identification, optional CI for the interface, or a Flex.Beam instead of a handheld scanner.



Your Optional Features

- Various mounting options
- Customizable for corporate branding
- Touchless.Connect
- ADA/PRMD compliance
- Additional shower scanner setup
- Customizable front glass (color)

Your Benefits

- One- or two-step solution
- Various mounting options
- Bag tag & receipt printer
- May be equipped with Flex.Beam
- Multiple add-ons

Suite



IATA CUSS v1.3|v1.4|v1.5

SBD Application

IPS Bio.Pass (optional)

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Drop.Go C

Modern design, maximum adaptability.

Drop.Go C is the smallest model of the Drop.Go series. With its modern design and flexible mountability, it is also the most adaptable model.

The space-saving device is designed for the second step of a two-step SBD process. Using the supplied handheld scanner, passengers can quickly and effortlessly scan their bag tags and drop their bags into the BHS independently.

The 13.3" touchscreen and signaling LED enhance the user experience.

Your Optional Features

- Individual mounting possible
- Customizable corporate branding
- Touchless.Connect
- ADA/PRMD compliance



Your Benefits

- Compact design
- Integrated barcode scanner holder
- Harmonious integration
- Advantages of 2-step bag drop process
- Continued utilization of existing counters

Suite

IATA CUSS v1.3|v1.4|v1.5
SBD Application

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Access

Fully automated. Convenient. Secure.

Secure Access is the Materna IPS solution to provide secured access to any area with special security relevance.

Designed to be used as an entrance Access. Gate control system for airside, lounges or any The Access. Gate offers a fast, fully passenger's board pass validity or other validating grant access.

Boarding pass validity information is insights, such as their verification ensures that the information any gate changes. on the ID document presented matches the person presenting it, including a 1:1 facial and name match.

The system's flexibility lies in its configurable business rules, allowing the combination of information necessary for validity checks while also facilitating aeneration of statistics and management insights.

other area where limited and secured automated, and convenient way to access is required. The application takes access secure airport areas. Materna over access control by checking the IPS' software verifies boarding passes, documents against documents which may be required to predefined rules. The system monitors passenger flow and provides valuable location ensured by integration of 3rd party data and estimated behavior. For the sources like AODB, FIDS or other systems convenience of your passengers, the providing relevant status information, application also displays the walking As an additional option, biometric ID time to their gate and notifies them of

Boarding.Gate

Implement the Boarding. Gate for a simplified, automated, more efficient and streamlined boarding process. Using the IATA ITPS (AEA) interface and based on the CUTE/CUPPS standard, a boarding e-gate can be easily integrated into any airport infrastructure.

Your Benefits

Access.Gate

- Offers automated & manual access points
- Flexible use cases
- Comprehensive statistics
- Fast and convenient usability
- **Nearly maintenance-free**

Boarding.Gate

- Completely automated aircraft boarding
- Certified for CUTE/CUPPS
- Offers automated & manual boarding points
- Effortless integration and maintenance
- Available with IPS Bio.Pass

Suite

IATA ITPS (AEA) Materna IPS Interface **IPS Bio.Pass**

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Managed Services

Simplicity meets reliability.

Materna IPS offers specialized resources and expertise to manage and operate the necessary infrastructure, allowing you to concentrate on your core business. By doing so, we aim to streamline operations and alleviate the complexities and daily challenges faced by your IT department. The modular concept consists of four components, allowing you to stay flexible and choose options and features of the services you would like to implement.

1. Service Management

Materna IPS organizes its operational processes according to the ITIL standard, and includes the following main processes:

24/7 Incident Management

Materna's Service Support Desk operates round-the-clock, ensuring continuous incident handling and prompt resolution, contributing to uninterrupted service for airport and airline clients.

Proactive Problem Management

Materna IPS actively works on preventing problems and recurring incidents, minimizing their impacts, and identifying root causes, which leads to enhanced system reliability and reduced disruptions.

Change Management

Change Management refers to the systematic approach to managing alterations in IT infrastructure within an organization. These changes may stem from evolving business needs or proactive measures aimed at enhancing operational efficiency. By implementing a coordinated process for change

implementation, we mitigate the risk of incidents arising from inconsistent execution, ensuring smooth transitions and minimizing disruptions to business operations.

Reporting & Capacity Monitoring

Reporting meets the specific needs of each customer, providing a tailored and relevant overview. Capacity monitoring and reporting are integral components of our maintenance strategy, enabling timely adjustments and preventing potential issues.

Dedicated Service Manager

The appointment of a dedicated service manager ensures service delivery and compliance with SLAs, ensuring accountability and maintaining high service quality standards.

2. Business-Service Monitoring

Materna IPS uses a monitoring solution based on Icinga and employs a flexible approach to align and extend monitoring across various hardware, software, and business processes. This ensures a comprehensive oversight of the entire system.

Touchpoint Component Monitoring

Touchpoint monitoring covers a range of components, including internal ables and software components. The customer and Materna IPS will agree on the final notification responsibility scheme (e.g. RACI matrix) for any event or alarm originating from the devices internal and external components.

Backend Monitoring

The monitoring services extend to approach that determines intervals endpoints at application servers. This for hardware maintenance, allowing proactive approach allows us to iden- for proactive addressing of potential tify and address potential issues be- issues and ensuring continuous availfore they impact the system's perfor-ability of the touchpoint. mance, ensuring optimal functionality.

Reactive Maintenance

The service monitoring addresses issues or anomalies in real-time as they and external hardware, PC, consum- occur. This approach involves alerts or notifications generated when a deviation from normal operation is detected. These notifications are directly forwarded to the responsible service technician to rectify problems.

Predictive Maintenance

Going beyond reactive measures, predictive maintenance is a data-driven

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3. Application Management

The commitment of Materna IPS to ensure the seamless operation of self checkin and bag drop services encompasses a comprehensive suite of application management services. This crucial aspect of our portfolio focuses on the deployment and life-cycle management of software releases and covers a range of essential functionalities:

Application Management

- Release deployment (Blue-Green) Deployments)
- Deployment of patches and (hot-)fixes
- Cyber security updates and patches
- Operating system maintenance
- Rollback processes

Touchpoint Software Deployment

- Automated remote installation, deployment and updates
- Scheduled roll-outs
- Predefined rollback packages

4. Cloud- and Infrastructure Management

Materna IPS is dedicated to provide comprehensive services to ensure optimal performance and longevity of its self-service devices and therefore recommends a modern, future-proof cloud infrastructure setup. A detailed implementation will be realized individually in cooperation with the customer.

SaaS Management

Our SaaS Management supports operational activities, streamlines process- With IPS Managed Services Materna es, and enhances overall workflows. IPS is responsible for the remote setup Through systematic risk reduction and reliance on automation, prevents constantly increasing costs. Transparency is provided through a central- by our dedicated staff. ized infrastructure, offering users the visualization of service utilization. Fur-smooth service operation is set up in thermore, SaaS management ensures efficient and scalable operation workflows, optimizes license usage by up-vices. grading or downgrading as per customer's requirements.

Server, Infrastructure and Cloud Operations

and maintenance of the infrastructure for your self-service devices. All operational tasks are performed remotely

The infrastructure required for the cloud to ensure a secure and reliable basis for your passenger self-ser-



Reference Projects

Flex.Go, double hybrid | Tokyo, HND



Flex.Go, frontloader | Zurich, ZRH



Flex.Go, double | Chicago, ORD



Flex.Go, double | Detroit, DTW

Flex.Family



Flex.Tag | Pisa, PSA

Drop.Go A



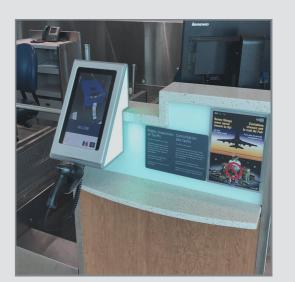
Berlin, BER

Drop.Go B



Berlin, BER





Toronto, YYZ

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Tag.Go



Dusseldorf, DUS

Pax.Go



Berlin, BER

Access.Gate



Athens, ATH





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