# ASIO

Asio Space Booking Solution

Asio Space Booking is a modern, multi-channeled and professional-grade cloud-based booking solution, which makes it easy to book and manage spaces, facilities and other resources.

Online booking services for one's own homepages can be dynamically produced via the Asio solution. Add-on service and product sales coupled with an online payment service can be easily included in the public online booking service.

The solution is delivered as a maintained **cloud service** (**SaaS**) or installed in one's own dedicated server. The booking services are tailored to fit the customer's own booking processes and the visual layout of one's own homepage aligned with their own booking customs and access rights' policies.

The system development has strong emphasis in solution reliability, user friendliness, user experience responsiveness, future proof technology choices and information security. The solution's GDPR-compatibility and versatile access rights' management take in to account the protection of privacy across all booking activities.
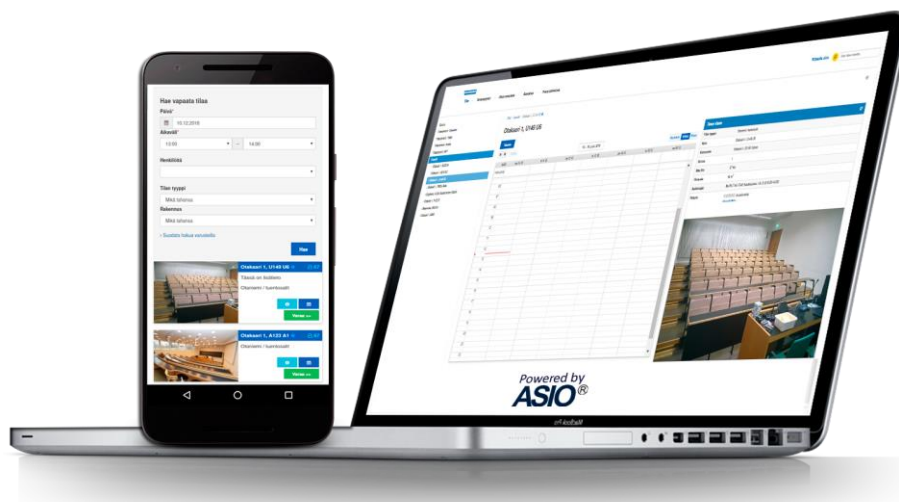
The modular solution suits many uses throughout lines of business. Productized **software versions** are available for a variety of booking needs. For example, sports arenas, conference rooms, classrooms, parking spots, accommodations, restaurant services, table seats, equipment, people, times, events, trainings, products and other resources can be booked with Asio.

The Asio Booking Solution is widely used by educational institutes, municipalities and cities, sports arenas, sports clubs, restaurants, culture-, course- and conference centers, business parks and companies that offer business premises, accommodation organisations and dormitories, parking halls, event organisers and many other types of booking organisations.

Online booking services, booking portals and internet calendars can be produced dynamically with the booking solution. Online services are designed with a responsive user interface, which means that they can be used conveniently also with mobile devices.

Embedding online booking services to one's own homepage
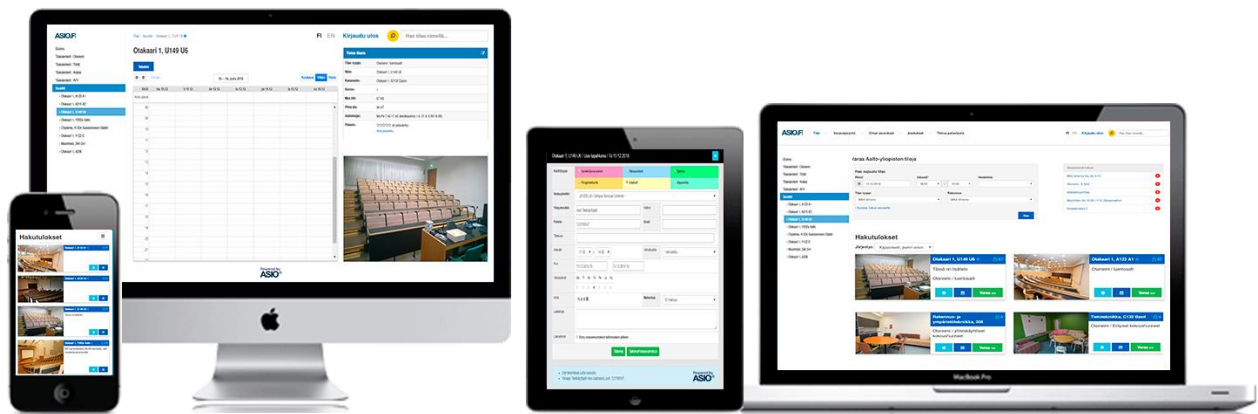
o   Responsive online user interface.
o   Layout consistent with the visual appearance of one's own website.
o   User experience consistent with one's own booking customs and booking processes.
o   Search engine friendly integration inside one's own homepage structure.
o   My bookings –online service.
o   Dedicated user interfaces for contract customers, service providers and sales service.
o   Maintained and secure cloud service (SaaS).

MANAGING BOOKINGS

The solution offers **Administration User Interface** for the dedicated admin users who manage the booking operations.

The admin user interface contains comprehensive listing and reporting tools, GDPR privacy features and comprehensive tools to manage bookable objects and resources, price lists, customer and user registries, bookings and changes in bookings as well as the invoicing of the bookings.

The versatile user access rights management allows access to the booking functions for both internal and external use. User rights can be granted and adjusted to the required level for each role and user.

The Admin and online service user interfaces are localized in English language.

SEARCH TOOLS

Vacant spaces and bookable resources can be discovered and booked fast and easily using the solution's search tools.

The search results can be sorted in a desired way and the order of display can be changed by criterion such as price, capacity or location.

Filters, such as booking the space with the required equipment, premise capacity, price level, location or some other desired criterion, can be applied within the search.

Search features are an integral part of online booking services.

BOOKING TYPES

Asio supports versatile **booking types** and multiple views to display the booking context and status.

TYPES OF BOOKINGS	EXAMPLES OF USE
Single bookings	The single booking of a single space, resource or event.
Ongoing bookings	Ongoing booking (e.g. booking periodical trainings for a sports team).
Short-term and long-term bookings	An hour-based or partial hour-based booking, seasonal and long-term bookings.
Bundled bookings	Multiple spaces, products and services included in the same booking bundle.
Partial bookings	The booking of a part of a divided space, a seat around a table or a space section.
Capacity based bookings	Bookings based on space capacity.
Grouped bookings	Booking an object from a resource-pool.
Event bookings	Event administration and online enrolment into an event.

The bookable spaces, products, people, events and other bookable resources are termed **booking objects** within the Asio solution.

The access rights for users can be set by the booking object.

Examples:
- o a full administrative level right to book and to change bookings.
- o a limited operative right to book a certain object.
- o a user right to only browse booking statuses.

ONLINE CALENDARS

Online booking calendars and **online browsing calendars** can be produced for any bookable object to be displayed on one's own homepage.

Responsive online calendars can be embedded to one's own homepage for external booking and sales or for browsing the booking status. The desired information, pictures, map links and embed scripts to external web pages can be included in the homepage display.

The **Asio Theatre Mode** – switch can be applied when presenting the space calendar in full screen display. The Asio Theatre Mode broadens the online calendar's surface to the width of the screen.

For displaying pictures and space location maps in an online user interface the **Asio Magnificent Popup** – tool can be utilized. The tool makes it possible to create and present picture galleries in the online service.

To create video exhibitions for different spaces, the **Asio 360 3D Photosphere** – tool is available.

More diverse and combined calendar surfaces can be produced with the **Asio Grid Mode**.

BOOKING AND PAYING THE BOOKINGS

Booking via the online calendar works by "**painting**" the interactive online calendar surface or by "**clicking**" on the vacant times or search results.

The user information for the booking is entered via **an online booking form** or **an online shopping cart**, depending on the booking context.

Example: An online Booking form (booking a conference room in a campus)

Example: An online Shopping cart (booking a meeting room in a business park)

Asio Online Shopping Basket

You have one product in your shopping basket

	Product	Amount	Price	VAT
Remove	Space booking Tue 30.07.19 at 09:00	1	€45.00	24%
	Space: Meeting room Chydenia Time: Tue 30.07.19 at 09:00-10.00 Duration: 1 hour Location: Piippukatu 1, 01000 Jyväskylä			

Price total €45.00   << Continue shopping   Checkout >>   Clear basket

Add-on service and product sales, such as catering services, can be included in the shopping cart.

Order food

You have one product in your shopping basket

	Product	Amount	Price	VAT
Remove	Delivery: Tue 30.07.19 at 09:00			
Remove	Brie-apricot salad, honey dressing	1	15,20 €	1,87 € (14%)

▼ Salads			
Product	a-Price	Count	Price total
Brie-apricot salad, honey dressing	15,20 €	1 + -	

Price total 15,20 €   << Continue shopping   Checkout >>   Clear basket

For external service providers, such as restaurants, there is a dedicated user interface for handling and managing the service orders.

The payment of bookings can be carried out by internal or external customer invoicing, by an online payment service or by cash.

The invoice data and online payment transactions can be transferred to an external financial management software via an API interface and secure data transfer program.

ONLINE BOOKING SERVICES AND BOOKING PORTALS

The online booking services and internet calendars can be customized for different purposes of use and to align with the visual layout of one's own homepage.

Such include online calendars for browsing, booking, paying for the bookings and customized booking portals.
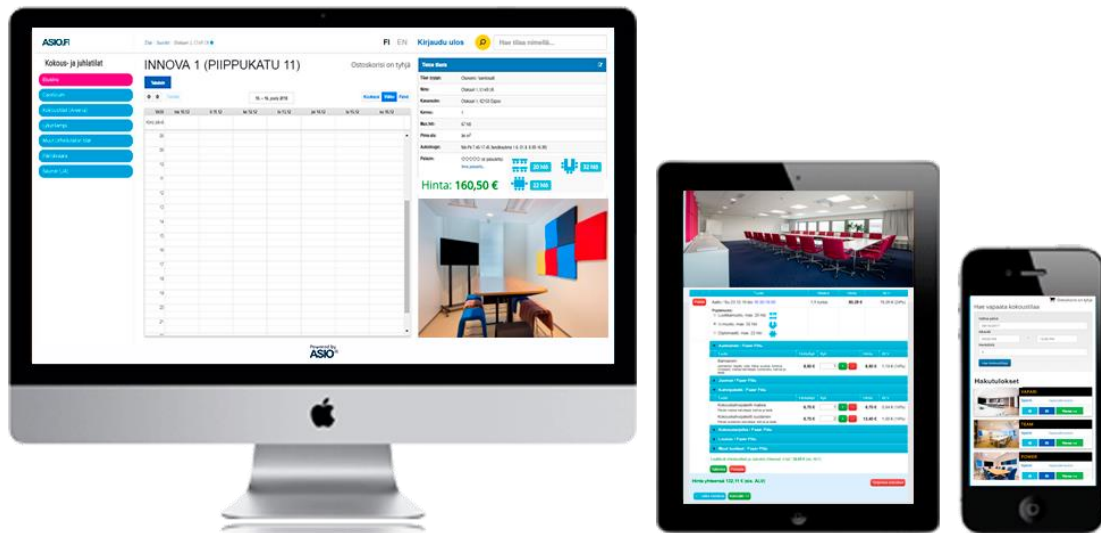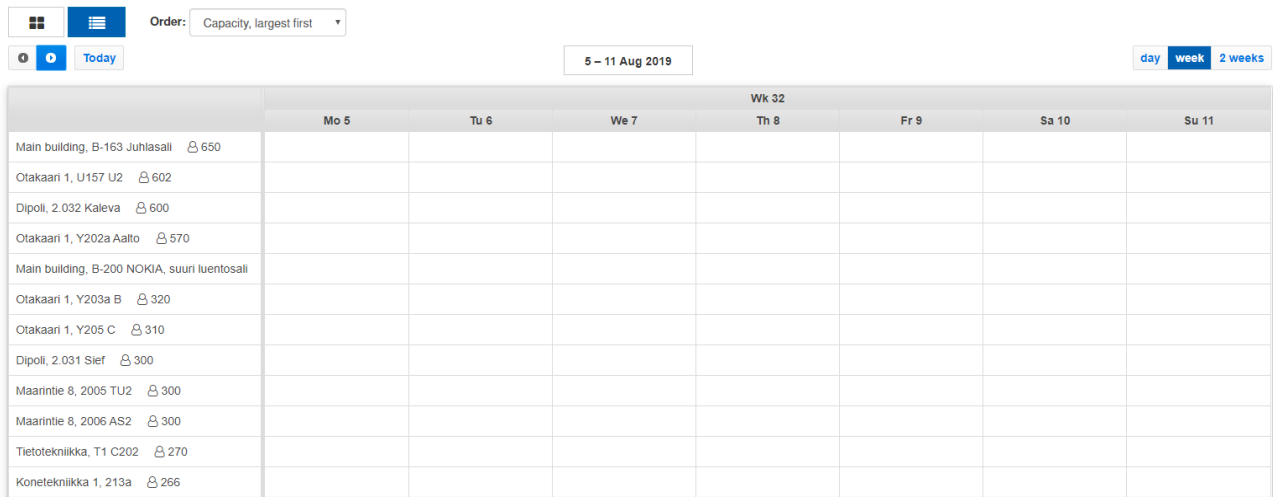
In a **booking portal** – setup the booking objects are grouped in the desired way and a front page and navigation are custom-built for the online service. Users can discover bookable resources with multiple different logics, including navigation and search.
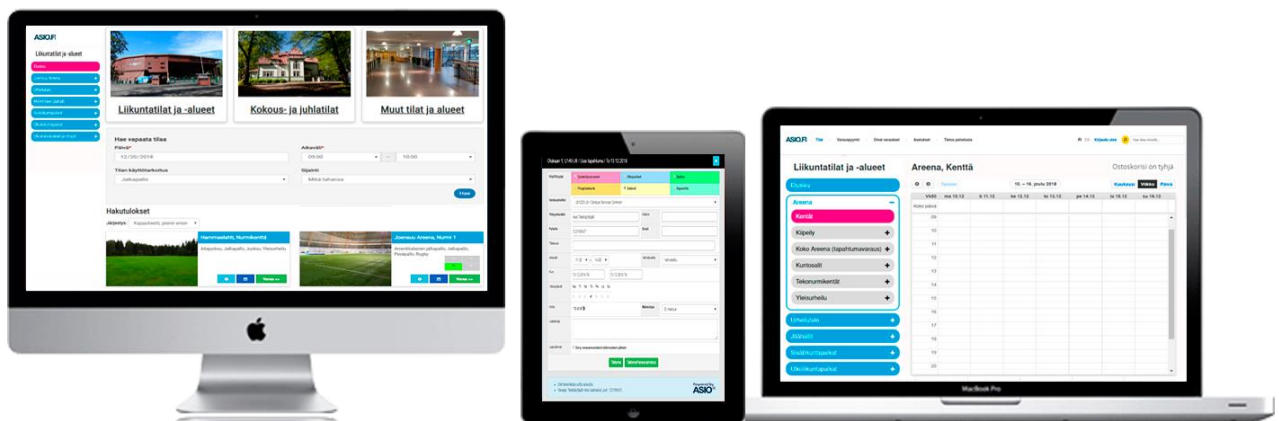
COMBINED BOOKING CALENDARS

The booking calendars can also be formed into **combined** calendar views. In addition to single space calendar surfaces, **Asio Grid Mode** ▦ is available for combined online calendar surfaces and for diverse booking needs.

The combined online calendars suit the display of more than one booking object in a unified calendar surface. Booking can be easily initiated by clicking a vacant slot in a unified online calendar interface.

The booking objects can be sorted onto a combined calendar display for example vertically and by the week interval. The chosen booking objects can be filtered onto the combined calendar surface by for example the level of equipment, the type of use, the capacity, the type of space or the location.

By clicking the calendar surface, it is possible to move on to booking. By clicking the name of the space one can move to the chosen space's individual internet calendar.

The grid-display can also be formed into a day view, where the booking objects are displayed horizontally and the bookable times vertically. This type of display suits well, for example, sports arenas or equipment bookings. The booking happens easily by painting over the interactive calendar surface.

EVENT BOOKINGS

Asio booking solution suits also **events and online enrolment to events**. Events can be trainings, courses, camps, swimming schools, trips, guided sports, performances, exhibits and guided tours. Events are produced and administered with a **seperate Asio Event Booking Software module**, which is connectable to the Asio Space Booking Solution and space administration.

A Responsive event portal can be produced to one's own homepage. The users can see available events, sign up to them and pay for the participation.
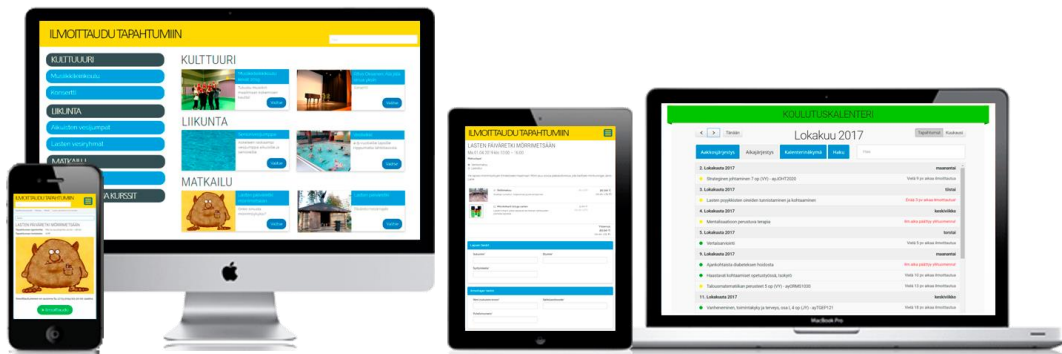
The event administration comes with a dedicated events' administration user interface. The admin user interface handles for example the enrolments, creation, maintaining and publishing of the events and online registration forms for the events.

LONG-TERM BOOKINGS

Asio Booking Solution also supports **long-term bookings** and **seasonal bookings**. Long-term bookings include for example accommodations (such as cottages, dormitories and other rentable spaces). Seasonal bookings are the bookings of berths, for example.

Long-term and seasonal bookings are administered with a **separate Asio Accommodation Booking Software module**.
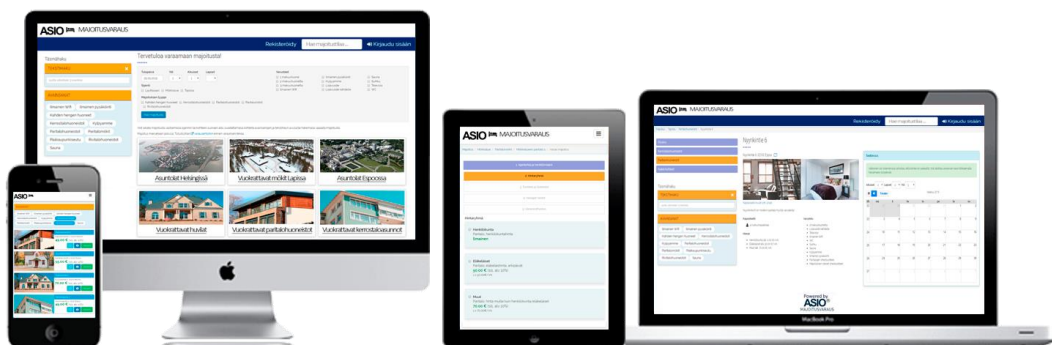
TARGETED SERVICE USER INTERFACES

Asio booking solution offers targeted service user interfaces to dedicated user groups.

In addition to the Admin user interface and public online service interfaces the following dedicated service user interfaces are available:

- **Contract Customer Service Interface** (e.g. companies, sports teams, tenants)

  Contractual customers may have their own price lists and rules for bookings. Contractual customers can be registered in the system's customer register. Contractual customers have access to a dedicated online service interface to manage and make changes to their own bookings and to cancel their bookings according to the cancellation policies.

- **My Bookings User Interface**

  For the end-users there is an online service interface where the user gets to see their own booking history, booking confirmations and receipts and have a possibility to make changes to and cancel their bookings according to the cancellation policies. New booking offers can also be sent to this user service for user online confirmation and acceptance.

- **Lobby and Sales Services' Service Interface**

  Dedicated Lobby and Sales Services' Service Interface offers easy access to the making and modifying of bookings and booking offers, as well as to viewing the bookings' status-displays and daily and weekly booking lists. The features also include the reception of cash payments, the logging in of visitors and the printing of visitor cards.

- **Service Providers' Service Interface** (e.g. catering, cleaning, IT-services)

  The handling of the Service Orders is administered with the Service Providers' Service Interface. For example, a catering service provider has access to the administration and the handling of the services, price lists, orders and cancellations of their own products and services. The service provider recieves, handles and confirms service orders from the Service Providers' Service Interface and can produce for example product sales reports and daily as well as weekly listings of the incoming Service Orders.

INTEGRATIONS AND EXTERNAL API INTERFACES

Various integrations, API interfaces and custom data transfer programs connecting with different external software solutions, applications and background systems are integratable with the Asio Booking Solution.

Asio can integrate and connect to e.g. external financial management software solutions, online payment services, external space access control and smart lock software solutions, lobby and doorpost monitors, external user administration and access right solutions, external registries and data storages, SMS-server, external graphic reporting and analysis services, native mobile applications (Android / iPhone) as well as external calendar programs.

A productized Asio API-interface is available for web-integrators. The public online calendars can also be subscribed to external calendar programs with Webcal-technology or be submerged to external homepages with dynamic embed scripts.

Examples of the most common external integrations are for example the online payment of bookings, space access control and the integration of Asio with external financial management software solutions.

Online Payment	Space Access Control	Financial Management
Online payment, invoicing, cash	Controlling smart locks through bookings	Transferring invoicing data and transactions

Asio has an inbuilt readiness (**productized integration**) for reporting, messaging, online payment and space access control. In addition, Asio has custom connectors for lobby and doorpost monitors, subscription of online calendars for one's own calendar programs and injecting public internet calendars on external websites using the dynamic Asio embed scripts.

○ Reporting Services

For **operative reporting** Asio Admin User Interface has an **inbuilt** dynamic list generator. With the list generator it is possible to run custom reports for often used reporting needs such as space utilization rate tracking, invoicing reports and booking listings with a variety of logics. The reports are exportable to Excel and the reports can be customized to include the desired information available in the Asio booking solution database.

For **strategic reporting** such as deeper graphical analysis, Asio integrates with the Qlik -cloud reporting platform. Custom integration can be done per **a separate order**. Graphical Qlik-reports function by clicking and the desired information can be presented and filtered in any kind of graphical representation. Graphical analyses suit well for example monitoring sales, monitoring utilisation rates, shopping basket analyses, geo-based analytics and space or resource-specific deeper analyses.
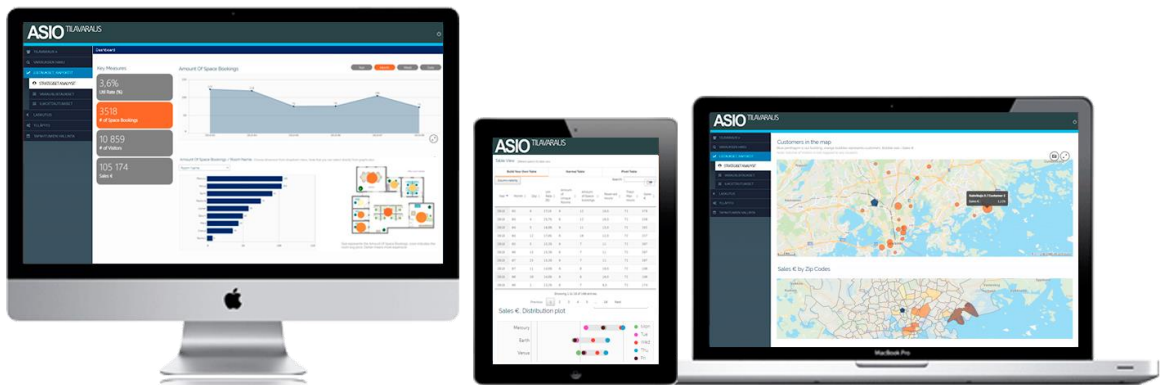
The customer needs a seperate Qlik license contract for the use of the Qlik reporting platform and cloud service.

o **Messaging Services**

For **messaging**, the reliable Mandrill email-service is productized and **inbuilt** inside Asio.

The cost-effective Quriiri SMS-messaging service is also **separately available**.

The messaging features suit group messaging and automatized messages, such as booking confirmations and delivery of customer receipts.

The reliability of the Asio emailing and SMS service is classified as excellent.

o **Online Payment Service**

Asio has an online shopping cart integration with Paytrail for **online payments**.

The sales channel and merchant account identification are a part of the Paytrail online payment service, which enables the payment distribution directly to the proper merchant.

For the use of Paytrail service, the customer needs a separate Paytrail online payment -service contract and Merchant ID.

The online payment integration can also be done directly to the chosen online payment service used by the customer.

o **Space Access Control Services**

For **space access control** and smart lock software solutions, a connecting program and integration to Bitwards cloud service platform is productized inside Asio.

Bitwards is a smart lock independent and software-based cloud service enabling mobile app and PIN code-based access to spaces.

Asio produces the booking operation and manages changes in the booking, such as cancellations, and dynamically guides the Bitwards software, which in turn controls the opening of doors on site during the validity period of the booking.

For the use of Bitwards the customer needs a separate Bitwards service contract.

The integration can also be done directly to the access control software of choice used by the customer.

o **Lobby and Doorpost Monitor connectors**

With **the lobby and doorpost monitor** connector, the space's internet calendars can be dynamically fed into the buildings' lobby and doorpost screens. The real-time booking status is visualized with traffic lights.

- o **Dynamic Embed Scripts to external websites**

    The embed scripts are meant for real-time dynamic injection and subscription of internet caledars to external websites. All public online calendars (such as space calendars as well as combined calendar views) can produce a dynamic embed script, which is copiable inside the external website's HTML-code.

    ```
    <!-- Asio Calendar Embed Code begins -->
    <DIV ID="ASIO-5bd0ff"></DIV>
    <SCRIPT TYPE="text/javascript" SRC="https://tilavajoensuu.fi/onlinekalenteri/joensuu-
    liikunta/embed.php?id=19983Xoi" DEFER="DEFER"></SCRIPT>
    <!-- Asio Calendar Embed Code ends -->
    ```

- o **Subscribing Online Calendars to one's own Calendar Program**

    Online calendars can be subscribed and synchronized to one's own calendar program, for example to the calendar programs of iPhone or Android or to Outlook and Gmail calendars.

    The subscription of online internet calendars works with standard Webcal-technology. The Asio internet calendars follow the standard iCal format and are transferrable to external calendar programs as such.

    For example, the player of a sports team can subscribe his or her own team's internet calendar to the calendar program of their choice.

Alongside productized integrations, the Asio booking solution is integratable directly by a separate commission and through custom created interface and data transfer programs to customer's own backround systems.

- o **Financial Management integration**

    The most typical integration is the Financial Management software integration. The integration covers the transfer of invoicing data and online payment transactions' through a custom API interface and a data transfer program between Asio and the external Financial Management software.

    Asio has deployed multiple custom field integrations, some of which are Procountor, Pro-E, Netvisor, Aditro Intime, myClub, Rondo, Lemonsoft and SAP.

- o **Space Access Control integration**

    Through the direct integration and custom API interface to an external space access control solution, a booking created in Asio is transferred from Asio to the external space access control solution, which in turn controls the opening of a door and the user's access to a booked space on site during the validity of the booking.

There are various integratable space access control software solutions, including iLOQ, Esmikko, Abloy, Timecon and Megaflex.

o **Access Rights Management integration**

Asio can be integrated to external access rights' management and user identification solutions, for example AD/Shibboleth and Suomi.fi.

o **Application-level integrations**

Asio can also be integrated to native applications such as Android or iPhone mobile applications. The integration is done through a custom API interface. The data residing in Asio (including booking information, calendars, pictures and functional booking logics) can be transferred via an interface dynamically from Asio to be consumed by an external application and its user interface.

For example, Aalto University's Aalto Space –mobile app, which is integrated to the Asio booking solution, enables the student bookings of co-working spaces. The native application has two-way communication through an interface with the Asio booking database, and the application is able to present the real-time booking status of campus co-working spaces and allow a booking by eligible students from the mobile application's user interface.
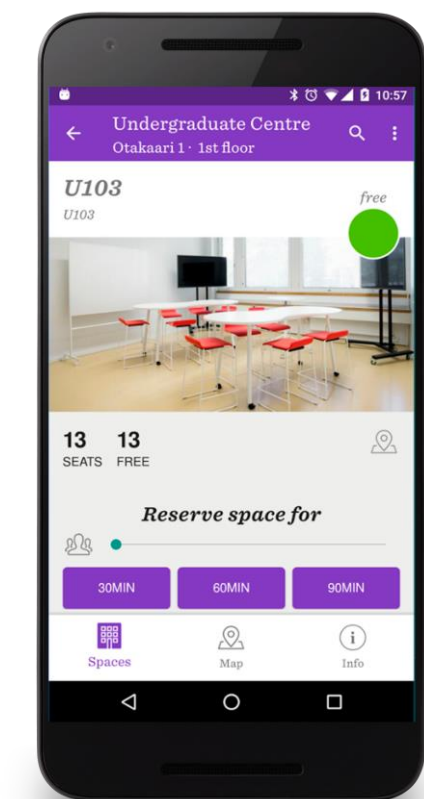
- o **Mobile Technology integrations**

  The booking services can be enriched utilizing widely used mobile technologies such as QR-codes and NFC-technology.

  QR-codes and NFC-technology can be utilized by for example activating fast mobile access to space calendars or by ordering catering services or continuing the duration of the booking on-the-spot.

The Asio Space Booking Solution and related integrations are tailored to the customer specific nature of booking use, access rights' policies, booking processes and customs, background systems and invoicing and payment customs.

The responsive online booking services and their functional logics as well as visual outlook are customized to the style of the customer's own homepages.

GDPR-COMPATIBILITY

Asio is a GDPR compatible booking solution.

The main GDPR system functions include the following:

- o A function, with which all of the data regarding a person can be listed, pseudonymisized and/or deleted.
- o A function which can detect with which search terms personal data has been searched and by whom, as well as display the responses to the searches.
- o A function which can detect who has proceeded to browse a certain person's data.
- o A function which individually logs what person's data has been changed and when.
- o A function with which a person's basic information can be transferred to an interface file.
- o A function-family with which through a mass-operation information in different data groups that is deemed outdated can be deleted, anonymisized or pseudonymisized so that the internal integrity of the data remains unharmed.

Asio GDPR features as well as other system functions are developed constantly.

New developed additional GDPR features are delivered as version-updates to the Asio Customers.

What do our customers think of Asio?

The Municipality of Isokyrö
Our municipality's space bookings got easier when we got a space booking portal online produced through Asio, with which booking is fast and simple. Our residents can now make bookings online and on mobile to all our indoor sports spaces.
- o   Laura Lahti, the municipality of Isokyrö

Espoo Metro Areena
Metro Areena changed their booking system to Asio. Asio is a versatile booking system, which suits our arena's ice rink bookings outstandingly.
- o   Katariina Järveläinen, Espoo Metro Areena

Assi Group Business Park
The Asio meeting room booking software fit all of our wishes in the online sales of our meeting spaces in our office building on Vapaudenaukio and lobby and restaurant services. Absolutely exceptional was the flexibility and the speed in which our wishes were put to use.
- o   Markku Hokkanen, Assi Group Oy Lappeenranta

Pelastusopisto
At our Pelastusopisto it has been nice to see people learn how to use Asio. Sometimes people wonder how we have survived before without it.
- o   Timo Rissanen, Pelastusopisto

EBK-HONKA areena
Our arena's field bookings can now be bought online by painting over a vacant time on a field in the Asio online booking calendar. The booking of individual field sections and our meeting spaces are also possible in the online service.
- o   Sari Holm, EBK-HONKA areena

The City of Alavus
With Asio we offer the greatest service to our residents. Asio is cost-effective and a good space booking solution.
- o   Mikko Peltokangas, the City of Alavus

Rikosseuraamusalan koulutuskeskus
With the Asio online calendar our students get our courses' event calendars easily on their phones. Also the announcements of changes is easy.
- o   Matti Niiniskorpi, Rikosseuraamusalan koulutuskeskus

Helsingin Jalkapalloklubi HJK
HJK invests in the quality of our club activity and services. That's why we chose the Asio Booking software. With Asio we book our teams' turns on the fields and sell the free turns online for those who need them.
- o   Juuso Muurinen, Helsingin Jalkapalloklubi HJK

Espoon Palloseura EPS
With Asio our fields are in effective use. Asio produces encompassing reports of the use levels of each field. With Asio we efficiently manage our teams' field bookings, field transfers and billing.
- o   Janne Kataja, Espoon Palloseura EPS

Espoon Jäätaiturit EsJt
Asio is used also by EsJt, as by many other figure skating clubs. The commissioning of Asio has gone smoothly. The special needs of our club have been taken well into consideration.
- o   Anna Kuusniemi-Laine, Espoon Jäätaiturit EsJt

Espoon Taitoluisteluklubi ETK
With Asio we get our club's important reports such as the financial management reports of spaces, the worktime reports of coaches and the statistics on the assistance applications for the city with only a few clicks.
- o   Henriikka Aihinen, Espoon taitoluisteluklubi ETK

Tapiolan Honka
For Honka it is important to make the bookings of courts easy. With Asio we get the court bookings for our teams and show the happenings on each court online.
- o   Juhani Herrala, Tapiolan Honka

Helsingin Taitoluisteluklubi HTK
Asio makes the management of our schedules, the planning of our turns and the announcements inside our club easier. Asio is the best thing that has happened to us in a long time.
- o   Kirsi Nurmi-Haikonen, Helsingin Taitoluisteluklubi HTK

Turku-Areenat
We use Asio for the ice rink bookings in our arenas. Booking and changing bookings is easy with Asio. We are very happy with Asio's professional customer service and versatile booking program.
- o   Toni Autio, Turku-Areenat

Ajantieto
We have been very happy customers already since 2002. The things agreed on get done and on time. The management of progects is handled. The staff is professional and nice.
- o   Jaana Koskinen, Ajantieto

Aktiivi-Instituutti
We chose Asio, because it is an all-encompassing course management software. Asio updates our schooling selection on our homepages. The changes are updated immediately when we do them. Asio's customer service is fast and friendly.
- o   Kirsti Palenius, Aktiivi-Instituutti

Etelä-Pohjanmaan kesäyliopisto
With the Asio schooling sales online services our schoolings' search engine visibility got better and our schooling selection is up real-time and responsively now on our websites. We recommend Asio's schooling sales online service for operators offering schooling.
- o   Outi Kultti, Etelä-Pohjanmaan kesäyliopisto

Hämeen kesäyliopisto
With Asio we manage our schooling selection and customer register efficiently. Also space bookings can be done well with Asio. Above all Asio has produced a lot of trust in our planning process.
- o   Hanna Salo, Hämeen kesäyliopisto

Snellman-kesäyliopisto
Our trainings can be found easily online from the event calendars submerged to our homepages by Asio. Asio also produces graphic diagrams of our activity volumes for our internal use.
- o   Soili Meklin, Snellman-kesäyliopisto

The Municipality of Taipalsaari
With the Asio booking calendar we manage all of our sports and event-spaces' bookings. With Asio the management of our bookings has gotten easier. We are, by all means, very content with the service.
- o   Olli Alamäki, Taipalsaaren kunta

FC Honka
Our teams can sell and buy unused field turns from each other with Asio. The field turn market works without the office having to manage the transfers of turns on the fields and the billing is targeted automatically.
- o   Minna Huusko, FC Honka

KEUDA
We haven't had to regret the decision to get Asio. The user feeback has been positive from the customers booking our meeting spaces and event organisers booking our bigger event spaces.
- o Jussi Kaatrasalo, KEUDA

Pohjola Rakennus Uusimaa
The parking spaces at our office have been able to be put to effective use with Asio. The spaces don't have to be empty as the owners of the spaces can free them for the use of other employees when they themselves don't need them.
- o Tommi Metsälä, Pohjola Rakennus Uusimaa

Kokonniemen Palloiluhalli
The purchase of Asio has been a positive surprise. Our sports arena's turns on the fields bookings and management with Asio has been very easy and effortless.
- o Toni Nyström, Kokonniemen Palloiluhalli

The City of Joensuu
The cooperation with Asio has commenced very well. The commissioning of the booking system has been smooth. We are waiting with interest upcoming development projects.
- o Pekka Penttinen, the City of Joensuu

Kielo Office Solutions Business Park
The Asio meeting booking software was tailored quickly and flexibly following our needs and wishes. Our lobby services as well as our collaborative restaurants have been very content with the easiness of the commissioning.
- o Anna Väisänen, Kielo Office Solutions

Asio-Data Oy Ltd. – A Reliable Expert Company

Asio-Data is the leading professional-grade booking solution supplier in Finland with over 20 years of experience. Asio-Data's credit reliability ranking is the highest possible. Asio-Data is part of a Reliable Partner program in Finland.

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