A Different View on New Work

The Role of Smart Locker Systems

A White Paper by Marco Gola

Table of contents

Foreword

"Smart lockers have been around for a long time. Everyone is familiar with these systems from fitness centers and swimming pools, ski depots in ski resorts and the odd train station concourse. All of these examples work in the same way or cover the same process: a person books a locker for a limited time to store something. At the end of the booking period, the locker is released again. Identification (who can open the locker) is usually carried out via an RFID object, for example via the wristband in the fitness center, swimming pool or the ski pass at the ski depots.

This essay emphasises the enormous potential for modern working environments. The market for smart lockers is divided into different segments, all of which will develop according to their own specific processes.

- Residential building
- (Retail) trade
- Authority / Administration
- Industry, office
- Educational institutions
- Transport and logistics

This essay deals with locker processes from industry, offices and educational institutions.

Simple processes already existed in the past.

The compartment allocation to fitness, swimming pool and railway station described here is called static allocation.

Read about the advantages of dynamic allocation on page 6.

Introduction / Context

In today's world of work, the term "New Work" is far more than just a buzzword. It symbolises a fundamental transformation in the way we work, interact and design our working environments. Often the discussion around "New Work" centers on aesthetically pleasing office designs, flexible working hours and employee wellbeing. These aspects are undoubtedly important, but this paper sheds light on a different, equally crucial facet of "New Work" - the productivity of workspaces and work areas in different interactions and exchange processes between employees and teams.

"New Work" is not just about beautiful new spaces and happy employees. It is also about how we master the challenges of the modern working world: asynchronous attendance, fewer physical workstations than employees, the flexibility to change work locations at will and the increasing pressure to manage administrative tasks in professional systems. Added to this are the requirements for compliance, data protection and IT security, which should not be underestimated.

Characteristics of "New Work"

- Asynchrony in attendance
- fewer jobs than employees
- Choice of seat
- Expected digitalisation
- Compliance, data protection, IT security

Technological support plays a key role in this context. Digital assistants and, in particular, centrally managed smart locker systems can make a decisive contribution to offsetting some of the negative side effects of "New Work". They enable an efficient, secure and adaptable working environment that meets both the needs of employees and organizational requirements.

By focusing on the productivity aspects of "New Work", this essay provides an addition to the standard perspective of the discussion. It sheds light on how smart technologies and innovative spatial solutions not only contribute to the aesthetic and comfort-orientated design of workplaces, but also significantly improve their functionality and efficiency.

Dynamic vs. Static Locker Systems – Unlocking Their Full Potential

The traditional static locker system

In conventional locker systems, which are equipped with cylinder locks and physical keys, static locker allocation is the norm. Each locker is assigned to a specific person who is the only person with access to it. However, this static assignment has its limits: If the person is absent, the compartment remains unused, even if it would actually be free. This leads to inefficient use of space and limited flexibility.

The evolution to dynamic compartment allocation

In contrast, dynamic subject allocation is based on a more flexible principle. A compartment is assigned to a person when it is needed. The compartment allocation process is transferred to a software process that decides who and when is granted access to a free compartment based on existing authorisations. This approach opens up the full potential for diverse in-house processes and leads to more efficient utilisation of space. In fact, dynamic allocation significantly reduces the number of compartments required compared to static allocation. In addition, the option of permanently assigning certain compartments to individuals or groups remains available.

The advantages of dynamic compartment allocation

1. **Efficient use of space:** Dynamic locker systems reduce the need for physical space, as lockers are allocated according to demand and availability.
2. **Greater flexibility:** Flexible access to every free compartment for authorised employees.
3. **Optimised processes:** Versatile utilisation options, from resource management (e.g. IT devices) to secure transfer points.
4. **Integration into company processes:** Automated and customisable compartment assignment through connection with company IT systems.
5. **Expansion of the utilisation options:** Compartments can be reserved individually as well as for groups or specific occasions.

Conclusion:

The dynamic locker system as a model for the future. While static locker systems are here to stay, it is dynamic locker allocation that points the way to a more efficient and flexible future. It fits seamlessly into modern working environments, improves space utilisation and supports various work processes. Dynamic locker systems are therefore a decisive step towards a more productive and adaptable working environment.

Practical relevance - utilisation in real time and transparent tracking

In contrast to conventional locking methods such as lock cylinders, combination locks or battery-operated (non-networked) electric locks, a smart locker system enables dynamic utilisation of the storage space as the availability of the lockers is monitored in real time.

A digital or smart locker system requires fewer compartments than conventional systems and therefore requires significantly less space. Software controls locker allocation dynamically and in real time. The service therefore takes into account which locker is occupied for which application or which locker is available for the next 'booking'.

In addition, the Smart Locker software logs time stamps and users so that it is always possible to transparently trace who had access to in-house documents, consignments, devices or parcels and when.

The underestimated additional work caused by processes such as lost keys or staff changes is completely eliminated. With smart locker systems, all employees can simply use their personal badge or another electronic medium to open the lockers for which they are authorised. In larger companies in particular, a smart locker system also simplifies IT management considerably. For example, it enables the smooth replacement of defective devices via the system. The software informs the recipient when the items are ready for collection.

Access control and tracking

These are made possible by the intelligent lockers and their software control. They increase security and transparency when handling sensitive information and devices. It is possible to trace exactly who has accessed a particular locker (or its contents) and when. This provides an additional level of security. The usual routing slips and confirmation slips are no longer required.

List of use cases for smart locker systems

1. **Security / reduction of items carried.**
   A smart locker system increases security and is crucial to ensure the protection of the items and personal valuables stored in it. Modern smart locker systems integrate a variety of security functions that control access and prevent unauthorised use. Mix-ups and theft are avoided. The convenience for guests and employees is increased, because those who know their valuables are safely stored can work with greater concentration and take a more relaxed break.

   Application areas: Reception and lobby, offices and work areas, conference and meeting rooms, break rooms and cafeterias, fitness studio and recreation area, entrance and exit areas.

2. **Cleanliness and order in the office building**
   A smart locker system offers an effective solution for creating order in the office building. Centrally located, it enables employees and guests to store their personal belongings, work materials and valuables in an organised manner. This creates order, contributes to cleanliness and aesthetics and makes the working environment more pleasant and productive.

   Occurrence/areas of application: Reception and lobby, offices and work areas, conference and meeting rooms.

3. **Secure storage of personal items:**
   The most common use case for a smart locker system is the secure storage of personal items for visitors and employees. These include the storage of bags, clothing, equipment such as bicycle or motorbike helmets, as well as electronic devices or other personal items. A practical solution for keeping valuables safe and organised during and after working hours, as well as during breaks. This increases comfort and contributes to an organised and efficient working environment.

   Occurrence/areas of application: Reception and lobby, offices and work areas, conference and meeting rooms, break rooms and cafeterias, fitness studio and recreation area, entrance and exit areas.

4. **Receiving and dispatching parcels:**
   Smart locker systems act as central acceptance points for online orders or dropping off parcels for dispatch. A contact point for the delivery and storage of parcels and documents for employees. This function facilitates the handling of internal logistics and ensures the security of shipments, as employees can collect their deliveries at a time that suits them.

   Occurrence/ areas of application: Reception and lobby, entrance and exit areas.

5. **Management of sports clothing and equipment:**
   The secure storage of sports clothing and equipment in a smart locker system - whether for outside activities or the company's own fitness center - makes it easier for employees to integrate sports activities into their daily routine and promotes well-being and health. The ability to safely store small sports equipment, books or headphones also helps to make individual breaks more enjoyable.

   Occurrence/areas of application: Break rooms and cafeterias, fitness studio and recreation area.

6. **Asynchronous mail delivery and collection:**
   In a modern working world with home offices and flexible working hours, a smart locker system enables efficient asynchronous mail delivery and collection. Employees who do not visit their workplace every day can receive their mail securely in the lockers and collect it when it suits their schedule. This saves time and resources and promotes employee flexibility.

   Occurrence/ areas of application: Reception and lobby, offices and work areas.

7. **Charging options for electronics:**
   The integration of charging stations into the smart locker systems enables an efficient solution for charging electronic devices and therefore more convenience for employees and visitors, who can charge their smartphones, tablets or other electronic devices safely and conveniently during their break or during an appointment. It also increases productivity as the devices are always ready for use.

   Occurrence/areas of application: Reception and lobby, offices and work areas, conference and meeting rooms, break rooms and cafeterias, fitness center and recreation areas.

8. **Secure document exchange:**
   Smart locker systems enable the reliable exchange of confidential documents between employees and departments. They maintain confidentiality and increase data protection, for example for sensitive information such as contract documents. Everything is logged in a traceable manner via the Smart Locker software. This simplifies internal document traffic considerably.

   Occurrence/areas of application: Offices and work areas, conference and meeting rooms.

9. **Management of work materials and equipment:**
   The smart locker system can be used to store work materials or equipment that are not taken home every day. Technical equipment for presentations such as projectors, laptops, adapters and other physical meeting aids are also stored securely in the lockers. The distribution of IT equipment or the replacement of defective devices can also be organised efficiently.

   Occurrence/ areas of application: Offices and work areas, conference and meeting rooms

10. **Use services from external providers**:
    A smart locker system facilitates the exchange of services with external service providers, such as dry cleaning, shoe repair or the delivery of private parcels. This simplifies the everyday lives of your employees.

    Occurrence/ areas of application: Entrance and exit areas

11. **Storage of emergency equipment:**
    Storage of first aid kits or personal protective equipment.

    Occurrence/ areas of application: Reception and lobby, offices and work areas, break rooms and cafeterias, entrance and exit areas

12. **Storing and issuing central keys:**
    Smart locker systems are used to control access to sensitive areas or enable usage to be tracked.

    Occurrence/ areas of application: Reception and lobby, entrance and exit areas.

13. **Key management and fleet administration:**
    The smart locker system can be used to securely store vehicle keys, accompanying papers and documents and provide them to the authorised person. Processes such as removal and return are automatically logged.

    Occurrence/ areas of application: Reception and lobby, entrance and exit areas.

14. Use of resources / provision of tools:

A smart locker system offers an efficient way of providing tools to optimise shared use. Employees can borrow and return the tools they need quickly and easily. In addition, logging usage provides an overview of the condition and availability of tools, which leads to better resource utilisation.

Occurrence/ areas of application: Reception and lobby, entrance and exit areas.

Involved processes according to room types & areas

Reception area and lobby

Lobby and reception area: focus on efficiency and security

Even a lobby and the reception area of a modern office building can fulfil important functions in the design of efficient and secure working environments. This section aims to show which recurring daily processes can be simplified, improved, made more convenient and ultimately even organised with less effort in conjunction with smart locker systems.

Checklist / use cases in the lobby and reception area:

- Safety / reduction of items carried
- Cleanliness and tidiness in the building
- Savings in the intake process
- Secure storage of personal items
- Receiving and sending parcels
- Asynchronous mail delivery and collection
- Charging option for electronics
- Storage of emergency equipment
- Safekeeping and issuing of central keys
- Management of the vehicle fleet
- Resource utilisation / provision of tools

As authorisations for the use of vehicles often run via internal approval processes, corresponding dynamic approvals must be able to be transmitted to the system **(see section: dynamic vs. static) .**

A display can be used to allocate compartments according to size and location. Depending on the offer, own PIN codes or RFID badges (e.g. visitor badge) can be used for authentication.

In summary, this chapter looks at the importance of smart locker systems in the lobby and reception area in terms of efficiency and security. They are an integral part of the infrastructure that meets both the needs of the employees and the organizational requirements and thus supports the "New Work" concept.

Offices and workspaces

The centerpiece of office planning - unthinkable without storage space

In the modern working world, where flexibility and efficiency are key elements, smart locker systems are an indispensable solution in offices and workspaces. These intelligent systems not only revolutionise conventional mail delivery and collection, but also make a significant contribution to organizational efficiency.

> They serve as efficient solutions with a wide range of possible applications (read in more detail in the chapter on use cases).

Checklist / use cases in offices and workspaces:

- Safety / reduction of items carried
- Cleanliness and tidiness in the building
- Secure storage of personal items
- Asynchronous mail delivery and collection
- Charging option for electronics

- Secure document exchange
- Management of work materials and equipment
- Storage of emergency equipment
- Management of the vehicle fleet

One of the biggest time and resource savings in the office and work areas - asynchronous mail delivery - has of course already taken into account that (at least in the future) the distribution of letters will be avoided as far as possible. The individual pages are first digitised by the internal mailroom or external service providers and delivered electronically. Nevertheless, a considerable proportion of the mail volume cannot be digitised and must therefore be delivered physically.

From a facility management perspective, smart locker systems have become indispensable in offices and workspaces. The ability to hand over important items and documents securely and efficiently without having to hand them over in person not only saves time, but also increases flexibility in work organization. And employees who no longer have a fixed workstation can store their personal belongings securely, even if they are working from home, on a business trip or on holiday.

Conference and meeting rooms

Rethinking modern meetings: smart lockers as the key to productive conference rooms

The increasing project-orientation in everyday working life means that meetings and collaboration play a central role. Smart locker systems in front of and around conference and meeting rooms offer a wide range of options that increase efficiency, security and convenience while optimising the functionality of these important work areas.

> Smart locker systems have a underestimated potential to streamline a wide range of applications and processes (read more in the chapter on use cases).

Checklist / Use cases in conference and meeting rooms:

- Safety / reduction of items carried
- Cleanliness and tidiness in the office building
- Secure storage of personal items

- Charging option for electronics
- Secure document exchange
- Management of work materials and equipment

Additional data protection for notes, flipcharts and other physical outputs from the meeting, most of which contain confidential information. They can be stored directly and locked away so that they can be retrieved at the next meeting.

Technical equipment for presentations, such as projectors, laptops or special adapters, can also be stored in the lockers. This makes organization easier and ensures that the necessary equipment is always to hand. Centralised storage and issuing also makes it easier to keep track of the status and availability of equipment, which leads to better resource utilisation.

The process and document exchange at hybrid meetings, where some participants are online and others are on site, is also made easier and more convenient for employees and external guests.

Suggestion: Link room booking and access rights to material compartments

Integrating Smart Lockers into a room booking system is not a challenge.

In short: smart locker systems can greatly support processes in and around meeting rooms. Tidy meeting rooms (for the next meeting), securely stored documents that can be locked away in the team locker after the meeting (data protection) and a secure storage location for both external and internal staff ensure a professional, modern working environment.

Break rooms and cafeterias

Safely relaxed: The role of smart lockers in break rooms and company restaurants

In today's working world, break rooms, cafeterias and company restaurants are more than just places to eat and relax. They are central meeting places that contribute to the well-being of employees. Smart locker systems play a role in these areas by providing security and convenience for visitors.

> Smart locker systems support a wide range of possible applications to meet various requirements (read more in the chapter on use cases).

Checklist / use cases in break rooms and cafeterias:

- Safety / reduction of items carried
- Secure storage of personal items
- Management of sportswear and equipment
- Charging option for electronics
- Storage of emergency equipment

Personal items such as books, headphones or small sports equipment can also be stored in the lockers, especially in break rooms. This allows employees to organise their breaks individually and comfortably.

Shared items such as games, books or magazines can also be stored in the smart locker system, which helps people relax during breaks.

The individual allocation of lockers means that mix-ups and theft of personal belongings can be avoided.

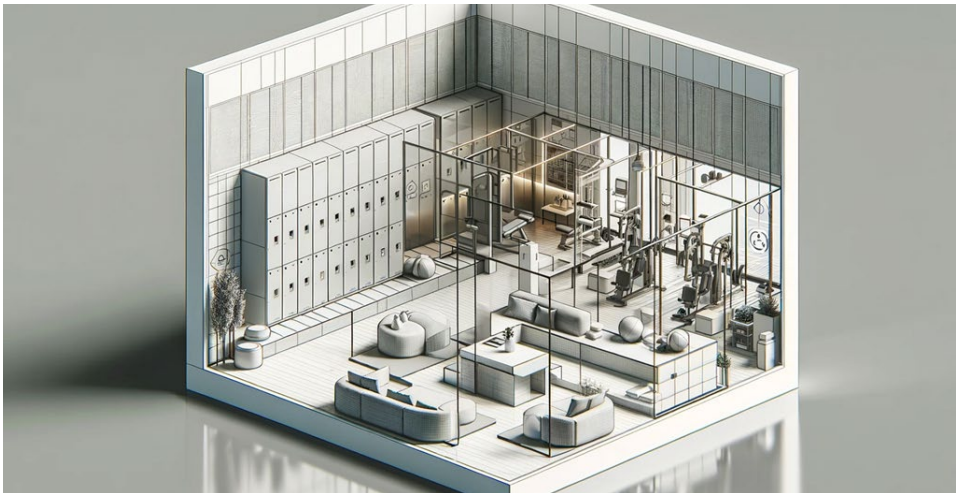
Eat lunch while the device is charging

Smart locker systems can do more than just "open close". Please note that an additional power supply can also be installed in the locker. Whether USB charging point or plug for any devices. Your employees will thank you for it

What this means in practice: smart locker systems in break rooms, cafeterias and company restaurants help to increase the comfort and safety of employees and thus create a more pleasant and efficient working environment.

The option of charging electronic devices during mealtimes is particularly popular with employees.

Fitness studios and recreation areas



Fitness studios and recreation areas: Support through smart locker systems

In modern working environments, where the well-being of employees plays an important role, fitness and recreation areas are indispensable components. Smart locker systems play a key role in making employees' everyday lives easier and more enjoyable.

> Smart locker systems can be used in a variety of ways (read more in the Use cases chapter).

Checklist / use cases in fitness zones and recreation areas:

- Safety / reduction of items carried
- Secure storage of personal items
- Management of sportswear and equipment
- Charging option for electronics

In addition to the probably most important point of safe storage of personal clothing and items in this area, it should not go unmentioned how this convenience creates appreciation among employees. Sporting activities can be easily integrated into the working day and thus promote health.

In recreation areas, the lockers can be used to store personal relaxation items such as books, magazines, yoga mats or meditation cushions. This helps employees to relax and unwind during their breaks.

as in other office areas, the lockers can also be equipped with charging facilities for electronic devices, which offers employees additional convenience.

In short: smart locker systems enable a wide range of options in fitness and recreation areas. Knowing that your belongings are safely stored during training is highly appreciated by employees. In addition, lockers can be provided in which, for example, running shoes or bags with equipment can be stored.

Entrance and exit areas

Entry and exit areas: Versatility through smart locker systems

Finally, the potential of smart locker systems in entrance and exit areas of companies is reflected. They offer versatile and secure storage solutions. They enable various services and processes to run smoothly and efficiently.

> Smart locker systems offer efficient solutions and versatile application options for a wide range of requirements (read more in the chapter on use cases).

Checklist / use cases in entry and exit areas:

- Safety / reduction of items carried
- Savings in the intake process
- Secure storage of personal items
- Receiving and sending parcels
- Services from external providers
- Storage of emergency equipment

- Safekeeping and issuing of central keys
- Key management and administration of the vehicle fleet
- Resource utilisation / provision of tools

It is not uncommon for exit areas or employee entrances/exits to be physically separated from the lobby, the important main entrance and reception area. These entrances nevertheless have access control, so external service providers in particular can use these entrances/exits to gain direct access to the locker system with the appropriate access authorisation (e.g. service provider badge).

This area is therefore perfect for integrating services from external providers such as shirt cleaning services or shoe repair services (concierge services). This saves time and simplifies everyday life. The locker software notifies the recipient that something needs to be collected.

Briefly: smart locker systems in entrance and exit areas not only offer convenience for employees leaving the premises for a break and wanting to store their valuables, but also for storing helmets and protective clothing for two-wheeled commuters. These zones in the company complex also offer exciting exchange opportunities with external service providers, such as shirts or private parcels.

Central control software for smart locker systems

The central control software plays a key role in the management and coordination of smart locker systems in a company. It offers an efficient and intuitive solution that covers all the use cases mentioned and is seamlessly integrated with the company's systems and processes.

Integration with employee master data:

The software is closely linked to the daily updated employee master data. This ensures that deliveries or notifications are only sent to current employees. This prevents mail addressed to former employees from being processed.

Advantages of centralised control software:

- **Centralised management:** The software enables centralised management of all lockers, which increases clarity and efficiency.
- **Mapping of different application processes** (see chapter "Involved processes by room types & areas")
- **Notification function:** Employees receive automated notifications about storage or collections, which improves communication.
- **Personalised set of rules:** The software enables individual settings for each employee, such as absence notes or deputy rules.
- **SSO and app:** Integration with company systems ensures a high level of security and control.
- **Data protection:** Sensitive information and transactions are processed securely.
- A **dashboard** provides information on important key figures for usage, utilisation and executed process steps. Corresponding reports can be created from the logged transaction data to document the performance of the corresponding processes.

- It is possible to **keep records** of specialised usage, individual processes or material flows at any time. This eliminates the need for many documentary tasks, such as keeping key books or the time-consuming confirmation of receipt of items (e.g. registered mail).
- So-called **escalation services** can monitor the correct execution of processes and send corresponding messages in the event of delays or other deviations from the expected standard.

Intranet portal and interaction:

A dedicated intranet portal enables employees to respond to notifications, manage absences and define deputy arrangements. This offers flexible control of deliveries and thus increases personal responsibility.

Interfaces for enterprise apps:

The software offers interfaces to integrate functionalities into existing company apps. This enables seamless use of locker services within the familiar digital working environment.

Conclusion:

The centralised control software for smart locker systems facilitates a comprehensive, secure and user-friendly solution that significantly improves the modern office environment. It not only supports efficiency and security in the handling of personal and professional items, but also promotes digital integration and innovation in the working environment.

The transformative role of software in smart locker systems

Software for Smart Lockers: A Paradigm Shift.

For a long time, the development of smart lockers was strongly hardware-centerd. Originally, manufacturers focussed on producing physical lockers, supplemented by a basic IT infrastructure and specific, application-limited software. This approach resulted in smart lockers that were primarily designed for a single purpose - similar to early mobile phone models before the smartphone revolution.

From single-use to multi-use: an analogy to the iPhone. The change in smart lockers is similar to the development that took place in the mobile phone industry with the introduction of the iconic Apple device. While there were already mobile phones with touchscreens and photo functions, the iPhone brought together many useful functions in one device (multi-purpose). Similarly, the modern Smart Locker software opens up an era in which versatility, attractiveness and user-friendliness take center stage.

The requirements for modern Smart Locker software. A Smart Locker only becomes truly intelligent through its software. Modern software should not only monitor the basic opening and locking function, but also support a wide range of applications and requirements:

1. **Connection to personnel master data:** Integration with personal information enables personalised use of lockers. This ensures that only authorised persons have access to certain lockers and functions and enables precise tracking of usage.
2. **Flexible data storage (cloud / on-premises):** The software should be able to be operated both in the cloud and on-premises in order to fulfil different security and data protection requirements. This offers flexibility in the company's IT strategy and makes it possible to respond to local circumstances and legal requirements.
3. **Web-based and app solutions:** For convenient pre-booking or remote booking, as well as for payment of services. This increases the user-friendliness and accessibility of the Smart Lockers and enables flexible and spontaneous use of the lockers.
4. **Comprehensive application scenarios:** From mail and resource management to fleet and key management to the peer-2-peer function for secure handovers between employees. The software covers a wide range of needs and maximises the benefits of locker systems in various areas of the company.
5. **Integration into third-party systems:** The ability to integrate the Smart Locker software into existing company systems significantly expands its functionality. Examples of this include booking a workstation at the same time as booking a suitable locker, as well as connections to ticket systems or comprehensive fleet management solutions. These integrations enable seamless communication and interaction between different areas of the company and increase the efficiency of processes.

Expansion of functionality through reminder and escalation services

Modern smart locker systems go beyond mere storage. They offer reminder and escalation services that ensure tasks are completed on time and processes are handled efficiently.

Conclusion:

Keeping software standards high. The current generation of smart lockers reflects the progress and possibilities of technology. The software that powers these systems needs to be versatile, user-friendly and adaptable to meet the demands of a modern working environment. Much like the iPhone revolutionised mobile telephony, we now have the opportunity to fundamentally change and expand the way we use and perceive smart locker systems.

The advantages of cloud-based control for locker systems

In today's digitalised working world, the integration of Smart Locker systems into

company structures is an important aspect of modernisation. Effective control of these systems requires a powerful software solution. This raises the question of the ideal placement and operating mode for this software - in the company network or in the cloud?

Cloud operation as the preferred solution:

The use of cloud-based software to manage the locker systems offers significant advantages. Systems operated in the cloud allow flexible and scalable management of the lockers without burdening internal IT resources. The cloud solution

also enables secure and location-independent access to the control software, which is particularly advantageous for companies with multiple locations.

On-premises operation and IoT networks:

While it is possible to operate the control software directly in the company (on-premises), it is advisable to place it outside the core IT network. Such an installation can take place in a specially designed IoT (Internet of Things) network. This ensures that the Smart Locker system functions independently of the central company network and therefore poses no direct security risks to the core IT.

Safety and efficiency:

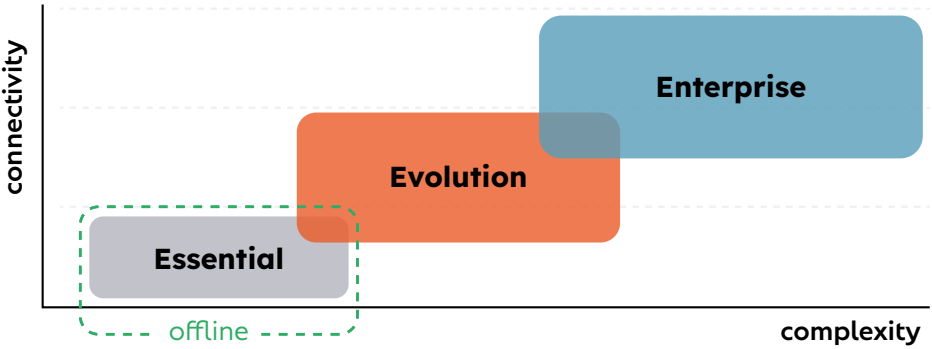
Regardless of the chosen operating mode, it is crucial that the software fulfils high security standards and communicates efficiently with the locker systems. Cloud-based solutions often offer greater flexibility in terms of security updates and maintenance, while on-premises solutions offer greater control over the data.

Conclusion:

The decision between cloud-based and on-premises control software depends on a company's specific requirements and security guidelines. In both cases, however, placement outside the core IT network is preferable to maximise security and efficiency. With the right implementation, Smart Locker systems can be a valuable addition to the modern workplace, increasing flexibility, security and efficiency.

Intelligent locker systems and their degree of complexity in modern office concepts

In a working world that is increasingly characterised by flexibility and asynchrony, smart locker systems play a crucial role. These systems not only support the smooth running of daily processes, but also provide an important interface between physical infrastructure and digital organization. Depending on the requirements profile and area of application, companies can choose between different levels of complexity for locker systems: Essential, Evolution and Enterprise.



Essential: Simple and efficient

The Essential version is the basic level of the smart locker systems. These systems do not require any network infrastructure other than a power connection, as all the necessary control components are integrated directly into the hardware. User interaction takes place via a simple control element attached to the locker system, typically a touch display. A typical feature of this version is the visual availability display: open lockers indicate that they are free. It is very easy to use: a

locker is closed and booked on the central display by PIN or RFID medium within a set period of time. Essential systems are particularly useful in areas such as break and eating areas or fitness zones where basic functionalities are required.

Evolution: networked and versatile

Evolution locker systems take functionality to a higher level. They are network-compatible and enable the exchange of employee data in order to manage personalised access rights. These systems support both short-term and long-term usage scenarios and offer advanced administrative functions via a web portal. From there, real-time status updates can be retrieved and compartments can be managed remotely. Evolution systems are ideal for organizations that require a flexible but comprehensive solution that goes beyond simple security and storage functions.

Enterprise: Highly complex and integrated

At the highest level are the enterprise locker systems, which are fully integrated into company processes. These systems are not only customised for individual use, but are also controlled by complex processes. users are automatically informed of relevant processes via notification systems. Enterprise solutions offer connections to ERP systems or other management software and thus enable deep integration into the company infrastructure. Such systems are ideal for organizations that require maximum efficiency, comprehensive control and complete data transparency.

Conclusion

Choosing the right locker system depends heavily on an organization's specific needs and existing IT infrastructure. While Essential systems offer a cost-effective solution for simple requirements, Evolution and Enterprise systems enable in-depth integration and comprehensive management functions that are essential in modern office environments. Crucially, it is not the hardware but rather the underlying software that determines the functionality and scope of the locker system.

		Essential	Evolution	Enterprise
Connectivity	LTE			●
	Network (on Prem)		●	●
	Cloud			●
	Integration of personnel master		●	●
	Integration of access control		●	●
	Integration of third-party systems (SAP, FM-Tools, Apps)			●
Processes	Admin user	●	●	●
	Cleaning (use based cleaning)		●	●
	Admin portal		●	●
	Reporting & Data		●	●
	Notifications		●	●
	static locker assignment (1:1)	●	●	●
	dynamic locker assignment			●
Use Cases	Postal delivery			●
	Handover of IT devices			●
	Handover of equipment			●
	Handover (person to person)			●
	Personal lockers	●	●	●
	Handover of keys			●
Operation	Display on enclosure system	●	●	●
	Pin code access	●	●	●
	RFID access	●	●	●
	QR code access			●
	Mobile app		●	●
Hardware	4 inch display	●	●	●
	10 inch display		●	●
	XXL-Mehrzweck-Display			●

The masterplan: Networked locker systems as the backbone of modern working environments

In an increasingly networked world where flexibility and security are paramount, facility management is driving the development of intelligently networked locker systems. These are not only a central component of the physical infrastructure of office buildings, but also a key element of the digital transformation of working environments.

Vision of an integrated solution

The vision behind this "grand masterplan" is to install locker systems in all areas of a building that are precisely tailored to the respective requirements. These lockers with electronic locks are configured in such a way that they automatically register their presence and function in the company's leading management system. Depending on the specific requirements, the systems are given their respective functionality, which enables them to be seamlessly integrated into daily workflows and processes.

Flexibility through a wide range of access options

The lockers are deliberately designed to be flexible and can be operated using RFID, PIN codes, QR codes or a dedicated company app. This variety of access options ensures that every employee, regardless of their role or specific security requirements, can efficiently access the resources they need.

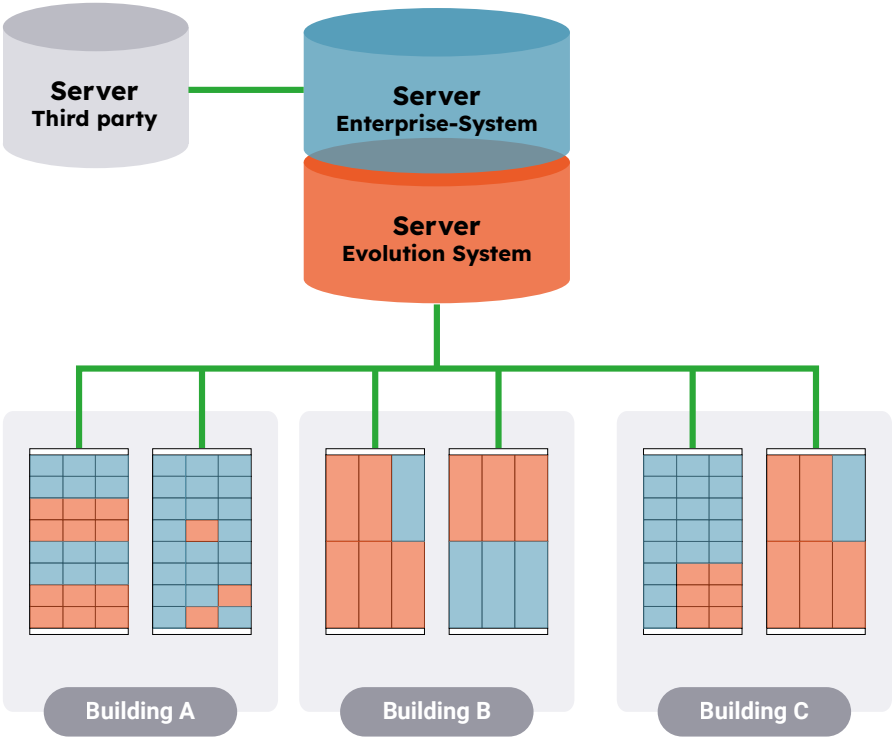
Integration into the building management system

The basic software that controls the locker systems is deeply integrated into

the building management software and other company applications. This enables systems to be managed and monitored in real time, from complaints about defective IT equipment to the management of mail and delivery processes. The lockers are therefore not only used for security and organization, but also to optimise operational processes.

An ecosystem of open interfaces

Critical to maximising the efficiency and flexibility of this system is that the locker ecosystem software is open and inclusive, providing API endpoints that enable seamless integration of third-party applications. This openness ensures that external service providers and internal processes alike can be integrated into the locker system to utilise secure locked storage options as required.



Conclusion

With this integrative approach, the smart locker becomes not just a place of storage, but a central hub in the infrastructure of modern buildings, offering security, flexibility and efficiency on an unprecedented scale. This masterplan illustrates the potential of smart locker systems to connect the physical and digital worlds in working environments and thus represents a decisive step in the evolution of facility management.

About the Author

Marco Gola, co-founder of a software company in the south of Germany since 1997, has been deeply involved with the application potential of locker systems in modern office environments. Through his many years of experience in software development, he has critically analysed the trend towards New Work, in particular the often one-sided focus on the well-being of employees, while aspects such as process efficiency are neglected. Gola sees his mission as redefining the role of software solutions in the New Work discussion by emphasising their contribution to safety, efficiency and convenience.

As a committed member of the International Facility Management Association (IFMA) and the German Association for Post, Information Technology and Telecommunications (DVPT), he actively contributes his expertise to the further development of workplace technologies. His company adheres to strict security and quality standards, which is emphasised by its ISO 27001 certification. As a member of the UN Global Compact, Marco Gola is also heavily involved in sustainability initiatives, which emphasises his commitment to responsible corporate governance.