

Boxify

Boxify is an advanced logistics management system, composed of smart metal lockers, a centralized cloud and mobile applications. Designed for versatility and efficiency, the system adapts to a wide range of uses.

1. Smart Metal Lockers with NFC Access

Available in multiple compartment sizes, they allow for the storage of goods from small packages to bulky items such as laundry. The compartments can be sized according to the application, but multi-application sizing is also possible.

Easy to use, access is via the mobile app, eliminating the need for complicated electronic components (computers, displays) in the locker.



2. Boxify Cloud

- Centralized Management: The database and administration functions are hosted in the cloud, providing efficient and secure control of the entire system.
- Real-Time Sync: Ensures instant updates between lockers and mobile apps.

3. Boxify Mobile Apps

- Client App: Allows users to reserve compartments, send and receive parcels or other goods, including for cleaning services. The app allows for booking, payment and tracking of products. This allows immediate access, without typing an access code. Access permission is issued by the cloud and can be transferred to another user, if necessary.
- Administrator Application: Developed for managing the flow of goods between boxes, monitoring and optimizing logistics. The application can also run on a PC via a web interface.

4. Integrated Electronics

Simple electronics, with NFC-based access to the phone, allow access to the boxes using energy from three independent sources: electrical network (230V AC), a small photovoltaic panel, or energy from the phone via NFC.

The chosen technical solution is from Infineon and uses one of the following variants as an NFC interface:

- NAC1080/NAC1081 – NFC communication controller
- NBT2000 Optiga Authenticate together with an ARM microcontroller

Key Advantages

- Transferring Complexity to the Mobile Application – eliminating complex electronic components in enclosures makes the system:
 - Cheap: low production and maintenance costs
 - Reliable: fewer physical components mean reduced risk of failure
 - Robust: resistant to misuse
- Versatility in Applications – Boxify can be used in various scenarios:
 - Logistics circuit for laundries
 - Packaging and deliveries

- Rental of temporary storage spaces

The Boxify system offers an affordable, scalable, and adaptable solution, suitable for both individual users and businesses.

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