



SHANGHAI RFID INTELLIGENCE DIGITAL TECHNOLOGY CORPORATION LIMITED



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DIGITAL CULTURE COMPREHENSIVE SERVICE PROVIDER

SMART LIBRARY BROCHURE

SHANGHAI RFID INTELLIGENCE DIGITAL TECHNOLOGY CORPORATION LIMITED

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COMPANY INTRODUCTION

Shanghai RFID Intelligence Digital Technology Co., Ltd. is a leading enterprise in the digital cultural industry and a leading enterprise in smart library industry. Shanghai RFID is committed to providing comprehensive service solutions in the digital cultural industry, and has achieved remarkable results in cultural centers, museums, art galleries, science museums, and other fields. Shanghai RFID has successfully developed intelligent High Bay Warehouse System, intelligent robots and other smart library series products, and has formed a full chain business portfolio covering A-LSP, intelligent terminal systems, digital resource service systems, and library operation services. It has provided professional intelligent system solutions to more than 5000 customers nationwide in China.

Shanghai RFID is driven by technology and guided by research and development. We deeply integrates cutting-edge digital technologies such as the Internet of Things, big data, cloud computing, artificial intelligence, and block-chain, always adhering to the concept of customer first, continuously mastering core technologies, adhering to an international perspective, and providing full process operation and maintenance support. Shanghai RFID is a "high-tech enterprise" and a "specialized, refined, and innovative" enterprise recognized by the Shanghai Municipal Government.

Honors & Qualifications

◎ Independent intellectual property rights for a full range of RFID library products



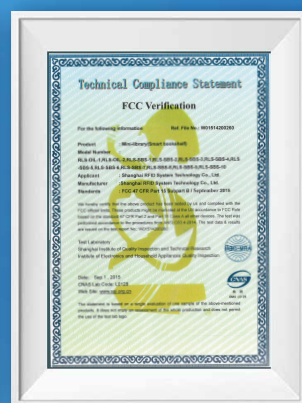
“High and new tech” enterprises certification



Invention patent certification



(ISO24001) Certification



FCC Certification



(ISO27001) Certification



(ISO9001) Certification

◎ Invention patent 16
◎ Utility model 61

◎ Appearance design 73
◎ Copyright 217

Brand Philosophy



Customize

We are customer oriented. Thorough in-depth research, service schemes are customized according to customer needs.



Leading

We have a leading market share in the whole industry for many years.



Guiding

We take intelligent digital technology as the core, independently develop and continuously innovate to ensure the stable and efficient operation of products.



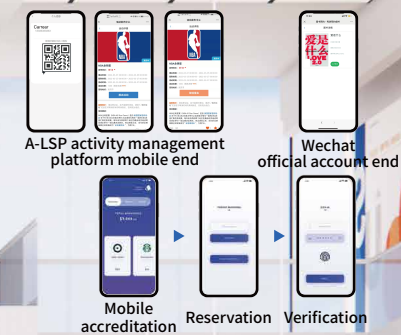
Efficient

We have a localized operation and maintenance service team to respond to customer needs at the first time.

Library is the propeller of cultural confidence. In the context of the country's continued improvement of cultural soft power, Shanghai RFID smart Library solutions, with A-LSP as the core, RFID products as the media, and with the help of cloud computing, big data and other new technological advantages in the "Internet plus" era, create a new model of "library+" applications and services, including seven scenarios of self-service borrowing, City study, smart multimedia experience, children's reading, intelligent security system, mobile terminal, and in-house services. Through various efficient self-service smart terminals, Shanghai RFID smart library solution helps libraries transform from traditional libraries to smart libraries, and maximize efficiency. This is a real smart space for the interconnection of things, and improve the use of social public cultural resources, 's new goal of forming a nationwide reading promotion service system by 2025.

In-house service

Mobile scenario



Intelligent multi-media

Children's reading

City study

Self-service borrowing

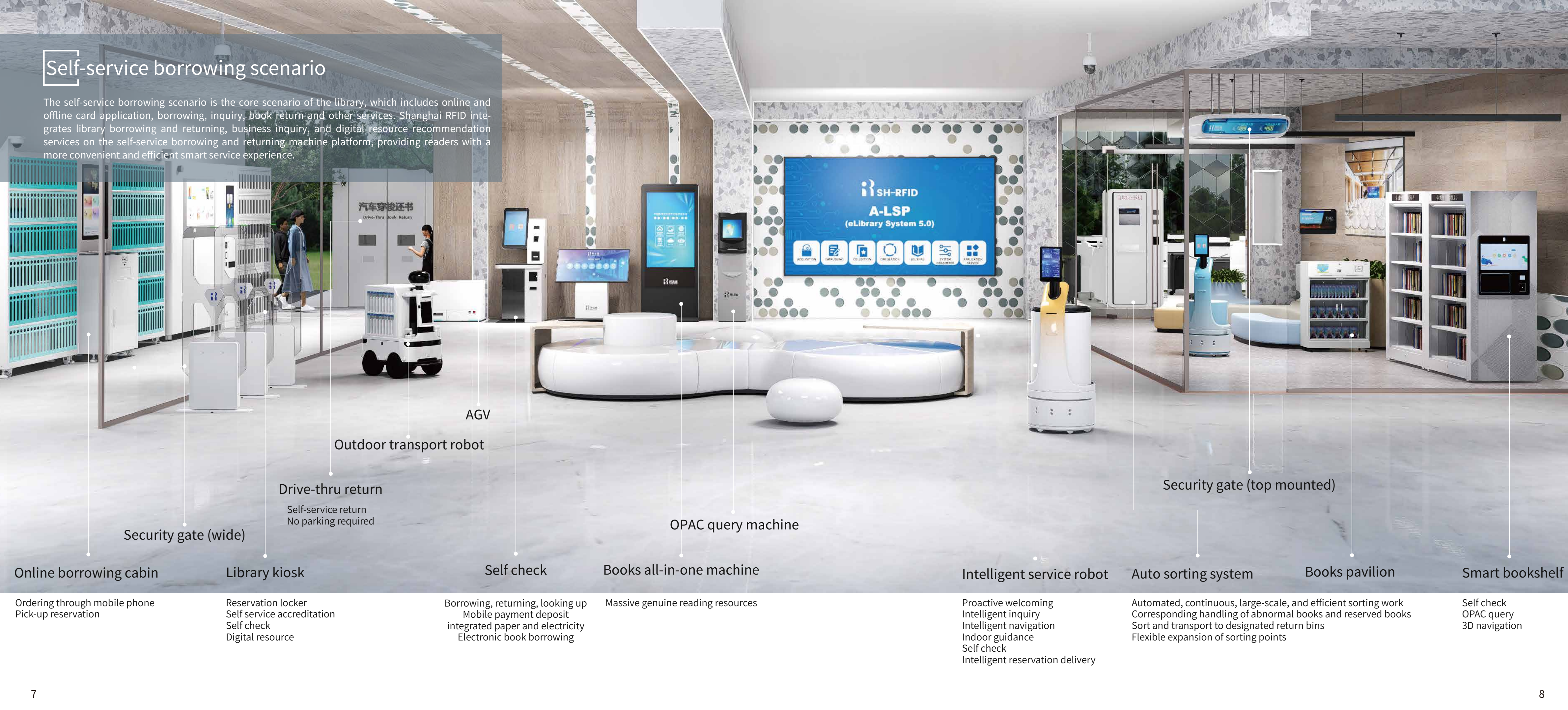
Intelligent security system

Drive-thru book return

SHANGHAI RFID SMART LIBRARY SOLUTION

Self-service borrowing scenario

The self-service borrowing scenario is the core scenario of the library, which includes online and offline card application, borrowing, inquiry, book return and other services. Shanghai RFID integrates library borrowing and returning, business inquiry, and digital resource recommendation services on the self-service borrowing and returning machine platform, providing readers with a more convenient and efficient smart service experience.



Online borrowing cabin

Library kiosk

Drive-thru return
Self-service return
No parking required

Outdoor transport robot

AGV

Self check

Books all-in-one machine

OPAC query machine

Intelligent service robot

Auto sorting system

Security gate (top mounted)

Books pavilion

Smart bookshelf

Ordering through mobile phone
Pick-up reservation

Reservation locker
Self service accreditation
Self check
Digital resource

Borrowing, returning, looking up
Mobile payment deposit
integrated paper and electricity
Electronic book borrowing

Massive genuine reading resources

Proactive welcoming
Intelligent inquiry
Intelligent navigation
Indoor guidance
Self check
Intelligent reservation delivery

Automated, continuous, large-scale, and efficient sorting work
Corresponding handling of abnormal books and reserved books
Sort and transport to designated return bins
Flexible expansion of sorting points

Self check
OPAC query
3D navigation

Intelligent multimedia experience area

Massive customized resources slowly fall from the top of the screen, flowing out dynamically like a waterfall, giving people a strong visual shock. The digital resource service system is applied to new intelligent terminal devices, which can scan codes and play online, and can also be read through download clients, suitable for different scenarios and different groups of people. Shanghai RFID Yuedu APP provides lightweight reading application services. The large screen full range platform, immersive VR Cube, ecological interactive experience, etc. integrate multiple interactive methods, enrich application scenarios, empower library space reconstruction, and bring immersive interactive experience to readers.



Immersive VR CUBE

Head mounted device content synchronization sharing display
Super realistic 3D picture quality
Stereo sound effects

Idiom Competition
VR Interactive Machine

Combining Idiom Learning with VR
Integrating education with entertainment
Inspire children's interest in learning

Waterfall flow

Customize distinctive cultural elements
Information exhibition, video and graphic display
Scan code for online play
Download the client to read

Shanghai RFID Yuedu APP

Lightweight reading and listening application services
Digital Resource Services
Personalized reading experience

Immersive interactive projection

Highly immersive virtual demonstration environment
Roaming freely in a 'real' virtual environment

Audio and video all-in-one machine

Earphone forest

Party-building
all-in-one machine

Books all-in-one machine

VR headset electronic screen and leisure cabin integrated
Immersive virtual reality interactive experience

Ecological interactive
experience cabin

VR riding

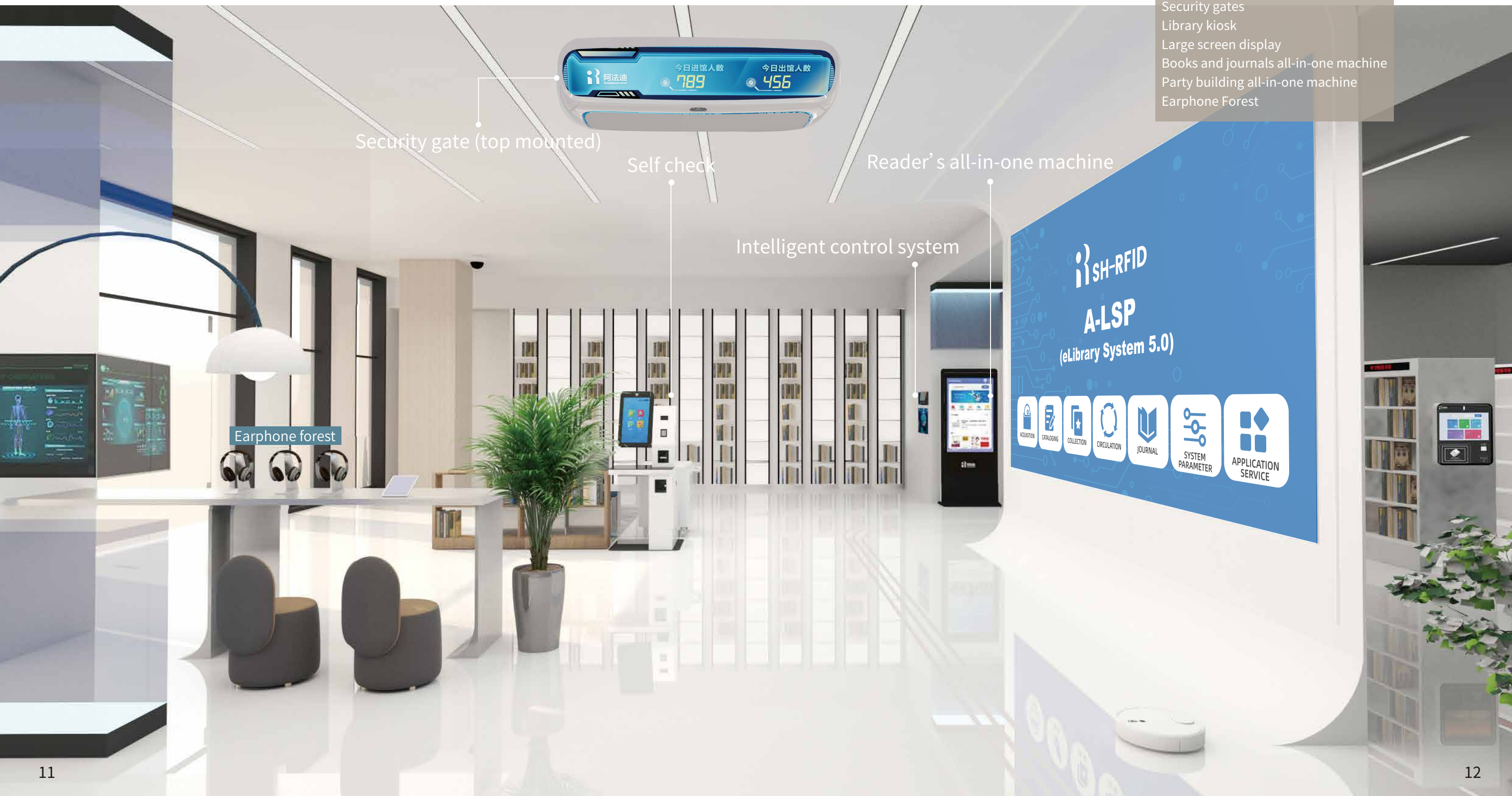
Intelligent service robot

Proactive welcoming
Intelligent inquiry
Intelligent navigation
Indoor guidance
Self check
Intelligent reservation delivery

City Study

The 24-hour self-service public library is a new way of reading and a new model of public cultural services that has emerged in response to the needs of the times. By relying on big data analysis, multidimensional reports, and open platforms, data processing and communication technologies are achieved, integrating paper and data resources, reading services, and convenient services. The no-disturb night vision mode, remote control, and high-precision sensors enable automatic control of equipment through a central control system, achieving a perfect combination of intelligent digital technology, composite space, and traditional libraries.

Highlights: 24-hour reading, 15 minute reading circle



Smart bookshelf
Self check kiosk
Facial recognition entrance
Security gates
Library kiosk
Large screen display
Books and journals all-in-one machine
Party building all-in-one machine
Earphone Forest

Security gate (top mounted)

Self check

Reader's all-in-one machine

Intelligent control system

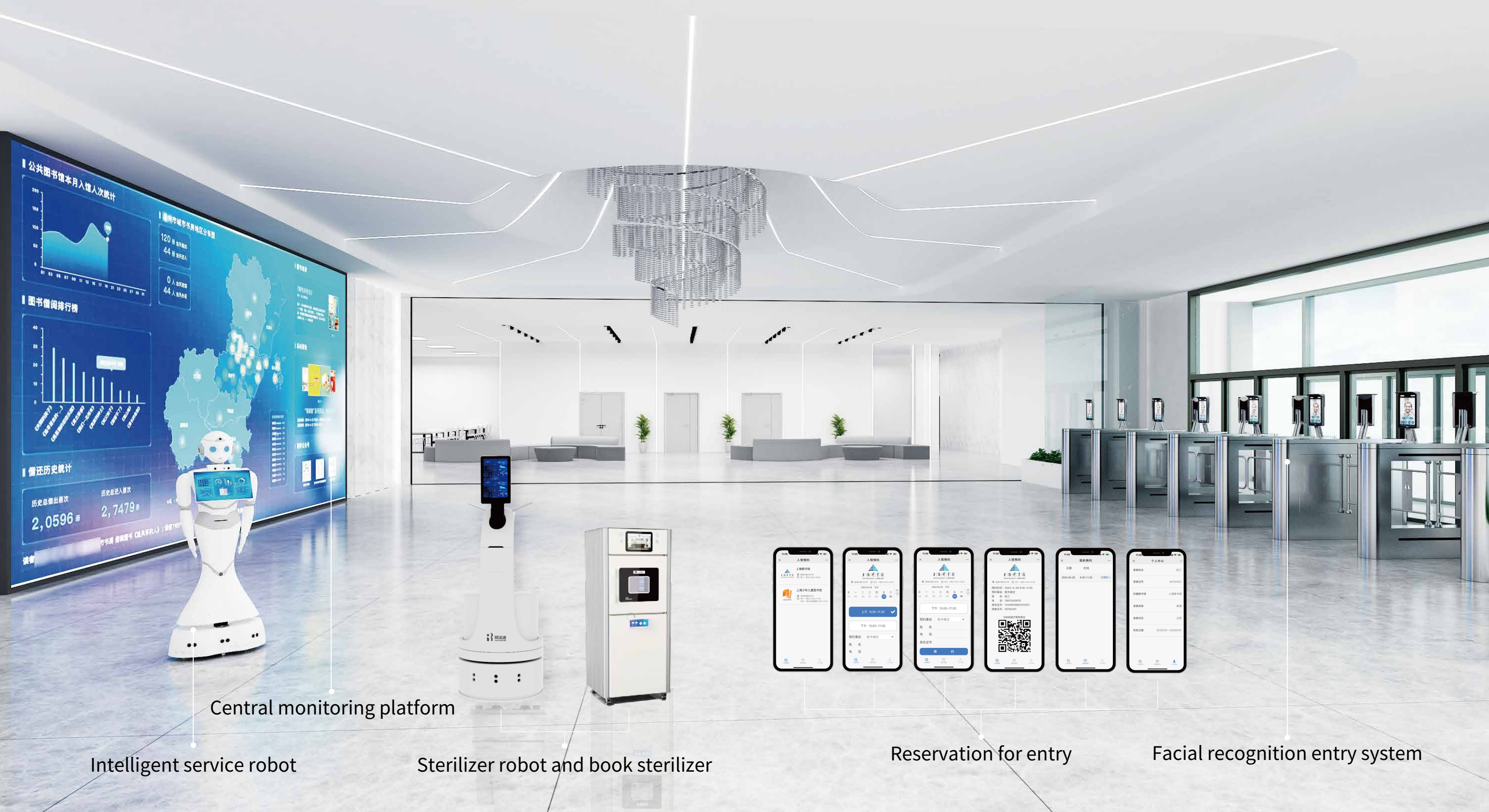
Earphone forest

Children's reading area

The children's reading space has a distinct appearance, cartoon like image, and a design that perfectly conforms to ergonomics. Books that can be played with, stories that can be drawn, and knowledge that can be easily gained; Let the children and their parents harvest happiness and hope, wisdom and courage together.

Highlights: Combining education with entertainment, exploratory discovery, science, and liveliness





Central monitoring platform

Intelligent service robot

Sterilizer robot and book sterilizer

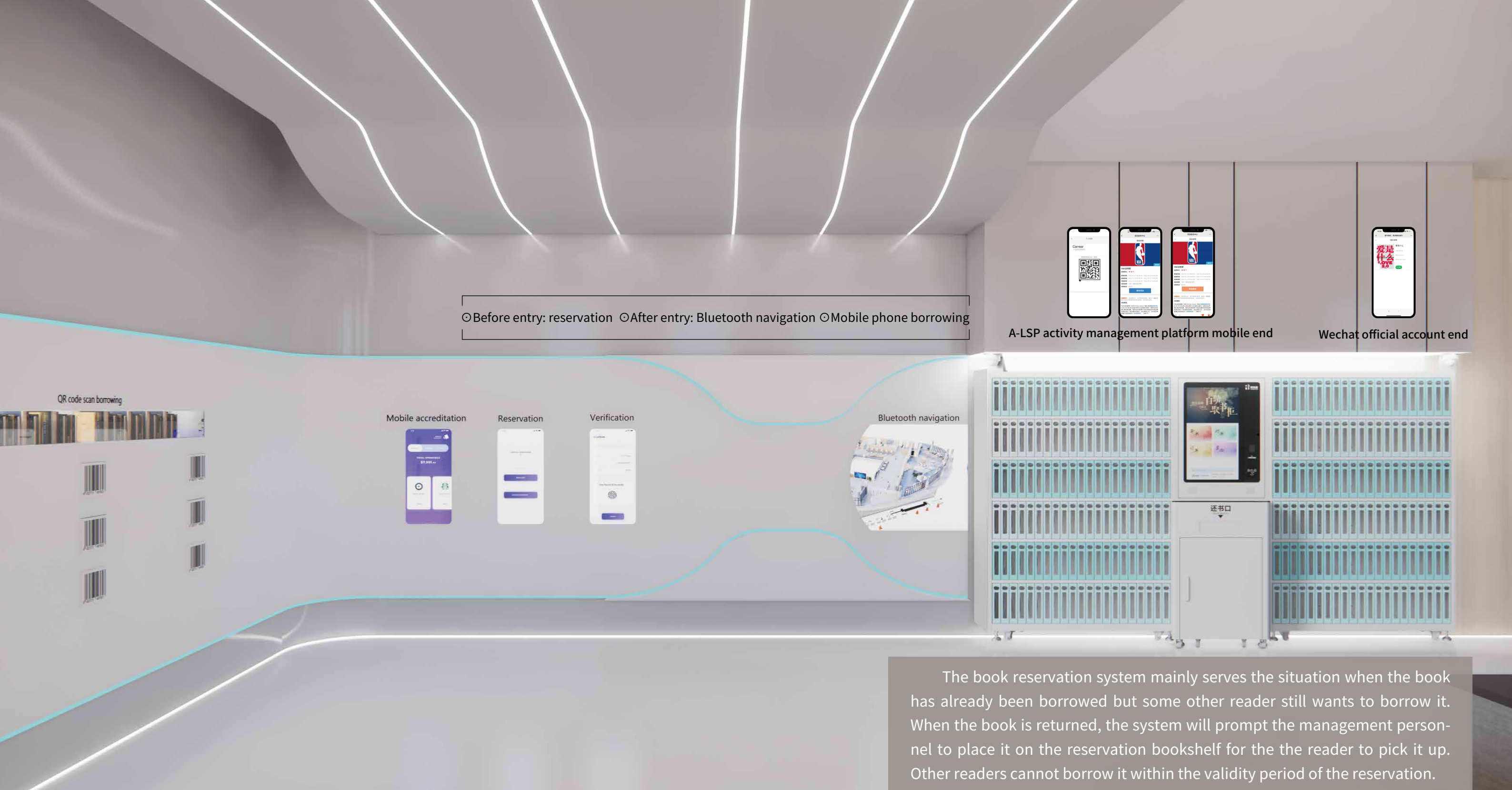
Reservation for entry

Facial recognition entry system

Intelligent security scenario

Utilizing facial recognition camera, infrared temperature measurement, one-stop temperature detection, appointment registration, flow control, creating a safe and secured environment. Book sterilizer, sterilizer robot and contactless interactive screen gives people a full sense of security.

Highlights: Smart protection, seamless interaction



○ Before entry: reservation ○ After entry: Bluetooth navigation ○ Mobile phone borrowing

A-LSP activity management platform mobile end Wechat official account end

QR code scan borrowing

Mobile accreditation

Reservation

Verification

Bluetooth navigation

自助取书柜

还书口

The book reservation system mainly serves the situation when the book has already been borrowed but some other reader still wants to borrow it. When the book is returned, the system will prompt the management personnel to place it on the reservation bookshelf for the the reader to pick it up. Other readers cannot borrow it within the validity period of the reservation.

Mobile phone scenario

The activity management system can help the library promote activities and assist readers in participating. Readers can complete various operations such as reservation, check-in, and inquiry through mobile terminals, and be informed of the library's activities in advance, which is convenient and time-saving. The space reservation management system can unify and intelligently manage various functional spaces in the library, build diverse physical spaces, and create a collaborative innovation environment.

Highlight: Convenient and flexible, intelligent control

Mobile phone scenario

© Ink screen seat reservation



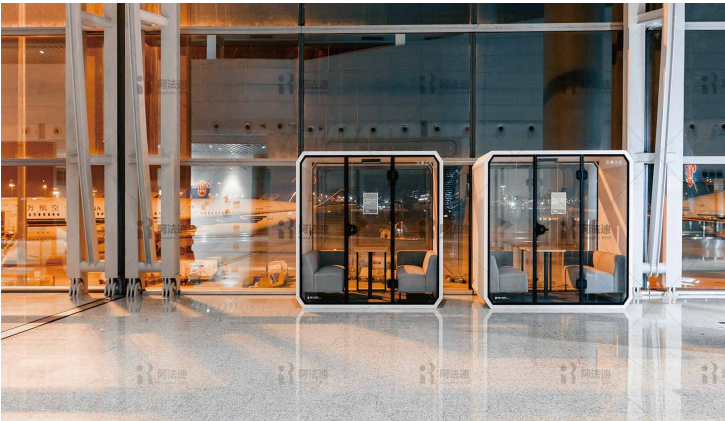
- Refresh quickly**
Timely data updates, real-time display data can be updated according to backend instructions, with the characteristics of accuracy, speed, flexibility, and efficiency. Within 15 minutes, 10000 screens can be refreshed.
- Cost saving**
Eliminate the manual operation of frequently updating seat data, display automatic management, further save human resources, and reduce human losses.
- Energy saving**
Paperless operation throughout the entire process, saving material costs; Energy consumption control and display technology - Multi protocol base station control.
- LED functions**
Red, yellow, and green LED lights for easy display of different reservation statuses.
- Multi-color display**
Supporting diversified content, using high-quality electronic paper screens with multiple colors to choose from, customizable formatting, and support for multiple languages; The font is smooth and clear, not limited by language.
- High quality display screen**
Screen viewing angle light no reflection, friendly display close to paper, screen viewing angle approaching 180 degrees, superior display effect.
- Excellent user experience**
QR codes and barcodes enable online and offline interaction, providing readers with a better reading experience; Low power consumption, based on low-power Bluetooth 5.0 technology, while using ultra-low power electronic paper screens, almost zero power consumption for static operation.
- Long life expectancy**
Powered by button batteries, the voltage is stable, the power is long-lasting, with a refresh rate of 5 times a day. The battery can be used for 2 years and can be replaced to consume electricity.

Space reservation management system

Centralized management of space resource platform to comprehensively understand the utilization rate of space resources. Support multi-channel appointment methods, user permission management, unified identity authentication login, custom system usage permissions, comprehensive graphical reports, comprehensive data analysis basis, map guidance, quick search for spatial location, support WeChat message push, integrated visitor system function, based on cloud technology architecture research and development, industry standard data interface, using AI facial recognition authentication for fast authentication, improving user experience.



Silent cabin



Features

- Acoustic aluminum honeycomb panel
- Polymer soundproof material
- High density polyester sound-absorbing board
- Natural light illumination
- Healthy fresh air system
- Green and environmentally friendly power supply

Sound isolation
Sound insulation level: 35dB Reverberation time: 0.25s
The use of 38mm thick double-layer aluminum honeycomb panels and high-density damping soundproofing felt has met the soundproofing requirements, and the interior is matched with advanced materials to achieve the sound environment standards.

Fresh air system
Adopting a multi sound barrier sound insulation design, changing the direction of sound propagation and extending the distance of sound propagation, while greatly reducing the noise of the fresh air system and minimizing sound interaction inside and outside the cabin, the cabin air can be completely refreshed every two minutes.

Illumination
Standard 4000K natural light color temperature LED central lighting system, standard 150LSX lighting to meet normal usage needs. Preinstalled expandable power supply in the cabin, customizable lighting for different scenarios.

Power supply 220V
Suitable for 100—240V/50—60Hz and 12V-USB power supply systems, compatible with mainstream equipment and energy environments inside and outside the cabin. Three control switches control one lighting lamp and two exhaust fans respectively.

eLibrary admission reservation librarian backend management PC end

eLibrary activity reservation librarian backend management PC end

Wechat official account reservation librarian backend management PC end

Reservation backend management

Mobile phone borrowing APP

Credit binding

Book search

Seat reservation

Virtual navigation



Indoor intelligent service scenario

Robots undertake tasks such as navigation, consultation, and guidance, interact with readers and audiences in a friendly manner, and provide readers with comprehensive services. Robots accompany readers to achieve seat reservations, science popularization training, conference services, and reading newspapers and books. Robots connect to cloud based big data and provide services in a more "smart" way through voice conversations, helping people make decisions. The new generation of libraries is bringing innovative experiences to readers in a completely new way.

Highlight: High end, precise service

Shanghai RFID intelligent library structure

Cloud platform

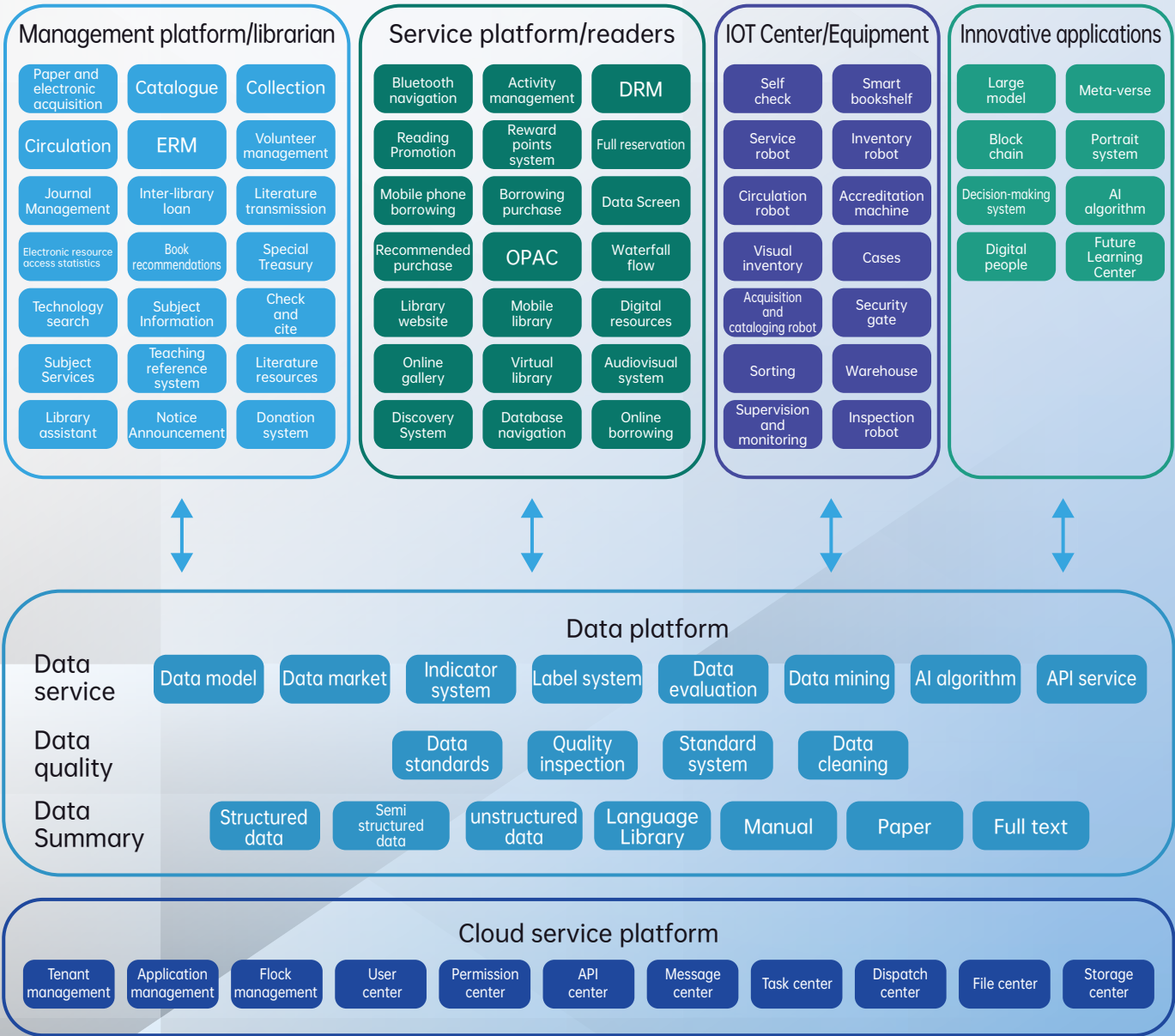
Multi tenant mode, hard isolation of different buildings
Micro service structure

Data center

Establish a data center for the entire library to achieve a data-driven smart library system

Business Platform

Build a management platform, service platform, IOT platform, and innovative application platform to comprehensively create a smart library architecture system



A-LSP (eLibrary system 5.0) overview

A-LSP is a library management platform based on microservice architecture and cloud services. This platform expands the global knowledge base, matches with dispersed local resource repositories, provides integrated management tools for libraries, and offers readers a simple search and discovery interface.

By integrating and fusing all resource data, spatial data, device data, and generated behavioral data of the library, a data center based on a digital foundation is constructed. Driven by data, the library's ability to innovate applications is enhanced, and new high-tech tools are utilized to create innovative business forms in digital transformation.

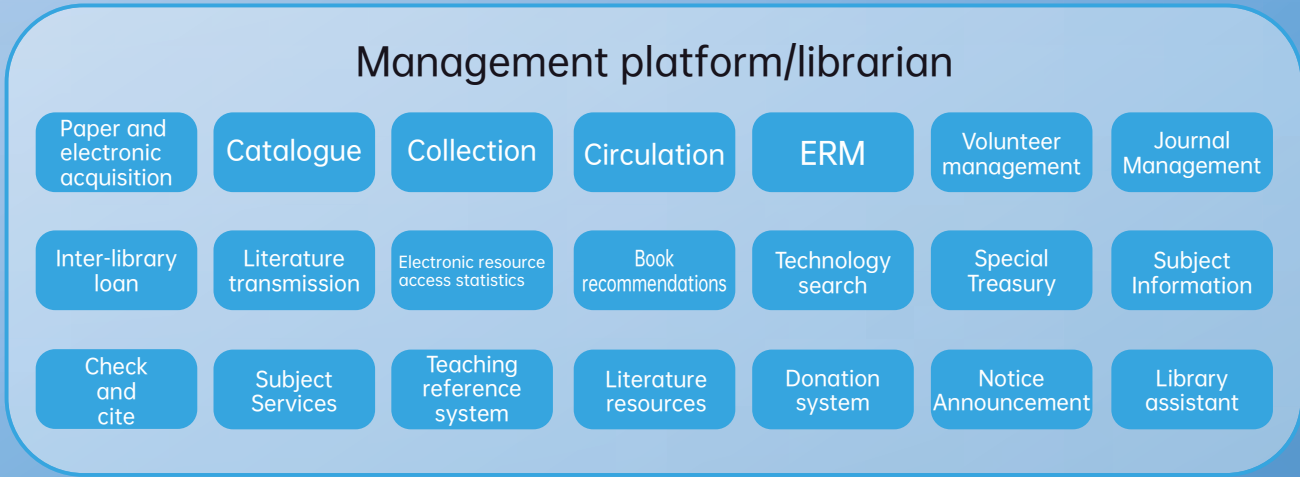
Application environment under micro-service architecture

Paper and electronic acquisition

Booksellers/library distributors - libraries - readers, forming a one-stop service that integrates paper and electronic books; The latest published books, books purchased by our library, and books not purchased by our library are all covered; Provide high-definition book cover, table of contents, introduction, reader target, and other fields to compensate for the lack of linked table of contents. Implement book recommendations, borrowing, interviews, discoveries, online book fairs, book lists, and editing to bring books to readers.

Digital resource management

Implement database and electronic journal life-cycle management, including discovery, trial, selection, procurement, management, evaluation, and full process electronic resource management; Build a central knowledge base, optimize retrieval, provide resource navigation, and facilitate readers to quickly and accurately access electronic resources.



Features

- 01 Pre-cataloging, cataloging is transmitted with the book to shorten the time for new books to be listed
- 02 Standard API interface service, open sharing, library can access third-party application modules as needed
- 03 Data driven, capable of integrating and fusing all resource and production data within the library, driving various statistical reports and decision-making services to be more accurate and efficient
- 04 Module supports hot swap, providing uninterrupted library services
- 05 Provide a combination of cloud services and localization to share large resource information and ensure in-house data security
- 06 Cloud services provide a nationwide production environment that meets the requirements of comprehensive domestic production
- 07 Data mart, providing data services, supporting and driving application development

Operation

Info management
User management
Request management

Data statistics and analysis
System management
Membership service and management

Management

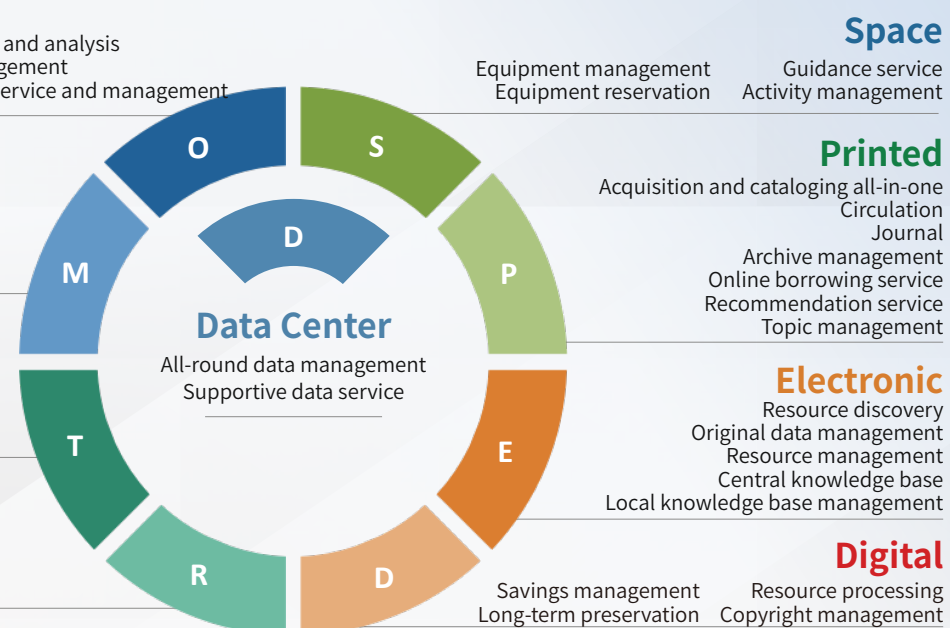
Decision support
Integrated office
Assessment and evaluation

Teaching

Essay management
Teaching guidebook
Future study center

Research

Consulting service
Open-up science
Database of organizations



Features

- 01 Integrated management of paper and electricity, connecting booksellers, libraries, and readers to form a supply chain ecosystem
- 02 Micro-service architecture, highly open, multi tenant mode, application isolation, user isolation
- 03 Support object-oriented data and provide unified standard compatibility testing
- 04 Establish a unified user management system and connect all business applications
- 05 Enable readers and librarians to break free from spatial limitations and experience the ubiquitous nature of the library
- 06 Fine grained the functional modules of traditional ILS to form applications in the app store
- 07 Data driven, integrating library data to drive innovative applications



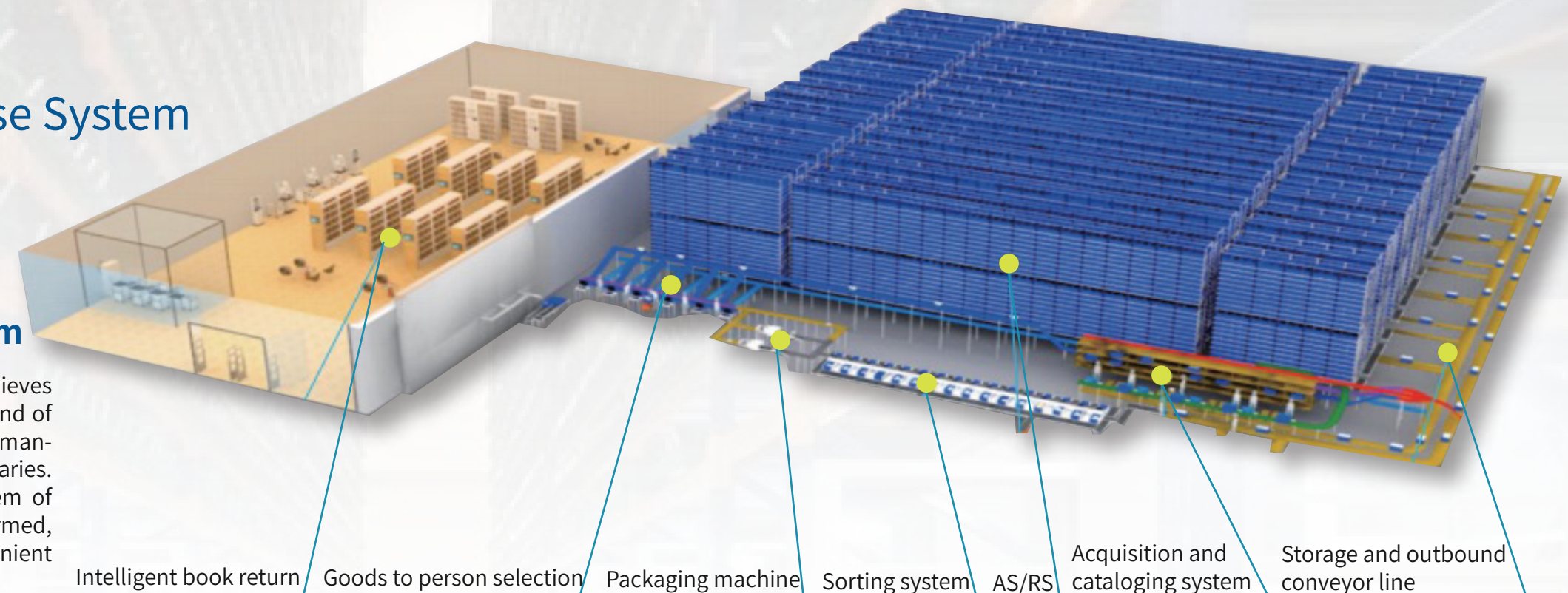
Platform advantages

	A-LSP (eLibrary system 5.0)	Traditional Library Management System
Booksellers-Library-Reader Ecological Management	✓	✗
Digital base architecture system, unified management of data throughout the library	✓	✗
Ecological design concept, stronger compatibility	✓	✗
Integrated management of paper and electronics	✓	✗
Integrated monitoring and management of terminal devices	✓	✗
The variety of intelligent terminals is rich, and they can be directly connected to management systems, with a high degree of integration	✓	✗
With rich data experience, the integrity and security of data migration are guaranteed	✓	✗
Process optimization, one click acceptance cataloging	✓	✗
Support MARC dual screen cataloging and have a third plagiarism check screen	✓	✗
Handheld terminal cataloging and circulation	✓	✗
Local after-sales teams are available in all provinces across the country for on-site service	✓	✗

Intelligent High Bay Warehouse System

Shanghai RFID Intelligent High Bay Warehouse System

Shanghai RFID Intelligent High Bay Warehouse System achieves automatic storage, circulation, sorting, and outbound/inbound of books through efficient automation systems and warehouse management, bringing a new book collection revolution to libraries. Based on intelligent digital technology, a reading ecosystem of "readers, books, devices, and intelligent libraries" is formed, providing readers with a more massive, fast, and convenient borrowing experience.



1. Efficient utilization of the warehouse

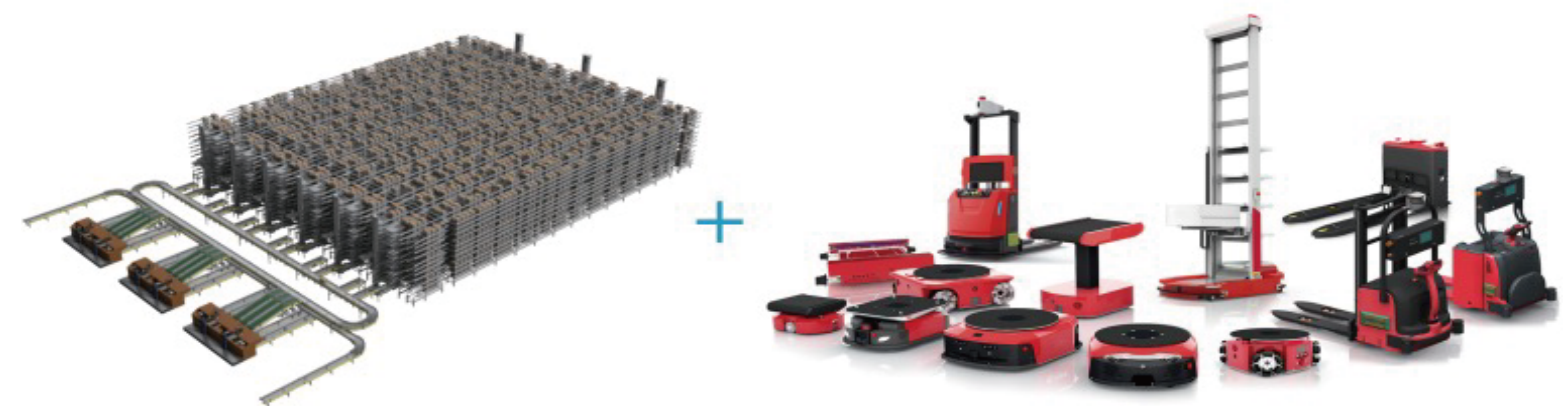
The system integrates bin stacker cranes, four-way shuttle buses, or fully automatic sorting machines to achieve fully automatic entry and exit of books, fully saving library manpower and greatly improving the efficiency of book use and circulation.

2. Modular and scalable system design

Realize system design flexibility through modular product series. The concept of variable storage locations and intelligent IT technology help optimize storage, as well as the use of intelligent sorting machines and robots, which helps maintain system flexibility and book business management.

3. Digital twin, leading the trend

Innovative bin stacker cranes and multi-layer shuttle technology can meet various needs of libraries. In addition, the software interface can display the status of shuttle cars, elevators, and tunnels in real time and control various equipment.



Partial cases of smart library solutions

