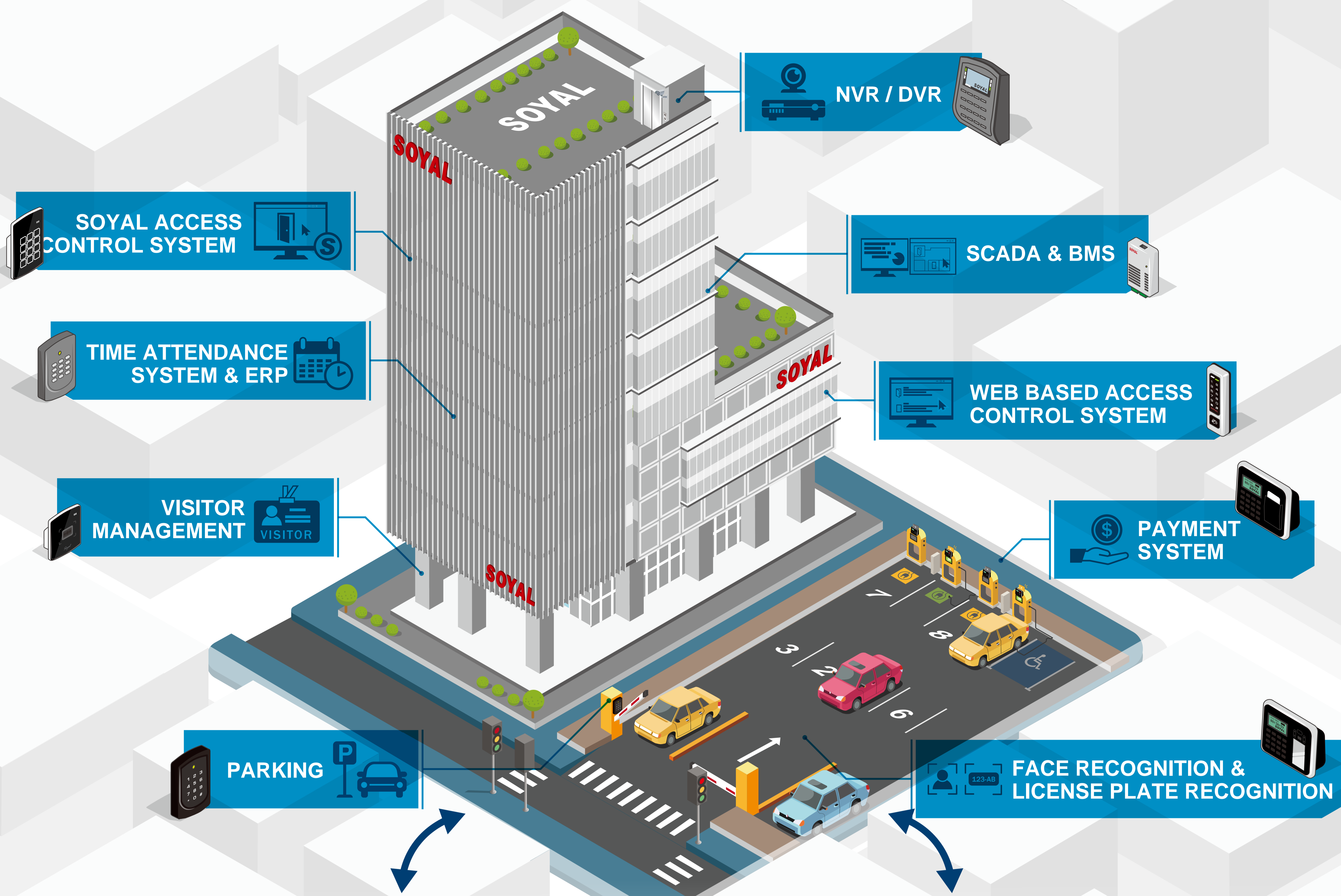


# The Best Solution for Cross-Platform Integration

**SOYAL**<sup>®</sup>  
ACCESS & INDUSTRIAL CONTROL



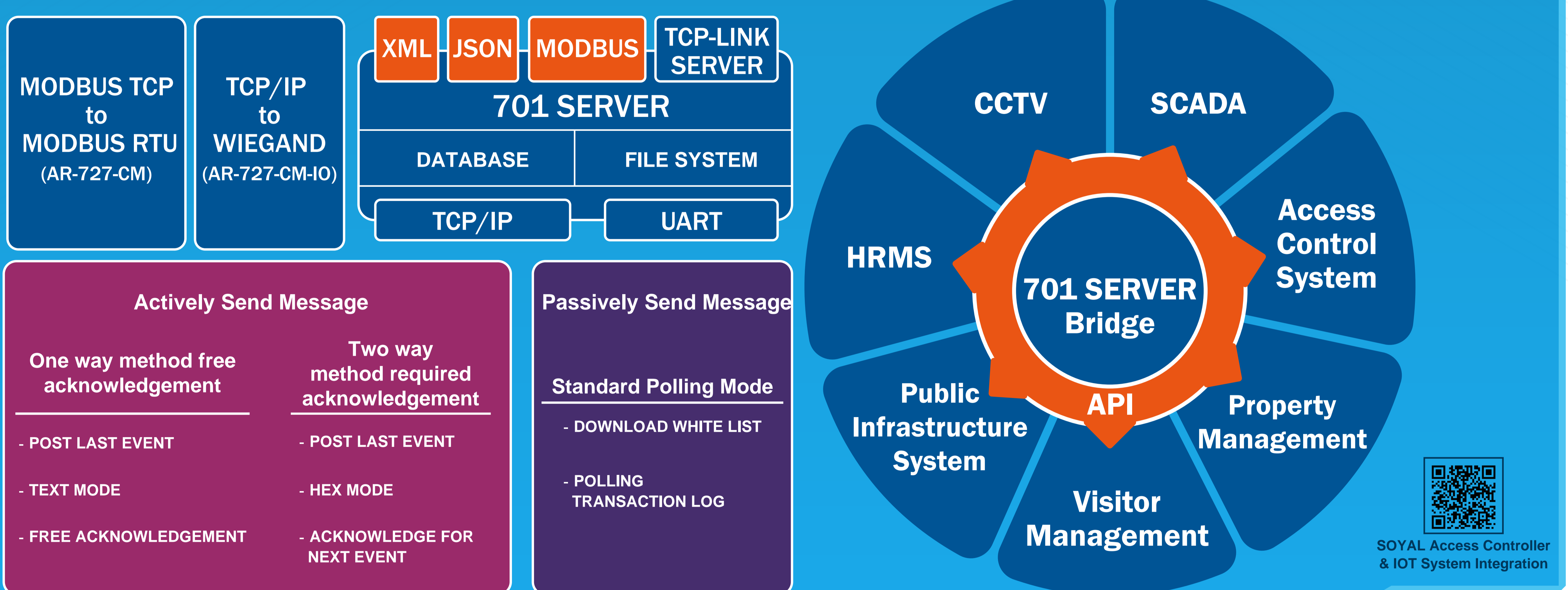
## Smart Security and Access Control Remote Platform (SOYAL TCP Link)

A high-quality smart building and smart security system usually need to be achieved through the integration of multiple heterogeneous systems. At present, the common AIoT Internet of Things, cloud property management, central monitoring, smart monitoring, time attendance, visitor management, smart access control and other system interfaces usually adopt different standards, such as JSON, XML, Modbus TCP/RTU, ODBC Database, Wiegand, SOYAL Protocol, etc.

There is no one could guarantee that integrating many heterogeneous platforms on your own will be completed even after a life of strenuous development.

In order to solve everyone's hardship and help everyone quickly integrating cross-platform system, through **701Server TCP Link** feature, each manufacturer only needs to be responsible for providing their most expertise area, and they can easily and quickly integrating and bridge over above systems.

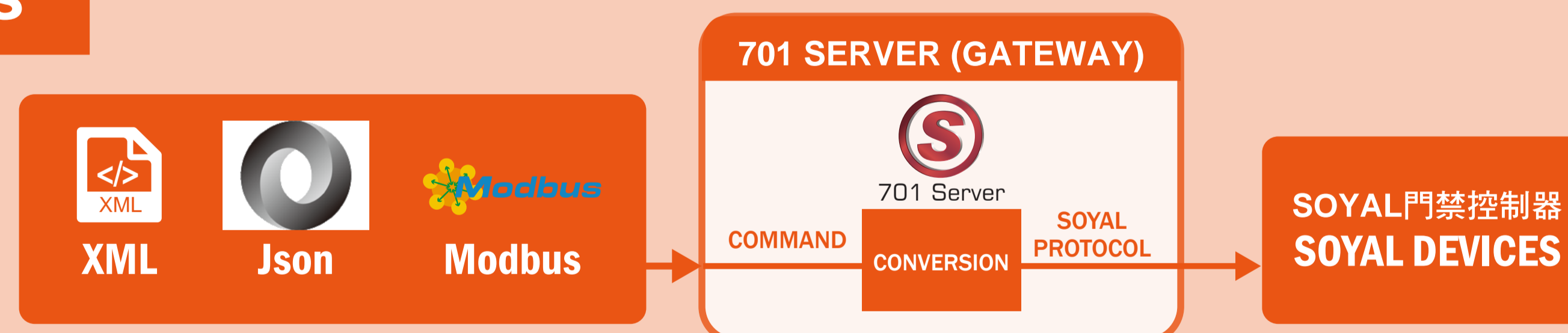
Providing a great tool for the majority of system integration developer to quickly complete complex heterogeneous integration systems. You and I can work together hand in hand to contribute to the world of IoT and security control.



## INTEGRATION SOLUTIONS

### >> XML / JSON / Modbus

#### Schematic Diagram



#### ◆ XML

Suitable for transmission of large file or data with complexity, often used for WEB platform data transmission and integration application. Most suitable for integration system with manufacturer of face recognition that transmit face data and license plate recognition that transmit vehicles license plate data.

Control Command :



Technical Document



User Data (Name, Tag UID, Department, Access Mode, User Picture)

#### ◆ JSON

JSON is a lightweight and the most simple information data exchange format that can be used for third party platform to integrate with SOYAL access control system. Whether it is access control personnel data, entry and exit transaction records, access permissions, door groups, timezones, controller status, IO linkage, download visitor data; is available to conduct, which is very suitable for cloud platform user operators.

Control Command :



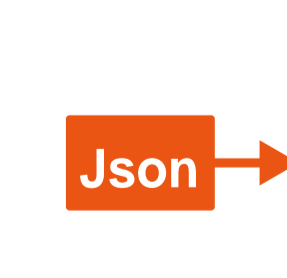
Technical Document



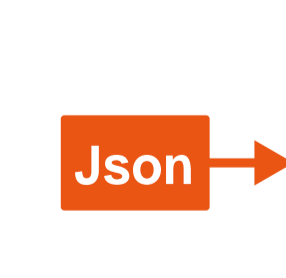
Set IO Status



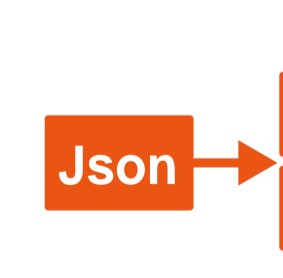
Download User Data



Get Server Information



Get Online Status



Get IO Status

#### ◆ Modbus

A common and widely use communication protocol in industrial control, through 701Server SOYAL TCP Link feature, directly bridge over Modbus TCP command to directly control access controller. This will allow heterogeneous platform with Modbus TCP integration to obtain the access control controller status, remote open door, and other functions. It is very suitable for industrial graphics and data acquisition (SCADA) system integration and smart access control

Control Command :



Technical Document



Get DI Status 0x00



Get DO Status 0x02



Set DO Status 0x05

# The Best Solution for Cross-Platform Integration

**SOYAL**<sup>®</sup>  
ACCESS & INDUSTRIAL CONTROL

## INTEGRATION SOLUTIONS

### >> SOYAL Software

#### ◆ Free to choose Database mode or File System mode

User can choose Database mode or File System mode according to needs and requirement. Built-in the same operation user interface for both modes

provides seamless upgrade from File System to Database easy and can be done without relearning.



#### File System

Easy to set up and maintain, suitable for small to medium scale system



#### Database

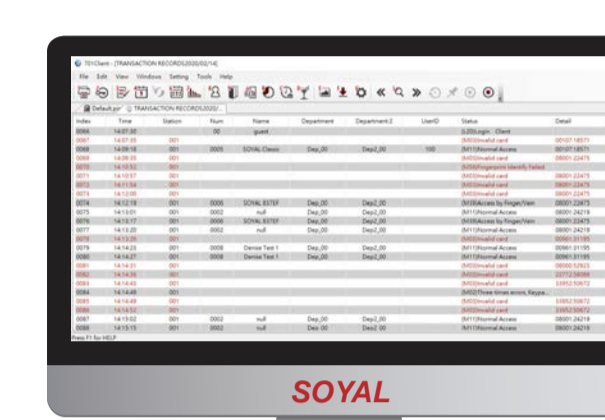
Suitable for complex exchange data and transaction, centralized system, and medium to large scale system that required higher security.

#### ◆ 701SERVER TCP-LINK & 701 CLIENT TCP-LINK

When enabling Database Mode, 701Server set as Server mode can support multiple remote 701Client connections at the same time, provides centralized and unified system management that linked head-quarter to branch office across the world. Through local or remote 701Client, you can edit data, obtain real time status, and generate reports syn chronically.



701Server Polling Controller

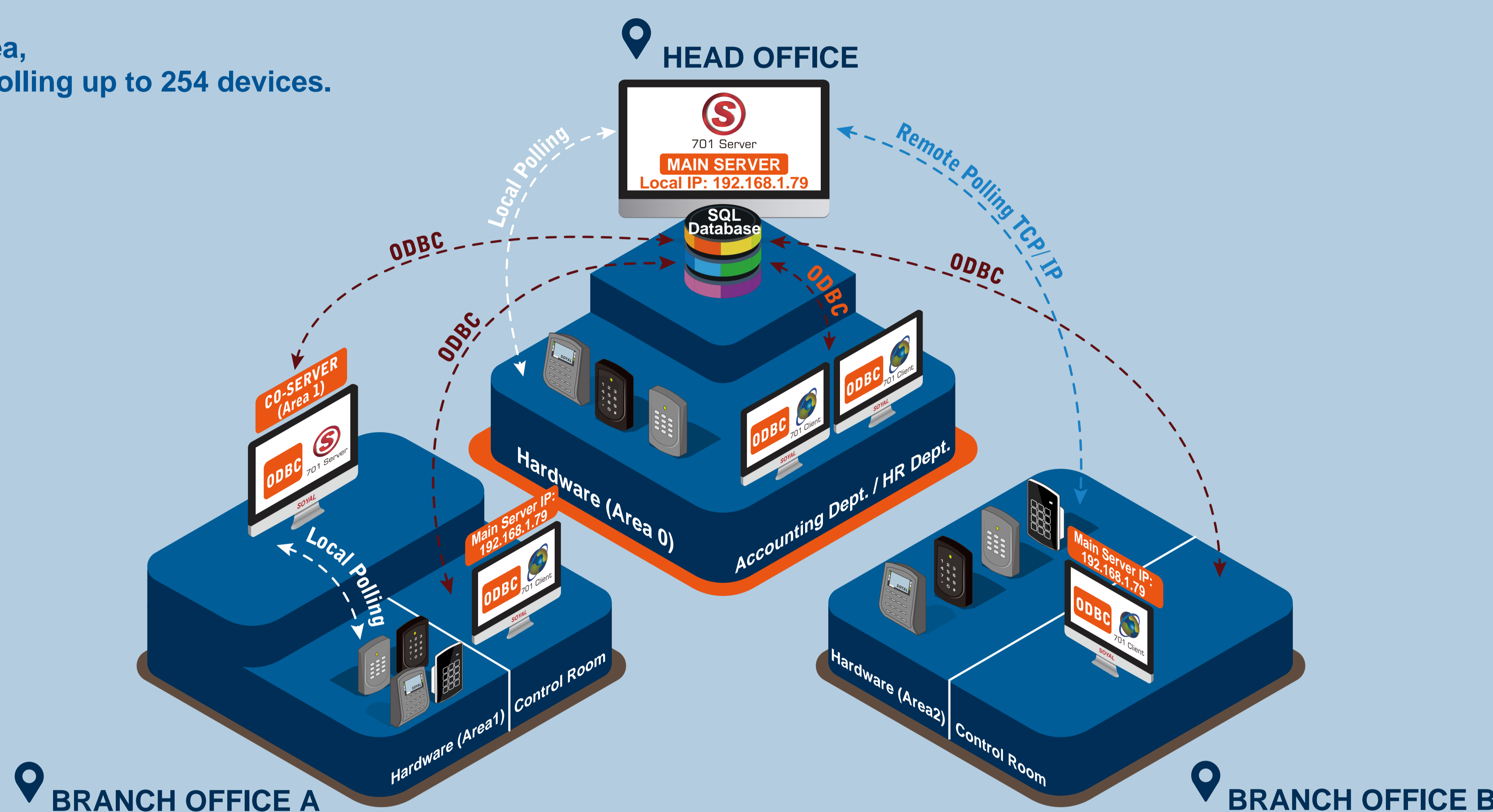


Edit User Data

Transaction Record

Time Attendance Report

Up to 16 Area,  
each Area polling up to 254 devices.

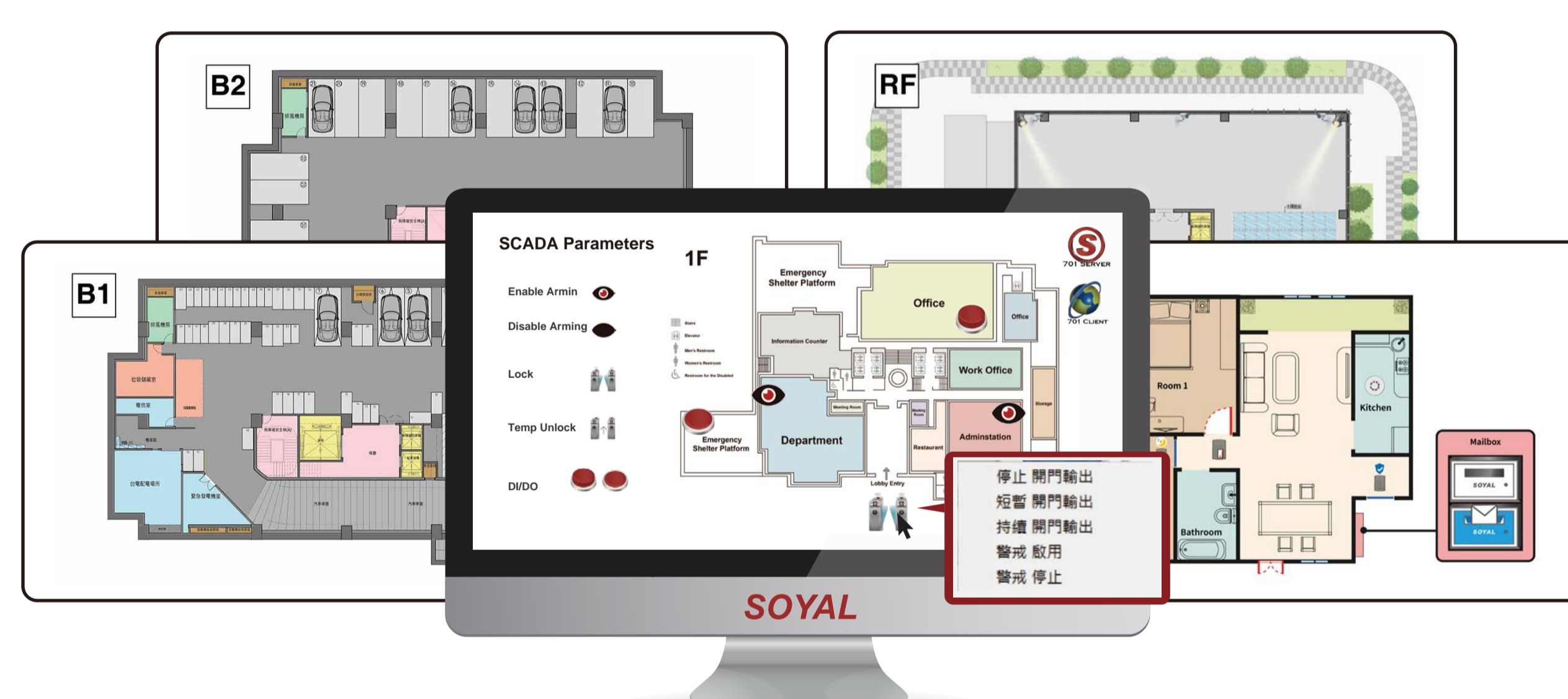


Technical Document

#### ◆ Site Plan Mapping

701Client provides interactive graphical control and real-time site plan overview. Through multiple site plan design and compatibility to SOYAL I/O devices and Access Controller's IO series, get a quick glance over all of the site plan status situation in real time such as door, lightning, and ventilator status (open or close).

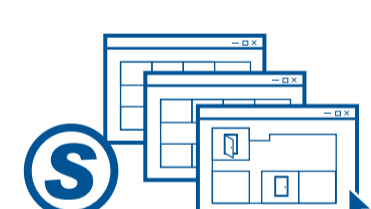
At the same time provides remote control setting over open or close status and quick problem solving such as alarm and fire event through pop-up message.



Remotely control I/O status



Support various devices on one SCADA mapping



Create multiple windows for SCADA mapping



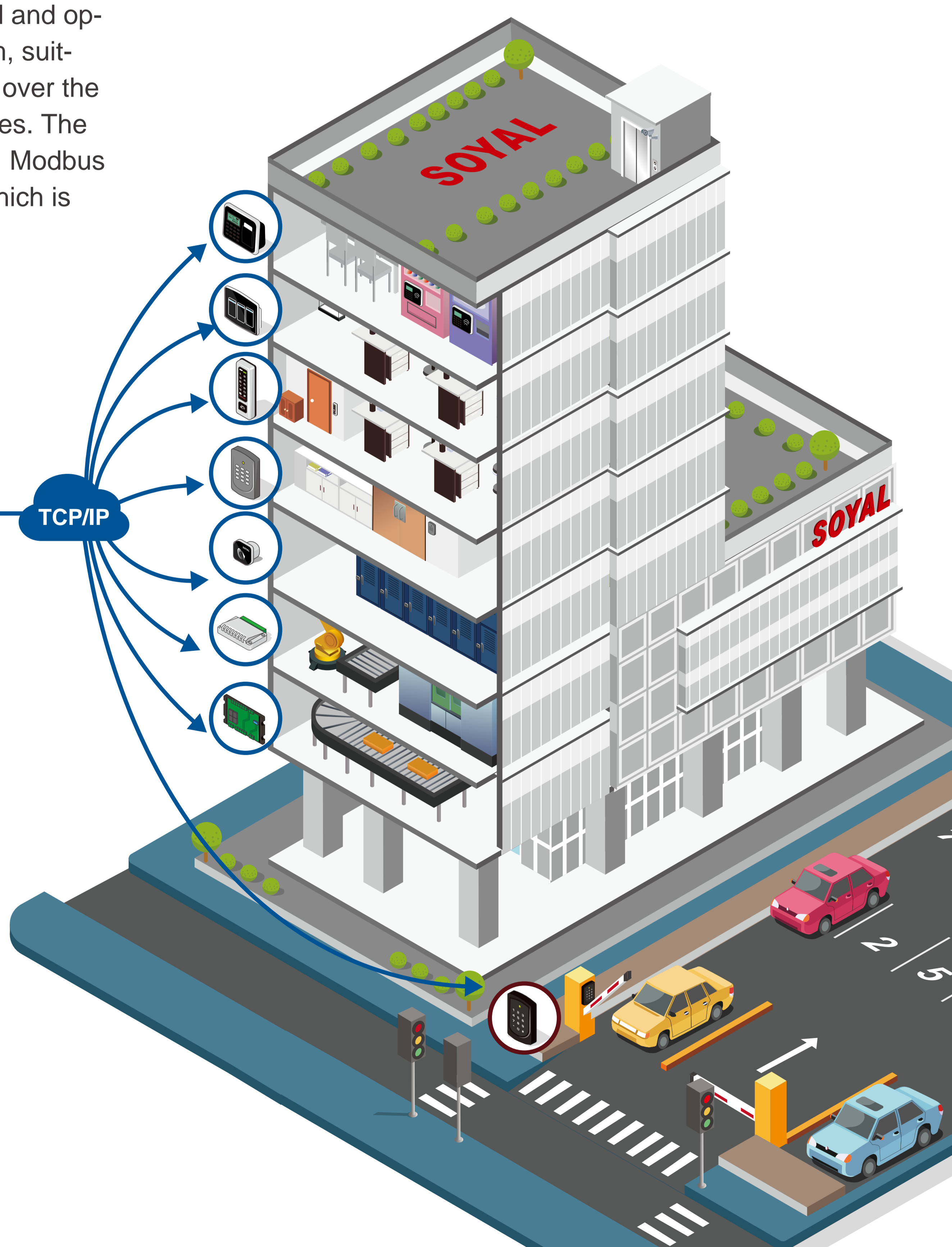
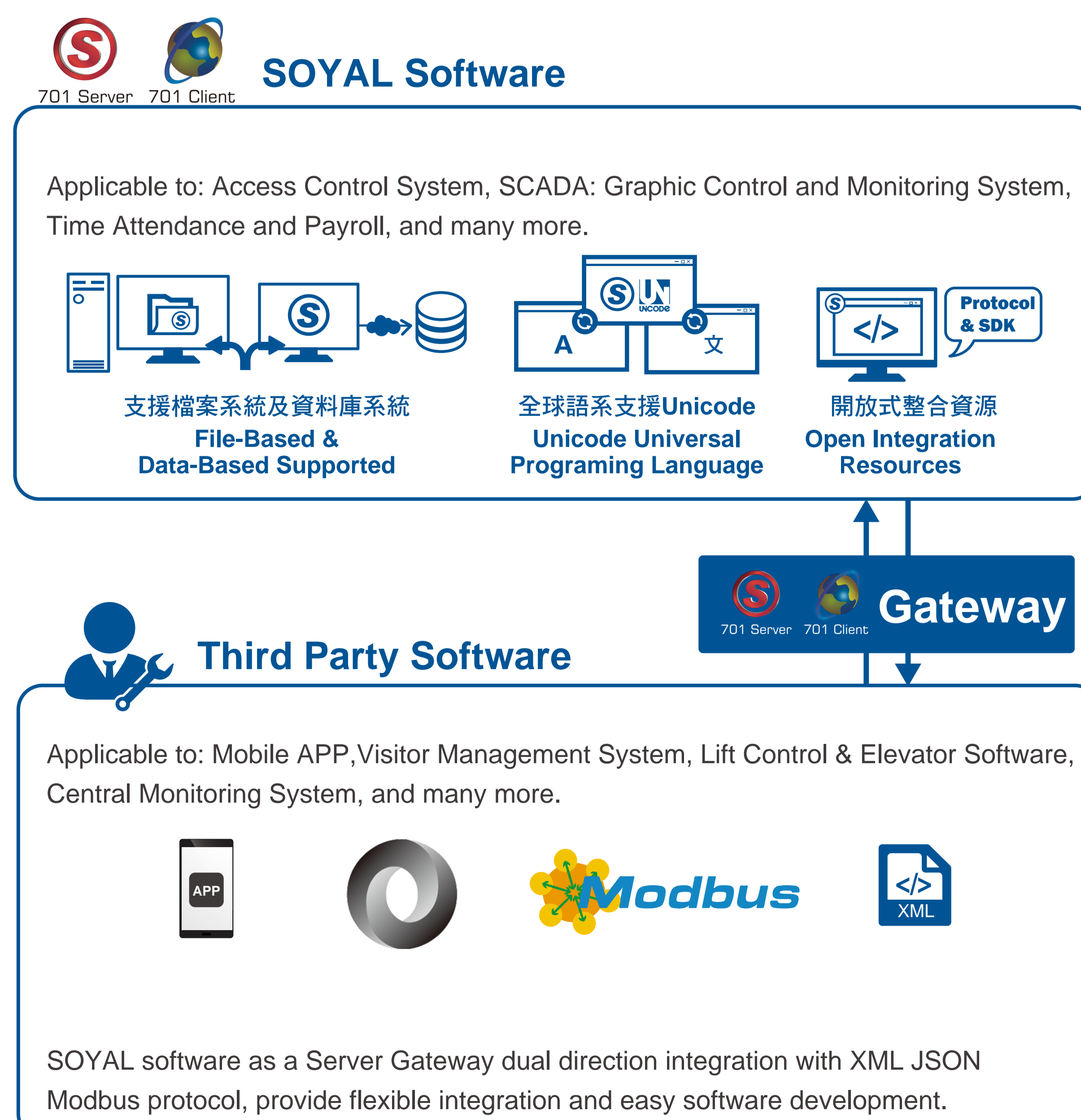
Set abnormal events indicator for pop-up message



Create your own icon and SCADA mapping

#### ◆ Communication Gateway

701Server through TCP Link and Listen Port feature, not only provides software system on single computer, supports multiple remote 701Client connected and operated at the same time to achieve a fully centralized management system, suitable to manage corporation with headquarter and branch office spread all over the world. Or to bridge the connection to third party system with SOYAL devices. The use of 701Server is as a Communication Gateway to convert XML, JSON, Modbus command into communication language recognized by SOYAL devices which is SOYAL communication protocol language.



# The Best Solution for Cross-Platform Integration

## INTEGRATION SOLUTIONS

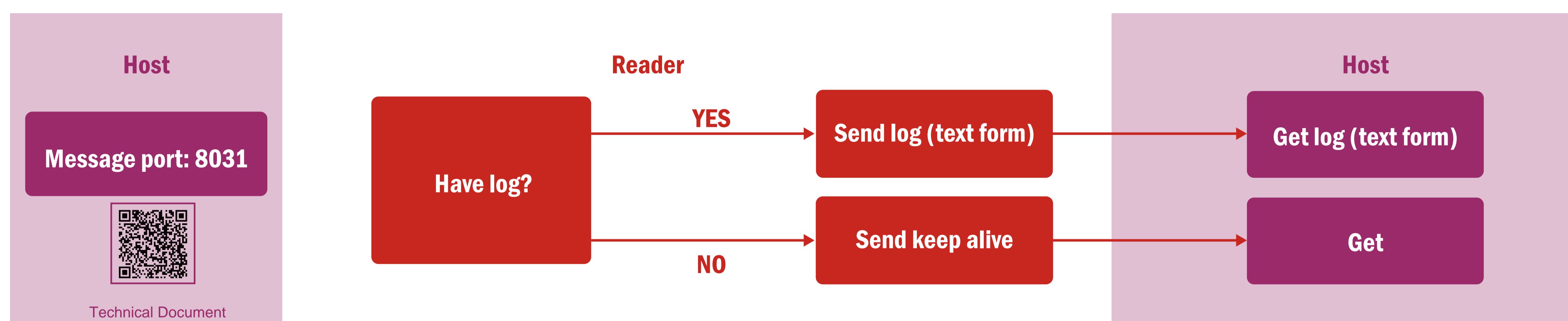
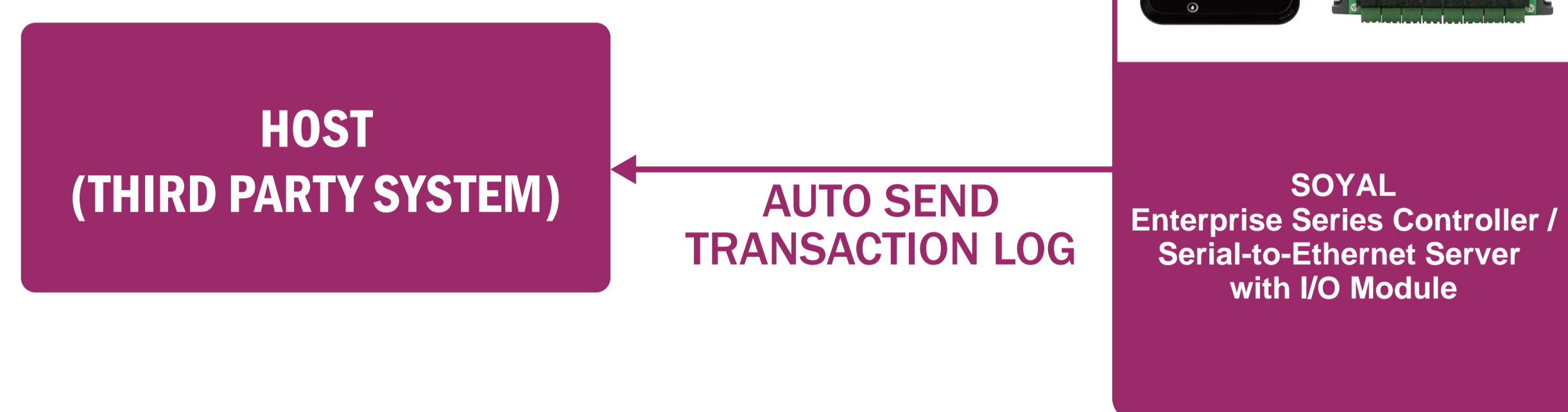
### >> Actively Post Message



#### One way method free acknowledgement

A simply integration of retrieving transaction log from access controller and send it to the HOST. It is mostly used in NVR/DVR system for integration with CCTV surveillance camera, by showing the transaction log data for OSD (On Screen Display). SOYAL provides total two ports in total to work as a redundant port to keep system running when one of the ports fails.

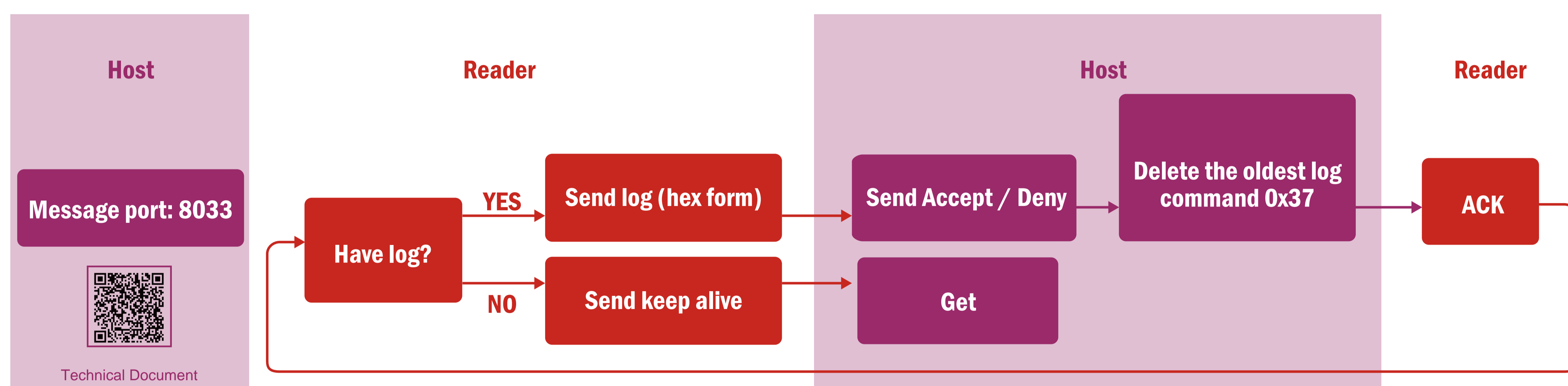
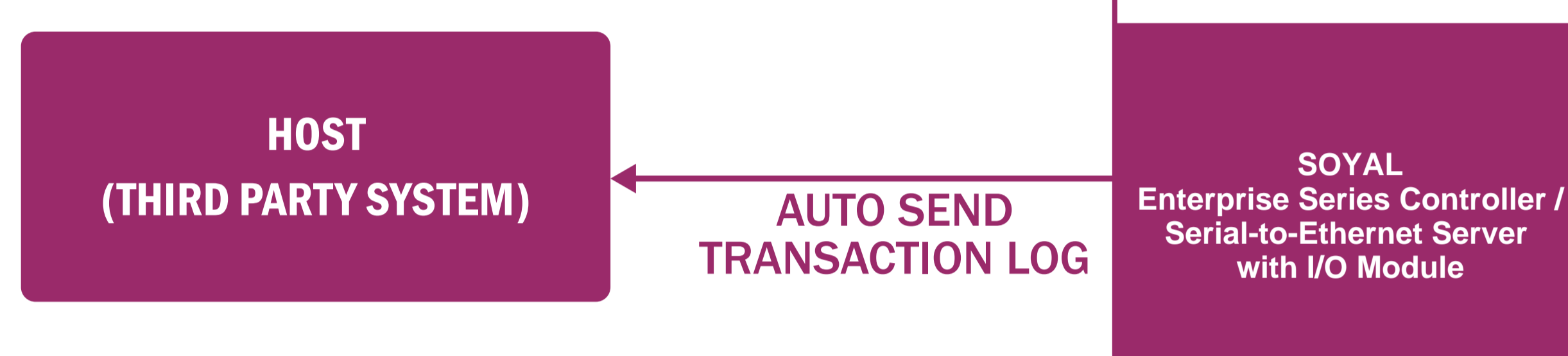
Operation Mode:



#### Two way method required acknowledgement

Same method and function with One way method free acknowledgement except Two way method required acknowledgement offer safest way when receiving data from SOYAL access controller. it required acknowledgement from HOST (third party) when transferring data to make sure there is no missing log, data, or message transferred.

Operation Mode:



\*Delete the oldest log command 0x37:  
When the third-party system receives LOG, it will send 37H command to confirm that the message has been well received and delete the LOG message stored in the card reader that has been obtained

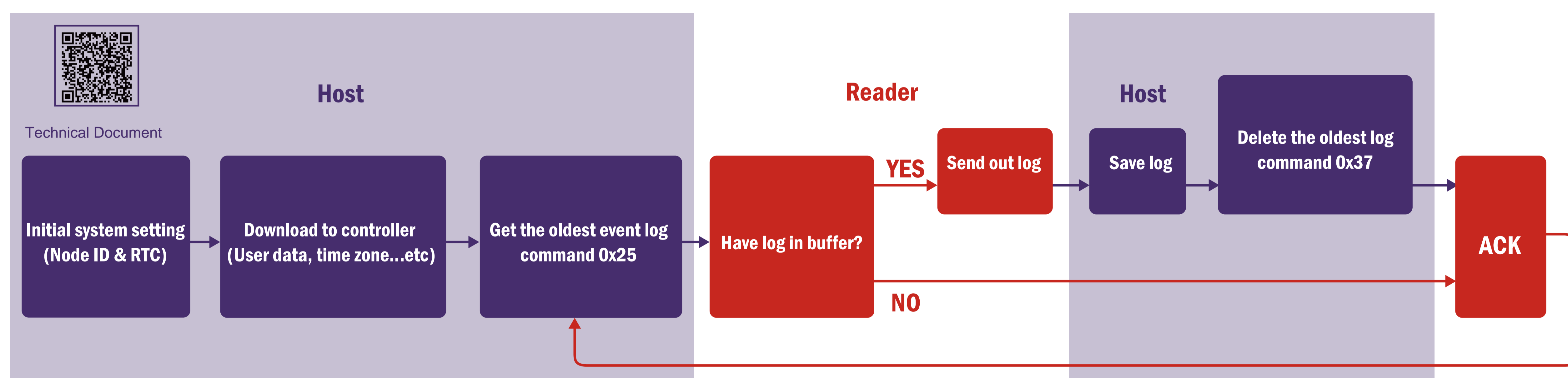
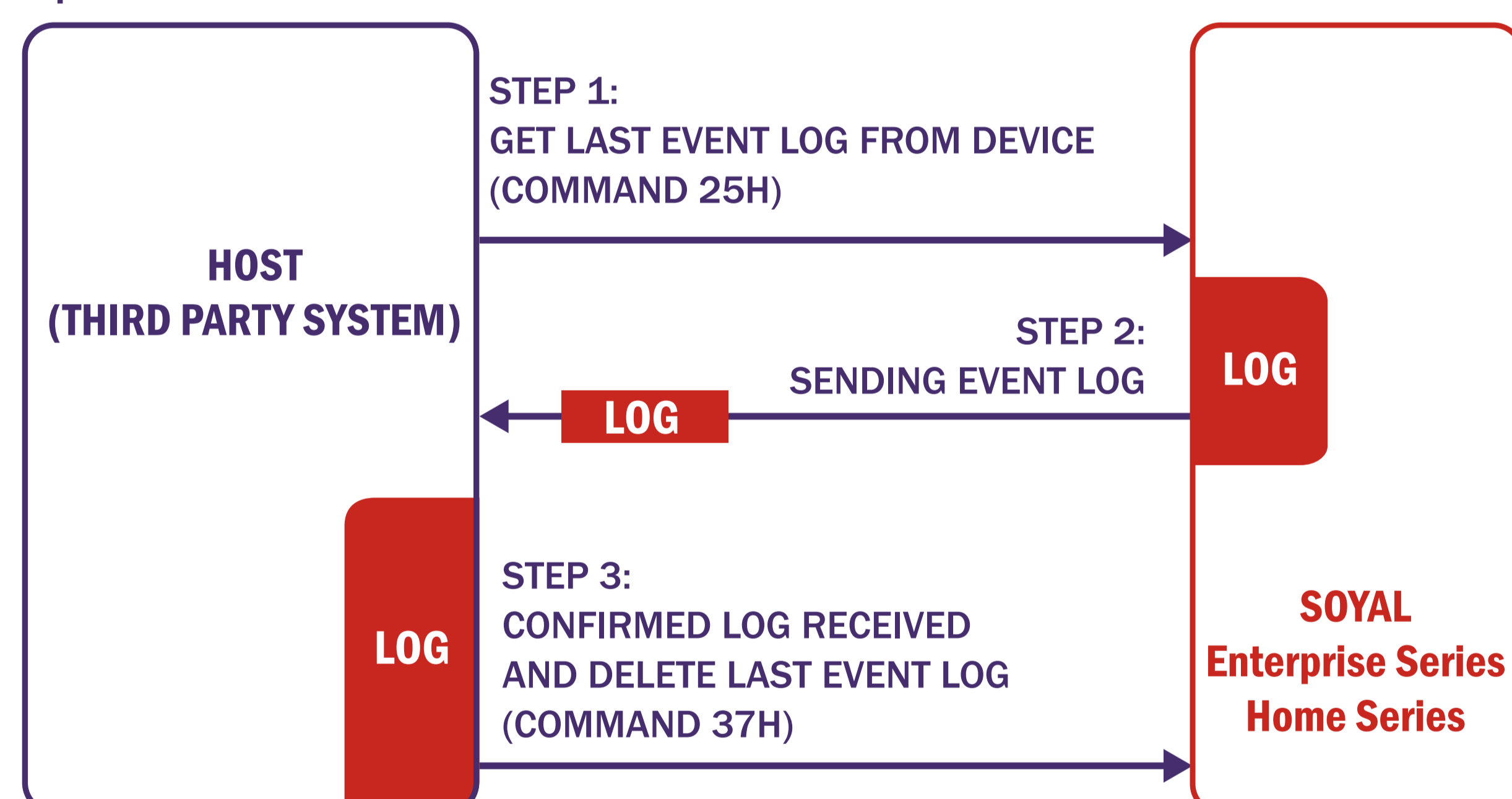
### >> Passively Get Message



#### Standard Polling Mode

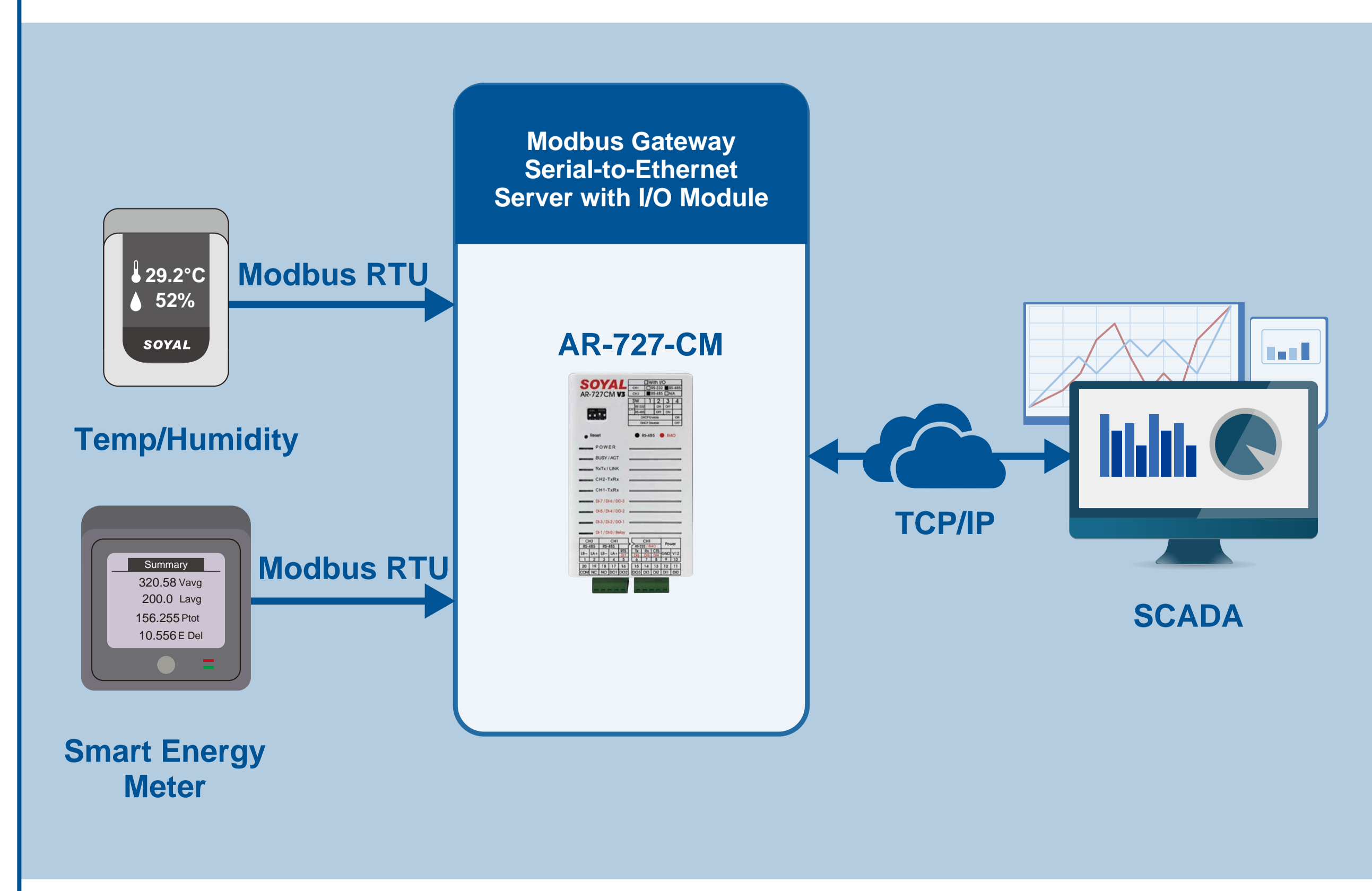
Reader takes responsibility to control access depending on the white list downloaded from HOST. In this situation, Reader works as stand-alone. HOST get the oldest event log from Reader by polling through command 0x25. When Host receives the oldest event log, Host will save it and then deletes it by command 0x37. However, when no log in Reader, Reader will still send a ACK command.

Operation Mode:



### >> Modbus Gateway (Modbus RTU over TCP)

Conversion from Modbus TCP into Modbus RTU that usually used for devices that equipped with Modbus TCP, wired to BMS and SCADA system required conversion to Modbus RTU.



### >> TCP to Wiegand Converter

SOYAL AR-727CM-IO provides multiple credential and authorization with RFID possible. AI devices such as License Plate Recognition, IP Camera, QR CODE, or even Face Recognition device that built-in TCP/IP interface could easily converted to Wiegand interface. The conversion will allows AI devices integrate with SOYAL RFID access controller under one system.

