Reliable, Convenient, Safe, and Energy-Efficient Building Automation Systems

Turing Think Intelligence Technology Co., Ltd.

About Us

Credentials and Background

- Certification by KNX Association:
  - KS-07B0-Linux Stack （Only 3 worldwide）
  - KS-07B0-FreeRTOS Stack
- Patent:
  - KS-07B0 KNX System B Stack Software
  - Time Synchronization Software for KNX V1.0
  - A communication method and storage medium based on the HBES extended communication protocol

About Us

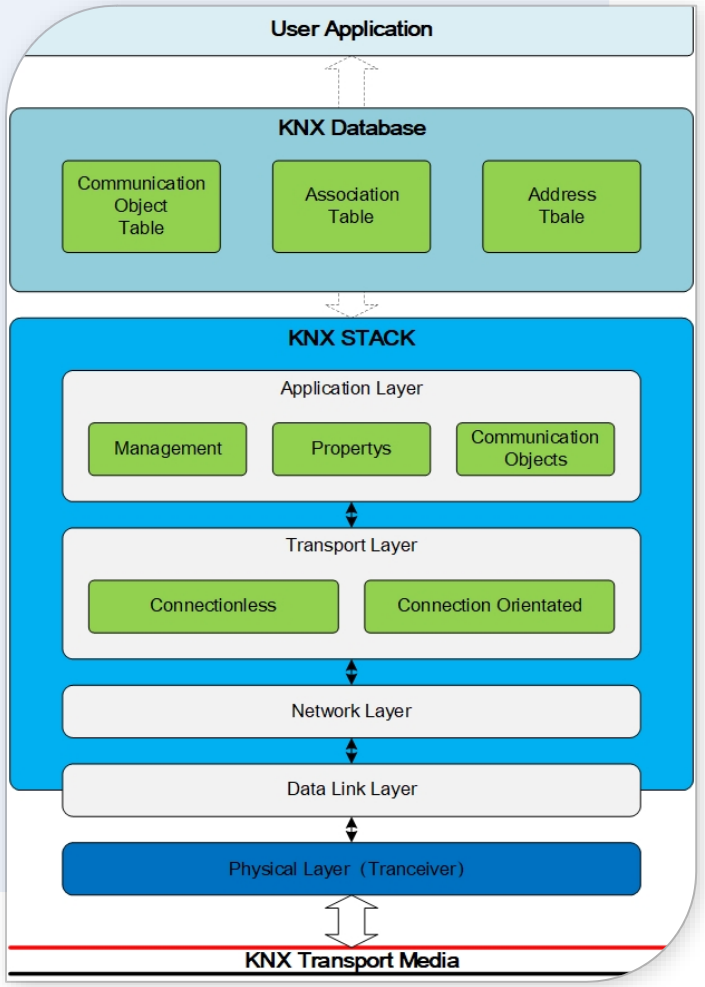
Empowering Services

- Product & technical solution consulting services;
- Customized product design and development services;
- KNX testing and certification support services;
- KNX development training

Product Assistance

- KNX Stack;
- Demo equipment and circuit design reference

KS-07B0 Stack Introduction



01

KS-07B0 Linux

For high-performance MPUs and the Linux system

02

KS-07B0 FreeRTOS

For low-cost MCUs and the FreeRTOS system

03

Standardization of KS-07B0

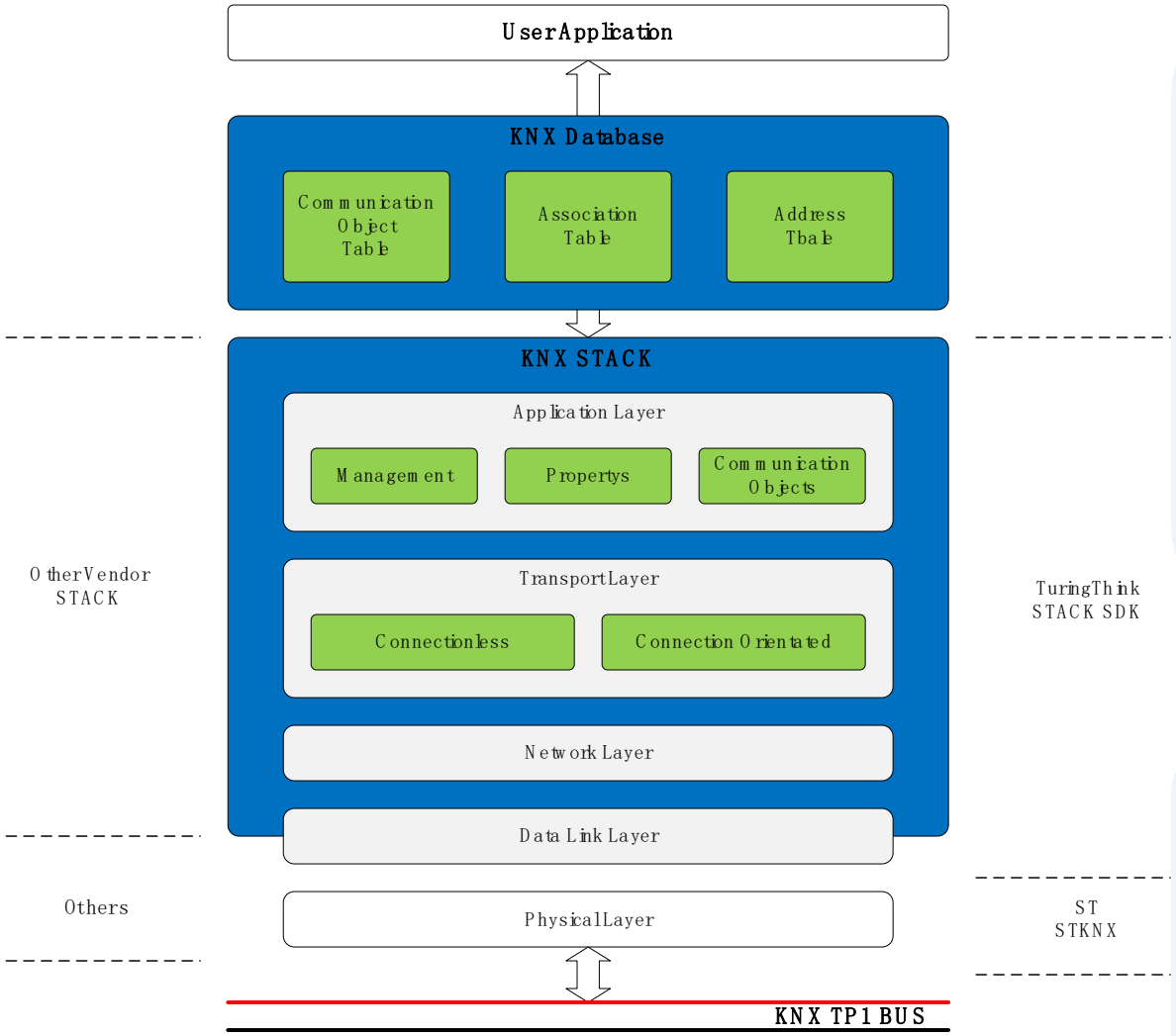
Strictly following the KNX standard for stack layering

04

KS-07B0 Applicability

Applicable to all types of KNX-TP devices and KNX Transceivers; fully implemented based on the operating system with no limitations on group objects and group addresses.

Key Features of KS-07B0



Features Summary:

- Based on FreeRTOS or Linux system
- No restriction on the selection of ST MCUs/MPUs
- No limitation on the number of group objects and communication objects
- Memory management functionality based on the operating system
- Simple user application interaction, supporting a wide range of value-added applications.

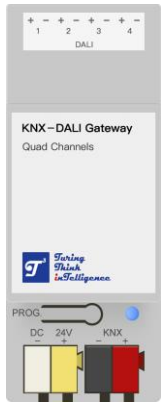
KS-07B0 Stack and EasyHBES Value-added

- Upgrade support for EasyHBES technology specification, achieving ETS-free debugging
- OTA, firmware/database version updates for terminal device
- Supports seamless integration of the DALI stack
- Supports seamless integration with the HomeKit ecosystem."

DEMO

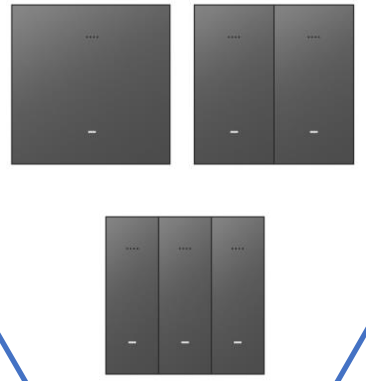
KNX-DALI Gateway

- MCU：ST STM32F427VIT6
- Transceiver：ST KNX
- OS：FreeRTOS

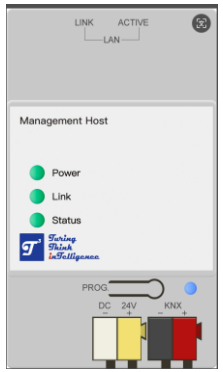


KNX Keypad Panels

- MCU：ST STM32F103RCT6
- Transceiver：ST STKNX
- OS：FreeRTOS



KNX-IP Gateway

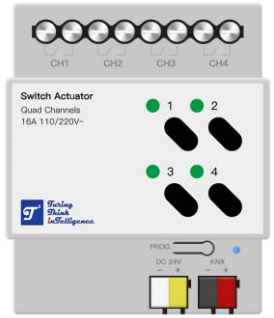


- MPU：Rockchip RV1126
- Transceivers: STKNX
- OS：Linux

KNX-RS485 Gateway

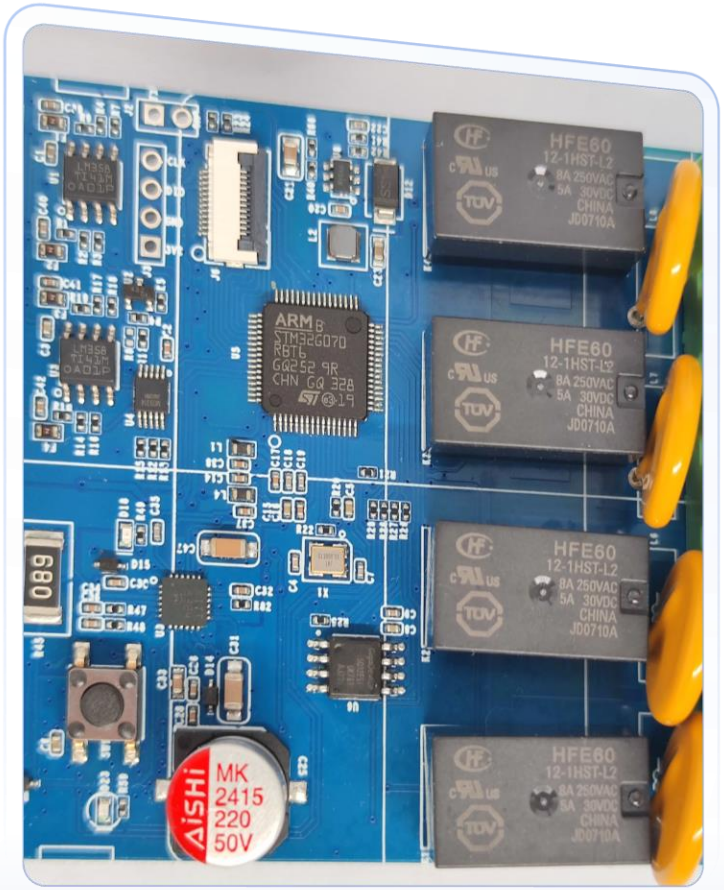
- MCU：ST STM32F427VIT6
- Transceiver：ST KNX
- OS：FreeRTOS

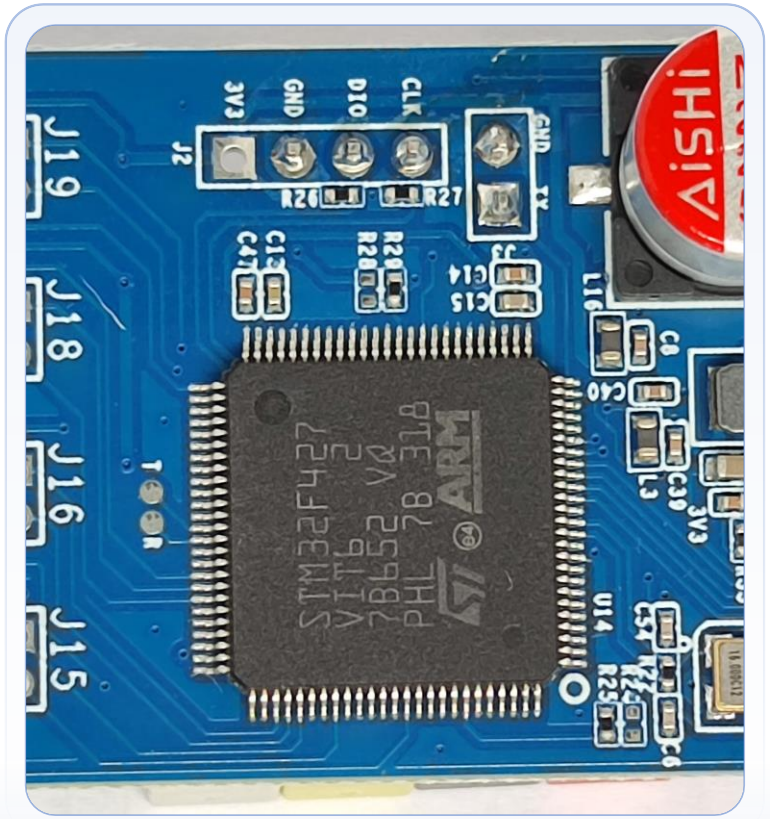
KNX Dimming Actuator

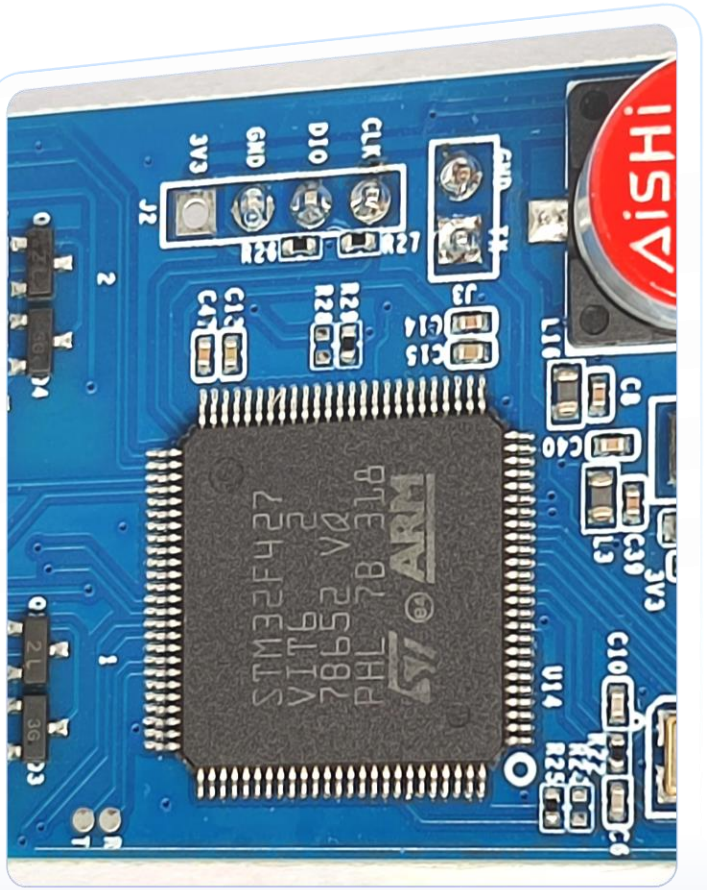


- MCU：ST STM32G070RBT6
- Transceiver：ST KNX
- OS：FreeRTOS

Circuit Design Reference







“Turing-Think” - ST Partner (IDH)

References：

https://www.stmcu.com.cn/Article/ArticleCat/cat_code/Industrialdesign/art_id/3081

微信扫一扫

ST MAC Solutions

Code execution within MCU combined with STKNX Transceiver to achieve a fast, low-cost, and seamless **replacement** for Onsemi and Siemens Transceiver solutions

STKNX EVM

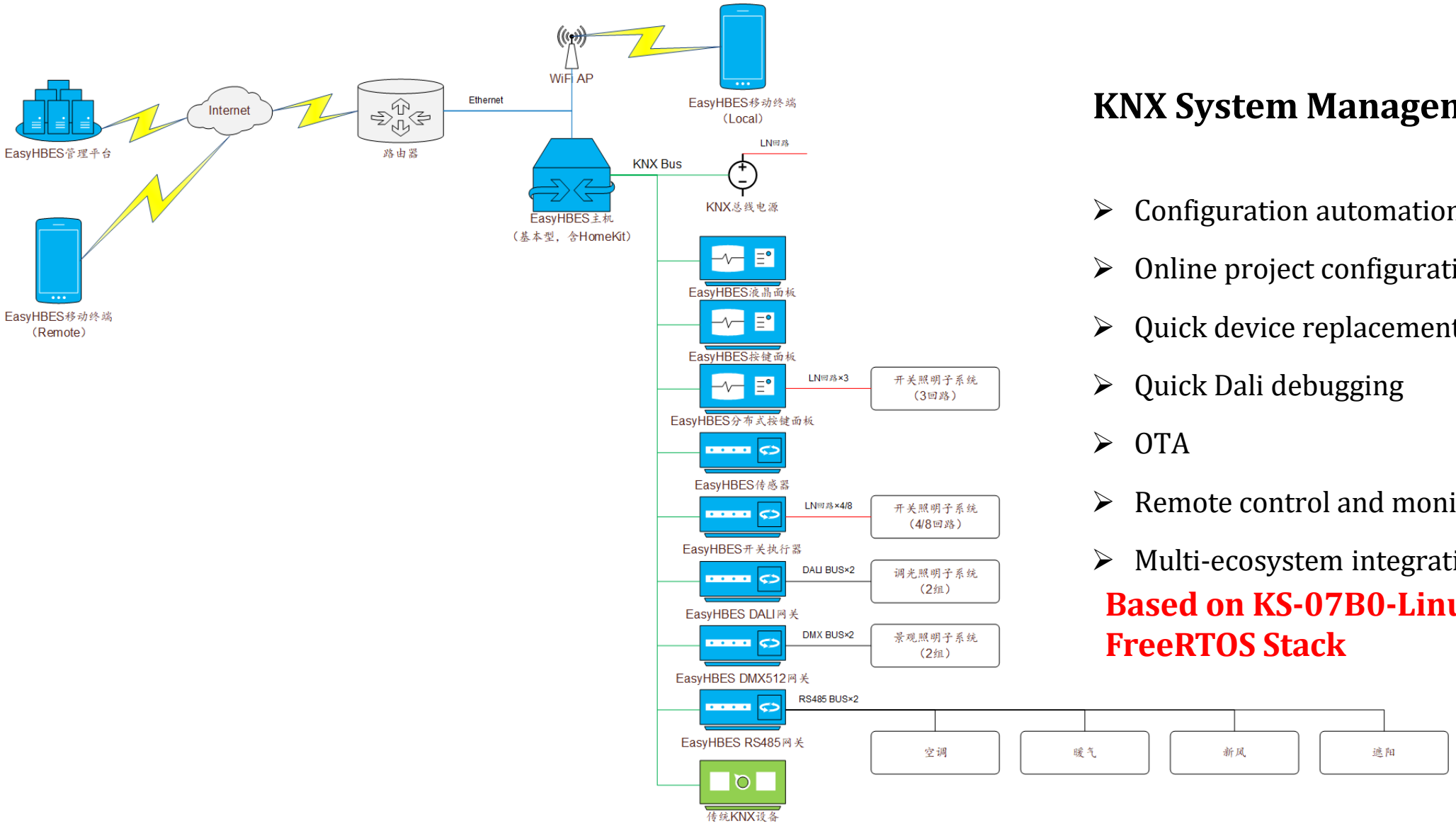
- MCU：ST STM32G070CBT6
- Transceiver：ST STKNX
- Isolator：ST STIOS621
- DC-DC：ST L6983N33

Features

- Integrated with KS-07B0-FreeRTOS Stack
- Well-packaged SDK
- Sample code available
- Provides guidelines for model definition specification of KNX devices

Download add：http://www.turing-think.com/file/download/KNX终端设备开发评估套件.html

EasyHBES Middleware Solutions（From Bombe Origin）

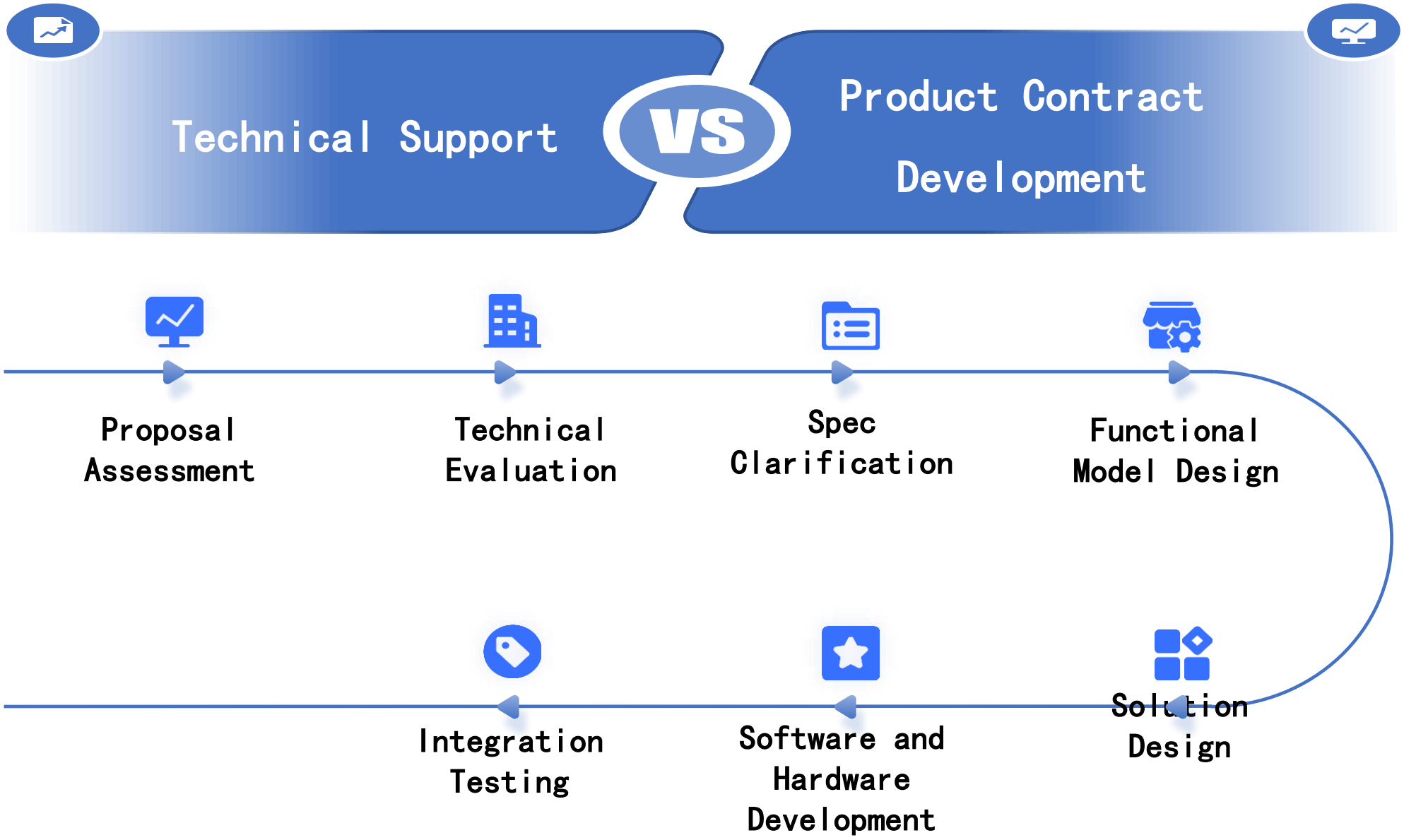


KNX System Management Solutions:

- Configuration automation
- Online project configuration management
- Quick device replacement
- Quick Dali debugging
- OTA
- Remote control and monitor
- Multi-ecosystem integration

Based on KS-07B0-Linux&KS-07B0-FreeRTOS Stack

Cooperation processes



Thank You!

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