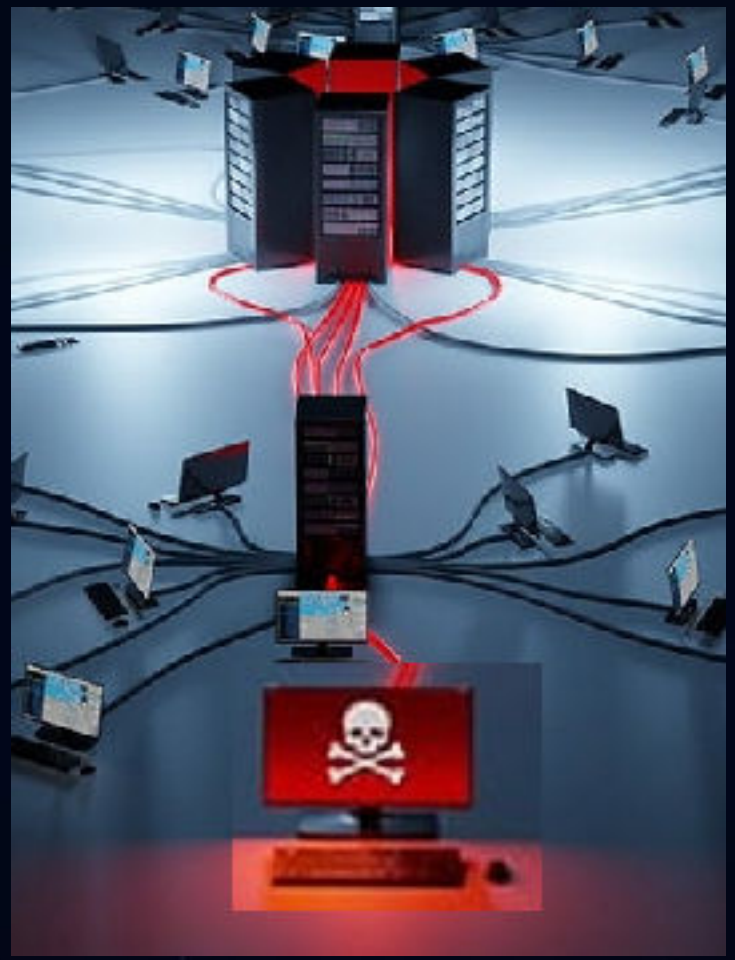
AI Diagnosis

Difficult to find out Network Problems

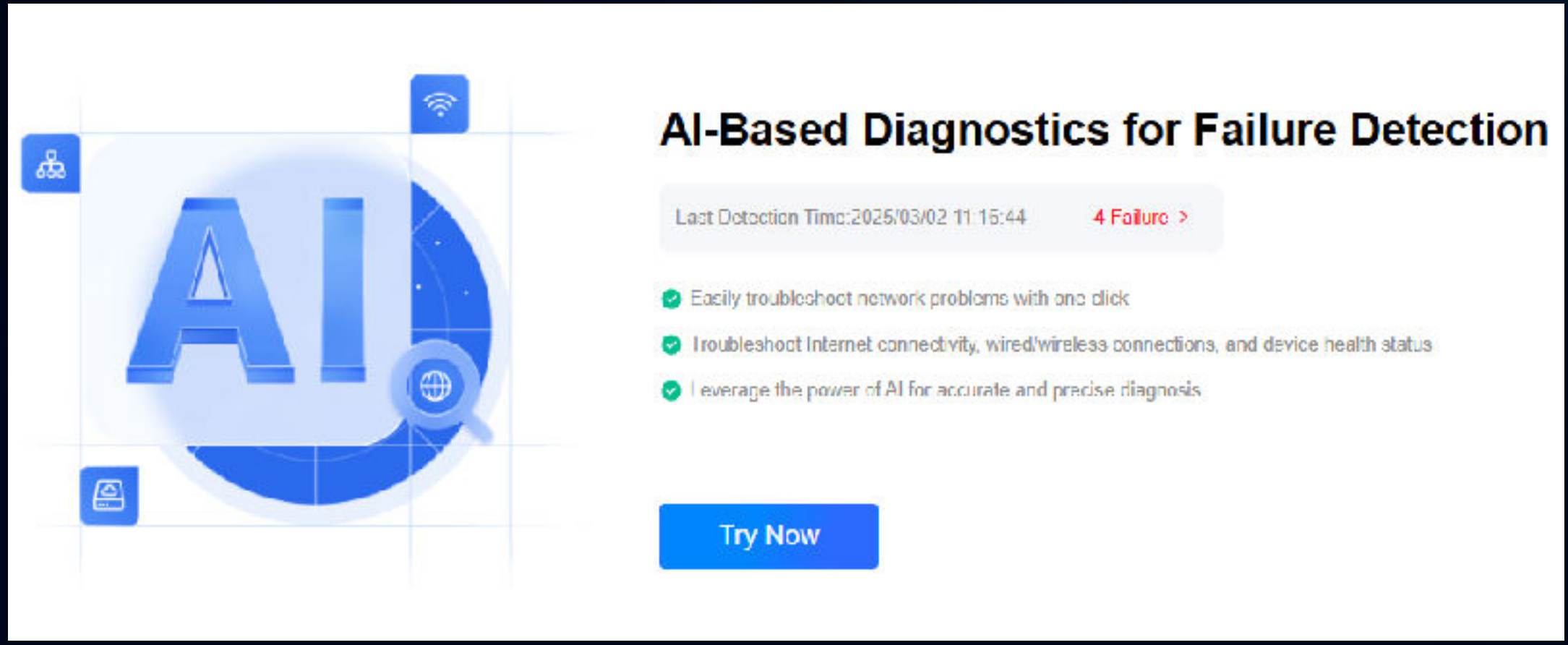


End Device Infected Virus

Bad User Experience

Access Point Performance Drop

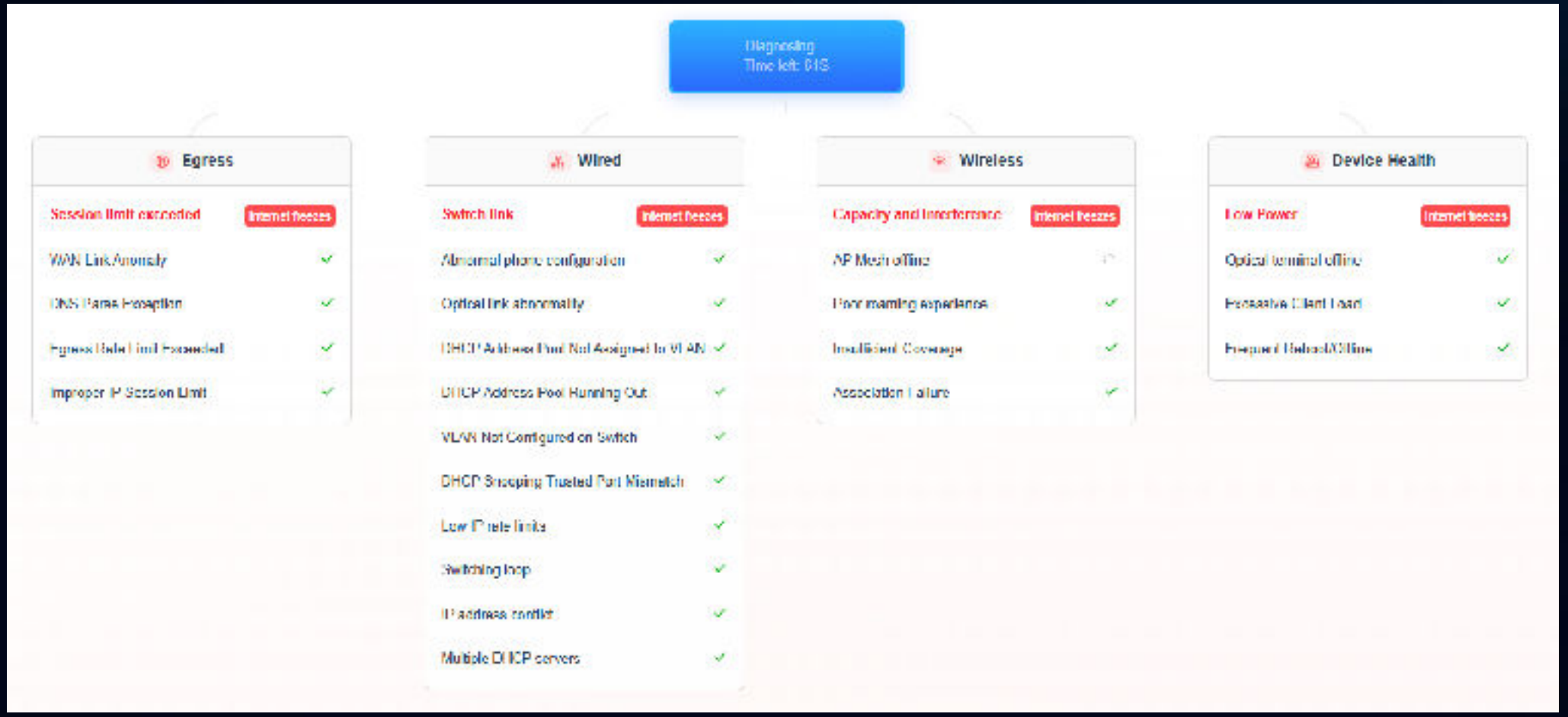
AI Identify Network Issue by Just One-kick



Discover Network Fault

Discover Bad User Experience

AI Identify Network Issue by Just One-kick



End-to-end Network Scan

Around 1 Minute Required

Solution of the Issue Provided

AI Identify Network Issue by Just One-kick - Discover Network Fault

Internet Link Abnormal

Optical Link Abnormality

DHCP Address Pool Running Out

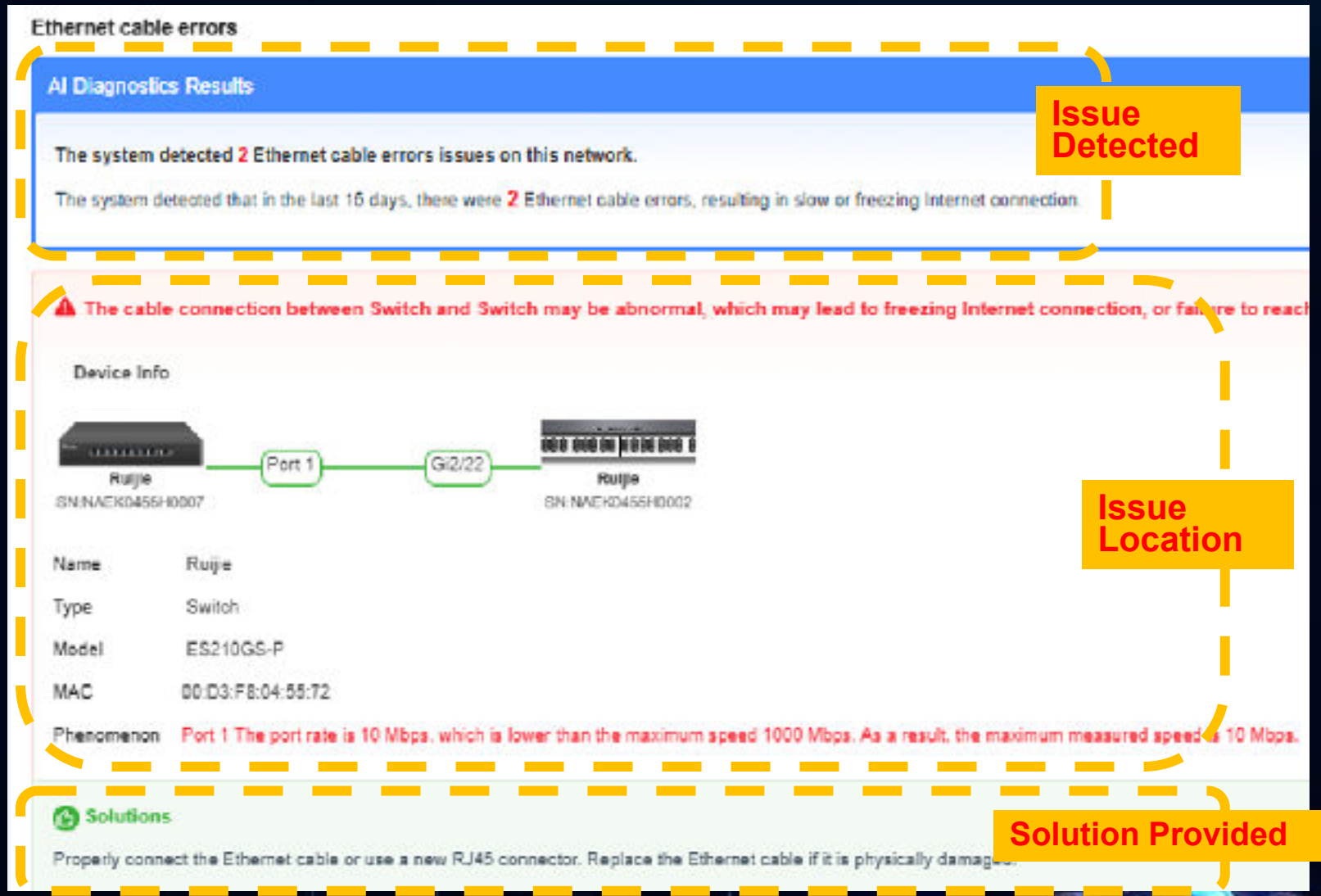
Frequent Reboot/Offline

AP Mesh Offline

Switch Link Abnormal

Low Power

More…



Sample of Ethernet Cable Errors Detected by AI Diagnostics

AI Identify Network Issue by Just One-kick - Discover Bad User Experience

Egress Rate Limit Exceeded

Low IP rate limits

Capacity and Interference

Poor roaming experience

Insufficient Coverage

Association Failure

Excessive Client Load

More…

Sample of Session Limit Exceeded Detected by AI Diagnostics

AI Powered
Network HawkEye

Pain Points when Diagnosing Wireless Problems

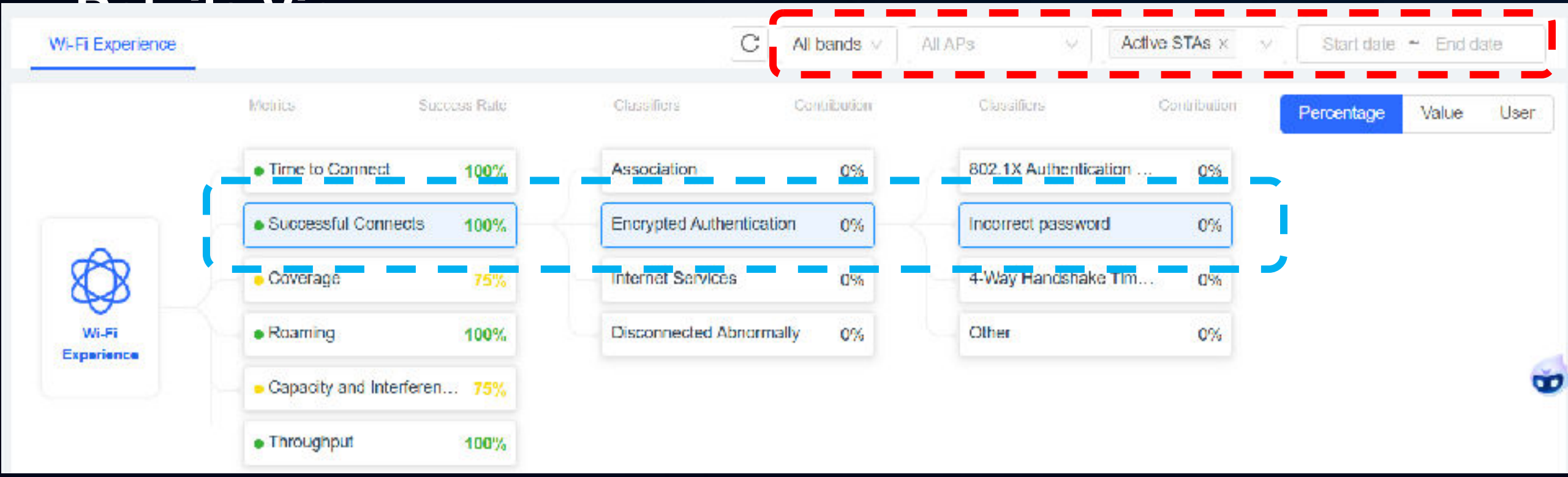
- Have difficulties locating specific wireless problems
- Difficult to trace historical data in network maintenance
- Cannot identify the root cause of Wireless issue even hundred tests has been made

AI Powered Network HawkEye is the Solution

Network HawkEye Provide Insight in Six Dimensions - Overview

- High Level Idea of Whole WiFi Network Performance
- Easy to Understand

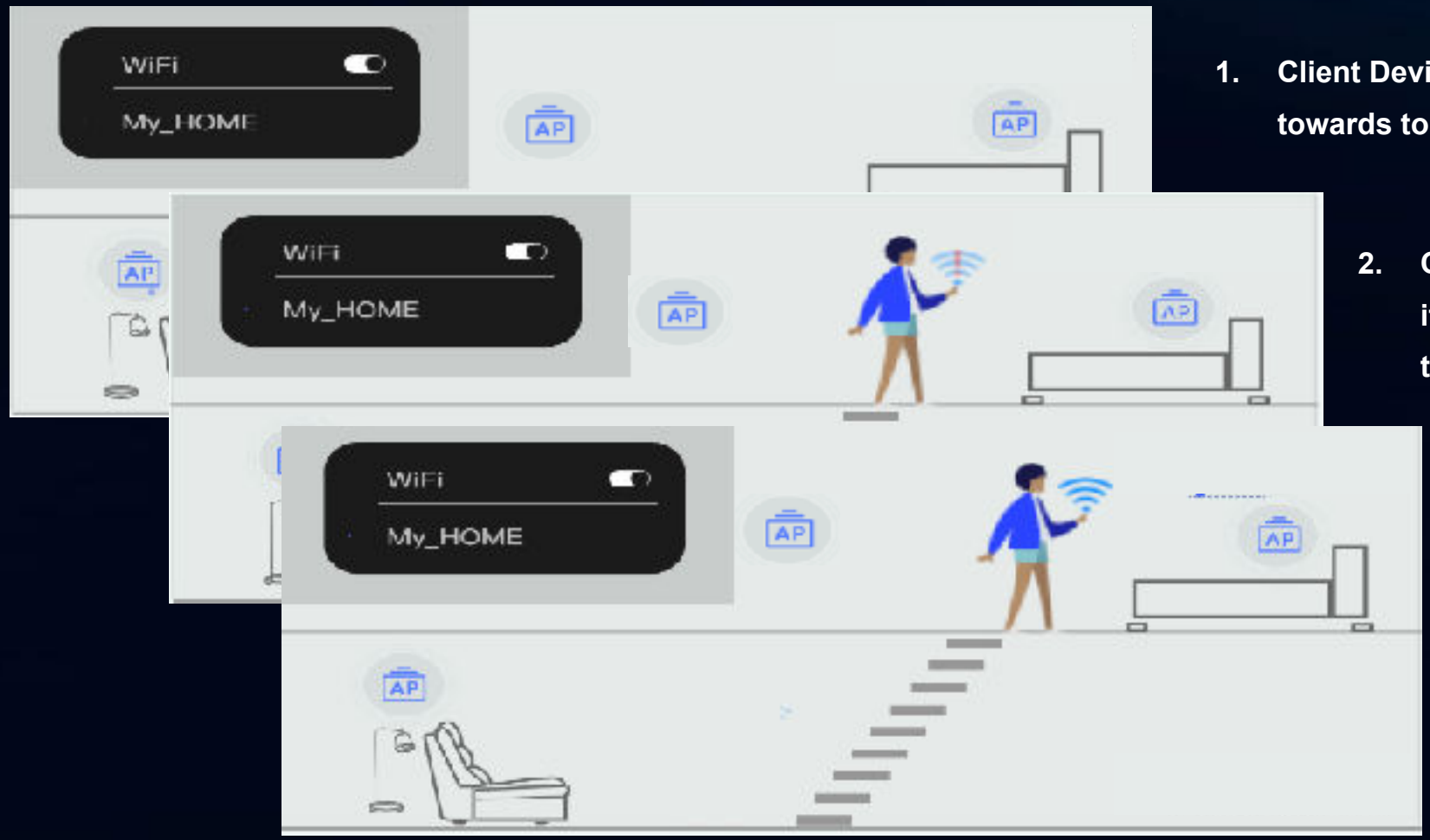
Network HawkEye Provide Insight in Six Dimensions – Details View



- Layer by Layer Analysis the Root Cause of Bad Wi-Fi Network Performance
- By Specific End Device Analysis
- By Specific Access Point Analysis
- By Frequency Analysis
- By Range of Date Analysis

AI Roaming

Traffic Unstable During Roaming



1. Client Device Connect to the AP and move towards to other AP

2. Client Device search nearby AP to explore if it is suitable for roaming. This process need time for Client Device and AP handshake

3. After Client Device and AP handshake, Client Device connect to the AP. Roaming completed

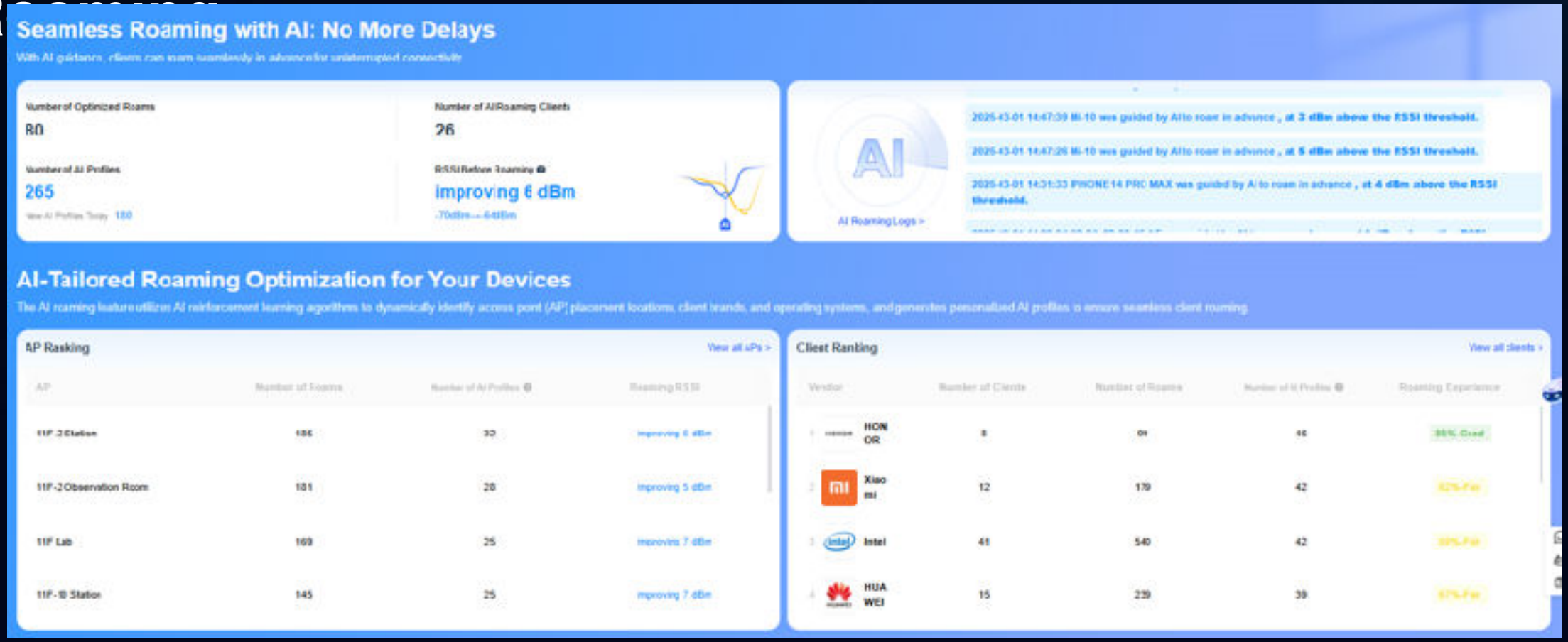
Due to above Process 2, Roaming will involve delay!

Same Roaming Settings for Different Terminals is not a Best Practice

Different brand and different model of Wireless terminal has different Roaming Policy

Same Roaming Settings from different Access Points cannot 100% match different Wireless Terminal's needs and Roaming Performance cannot become the best

Different Roaming Strategy for Different Terminals by AI Roaming

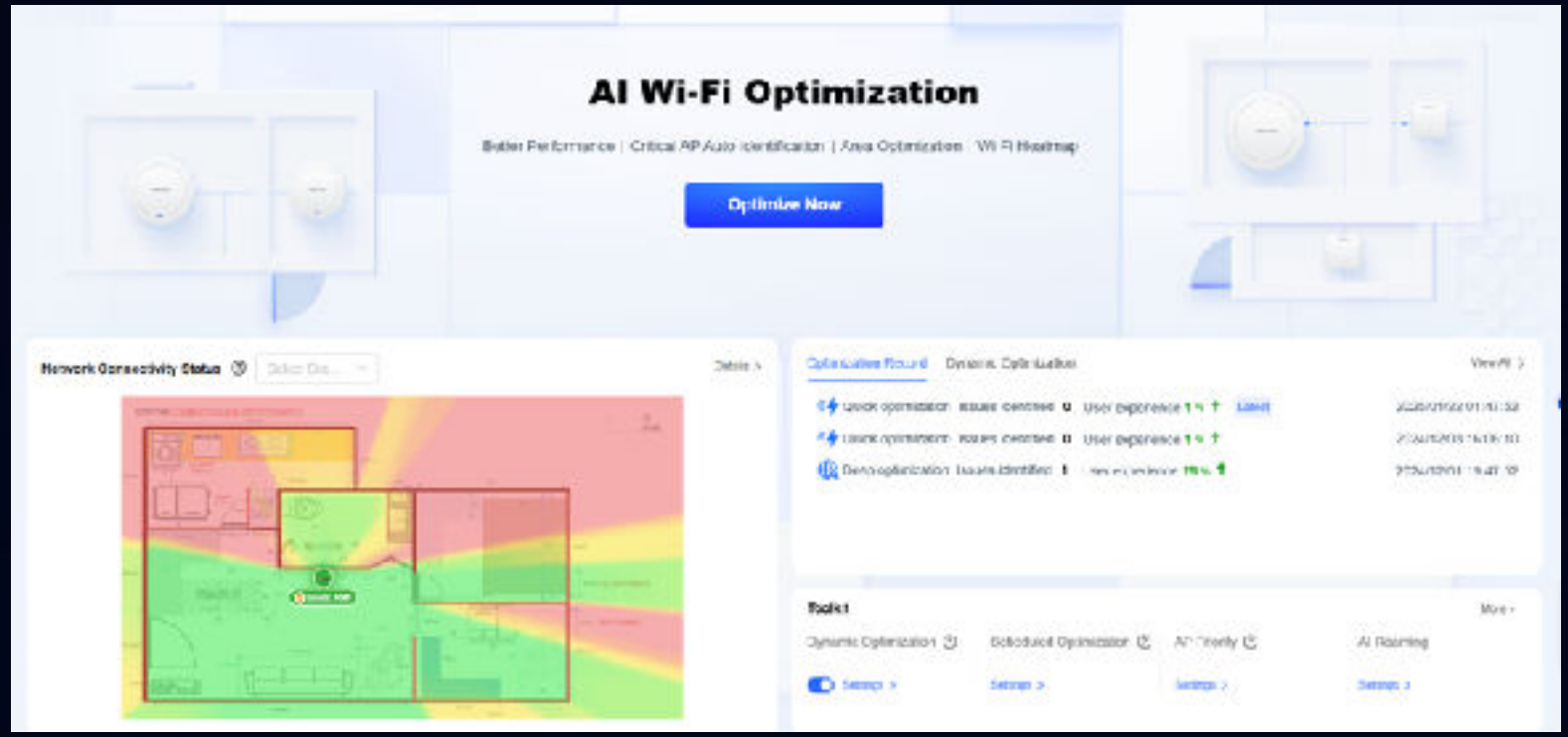


Different Roaming Strategy based on different End Device

Profile which is gathered from Machine Learning

AI Wi-Fi Optimization

Not Only Avoid Interference but Better Wireless Resource Assignment Powered by AI



Other than traditional scheduled channel re-arrangement, AI Wi-Fi Optimization can support:

1. **Dynamic Optimization** – Automatically trigger optimization when required during non-peak hour
2. **Critical AP Auto-Identification** and better resource assigned to them

AI Wi-Fi Optimization – Dynamic Optimization

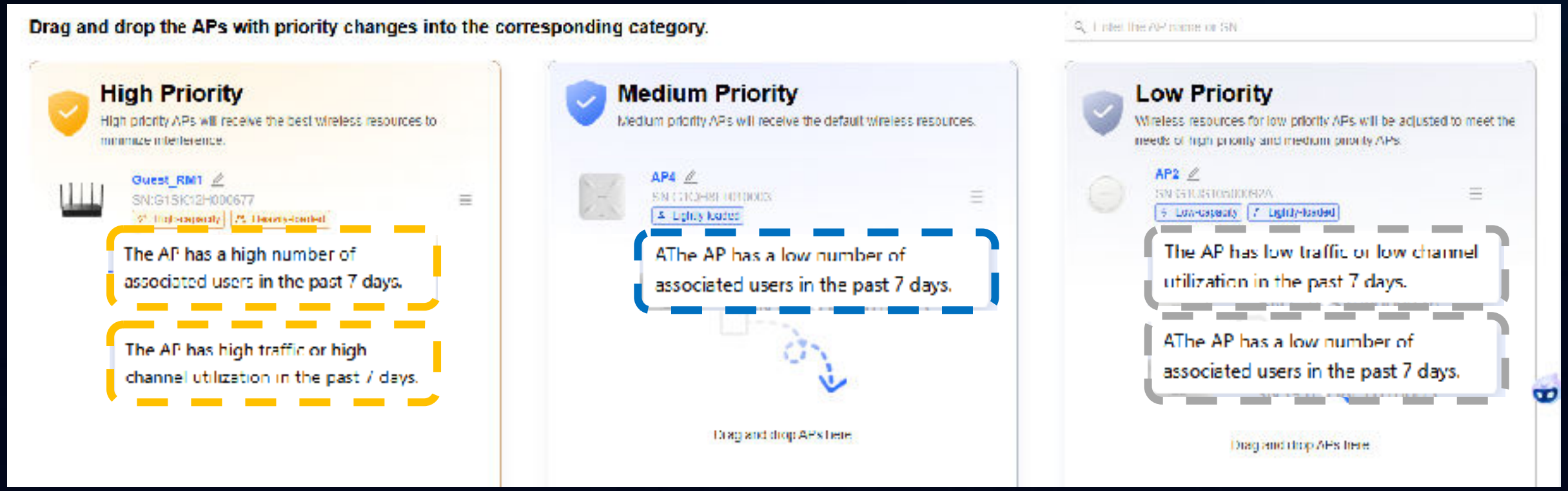
Dynamic Roaming Optimization

- Intelligent Identification : Intelligently identify issues such as sticky clients, ping-pong roaming, and coverage holes based on historical data.
- AI powered Optimization : Achieve a balance between roaming and coverage through machine learning to ensure an optimal user experience.
- Configuration Delivery : Deliver optimization configurations during off peak hours to minimize potential disruptions.

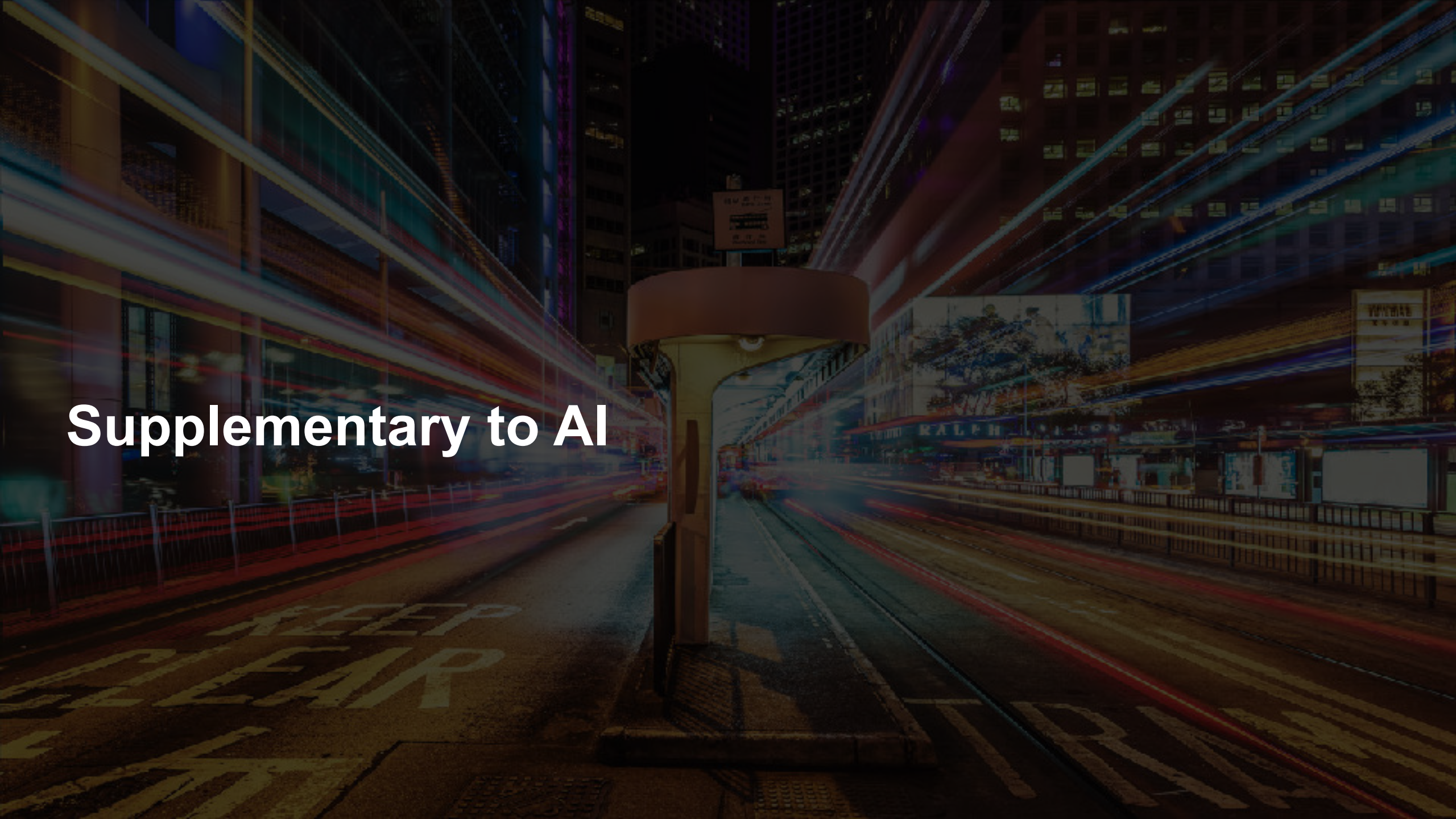
Dynamic Channel Optimization

- Intelligent Identification : Periodically detect issues like channel congestion and significant external interference based on historical data.
- AI powered Optimization : Switch APs to a better channel in the event of severe incidents and gradually optimize the network through machine learning.
- Configuration Delivery : Deliver optimization configurations during off peak hours to minimize potential disruptions.

AI Wi-Fi Optimization – AP Priority Auto-Identification



- **Auto Identify the Priority of AP based on pass 7 days data**
- **Customer can based on their own decision to re-define the AP priority by simple drag and drop**
- **The Higher the Critical Level, the More the Wireless Resource (e.g. Channel Width) will be assigned**


Supplementary to AI

Human Being Supplement AI Limitation

There are tremendous functions on Ruijie Cloud. It may be difficult to identify which functions should be used. Especially, for the time when there is fault issue, there is no enough time for IT Team to Study Ruijie Cloud

Ruijie - AI HKPC

RITA
Ruijie Intelligent Tech Assistant

No worry! Ruijie Intelligent Technical Assistant (RITA) is the supporting tool for all of the people (even it is not yet Ruijie customer) to seek technical advice. Based on customer agreement, RITA can support remote checking and config on your network.

WeChat

LINE

WhatsApp

Messenger

Website

Facebook

More Than 400 Hong Kong School Are Using Ruijie Solution

Too Much and Cannot Include all here!!!