Advantech Industrial Wireless Solutions
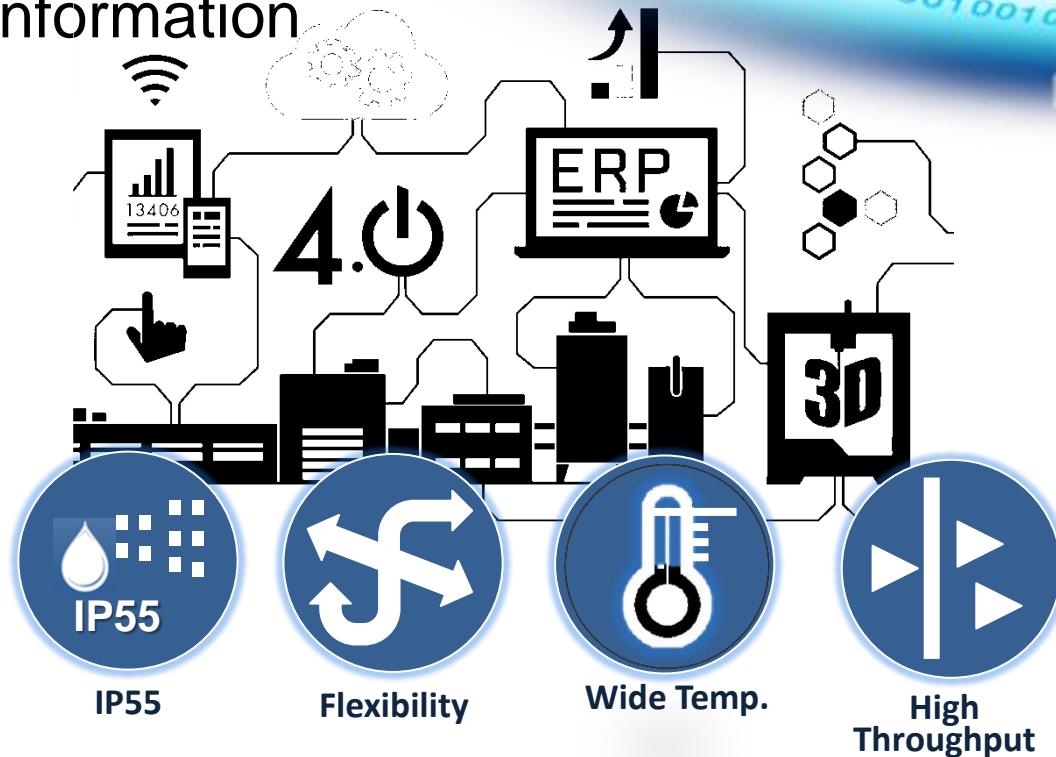
Enjoy Wireless Mobility and Flexibility for Versatile Industrial Applications

IP55

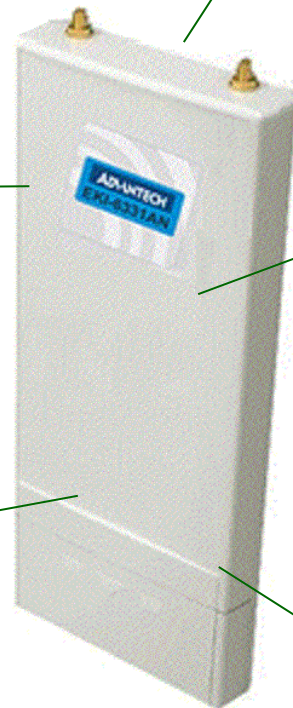IP55

Flexibility

Wide Temp.

High Throughput

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IP55
IP55

Flexibility

Wide Temp.

High
Throughput

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EKI-6331AN Product Introduction

■Supports IEEE802.11a/n wireless standards
- High throughput rate: 3 times higher than 11a
- Prevent RF interference from 2.4Ghz

■ External R-SMA connector for an optional antenna (dipole antenna as default)

■MIMO 2x2 to enhance the wireless communication quality

■**Supports up to 2.9Km with distances and keeps over 100Mbps data-rate communication**

■ÿWEP/WPA/WPA2 Enterprise/ IEEE 802.1 x authentication security support

■IP-55 protection grade
■Wide operating temperature range: -20~70°C

■ßPassive 24V PoE input
■15-24 VDC power input of main body

EKI-6332GN Product Introduction

■Supports IEEE802.11b/g/n wireless standards

■ External R-SMA connector for an optional antenna (dipole antenna as default)

■ MIMO 2x2 to enhance the wireless communication quality

■ý WEP/WPA/WPA2 Enterprise/ IEEE 802.1 x authentication security support

■ƒPassive 24V PoE input

■15-24 VDC power input of main body

■Supports up to 2.9Km with distances and keeps over 100Mbps data-rate communication

■IP-55 protection grade
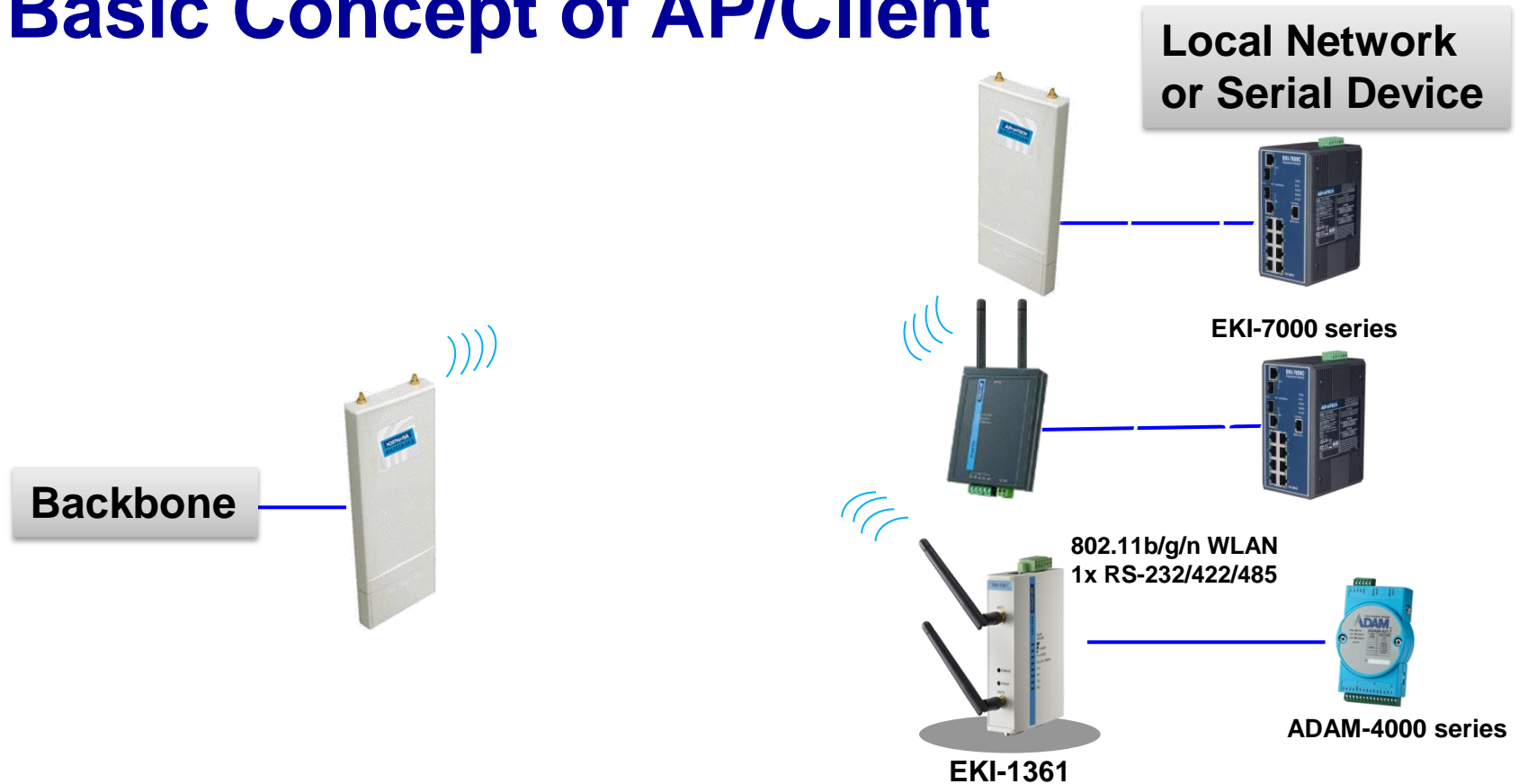
■Wide operating temperature range: -20~70°C

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Flexible Installation

Pole-Ring Installation

Power Socket

Switch hub or PC

Powered by Passive PoE

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Basic Concept of AP/Client

Local Network or Serial Device

Backbone

EKI-7000 series

802.11b/g/n WLAN
1x RS-232/422/485

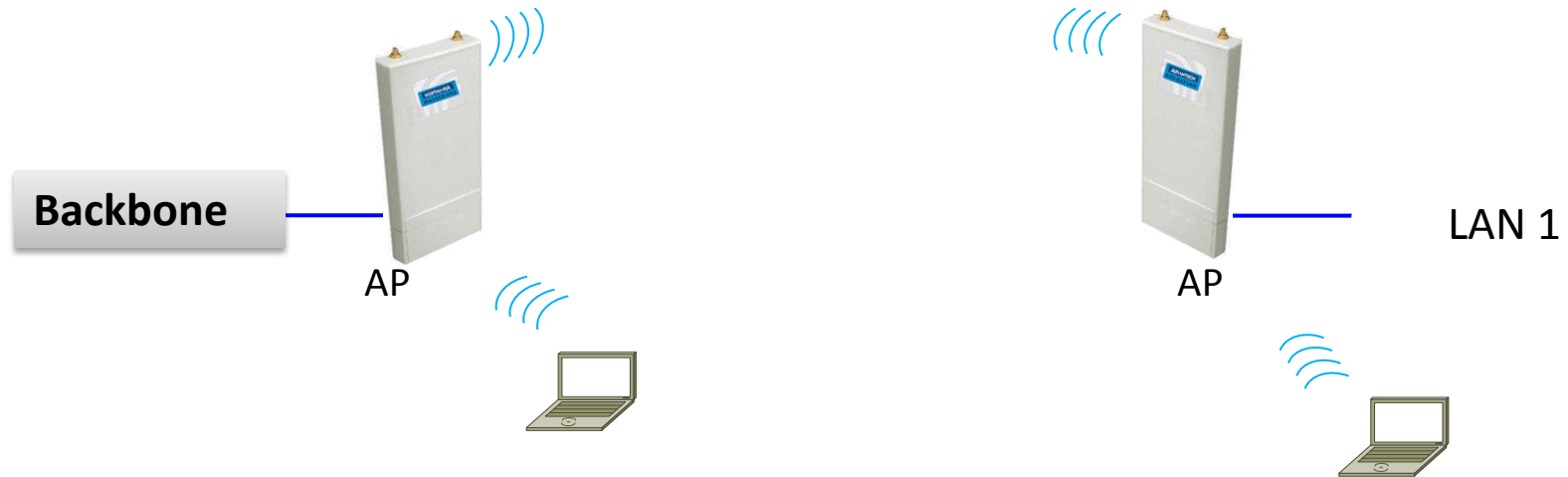**ADAM-4000 series**

EKI-1361

- **Access Point (AP)**
  - A wireless hub
  - Service wireless clients
  - Provide filtering and security

- **Client**
  - Wireless Device
  - Wireless bridge for sub-networks
  - Capable of roaming between APs

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WDS/Bridge Concept

Backbone

AP

LAN 1

AP

- **WDS (Wireless Distribution System)**
  - **Bridging APs**
  - **Wirelessly connect multiple BSS and LAN**
  - **Fixed location communication**

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Basic Wireless Coverage Application

Equipment with Serial port

Wireless Coverage

Equipment with Ethernet port

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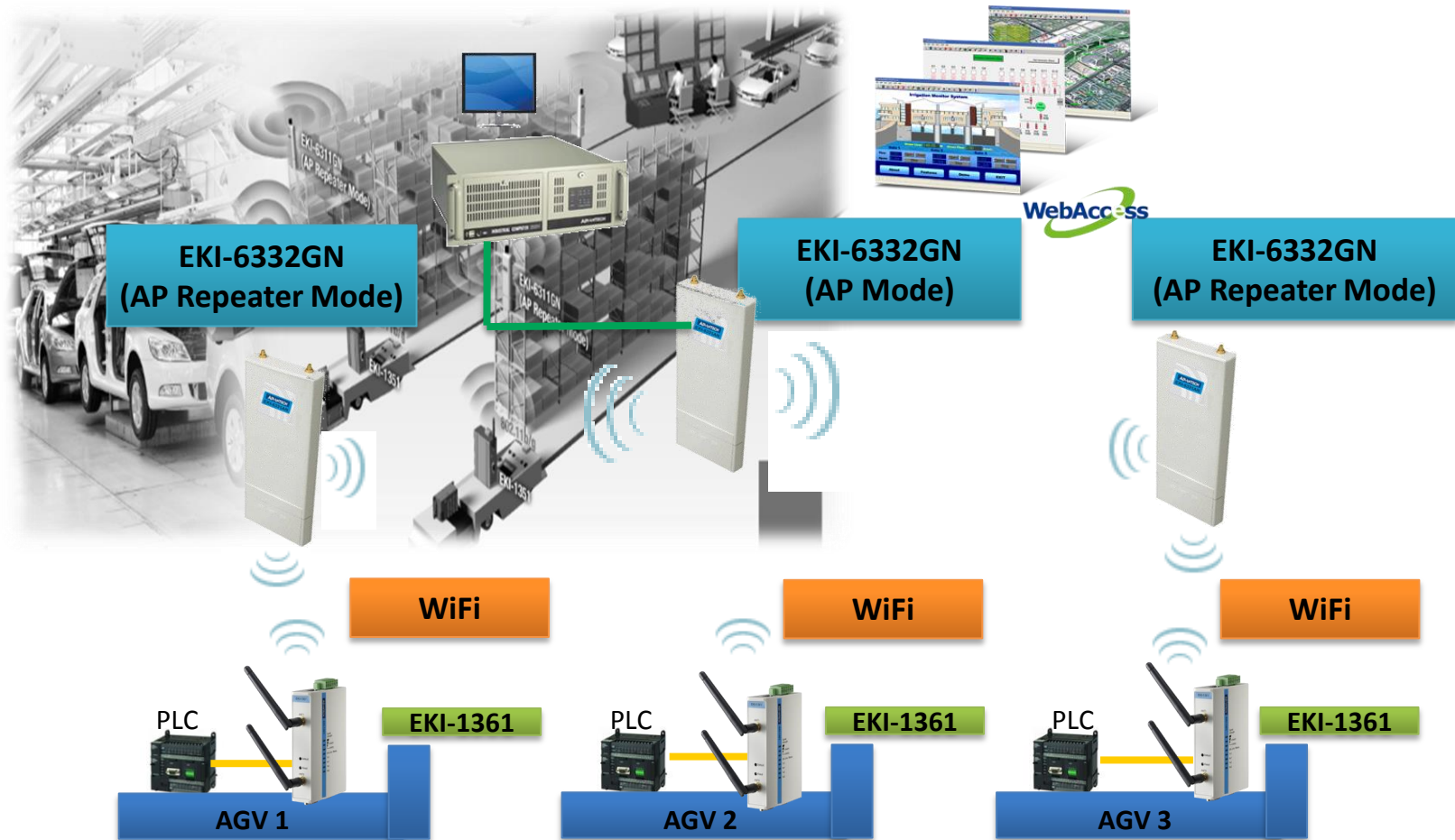ADVANTECH

Warehouse Appliation

- **Client-Based Roaming**

- **Supports EKI-6332GN / EKI-136x standard series**

- **Under 100 ms roaming (OPEN / WEP)**

- **Supports three roaming channels**

- **No proprietary protocol or AP required**

- **One click to enable**

- **No performance drops**

EKI-6332GN

EKI-1362
Wireless
Device Server

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AGV Application

EKI-6332GN (AP Repeater Mode)

EKI-6332GN (AP Mode)

EKI-6332GN (AP Repeater Mode)

WebAccess

WiFi   WiFi   WiFi

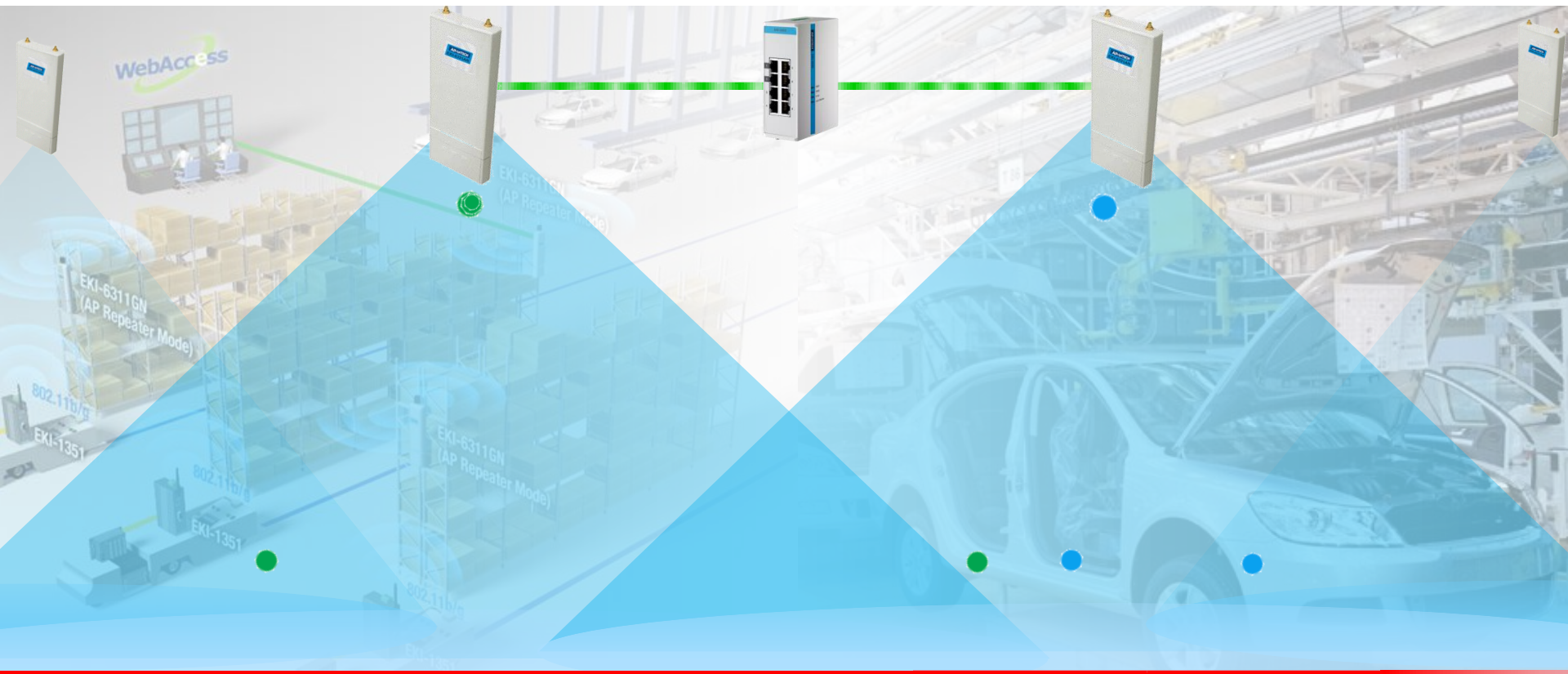PLC   EKI-1361   PLC   EKI-1361   PLC   EKI-1361

AGV 1   **AGV 2**   **AGV 3**

- ■ In a wireless network, roaming is the handover of client devices as they move from one AP to another AP (or between coverage areas) .

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Fast Roaming Function

Timeline

1. Background Scan

2.1 De-Authorization

2.2 Association

3. Roaming Finish

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Focus Application- WLAN

Factory Automation

- Remote monitoring
- Wireless coverage for environment is hard wiring
- AGV or warehouse

Renewable Energy

- Harsh environment
- Need to manage remote equipment

Harbor

- Point to point long range communication
- Need to collect real-time data from remote site in distributed location

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