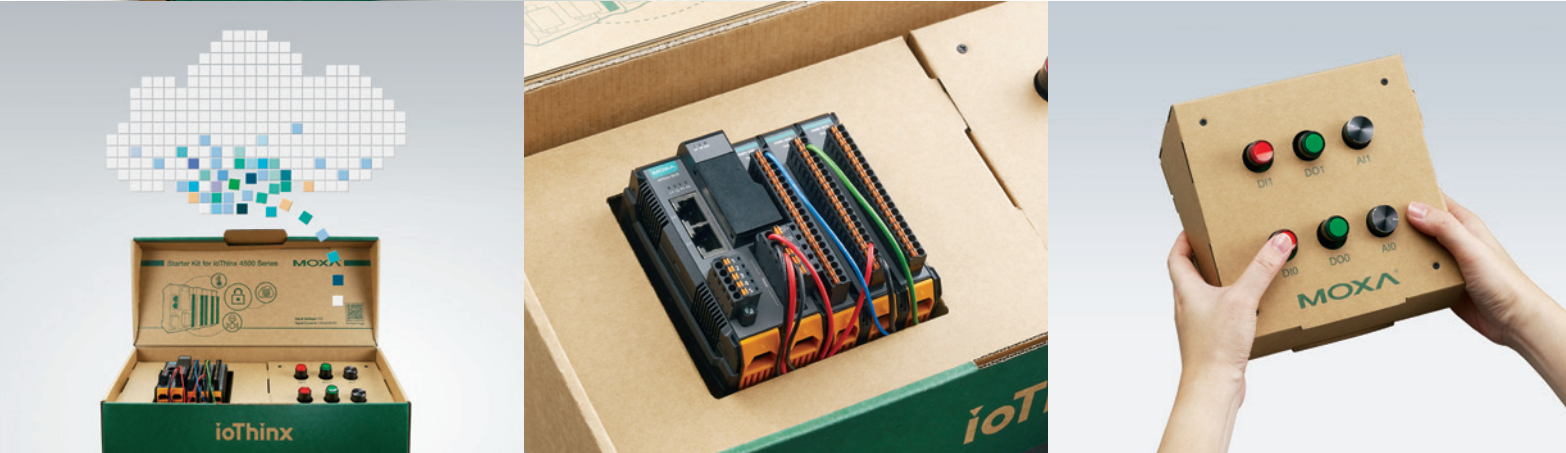


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Product Page

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Deliver Your I/O Data to the Cloud, Quickly and Securely

ioThinX 4500 Series IIoT controllers and I/Os

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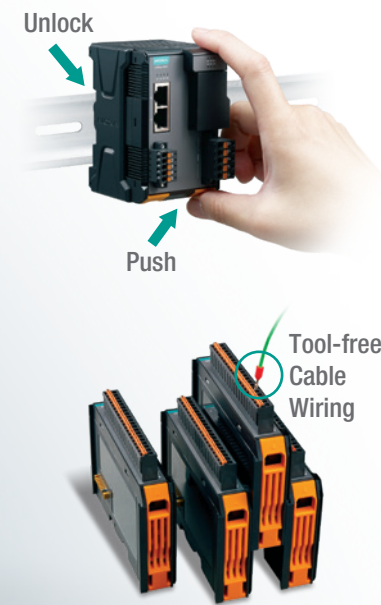
ioThinX

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Cloud Connectivity

Cybersecurity

Tool-free Installation and Removal



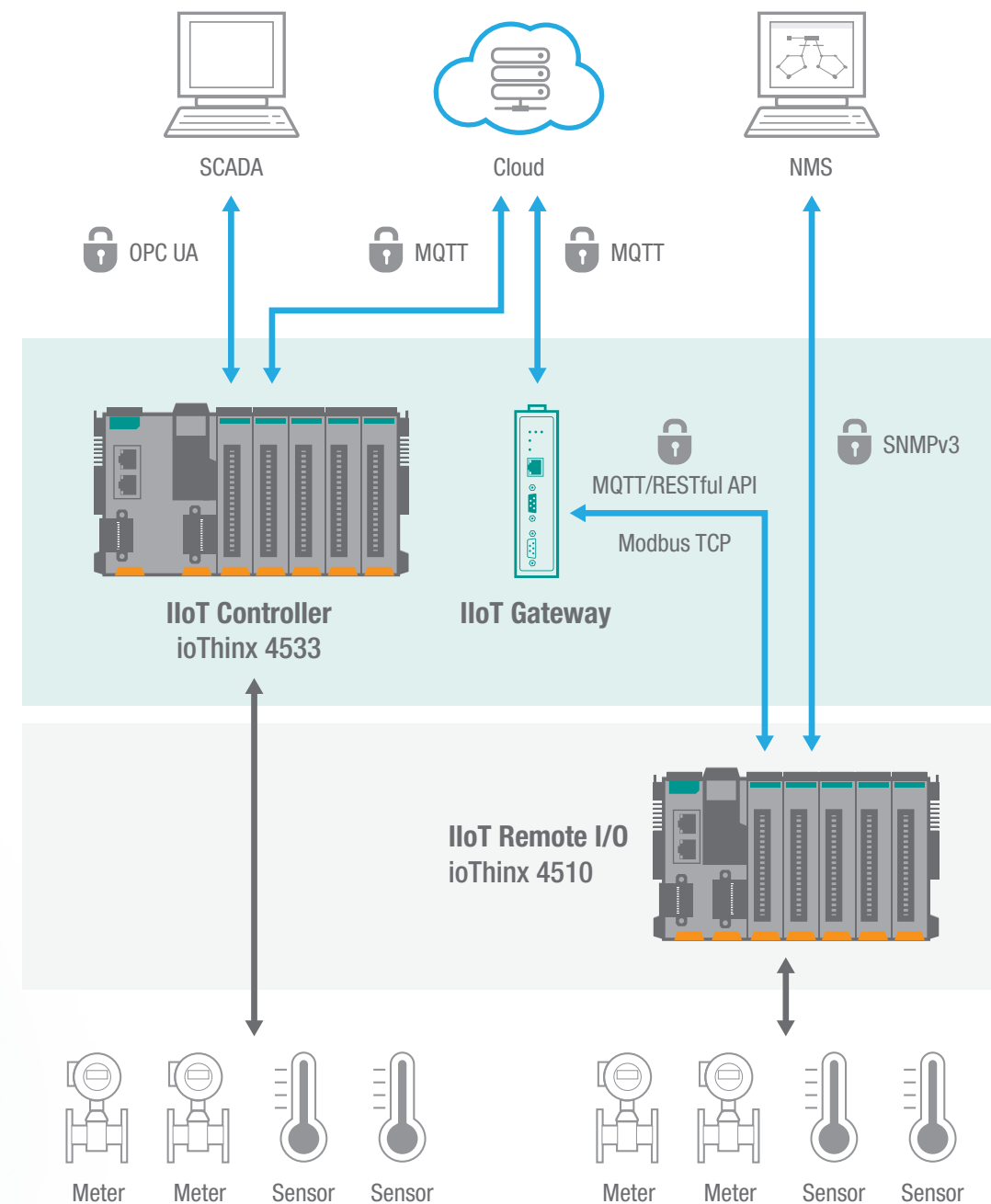
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Red Dot Award Jury, Product Design 2019



reddot award 2019 winner industrial design

Moxa's ioThinX 4500 Series products are IIoT-ready modular controllers and I/Os featuring programming capability, cloud connectivity, high computing power, and a system-wide cybersecurity design. The ioThinX Series is specifically designed for Industrial IoT applications to deploy your I/O data to the cloud effortlessly and securely. The ioThinX 4500 Series consists of the ioThinX 4533 IIoT controller and the ioThinX 4510 IIoT-ready remote I/O. Refer to the suggested application structure below:



ioThinX 4533 IIoT Controller



| | |
|-------------------------|---|
| CPU | NXP i.MX7D 1GHz |
| Power Inputs | System Power: 12 to 48 VDC; Field Power: 12/24 VDC |
| Expansion Modules | 64 |
| Operating System | Linux kernel 4.4 (CIP, PREEMPT_RT), Debian 9 |
| Memory | 512 MB DDR3 |
| Storage (pre-installed) | 8 GB eMMC |
| Programming Language | C/C++, Python |
| Operating Temperature | Standard Models: -20 to 60°C (-4 to 140°F); Wide Temp. Models: -40 to 75°C (-40 to 167°F) |

Cloud Connectivity

Save field-site data to the cloud with the built-in Azure/AWS/Alibaba SDK library. In addition, streamline your operations with OPC UA to SCADA capability.

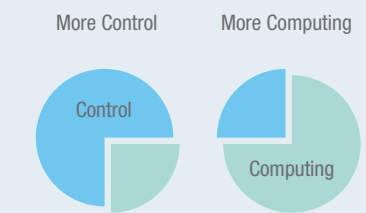
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Supports a variety of programming languages, including:

- Python
- C/C++
- Node-Red

Precision Control

Achieve control and computing balance in one device by using a real-time OS to prioritize application settings.



System-wide Cybersecurity Design

Systematic Security Protection to help users mitigate cybersecurity threats.

Access Control

- Encryption
- Data Security
- Availability
- Audit Log

Operating System

- Moxa Industrial Linux
- Secure Boot

Hardware Security

- Trusted Platform Module (TPM), optional

ioThinX 4510 IIoT Remote I/O



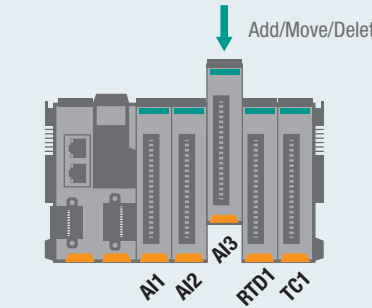
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| IT Protocols | SNMPv1/v2c/v3, RESTful API, MQTT |
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Cloud Connectivity

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Auto Reconfiguration

You only need to make a few simple changes, with no reconfiguration effort required. Simply fine tune the modules you want to change, and keep the others as is.



Cybersecurity

The ioThinX 4510 Series is compliant with IEC 62443 level 1.

Secure Communication Protocol

https, RESTful API over https, SNMPv3, MQTT over TLS

Transmission Encryption

Unauthorized

Authorized

Confidentiality

- Authentication: Account management, Login Policy, Session Management

Integrity

- Access Control: Role-based access control, IP-based whitelist

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- Interface protection: Network port protection, service disabled by default

45MR Modules for the ioThinX 4500 Series



| | 45MR-1600(-T) | 45MR-1601(-T) | 45MR-2600(-T) | 45MR-2601(-T) | 45MR-2606(-T) | 45MR-2404(-T) | 45MR-3800(-T) | 45MR-3810(-T) | 45MR-4420(-T) | 45MR-6600(-T) | 45MR-6810(-T) |
|-----------------|--|---------------|---------------|---------------|---------------|---------------|----------------|-----------------------|---------------|---------------|---------------|
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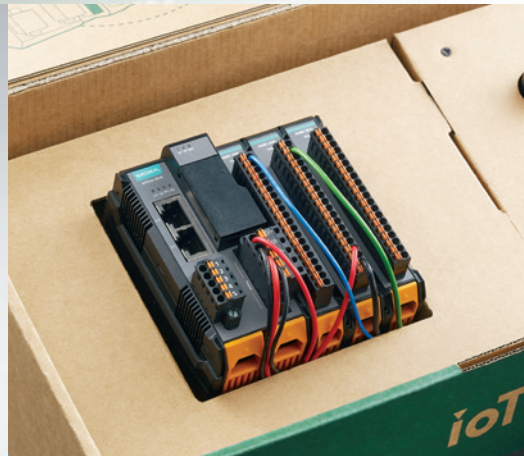
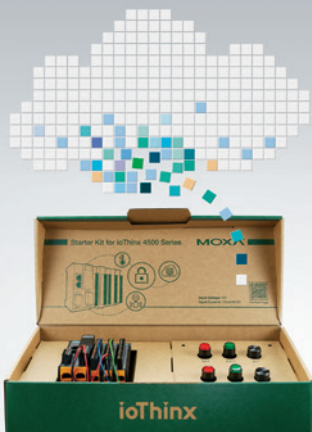
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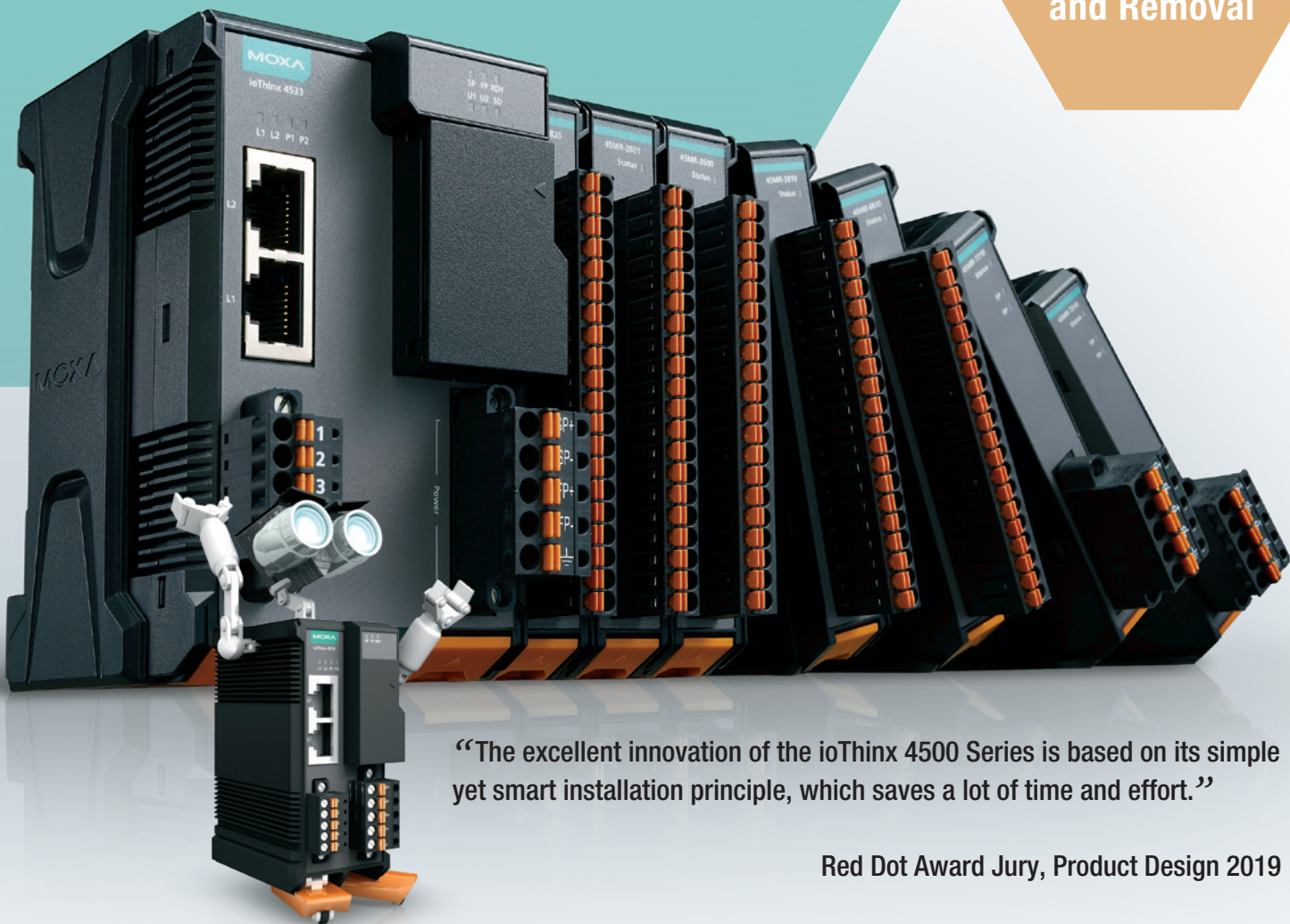
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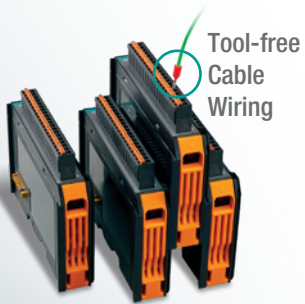
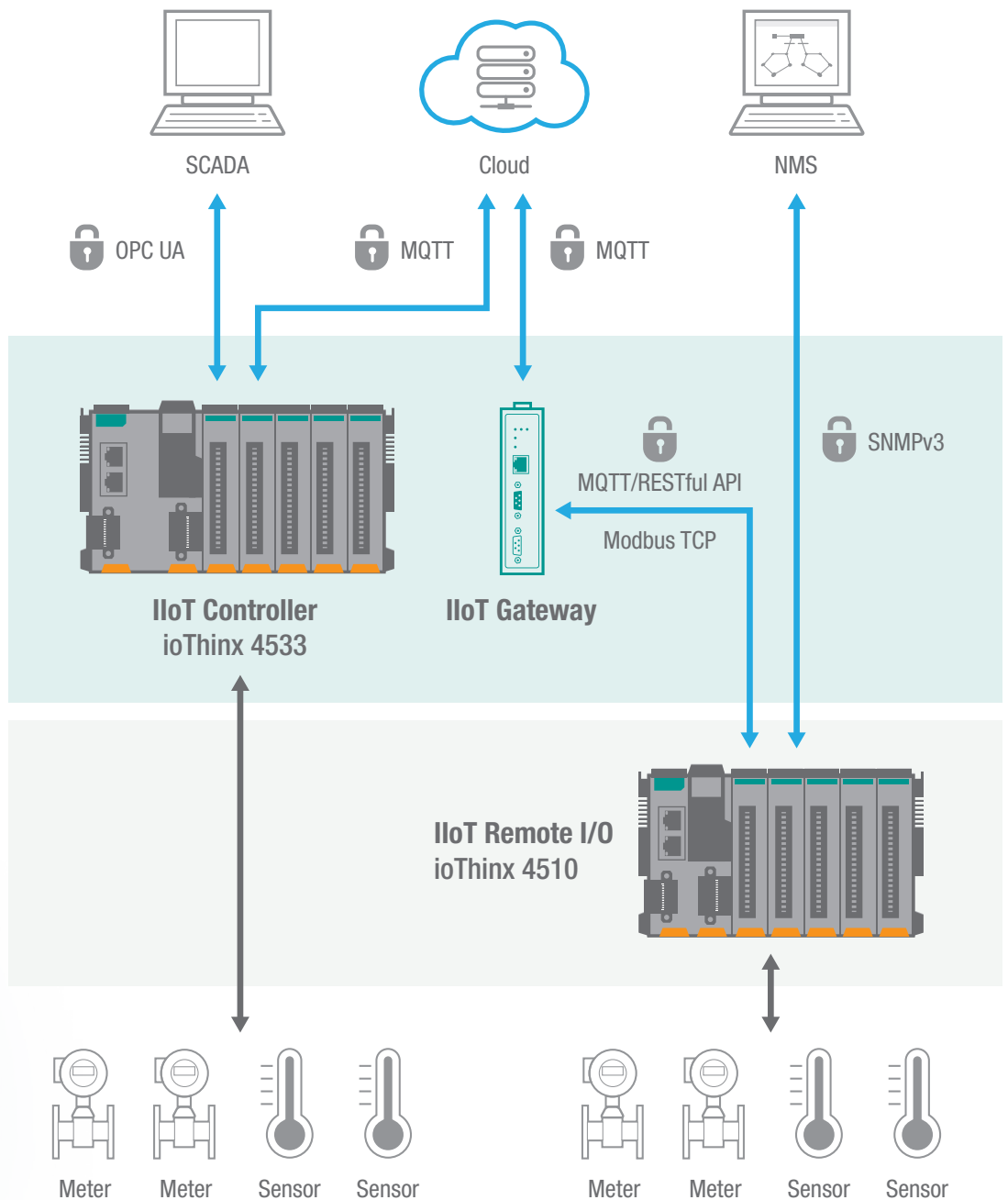


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reddot award 2019
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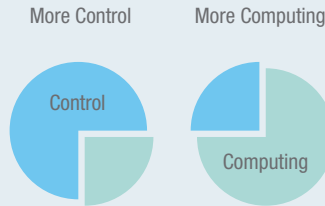
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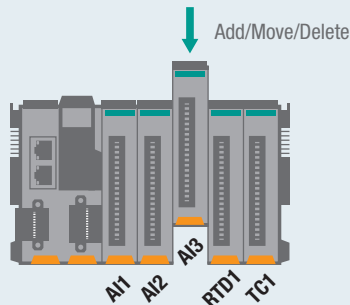
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