Securing Enterprise IoT Environments with New Connectivity

Best cybersecurity practices for enterprise deployed IoT networks

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Please visit our website: https://trendmicro.com/5g-iot
The need of end-to-end security for entire ecosystem and the vertical-focused model in IoT-based solutions
WHAT ARE THE OVERLOOKED SECURITY RISKS IN ENTERPRISE IOT NETWORKS?

External exposures and IoT device vulnerabilities can lead to cyberattacks

The risk of separated management of CT networks and existing IT networks

Millions of IoT devices affected by a group of vulnerabilities dubbed Ripple20.

No visibility of cyber threats in SIM-based CT networks with existing IT networks monitoring system

Cyber threats affecting not only IT but vertical-specific operation systems

Ransomware “EKANS” aka “SNAKE” capable of stopping ICS-related processes in OT system

THINGS

EDGE

CLOUD

NEW CONNECTIVITY

Cyber Threats and Risks in Enterprise IoT Networks
Source: Trend Micro

CYBERATTACKS MOVING BEYOND IT

Malicious actors are expanding their attacks from traditional IT office systems to OT production systems such as ICS. Ransomware—which has spread infections to various systems like hospital medical record systems—has caused great damage and has the ability to methodically stop ICS-related processes.

RISKS OF NEWLY CONNECTED SYSTEMS

Digital transformation as a result of utilizing enterprise IoT, will improve due to new connectivity. As factories become smarter, their IT systems are being connected to a new type of service; industrial application stores, leading to possible undiscovered vulnerabilities. During a security analysis Trend Micro conducted in the Smart Factory PoC environment, vulnerabilities in industrial cloud services were discovered.

FAILURE IN MAKING UNKNOWN THREATS A TOP PRIORITY

Appropriate use of new technology will lead to development, while abuse will result in more serious damage. When using new technologies such as 5G and AI, it is important to consider the possibility of attacks and establish a monitoring system to prevent their abuse. However, as discovered in many PoC trial cases, the first focus is often reserved for learning the new technology, usually at the expense of mitigating security risks.
Enterprise IoT networks

Cybersecurity best practices

Evolve with technology shifts

Cybersecurity needs to keep up with technology advancements while possessing the ability to secure a massive number of mission-critical IoT assets. There is always a need to shift the way security is implemented to fall in line with new technology shifts.

Optimization with legacy and new systems

When new IoT systems are adopted, they are always connected with the traditional IT systems. Security that manages the entire system seamlessly should be implemented.

Protect more than just data

Implement security that matches the true purpose of the system. Systems that handle sensitive information focus more on confidentiality than system integrity, and factory operations focus on availability more than anything else. Enterprise IoT network cybersecurity is not limited to the “information” being delivered through the system, we have to protect the “operation”, “communication”, and “business continuity” as well.
CYBERSECURITY TRANSFORMED FOR FIT IN NEW NORMAL

Cloud Security Service Platform

Trend Micro Cloud One™

Security Platform for Enterprise IT, OT, & CT Networks

Trend Micro Cloud One™

Public/Private Cloud

Multi-Access Edge Computing

Mobile Enterprise Network

Trend Micro Mobile Network Security

Trend Micro Enterprise IT Security Solutions

Trend Micro Connected Car Security

Trend Micro Smart Factory Security

TREND MICRO COMPREHENSIVE SOLUTIONS FOR ENTERPRISE IoT

SMART

The right technique at the right time

OPTIMIZED

Solutions designed to fit your IT choices

CONNECTED

Visibility and connected security across layers

About Trend Micro

Trend Micro Incorporated, a global leader in cybersecurity solutions, helps to make the world safe for exchanging digital information. Our innovative solutions for consumers, businesses, and governments provide layered security for data centers, cloud workloads, networks, and endpoints.

CUSTOMERS AGREE

With over 500,000 commercial customers and offices in over 65 countries, Trend Micro protects many of the largest organizations in the world.

FIGHTING CYBERCRIME GLOBALLY

As a leading voice in the fight against cybercrime, we work tirelessly to discover key insights that allow us to protect 500,000+ companies worldwide from 100s of millions of threats daily.

The Trend Micro Research team delivers 24/7 threat research from around the globe, vulnerability intelligence from our Zero Day Initiative™ (ZDI) program, and insights on the cybersecurity landscape. The team also works closely with government agencies and law enforcement including Interpol, the United Nations, the FBI, and the US Department of Homeland Security.