VIETNAM TECHNOLOGY & TELECOMMUNICATION JOINT STOCK COMPANY

Dedicated To Excellence

Smart solutions, sustainable growth



COMPANY PROFILE

VNTT provides telecommunications infrastructure, data center services, information security and smart solutions to enterprises, industrial parks and cities across Vietnam.

FOREWORD

Since 2008, VNTT has been building telecommunications infrastructure for industrial parks, and has since expanded into data center services, smart solutions and information security. This profile presents the services VNTT currently provides and the key projects it has delivered.

We sincerely thank our clients and partners for their trust and continued support, and our employees, whose work made the results presented in this profile possible.





CONTENTS

ABOUT VNTT 4

Company Overview · Awards & Certifications · Clients & Partners · Business Areas

01 SMART CITY & DIGITAL GOVERNMENT 8

Smart City Platform · Smart City & IOC · Digital Government · Smart Building · Con Dao and IOC Becamex Projects

02 INTELLIGENT TRANSPORTATION 14

ITS · Traffic Management Modules · Data Analytics

03 SMART INDUSTRY 16

Environmental Monitoring · Smart Factory (ISA-95) · Smart Warehouse & Robotics · Smart Industrial Park · Orion Project

04 INFRASTRUCTURE SERVICES 23

Operation & Maintenance of Electrical, Mechanical, Water Supply and Drainage Systems · Service Process

05 ENTERPRISE SOLUTIONS 24

BecaWork · BecaEAM · BecaFSM · Software Licensing, IT Helpdesk & Network Administration

06 TELECOMMUNICATIONS 27

Fiber-Optic Infrastructure & Coverage · Connectivity Services · SD-WAN · IBS

07 DATA CENTER 30

eDatacenter: Colocation, VPS & Dedicated Server, Data Backup & Storage · AI Data Center

08 INFORMATION SECURITY 32

SOC Services · 24/7/365 SOC Operations

CONTACT 34



COMPANY OVERVIEW

Vietnam Technology & Telecommunication Joint Stock Company **(VNTT)** was founded in 2008. Its shareholders are **Becamex Investment and Industrial Development Group – JSC (Becamex Group)** and **Vietnam Posts and Telecommunications Group (VNPT)**. VNTT operates in **telecommunications, data centers, information security and smart solutions** for enterprises, industrial parks and cities nationwide.



2008	08	99.982%	24/7
Year founded	Solution & service areas	eDatacenter availability	Operations & technical support

1. **End-to-end IT solutions** for enterprises in VSIP, Becamex and many other industrial parks nationwide, from connectivity and infrastructure to business applications.
2. **Well-trained engineers** holding professional certifications from our technology partners.
3. Infrastructure and software delivered **as a service**, reducing clients' upfront IT investment (shifting from CapEx to OpEx).
4. Management system and service delivery processes certified to **ISO 9001:2015** and **ISO/IEC 27001:2022**.

MILESTONES

2008 — Founded
Focused on building telecommunications infrastructure for industrial parks

2017 — System integration
Leading ICT System Integration Service Provider in Vietnam

2019 — Top 10 in IT
Top 10 Reputable Technology Companies in Vietnam, maintained to date

2023 — Smart city
Excellence Award, Vietnam Smart City Awards

2026 — AI & SOC
Expanded into AI data center and SOC services; received the Vietnam Technology Excellence Awards

AWARDS & CERTIFICATIONS

Awards received by VNTT and international certifications for quality and information security management.



Vietnam Technology Excellence Awards 2026, Smart City – Technology category



Excellence Award, Vietnam Smart City Awards 2023



Large-scale public company on UPCoM with good information disclosure and transparency, 2023–2024



Top 10 Reputable Technology Companies in Vietnam since 2019



Leading Telecom – IT Enterprise and Fastest-Growing ICT Enterprise, 2018



Leading ICT System Integration Service Provider in Vietnam, 2017

CERTIFICATIONS

Quality and information security management systems

VNTT's management systems are certified by the **Vietnam Certification Centre (QUACERT)** as conforming to **ISO 9001:2015** and **ISO/IEC 27001:2022**, covering the design, installation and supply of telecommunications services, information systems and data center services. Valid until January 2028.

VNTT eDatacenter is built to the **ANSI/TIA-942 Tier 3** standard.

ISO 9001:2015 | ISO/IEC 27001:2022 | Built to TIA-942 Tier 3



ISO 9001:2015



ISO/IEC 27001:2022

KEY CLIENTS

VNTT's clients include industrial parks, manufacturers, real estate developers and public-sector organizations across Vietnam.

- Manufacturers in industrial parks
- Industrial park management boards
- Real estate & urban developers
- Government agencies & local authorities
- Finance – banking – insurance
- Retail & logistics
- Healthcare & education
- Households & small businesses

STRATEGIC PARTNERS

BUSINESS AREAS

01 SMART CITY & DIGITAL GOVERNMENT
Smart city platform, Intelligent Operations Center (IOC), urban digital twin, smart buildings and digital government solutions.

02 INTELLIGENT TRANSPORTATION
Intelligent transportation systems (ITS): traffic management, video surveillance, vehicle detection, variable message signs, toll collection and overload control.

03 SMART INDUSTRY
Environmental monitoring, ISA-95 smart factories, smart warehouses & industrial robots, and smart industrial parks.

04 INFRASTRUCTURE SERVICES
Operation and maintenance of electrical, mechanical, water supply and drainage, lighting, CCTV and substation systems for industrial parks and buildings.

05 ENTERPRISE SOLUTIONS
BecaWork, BecaEAM and BecaFSM platforms; software licensing, IT helpdesk and network administration.

06 TELECOMMUNICATIONS
GPON fiber-optic infrastructure in industrial parks; FTTH, VoIP/PBX, data transmission, leased lines, SD-WAN, television and IBS.

07 DATA CENTER
eDatacenter, built to TIA-942 Tier 3: Colocation, VPS & Dedicated Server, Data Backup & Storage, and AI Data Center.

08 INFORMATION SECURITY
24/7/365 SOC services for monitoring, detection and incident response across IT infrastructure and OT production networks.

ENGAGEMENT MODELS

Turnkey: consulting, design, deployment and operation under a single contract

Integration with existing systems: connects to the equipment and software clients already use

As a service: recurring fees instead of upfront infrastructure investment

Dedicated contact: each client is assigned a technical account manager

01 SMART CITY & DIGITAL GOVERNMENT

SMART CITY PLATFORM

The smart city platform developed by VNTT collects data from **sensors, cameras and sector-specific systems** and presents it on **2D/3D digital maps and a digital twin** for monitoring, alerting and simulating operational scenarios. The platform is in use in urban areas, industrial parks and administrative localities.

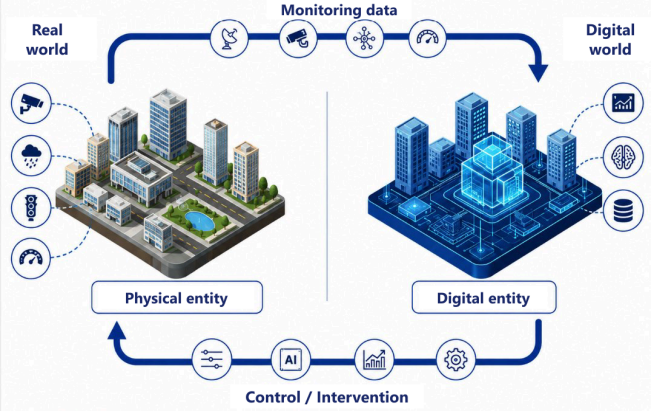
Sensors & IoT
Field data collection

Urban data
Shared, reliable, secure

2D/3D GIS maps
Spatial management

Artificial intelligence
Analysis, forecasting, optimization

Digital twin
Scenario simulation and assessment



How the platform works

1. **Collect:** sensors, cameras and monitoring stations send field data to the platform.
2. **Synchronize:** data is standardized and linked to the corresponding objects in the digital model.
3. **Analyze:** threshold alerts, trend forecasting and scenario simulation.
4. **Operate:** task assignment and remote control of field devices from the operations center.
5. **Use existing systems:** connects to sector software already in operation, with no need for replacement.

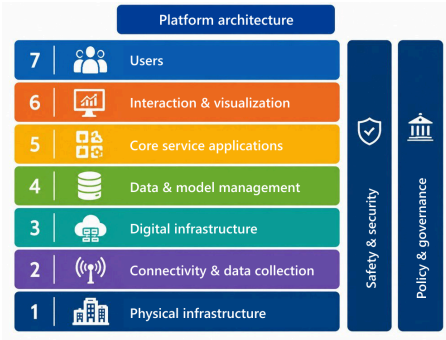
SMART CITY LAYERS

Field sensor infrastructure
Multi-function smart poles, AI cameras, environmental sensors, monitoring stations, SCADA

Urban data platform
Collection via APIs and data exchange platforms; cleansing and standardization; shared data warehouse integrated with GIS

Urban digital twin (UDT)
2D/3D model of the entire area, real-time data synchronization, scenario simulation

Intelligent Operations Center
Unified IOC dashboard, automatic alerts, task assignment; ICT infrastructure and tiered information security



7-layer architecture under the Smart City ICT Reference Framework 2.0

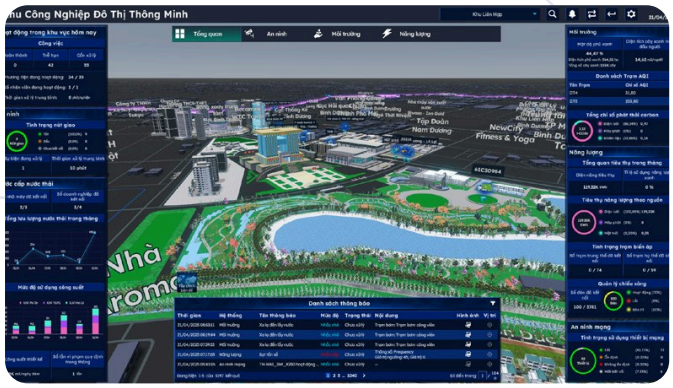
Reference frameworks: Decree No. 269/2025/ND-CP on smart urban development · Smart City ICT Reference Framework, version 2.0 · Vietnam Digital Government Architecture Framework, version 4.0 · Regulations on information system security by protection level

01 SMART CITY & DIGITAL GOVERNMENT

SMART CITY & IOC

Intelligent Operations Center

The Intelligent Operations Center (IOC) displays field data, sector data and digital maps on a single screen, instead of operators monitoring multiple separate applications. Each service group below can be deployed on its own or in combination.





URBAN SERVICES ON ONE PLATFORM

Smart traffic

- Monitoring of traffic density, speed and volume at key intersections
- Congestion and accident alerts, traffic diversion support
- AI cameras for vehicle recognition

Smart environment

- Monitoring of air quality, water, noise and emissions
- Automatic alerts when readings exceed thresholds
- Management of pollution sources, water resources and green spaces

Energy & lighting

- Adaptive street lighting
- Power consumption monitoring by area, street and time of day
- Tracking of energy savings and CO_2 reduction

Public security & safety

- AI cameras for public order monitoring
- Anomaly detection with real-time alerts
- Fire prevention and rapid-response coordination

Planning & spatial data

- Overlay of current land use and zoning plans on digital maps
- 3D simulation of construction proposals and impact assessment
- Flood simulation for rainfall and tidal scenarios

Seaports & logistics

- Vessel tracking via AIS/GPS, yard and vehicle monitoring
- Container flow simulation and bottleneck forecasting
- Impact assessment on connecting transport infrastructure

DELIVERED PROJECTS

IOC Becamex
Integrated complex and industrial parks of Becamex Group (page 13)

Con Dao Special Zone
3D digital twin and shared data platform (page 12)

WTC Tower
Digital twin and building operations center (page 11)

01 SMART CITY & DIGITAL GOVERNMENT

DIGITAL GOVERNMENT

Data-driven local governance

The solution helps commune- and ward-level authorities manage tasks, records and local data in one system, linked to digital maps and field devices. It addresses four common challenges following administrative restructuring:

Staffing pressure
More tasks, with each officer covering several sectors

Operational pressure
Many processes handled simultaneously and continuously

Data pressure
Fragmented data, repeated look-ups and re-entry

Coordination pressure
A single case requires several departments and forces

INTEGRATED COMPONENTS

01
Digital operations system
- Business applications following the guidelines on the commune-level digital transformation model
- Task, record and workflow management through a single point of contact
- Executive dashboard and automated consolidated reporting

02
Centralized data management
- Automated collection via APIs and the LGSP/NDXP data exchange platforms
- Cleansing, standardization and validation so that data is accurate, complete, clean and up to date
- Shared data warehouse integrated with GIS

03
Urban digital twin (UDT)
- 2D/3D model of the entire area, with data objects linked to real locations
- Integration of AI cameras, IoT sensors, SCADA and monitoring stations
- Simulation, forecasting and decision support

04
Field devices & digital infrastructure
- Multi-function smart poles, AI cameras, IoT sensors
- Micro data centers, transmission networks and secure connectivity
- Tiered information security



GOVERNANCE AREAS ON ONE PLATFORM

- Planning & construction
- Natural resources & environment
- Security & transport
- Infrastructure & energy
- Port economy & logistics
- Culture – tourism – services

Legal basis: Politburo Resolution No. 57-NQ/TW · Vietnam Digital Government Architecture Framework, version 4.0 · Smart City ICT Reference Framework, version 2.0 · Guidelines on the commune-level digital transformation model · Regulations on information system security by protection level

01 SMART CITY & DIGITAL GOVERNMENT

SMART BUILDING

Brings the building's technical systems (power, HVAC, lighting, CCTV, access control, parking) into one operations center, displayed on a 3D model of the building.

CHALLENGES FOR COMMERCIAL BUILDING OWNERS

Operating costs
High energy and maintenance costs that are hard to break down and control

Security & safety
24/7 protection for tenants, residents and assets

Tenant experience
Modern, transparent services on a digital platform

System integration
Fragmented technical systems with inconsistent operation

MODULES ON ONE PLATFORM

Energy management
Real-time monitoring; automatic control of lighting and air conditioning

Security & access control
AI cameras, biometric authentication, time-based access rights

Smart parking
AI license plate recognition, guidance to free spaces, parking area surveillance

Centralized monitoring at the IOC
One unified screen for all building systems

Tenant app
Services, amenities and billing; fault reporting and contact with building management



3D digital twin and building operations dashboard

Digital twin: predictive maintenance and simulation before changes are applied.
IOC: standard procedures, AI-recommended actions and faster incident response.

FEATURED PROJECT

WTC Tower, Binh Duong Ward, Ho Chi Minh City

Building management system deployed on a digital twin with a centralized operations center.

50%
Lower maintenance costs

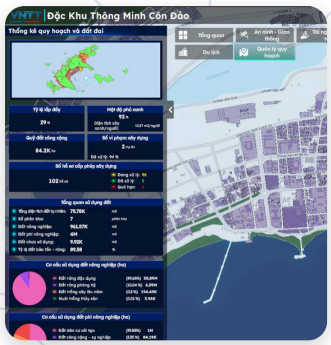
30%
Higher operational efficiency

01 SMART CITY & DIGITAL GOVERNMENT

FEATURED PROJECT

Con Dao Special Zone Digital Twin

VNTT built a shared data platform connecting IoT, AI cameras, GIS and centralized operations, and deployed a **3D digital twin of the entire zone** that visualizes real-time data for local leaders and urban operators.



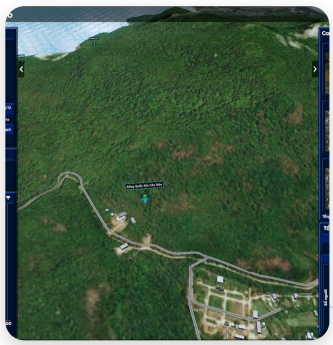
Planning & land dashboard



3D spatial simulation



Security – traffic monitoring



Natural resources – environment management

Spatial planning
Construction simulation, planning management, land parcel identification, flood forecasting

Resources – environment
Smart environmental management, water and forest resources

Security – traffic
Traffic monitoring and coordination, violation handling, public security, fire prevention

Energy – lighting
Smart energy management and public lighting

Culture – tourism
Cultural communication, destination management, socio-economic reporting

DIGITAL TWIN MATURITY LEVELS

LV1	LV2	LV3	LV4	LV5
Description	Information	Prediction	Simulation	Autonomy

The platform is designed to be upgraded in stages: from displaying current conditions and real-time monitoring and alerts to trend forecasting and simulation of operational options. The project has developed **13 operational scenarios** at the monitoring (LV2) and forecasting (LV3) levels.

DELIVERED SCOPE

- Shared data platform connecting IoT, AI cameras and GIS across the zone
- 3D digital twin of the entire zone, with data objects linked to real locations
- Centralized operations center displaying real-time data

VALUE FOR LOCAL LEADERS

- A single, unified view of the area instead of multiple disconnected systems
- Early warning and coordinated cross-agency response on a shared digital map
- Impact simulation before deciding on operational or investment options

01 SMART CITY & DIGITAL GOVERNMENT

FEATURED PROJECT

Smart management platform for the integrated complex & IOC Becamex

- VNTT provides the smart management platform for the Administrative – Urban – Service Complex in Binh Duong Ward, Ho Chi Minh City, and for all industrial parks of Becamex Group.
- Data is managed centrally and in real time at IOC Becamex, enabling Becamex Group's leadership to monitor conditions and direct a timely response.





MONITORING SCOPE

Traffic | Security | Environment | Energy | Fire alarm | Water & wastewater



RECOGNITION

On 26 September 2024, at Automation World Vietnam 2024, **Prime Minister Pham Minh Chinh** visited the booth presenting Becamex Group's smart industrial park management solution, researched and developed by VNTT.

In late 2023, VNTT's smart city platform received the **Excellence Award** at the Vietnam Smart City Awards. In 2026, VNTT received the **Vietnam Technology Excellence Awards** in the Smart City – Technology category.

Centralized operations

The entire complex and all industrial parks monitored on one screen

Multi-sector monitoring

Real-time traffic, security, environment, energy, water and fire alarm data

Data-driven management

Operational performance measured by KPIs, with automated data replacing manual reports

02 INTELLIGENT TRANSPORTATION

INTELLIGENT TRANSPORTATION SYSTEM

ITS



ATMS	*Advanced traffic management*
CCTV	*Video surveillance*
VDS	*Vehicle detection*
VMS	*Variable message signs*
FMS	*Expressway monitoring*
Video Wall	*Centralized video wall display*
TCS	*Toll collection*
OMS	*Overload management*
SM	*Shift management*

Intelligent transportation systems (ITS) enable road operators to **monitor entire routes, detect incidents and control traffic** from a single operations center. Traffic volume data is stored for reporting and serves as a basis for planning and infrastructure investment.

APPLICATIONS

- Expressways, national highways and toll plazas
- Urban arterial roads and intersections
- Internal roads in industrial parks and ports

02 INTELLIGENT TRANSPORTATION

TRAFFIC MANAGEMENT MODULES

The ITS comprises the modules below. Each module can be deployed for an individual route or intersection, or combined into a complete traffic operations center.

ATMS
Advanced traffic management

Core of operations: receives data from all modules, issues control commands and manages traffic events.

CCTV
Video surveillance

Visual monitoring of the field with continuous recording for incident verification and enforcement.

VDS
Vehicle detection

Measures traffic volume, speed and vehicle class as input for analysis and forecasting.

VMS
Variable message signs

Display warnings, diversions and alternative routes to road users.

FMS
Expressway monitoring

Monitors the entire route, detects incidents and coordinates rapid response along expressway corridors.

Video Wall
Centralized video wall display

Brings all data sources together on one viewing surface.

TCS
Toll collection

Toll collection and transaction reconciliation, linked to traffic volume data for route operations analysis.

OMS
Overload management

Controls vehicle axle loads to protect road structures and ensure safe operation.

SM
Shift management

Coordinates on-duty staff and shift handovers, and tracks accountability for incident handling.

DATA ANALYTICS & DECISION SUPPORT

- Standardization and correlation of data from multiple device sources
- Identification of traffic patterns by season, day of the week and time of day
- Congestion forecasting and simulation of diversion plans before implementation
- Operational KPIs and periodic reports for authorities

BENEFITS

- Faster incident detection and response along the route
- Less local congestion through signal control based on actual traffic volumes
- Objective data for planning and infrastructure investment
- Transparent toll collection, overload control and enforcement

INTEGRATION WITH THE SMART CITY PLATFORM

Traffic data is fed into the urban digital twin and the IOC dashboard to simulate diversion plans and assess the impact of new construction before investment decisions are made.

03 SMART INDUSTRY

ENVIRONMENTAL MONITORING

Green industry in compliance with Vietnamese regulations

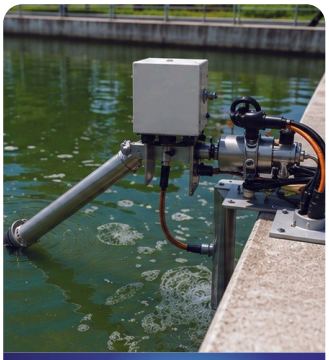
VNTT provides **continuous automatic monitoring** solutions that help enterprises comply with **National Technical Regulations (QCVN)** and receive early warnings when readings exceed limits. Data is stored with full integrity and transmitted continuously to the competent authorities as required.



STACK EMISSION MONITORING



WASTEWATER MONITORING



GROUNDWATER MONITORING



SURFACE WATER MONITORING

CORE SERVICES

- Automatic monitoring station setup
- Supply of electrical and measurement equipment
- Monitoring station maintenance and servicing
- Environmental data monitoring and management software
- Wastewater treatment system automation
- Comprehensive monitoring and environmental consulting

MONITORED PARAMETERS

Flow rate, COD, TSS, pH, temperature, ammonium and other parameters required by the applicable QCVN for each industry.

APPLICATIONS

Industrial park wastewater treatment plants, manufacturers and urban areas.

03 SMART INDUSTRY

FEATURED MONITORING PROJECTS

BECAMEX GROUP

Monitoring system for wastewater treatment plants

- System architecture consulting and construction of the monitoring control room for **11 automatic wastewater monitoring stations** operating 24/7
- Synchronized measurement of flow rate, COD, TSS, pH, temperature and ammonium
- Scheduled maintenance of the entire system
- Continuous data transmission to the **Department of Agriculture and Environment**



ORION FOODS VINA

Monitoring system at the Orion Foods Vina factory



- Survey and installation of the factory's effluent monitoring system
- Dashboard tracking wastewater quality and the factory's electricity, water and gas consumption
- Alert thresholds set in line with food processing industry regulations

03 SMART INDUSTRY

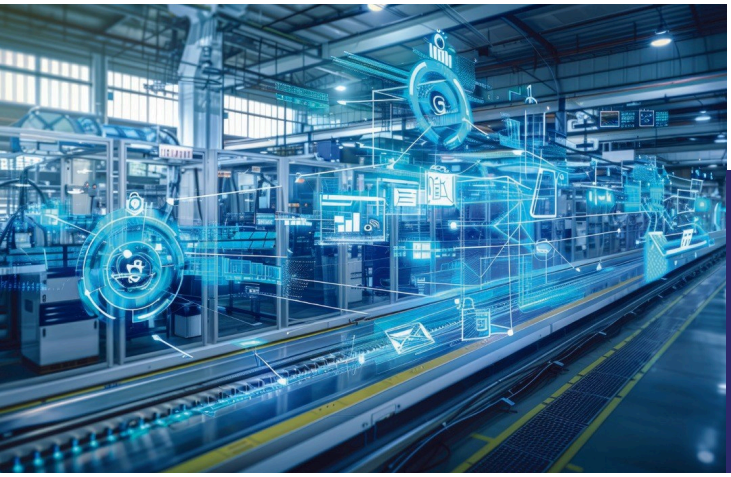
SMART FACTORY

VNTT helps manufacturers transform conventional plants into **smart factories based on the ISA-95 standard**, applying IoT, data analytics and artificial intelligence to production operations.



FULL FACTORY DIGITALIZATION

Optimized production processes and lower operating costs.



HIGHER PERFORMANCE

Improved production efficiency and output quality.

REMOTE MONITORING

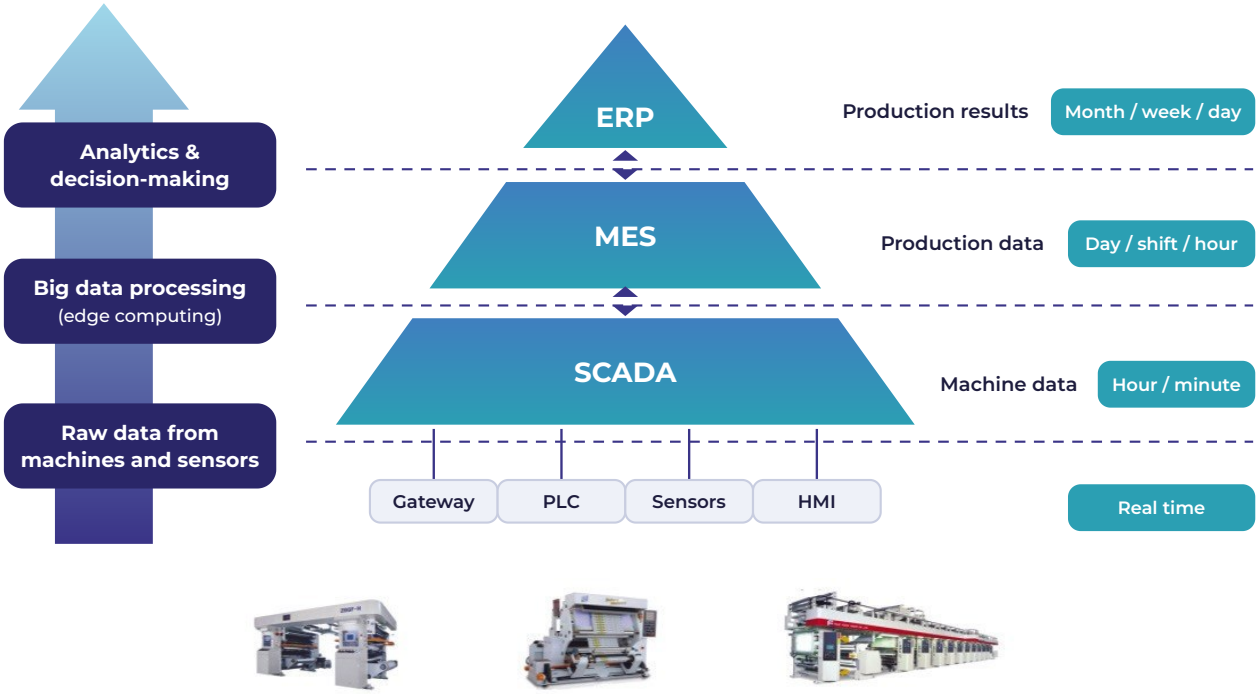
Detailed tracking of equipment and machine status, including historical and real-time data.



03 SMART INDUSTRY

SMART FACTORY ARCHITECTURE

ERP – MES – SCADA integration based on ISA-95



PHASED TRANSFORMATION ROADMAP

PHASE 1
Machine connectivity
Install gateways, collect data from PLCs and sensors; build the SCADA layer for equipment monitoring

PHASE 2
Pilot line digitalization
Deploy MES on one line: scheduling, traceability, quality control

PHASE 3
Plant-wide rollout
Extend to the remaining lines, standardize processes, integrate inventory and maintenance data

PHASE 4
ERP integration & analytics
Synchronize MES with ERP, build OEE metrics and predictive analytics

SMART MANUFACTURING

A smart factory integrates data from multiple sources: **machines, equipment, supply processes, production and people**. The system supports production and maintenance control, inventory tracking and the digitalization of the factory's core operations.

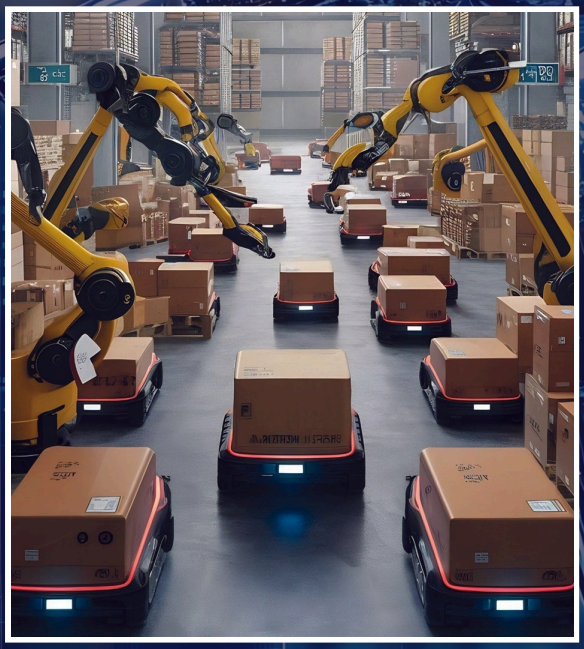
RESULTS AT ORION FOODS VINA

- 30% — Increase in actual output
- 50% — Reduction in in-line inspection costs
- 30% — Increase in operational efficiency

03 SMART INDUSTRY

SMART WAREHOUSE & INDUSTRIAL ROBOTICS

Automates the flow of materials, from receiving and storage to picking and line feeding, with a direct connection to MES so that inventory and production progress stay synchronized.



Smart warehouse

- Identification and tracking of materials by code, batch and storage location
- Autonomous mobile robots (AGV/AMR) replacing manual lifting and transport
- Real-time inventory synchronization with MES and ERP
- Optimized picking routes, reducing travel distance and waiting time
- Warehouse safety monitoring with AI cameras and field sensors



Delivery robots

Automated, safe and convenient delivery of goods within buildings.



Lifting robots

Automated lifting and lowering, optimizing warehouses and production lines.



Humanoid robots

A platform for research projects and specialized applications.

APPLICATIONS Raw material warehouses | Finished goods warehouses | Line feeding | Distribution centers | Research & training

03 SMART INDUSTRY

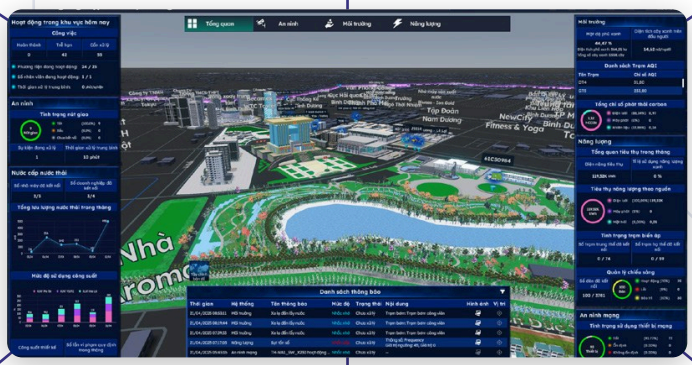
SMART INDUSTRIAL PARK

VNTT's smart industrial park solution integrates operational systems into an **Intelligent Operations Center (IOC)**. Park management can monitor traffic, security, energy, environment, water and fire alarms across the entire park on a single screen.

Smart traffic management

Smart energy monitoring

Smart security management



Smart fire alarm

Smart water and wastewater management

Smart environmental management

For park management boards

- Park-wide operational overview on one screen
- Early incident alerts and response coordination
- Automated environmental and energy KPI reporting

For tenant enterprises

- Access to shared infrastructure: power, water, telecommunications
- Transparent monitoring data and regulatory compliance
- On-site ICT services and technical support

For government authorities

- Continuous transmission of monitoring data to provincial departments
- Integration with the smart city platform
- Tiered information system security

IMPLEMENTATION ROADMAP

1. Baseline data: infrastructure inventory, GIS mapping, shared data warehouse

2. Field installation: AI cameras, environmental sensors, energy meters, monitoring stations

3. IOC go-live: unified dashboard, alert scenarios, task assignment procedures

4. Expansion & upgrades: sector-specific scenarios, upgrading the digital twin to forecasting and simulation

03 SMART INDUSTRY

FEATURED PROJECT

Orion Foods Vina Smart Factory

On 17 May 2024, at the Binh Duong Convention and Exhibition Center, in the presence of leaders of the Ministry of Foreign Affairs, Binh Duong Province and Becamex Group, **VNTT and Orion Corporation (South Korea)** signed a cooperation agreement and launched the **Orion Foods Vina Smart Factory** project at My Phuoc 2 Industrial Park.



- The goal is to make the Orion Foods Vina smart factory a digital transformation model for Vietnam's food industry.
- The project strengthens Orion Foods Vina's competitiveness in a market with increasingly high demands for quality and production efficiency.

05/2024
Agreement signed and project launched at My Phuoc 2 Industrial Park

2026
Smart factory deployment for Orion at VSIP Bac Ninh Industrial Park

04 INFRASTRUCTURE SERVICES

INFRASTRUCTURE SERVICES

Industrial infrastructure operation & maintenance

Originating from the Mechanical and Electrical Department of Becamex Group, VNTT is committed to construction quality and delivery schedules on every project. Our operations team works on the **BecaEAM** and **BecaFSM** platforms: maintenance schedules, work orders and equipment condition data are connected directly to the IoT monitoring system.

Electrical systems

- 35 kV medium-voltage and 220/380 V three-phase low-voltage power distribution
- Transformers, generators and distribution boards
- Lighting, traffic signals and lightning protection

Mechanical systems

- Air conditioning and ventilation systems

Water supply and drainage

- For residential and industrial use

Other services

- Fire-stopping materials
- Stairwell pressurization systems

Maintenance

- Maintenance of buildings and wastewater treatment plants
- Traffic signals, CCTV and street lighting
- Substations and medium/low-voltage lines

SERVICE PROCESS

1 **Site assessment**
Equipment inspection, asset inventory and operational risk assessment

2 **Maintenance planning**
Time-based and condition-based preventive maintenance schedules

3 **Installation & operation**
Installation, commissioning and operational handover on agreed schedules

4 **Maintenance & reporting**
Scheduled maintenance, 24/7 on-call incident response and periodic reports

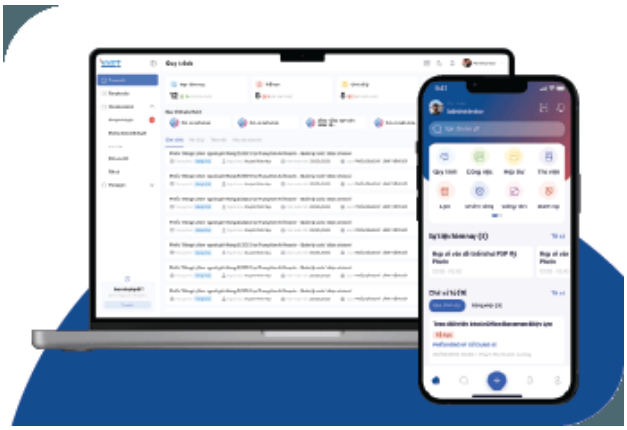
SERVICE COVERAGE

Industrial parks | Manufacturing plants | Office buildings | Urban areas | Wastewater treatment plants

05 ENTERPRISE SOLUTIONS

BecaWork

COMPREHENSIVE ENTERPRISE MANAGEMENT SOLUTION



*"Built to meet enterprises' **digitalization and digital transformation** needs, bringing multiple digital tools together on a single platform."*

CORE FEATURES

All-in-one system

Centralizes data, tasks and communication on one platform for complete oversight.

Low-code / No-code

Design and automate workflows that reflect how the business actually operates.

Expert-led deployment

One-on-one support from initial setup until the system runs smoothly.

Company-wide connectivity

Links departments, resources and information flows in one system.

Real-time data

Continuously updated progress dashboards that support timely management decisions.

Less reliance on individuals

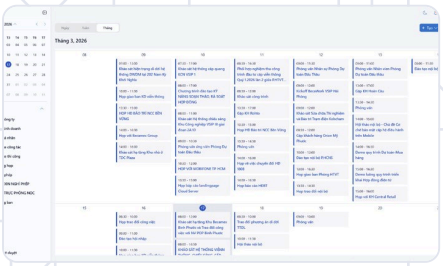
Stores task history and knowledge, making handovers easy when staff change.

DEPLOYMENT PROJECTS

Nationwide rollout for VSIP

- Standardized workflows across northern, central and southern branches
- Improved engagement and service for corporate clients
- Centralized management of infrastructure assets and industrial park maintenance





Digitalizing Becamex Group

- Moving all staff of Becamex Group and its member companies from traditional to digital ways of working
- Retaining operational data and knowledge on one unified platform

05 ENTERPRISE SOLUTIONS

BecaEAM

ENTERPRISE ASSET MANAGEMENT SOLUTION

With **preventive maintenance planning, asset tracking, work order management and IoT infrastructure integration**, BecaEAM is suited to industrial parks, smart cities and operators of large-scale infrastructure.

- Standardized asset register with locations on GIS maps
- Time-based and condition-based preventive maintenance plans
- Management of work orders, spare parts and lifecycle costs
- IoT data connection to warn of equipment performance degradation



BecaFSM

FIELD SERVICE MANAGEMENT PLATFORM

A platform for **effective monitoring and management of field operations**: organizing, dispatching, tracking and reporting **construction, installation, repair and maintenance** work in the field or at customer sites.



Optimized productivity
Technicians dispatched based on location, skills and actual workload.

Transparency & on-time delivery
Work orders, acceptance photos and job locations recorded directly in the app.

> *BecaEAM and BecaFSM share a common asset database: field work orders update the asset records, building a complete service history for every piece of equipment.*

Longer asset life
Preventive maintenance instead of repairs after failure

Lifecycle cost control
Records of material, labor and downtime costs

Field transparency
Work orders, acceptance photos and locations captured in the app

IoT-ready
Sensor connectivity enabling condition-based maintenance

USERS

- Industrial park management boards
- Building operators
- Manufacturing plants
- Urban infrastructure
- Construction & installation contractors

05 ENTERPRISE SOLUTIONS

ICT SOLUTIONS & DISTRIBUTION

VNTT provides **ICT solutions and technology equipment distribution** for enterprises and industrial parks: IT helpdesk, network infrastructure, surveillance systems, data centers, IoT platforms and IT equipment.

Consulting & design

Deployment & integration

Hardware supply

IT HELPDESK

Remote and on-site support

- Resolution of end-user computer issues
- Periodic service reports and maintenance
- Remote support (Zalo, UltraViewer, phone, etc.) within **1 hour**
- On-site response within **3 hours**

NETWORK ADMINISTRATION

LAN · Wi-Fi · Firewall

- Troubleshooting of LAN, Wi-Fi and Internet issues
- Installation and configuration of firewalls, core switches and access switches
- Upgrades, installation and hardware/software troubleshooting for network devices



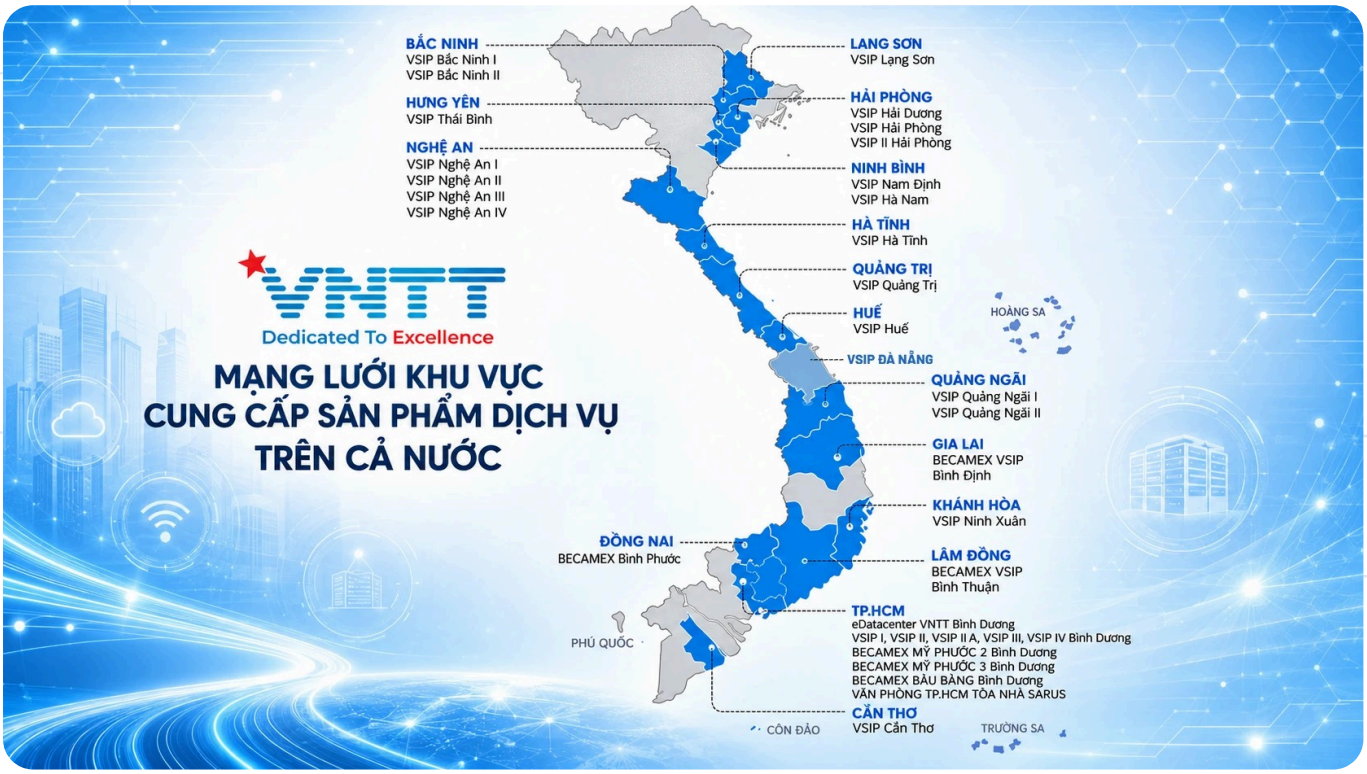
SOFTWARE LICENSING

- Licenses for Microsoft and Autodesk (AutoCAD) software, as well as firewall, Wi-Fi and antivirus solutions
- Installation and deployment support for all licensed software

06 TELECOMMUNICATIONS

TELECOMMUNICATIONS

VNTT provides fiber-optic infrastructure based on **GPON** technology in key industrial parks: Vietnam Singapore Industrial Parks (VSIP), Becamex Group industrial parks and many others nationwide.



01 Infrastructure
100% modern fiber-optic network

02 Deployment
Fast survey, installation and activation

03 Carrier-neutral ISP
Connections to multiple major service providers

04 SLA
SLA commitments under service contracts

05 Support
Professional, responsive technical support

06 Value-added services
Value-added services at eDatacenter

NATIONWIDE SERVICE COVERAGE

Ho Chi Minh City · Bac Ninh · Hung Yen · Hai Phong · Lang Son · Ninh Binh · Nghe An · Ha Tinh · Quang Tri · Hue · Quang Ngai · Gia Lai · Khanh Hoa · Lam Dong · Dong Nai · Can Tho

The network follows the VSIP and Becamex industrial park systems, supported by VNTT eDatacenter and local offices in key areas.

WHY VNTT INFRASTRUCTURE

- Carrier-neutral ISP, not tied to a single operator
- Dedicated fiber infrastructure within industrial parks for faster fault resolution
- Direct connection to VNTT eDatacenter
- One point of contact for connectivity, data center and information security

06 TELECOMMUNICATIONS

CONNECTIVITY SERVICES

For businesses and households

Business FTTH
High-speed, reliable fiber Internet for offices and factories in industrial parks.

FTTH for homes & small businesses
Flexible packages for residential areas and small businesses.

VoIP and IP PBX
IP-based telephony and PBX, reducing internal and inter-branch call costs.

Data transmission
Point-to-point and multipoint connections between production sites, branches and data centers.

Leased lines
Dedicated bandwidth with guaranteed quality for mission-critical business systems.

SD-WAN
Software-defined, centrally managed WAN for multi-branch connectivity: automatic selection of the best path and failover when a link goes down.

Television services
Television delivered over VNTT's fiber-optic network.

Technical support
Professional, responsive technical support with SLA commitments under service contracts.

SERVICE REGISTRATION & TECHNICAL SUPPORT

Contact us for an infrastructure survey and advice on the right connectivity package for your business.

Hotline: 1800 9400

Email: cskh@vntt.com.vn

06 TELECOMMUNICATIONS

IBS

In-Building Solution for mobile coverage

Seamless connectivity and stable signal quality for high-rise buildings, shopping malls, factories and basements.

FULL BUILDING COVERAGE

High-quality mobile coverage from major operators (Viettel, VinaPhone, MobiFone, etc.) throughout the building, including elevators, basements and upper floors.

QUALITY COMMITMENTS (KPIS)

The system meets operators' technical standards: stable coverage across more than **95%** of the floor area and a call success rate above **98%**.

TECHNOLOGY & EQUIPMENT

Professional RF distribution using coaxial cables, splitters, couplers or amplifiers to deliver uniform coverage and reduce interference.

BENEFITS FOR ALL PARTIES

Higher building value and easier management for owners; better service quality for operators and greater user satisfaction.

DEPLOYMENT PROCESS

1. Signal strength survey on each floor
2. Capacity design, antenna placement and RF diagrams
3. Installation and integration of operator signal sources
4. KPI testing, acceptance and handover

APPLICATIONS

- Office buildings
- Shopping malls
- Apartment buildings
- Hotels
- Factories and warehouses
- Basements and parking garages

07 DATA CENTER

DATA CENTER

VNTT eDatacenter
Built to TIA-942 Tier 3, with 99.982% availability

Tier 3	400	99.982%	ISO 27001
Built to TIA-942	42U racks	SLA availability	Information security

SERVICE PORTFOLIO



Colocation

Server space by the U, by the rack or in a private room.



VPS & Dedicated Server

Virtual private servers and dedicated physical servers, scalable to your needs.



Data Backup & Storage

Data backup and storage on infrastructure located in Vietnam.

INFRASTRUCTURE CAPABILITIES

- **DC-in-DC:** a data center built within a data center.
- Power from **two utility feeds**, backup generators and UPS, sustaining continuous power for **72 hours** if both utility feeds fail.
- **In-row** cooling with optimally positioned chillers: 22°C (±1) temperature and 50% (±5) relative humidity.
- Sensors, security cameras and access control with fingerprint and card authentication.

07 DATA CENTER

AI DATA CENTER

VNTT's AI data center provides **GPU computing infrastructure** for enterprises that need to **train and run AI models** without investing in their own GPU servers. The infrastructure is located at VNTT eDatacenter, and data is stored and processed in Vietnam.

Technical infrastructure

- Power density of 50–110 kW per rack
- Direct-to-chip liquid cooling
- High-speed, low-latency InfiniBand networking



Development roadmap

- Phase 1: AIaaS
- Phase 2: AI PaaS
- Phase 3: AI SaaS

Service packages

- Starter (AI Cloud)
- Enterprise (AI Platform)
- AI-as-a-Service (smart solutions)

Service commitments

- 99.982% uptime under SLA
- Security monitoring by VNTT's SOC service
- 24/7 technical support

AI model training

High-density GPU clusters for training and fine-tuning large-scale models

Inference & applications

Deploying models into products: computer vision, natural language processing, predictive analytics

Big data analytics

Processing IoT, camera and business system data for cities and industrial parks

Data sovereignty

All training and inference data stored on infrastructure located in Vietnam

THE "4-IN-1" ADVANTAGE

GPU infrastructure: high-density computing capacity located in Vietnam

Data platform: data warehouse, IoT and digital twin ready to supply training data

Connectivity: transmission and bandwidth from VNTT's telecommunications network

Information security: 24/7 SOC monitoring with a single accountable provider



08 INFORMATION SECURITY

SOC SERVICES

Security Operations Center: 24/7/365 monitoring, detection and incident response

Firewalls, antivirus software and backup systems are necessary but not sufficient. Many serious incidents escalate because **alerts are not monitored, analyzed and acted upon in time**. VNTT's SOC service provides a dedicated team operating around the clock on behalf of your organization, on data center infrastructure located in Vietnam.



Four service tiers aligned with an organization's security maturity. **SOC Essential** is the foundation; the other tiers can be deployed independently or in combination.

SOC Essential

MONITORING & ALERTING

- Centralized collection and monitoring of logs from firewalls, endpoints, servers, network devices and applications
- 24/7/365 shift-based monitoring with real-time incident detection and alerting
- Incident triage, validation and false-positive elimination
- Monthly reports with remediation recommendations

SOC Advanced

ADVANCED THREAT DETECTION

- Custom detection use cases based on each client's operating model, mapped to the MITRE ATT&CK framework
- Proactive threat hunting for signs of compromise
- In-depth investigation on the EDR platform, reconstructing attack timelines
- Response advisory and coordination: device isolation, account lockout, containment

SOC OT/ICS

INDUSTRIAL NETWORK SECURITY

- OT asset inventory and mapping: PLCs, SCADA, HMIs, industrial IoT devices
- Passive monitoring that does not interfere with control processes, keeping production running
- Detection of anomalies in industrial protocols and unauthorized connections into the OT zone
- Incident response playbooks tailored to each plant

Threat Intelligence

LOCAL THREAT CONTEXT

- Enrichment of indicators of compromise (IOCs: IP addresses, domains, malicious file hashes) and correlation with client systems
- Context on attack campaigns targeting businesses and industrial parks in Vietnam
- Advisories on critical vulnerabilities with remediation guidance

08 INFORMATION SECURITY

SOC OPERATIONS

Instead of investing in their own staff, tools and processes, organizations use VNTT's SOC capabilities as a service: shifting costs from CapEx to OpEx, with fast deployment and flexible scaling.

1. **Collect**
   Logs, events and telemetry from IT/OT infrastructure
2. **Normalize & correlate**
   Linking isolated events into attack chains
3. **Detect**
   Applying use cases, IOCs and behavioral analytics
4. **Validate**
   Analysts filter out noise and assign severity
5. **Alert & respond**
   Notification, advisory and coordinated response
6. **Report & improve**
   Periodic reports and detection rule tuning

SERVICE TIER COMPARISON

Capability	Essential	Advanced	OT/ICS	Threat Intel
24/7 log collection & monitoring	•	•	•	–
Dashboards & periodic reports	•	•	•	•
Incident triage & validation	•	•	•	–
Client-specific use cases	–	•	•	–
Proactive threat hunting	–	•	–	–
In-depth EDR investigation	–	•	–	–
OT asset inventory & monitoring	–	–	•	–
Plant incident response playbooks	–	–	•	–
IOC enrichment & attack context	–	•	–	•
Vulnerability advisories	–	–	–	•

• Included in the service tier. Detailed scope, number of devices and log sources are determined after an on-site assessment.

QUALITY COMMITMENTS

- 24/7/365 coverage, including after hours, weekends and public holidays
- Dedicated technical contact for each client
- Log data stored at VNTT eDatacenter in Vietnam
- Incident acknowledgment and notification times committed in the SLA
- Information confidentiality in accordance with ISO/IEC 27001

ONE PROVIDER FOR IT AND OT

Many manufacturers monitor only their office networks. VNTT monitors office and production networks under a single process, which is essential for detecting attacks that spread from IT to OT.

1. **Assessment**
   Review of the current state, log sources and risk level
2. **Design & onboarding**
   Agreement on scope, SLA and alert channels
3. **Trial operation**
   Rule tuning, noise reduction, response drills
4. **Full operation**
   24/7 monitoring, reporting and quarterly improvement

Dedicated To Excellence

Smart solutions, sustainable growth

VNTT looks forward to being your long-term partner, from connectivity infrastructure and data centers to operational solutions for industrial parks and cities.

Thank you for your trust and partnership!

CONTACT US

Head Office
16th Floor, WTC Tower, No. 1 Hung Vuong Street, Binh Duong Ward, Ho Chi Minh City, Vietnam

Ho Chi Minh City Office
8th Floor, The Sarus Building, 67 Nguyen Thi Minh Khai Street, Ben Thanh Ward, Ho Chi Minh City, Vietnam

(84) 1800 9400
(84) 274 2220222

cskh@vntt.com.vn

vntt.com.vn