

## Monitoring Industrial IT environments

In modern, digitized industrial environments, the worlds of Operational Technology and IT are interconnected. This includes programmable logic controllers, industrial PCs, smart industrial gateways, and sensor technology, as well as traditional IT infrastructure components like network switches, routers, and wireless components.

To monitor it all, you need a solution that can bring OT and IT together into a single view.

# Industrial condition monitoring keeps your data flowing from the factory floor to all upstream systems.

PRTG is monitoring software that brings in elements from all areas, so you can monitor the health, status and condition of machines, control systems, devices, and more across IT and OT.



## Why you need holistic monitoring for your industrial IT

- Keep data flowing: Monitor your IT, OT and IIoT devices, and bring all the data into a single view to collect, analyze and generate insights.
- Root cause analysis lets you understand the cause of a problem in order to prevent it from happening again.
- Monitor the various touchpoints between OT and IT to ensure that critical data is flowing to upstream systems.
- Provide the right data to the right teams: different teams need different views of the infrastructure, but based on the same core data.

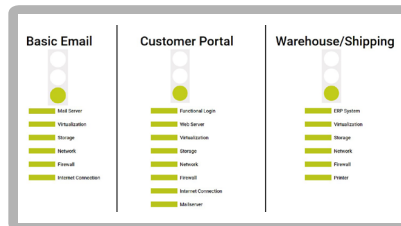
## Realize your industrial IT goals with monitoring

- Minimize downtime: PRTG helps you understand typical failures, identify patterns over a period of time, and get notifications whenever something is down.
- Watch the watchers: Control systems (like SCADA) and execution systems (like MES) play pivotal roles in OT, and PRTG gives you the ability to monitor them closely.
- Ensure data flow through the enterprise: PRTG can help you monitor OT data flow to upstream targets like data centers, cloud services or ERP systems.
- Ensure the security of your network: PRTG works with common industrial cyber security tools to give you even more overview of potential threats in your industrial environment.

## One solution for monitoring IT and OT

- Monitor a wide variety of OT devices using common industrial protocols such as OPC UA, Modbus and MQTT
- Support for all major IT protocols, like SNMP, WMI, REST, SSH and many others
- See the availability and status of PLCs at a glance
- Monitor your OPC servers
- Monitor the status of your OPC Certificates in order to ensure secure communication of your shop floor
- Monitor your power supply and HVAC

# Powerful monitoring for industrial IT. PRTG adapts completely to your requirements and lets you visualize your IT and OT data.



## Industrial condition monitoring with PRTG

- Get the data: PRTG gives you options to collect data from your environment with support for IT standards like SNMP and NetFlow, and industry protocols and standards like OPC UA, Modbus TCP and RTU, MQTT, industrial gateways and many more.
- Visualize the data: PRTG lets you visualize the data you collect from your IT and OT networks in dashboards, where you can create views of specific areas and users such as a production process view, a service maintenance view or an IT view.
- Define thresholds and states: PRTG lets you define threshold values for metrics, and you can set states for when these thresholds are exceeded – “normal”, “warning” (when a machine or device has not yet failed but is indicating signs of a problem), and “down” (when there is a failure or downtime)
- Alerts and notifications: Using the PRTG functionality for alerts, you can get notified when defined thresholds are exceeded, and you can ensure the right teams get the alerts with targeted escalation using various mechanisms, like push messages, Emails, and more.

## Transparent licensing and pricing, optimized for industry

- Unlimited users and locations – the subscription license is based on the number of sensors\* you need
- Each license includes all functionality
- Monitoring of multiple locations and failover clusters included
- Get support from our in-house technicians and developers
- Fair upgrade model
- Options for monitoring large scale infrastructure are also available

## Get an overview of the status of your entire infrastructure

- Predictive maintenance possible through individually adjustable threshold values
- Comprehensive and user-friendly alerts and notifications
- Individual dashboards / maps for an optimal overview
- Monitor multiple locations with a single installation
- Bring virtual environments, E-mail, Internet, storage, printers and much more into your monitoring view

### PRTG 500

Start small, upgrade later

500 sensors  
1 server installation  
Subscription

### PRTG 1000

Small & medium environments

1,000 sensors  
1 server installation  
Subscription

### PRTG 2500

Medium-sized environments

2,500 sensors  
1 server installation  
Subscription

### PRTG 5000

Large environments

5,000 sensors  
1 server installation  
Subscription

### PRTG 10000

Very large environments

Up to 10,000 sensors  
1 server installation  
Subscription

### PRTG Enterprise Monitor

Unlimited sensors  
Unlimited server installations  
Subscription

See our prices online: [www.paessler.com/prices](http://www.paessler.com/prices)

One solution, many benefits. PRTG brings the advantage of over 25 years of monitoring experience into the industrial environment.



**ONE VIEW FOR IT AND OT ENVIRONMENTS**

**MANUFACTURER-AGNOSTIC**

**INCREASED PERFORMANCE**

**REDUCED COMPLEXITY**

**UNIVERSAL COMMUNICATOR**

**SUPPORT FOR IT & OT PROTOCOLS**

**PRECISE INFORMATION**

**TRANSPARENT LICENSING**

**UNLIMITED NUMBER OF USERS**

**CENTRAL IT/OT ALERTING**

## One monitoring solution for everything

- **OPC UA and PRTG:** In an environment that includes OPC UA infrastructure, a key element is OPC UA certificates. If the certificates on OPC UA servers unexpectedly expire, it could potentially lead to production stoppages. Only PRTG provides the OPC UA Certificate sensor to keep track of the days to expiry of your certificates, as well as other metrics.
- **Monitor via Modbus:** PRTG provides the Modbus sensors for getting data from cooling units, power meters, PLCs, and much more. As an example: you can get the CPU temperature and fan speed from a robot on your production floor using Modbus TCP or RTU.
- **MQTT is everywhere:** MQTT has become more prevalent in industrial IT due to the IIoT and devices like industrial gateways using it to communicate. And at the center of it all is the MQTT broker. Using the MQTT Round Trip sensor, you can monitor if clients can connect and subscribe to your MQTT broker, and publish through it.
- **Monitoring traditional IT:** Monitor bandwidth, device status and health of servers, switches, firewalls and routers, and much more.



\* "Sensors" are the basic monitoring elements in PRTG. One sensor usually monitors one measured value in your network, for example, the traffic on a switch port, the CPU load of a server, the free space of a disk drive. On average, you need about 5-10 sensors per server or one sensor per switch port.

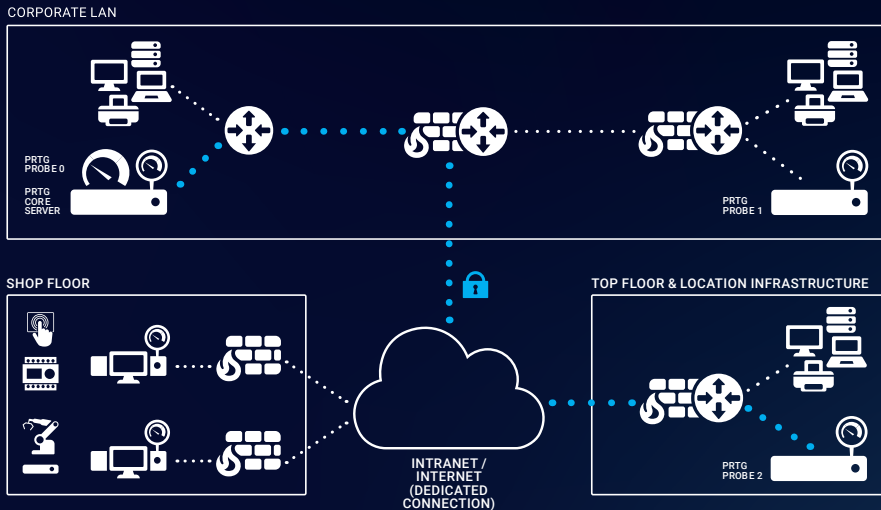
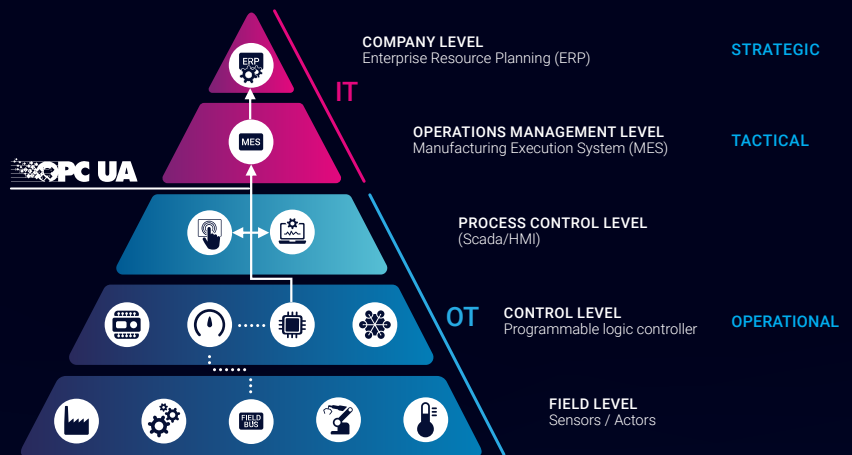
# Monitoring the dependencies and interconnectivity between OT and IT is vital.

PRTG gives you an overview of your infrastructure to help you reduce downtime, ensure all devices are running effectively, and keep data transferring securely.

## INFRASTRUCTURE

From the field level on the factory floor through to the ERP level at the very top of the organization, industrial companies can be divided into several tiers that reflect the tasks and areas of responsibility within the organization.

The line between OT and IT (the convergence zone) lies between the operational and tactical levels, and has become more connected with digitization.



## SOFTWARE ARCHITECTURE

- Failover cluster functionality included in each license
- Integrated database, optimized for monitoring data (no database server required)
- Data stored in the original monitoring interval (no data aggregation)
- Optimized for networks of all sizes
- Use remote probes to monitor distributed or segmented networks
- Offline mode possible

**TEST NOW FREE OF CHARGE**  
[www.paessler.com/industrial-it-monitoring](http://www.paessler.com/industrial-it-monitoring)

## ABOUT PAESSLER

Paessler believes monitoring plays a vital part in reducing humankind's consumption of resources. Monitoring data helps its customers save resources, from optimizing their IT, OT and IoT infrastructures to reducing energy consumption or emissions – for our future and our environment. That is why Paessler offers monitoring solutions for businesses across all industries and all sizes, from SMB to large enterprises. Paessler works with renowned partners, and together they tackle the monitoring challenges of an ever-changing world.

Since 1997, when Paessler first introduced PRTG Network Monitor, it has combined its in-depth monitoring knowledge with an innovative spirit. Today, more than 500,000 users in over 170 countries rely on PRTG and other Paessler solutions to monitor their complex IT, OT and IoT infrastructures. Paessler's products empower its customers to monitor everything, and thus help them optimize their resources.

Check out all the possibilities within the Paessler universe



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EDUCATION



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MANY MORE