Andy Webster discusses how the convergence of IT and OT operations can transform industry operations for business success.

As the industrial world becomes increasingly digital, the convergence of Information Technology (IT) and Operational Technology (OT) is a growing trend. This convergence implies the harmonisation of traditional IT systems with industrial automation and control systems used on the plant floor of many manufacturing industries. This is still emerging, it presents many opportunities for businesses and their leaders to build a more comprehensive, efficient, and cost-effective platform for their operations.

The convergence of IT and OT is not just about technology. Instead it is a shift that affects the entire organisation. It is essential that businesses adopt a truly comprehensive approach – one that combines technological advances with the rigour of management to oversee changes to procedures, staffing, and to structures to achieve the desired business outcomes.

From our experience there are three things that a company embarking on this convergence should consider:

- **Collaboration:** There is a need to bring together previously siloed IT and OT departments to work on a shared goal of achieving business objectives. To achieve this, it is necessary to start the process at a senior level, and work down, if necessary. The IT and OT teams need to collaborate to create standards and objectives that allow the business's data to flow...
seamlessly between the two worlds. This connection of IT and OT will result in a more streamlined flow of data, quicker responses to arising issues, and more accurate foresight into the management of business operations.

- **Cybersecurity:** Analysing and treating cybersecurity vulnerabilities with raised scrutiny is non-negotiable because the convergence of IT and OT will dramatically increase the prevalence of cybersecurity risks, particularly as IT networks that were previously isolated from OT in a company’s factories become interconnected. Improvement can range from creating awareness through risk assessments to undertaking a detailed cybersecurity architecture. It is important to tackle the issue head-on, rather than waiting for a significant cyber incident to happen, and then try to respond. This guiding principle should always apply – Being proactive will always trump this reactive response when it comes to cybersecurity.

- **Data Analytics:** The third and final best practice recommendation centers around data analytics. As more data becomes available through the convergence of IT and OT operations, it is important for businesses to have the ability to analyse this data which will be coming from a variety of sources. Integrating historical records alongside new monitoring systems allows for real-time data processing and decision-making backed by thorough data-backed analysis. But why is this so important? The true value of IT and OT convergence comes from utilising data analytics to help engineering decisions, whether that is preventing downtime, predicting failure, or optimising production. These benefits come through the creation of agile environments and interpretation models.

In particular, in newly emerging industries such as the hydrogen sector, the IT/OT convergence trend is accelerating even faster, as there are no ‘legacy’ systems. The sector needs to have efficient factories. They need to be integrated with the hydrogen supply chain. And operators are looking for scale advantages from running many sites. These needs are all being met through truly seamless IT and OT solutions.

So, the convergence of IT and OT presents an opportunity for proactive organisations to optimise, and ultimately grow their businesses through improved communication flows, enhanced cybersecurity measures, and innovative data analysis. However, there is no one-size-fits-all solution when it comes to IT and OT convergence. Each business needs to identify its own unique set of needs, goals, and constraints, and develop a comprehensive plan that addresses these factors. With the right strategy and approach, however, IT and OT convergence can deliver significant benefits for businesses in the long term. So, there is no reason to wait. Businesses should feel encouraged to take these steps to start their own IT/OT convergence journey. 📢

Andy Webster is Digital Director at Yokogawa Europe.

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**Network monitoring software brings the OT and IT worlds closer together**

Paessler is expanding its PRTG network monitoring software solution into the operational technology (OT) environment, with the introduction of the PRTG OPC UA Server, which is designed for engineering teams who wish to receive information from both IT and OT monitoring on their supervisory and control systems.

Paessler acknowledges that IT/OT convergence will create more efficient processes in industrial environments and solutions. “We are thrilled to launch OPC UA Server, our first product extension to Paessler PRTG,” said Helmut Binder, CEO at Paessler. “As we continue to evolve our product portfolio, we recognise the importance of expanding our solutions to meet the unique needs of industrial customers.”

Together with Paessler PRTG, OPC UA Server allows OT admins and plant operators to monitor infrastructures through their supervisory and control system architecture. OPC UA Server expands Paessler PRTG’s field of application by bringing a comprehensive overview of various IT and OT elements into OPC UA-capable systems.

Further benefits include central alerting via existing alert chains, enrichment of quality control data with data from IT/OT components, as well as interactive alarm handling between IT and OT personnel.

Initially, this product extension will operate exclusively with Paessler PRTG Network Monitor with active maintenance, before its coverage is extended to Paessler PRTG Hosted Monitor and Paessler PRTG Enterprise Monitor.

Because of the diverse requirements of the OT world, the PRTG OPC UA Server comes in three feature-based pricing tiers in the form of subscription-based models.