

HOW TO OPTIMISE YOUR PROCESS PLANT

Chris Gibson, Associate Director – Services for Endress+Hauser UK, talks about the future of maintenance services for the process industry.

Maintenance of measurement devices in the process industry has traditionally focused on routine procedures, such as calibration, and repairs of faulty devices. In recent years we've seen a move away from this reactive style of service towards a more proactive approach. Combined with rapid technological developments, this is having a significant impact on the way services are delivered.

This year Endress+Hauser launched a suite of remote service offerings, including SightCall, which enables our engineers to see a plant or instrument through the camera of a phone or tablet without having to be on site. It enables us to be far more responsive: we can potentially solve problems immediately rather than having to book an engineer in advance. It's far better than a phone call because it allows you to see how an instrument has been installed in the process, for example if a flowmeter has been mounted directly after a valve or a radar device has been placed against a vessel wall, both of which could cause measurement inaccuracies.

Even if the problem can't be resolved immediately, using SightCall will certainly give us a far better idea of the root cause of the problem. It's comparable to triage, in that if we have to plan a subsequent site visit, we already know what remedy is required to get the plant operational again. Going to site prepared, armed with the right information and the right parts, not only saves time but also reduces expenditure.

Taking remote service a step further, Endress+Hauser has developed the Field Xpert SMT70 tablet, which enables us to access a plant's network for troubleshooting, commissioning and diagnostics. We've had great success with this technology over the last few months, particularly during lockdown. Having the security of knowing that if something does go wrong on plant, you can give an engineer permission to dial in, access the device and quickly resolve a problem is a huge benefit for our customers. A service report is then issued in just the same way as if the engineer carried out the work on site.

Sharing knowledge

We've also introduced a new service called Instrumentation Support, at the heart of which is a comprehensive



Endress+Hauser Remote Instrumentation Support



Chris Gibson, Associate Director - Services, Endress+Hauser UK

knowledge database. The online portal is a receptacle for all the information held by Endress+Hauser experts globally, and it's a great place to go and look up issues and challenges as they occur. We've made it available to customers so they can search for an error message on a flowmeter, for example, and find advice on how to solve their problem. There are currently 13,000 articles in the database, and it's constantly being updated to share knowledge between our engineers and with people who use our instrumentation, so they can get quick access to help in the same way you might search the internet to resolve a problem with a domestic appliance. If you need to escalate the issue further, you can create a case on our Instrumentation Support system and receive a guaranteed response time.

Looking ahead, 2021 will see increased consumption and acceptance of these types of remote support. Because of the ongoing Covid-19 situation, being able to support customers without sending an engineer to site is an attractive option for everyone involved. Apart from the risk of having external contractors on site during a pandemic, many customers are continuing to work from home, so need to access support in a different way.

Technological developments

Endress+Hauser has also developed instrumentation with built-in remote access, which enables us to communicate

with a device from anywhere in the world. This is particularly useful for the more maintenance-intensive and complex equipment. It means we can carry out remote diagnostics and even initiate remote maintenance work, such as cleaning electrodes, to keep instrumentation performing optimally. It's inevitable that these solutions will become more commonplace and accepted, particularly as process plants cut back on engineers and other resources. Instrument manufacturers such as Endress+Hauser are going to play an ever increasing role in helping to keep plants safe, operational and optimised.

Making smarter decisions

The service offer of the future is going to be even more outcome based. Service providers such as Endress+Hauser can do so much more than calibrate instruments: we want to help plants run better and safer, with less downtime, more productivity, greater yield and improved quality. We want to work with customers to improve their processes.

Using calibration as an example, there is going to be greater focus on calibration interval optimisation. It's about striking the right balance between risk and cost: if you calibrate things too frequently, you're going to increase your cost; if you don't calibrate them frequently enough, you're going to increase the risk of an instrument functioning incorrectly. We can work with customers to find that balance, so instruments aren't just compliant but optimised.

Endress+Hauser has developed products to enable predictive, rather than reactive, maintenance because it's far better to be able to recognise a problem before it occurs than waiting for that failure and reacting to it. Instrumentation is becoming more intelligent all the time.



Field Xpert SMT70 Application

Devices with Heartbeat Technology, for example, have onboard monitoring and diagnostics, which can identify a problem such as build-up before it starts to interfere with the measurement. Another example is a new line of pressure transmitters with impulse tube blockage detection. There's a lot of information our instruments can tell you beyond their primary function, and additional new products are in development to further strengthen the devices' predictive ability. The key is using that information intelligently.

I can foresee our service engineers potentially having access to these kinds of monitoring diagnostics and being able to intervene on behalf of a customer without them having to be involved. We could take responsibility for the uptime of a plant and the installed base. We would just need to have access to the right data to make sure the plant runs to its optimum. It would be a huge weight off the shoulders of companies operating with limited resources.

Lessons from e-commerce

We're always looking at ways to make the customer experience better, and I think there's a lot to learn from the B2C market. The leading online retailers are experts at communicating with their customers, and that's trickling down into the B2B market. From a calibration and repair perspective, we're creating interfaces to keep our customers informed and make the experience easier.

During lockdown, due to customer demand, we began to offer same-day turnaround for calibration. Speed of response is becoming more of a priority. Customers are demanding faster service than they have done in the past, possibly because of their experiences in the B2C environment. Amazon, for example, offers same-day or next-day delivery, and our customers want a similar experience in their business lives as they encounter as a consumer. Ultimately, all our developments are about understanding the needs and wants of our customers and making sure our offer matches them. #ENGINEER

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Field Xpert SMT70