

Press Release

19th October 2018

Edge Computing

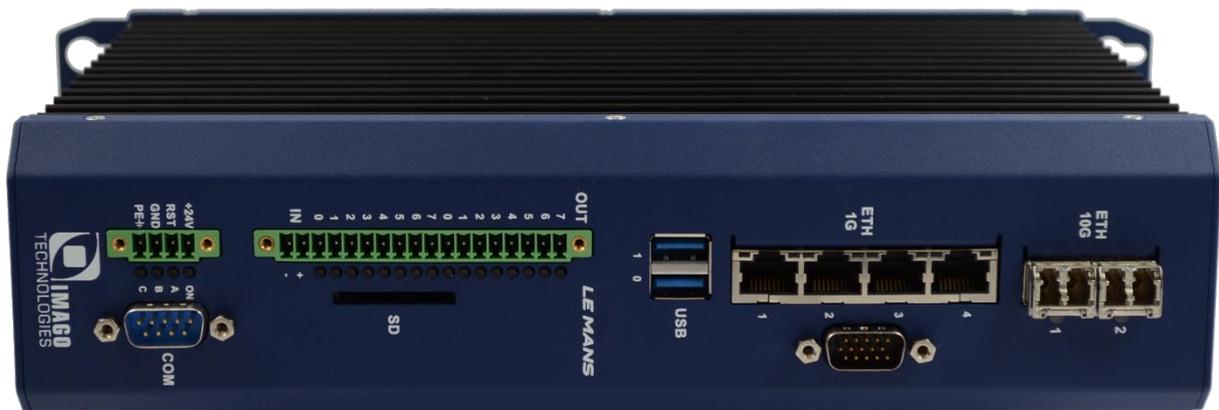


Image: Protected against cyber attacks with IMAGO's EdgeBox

At this year's SPS IPC Drives in Nuremberg, IMAGO Technologies presents newest edge computing hardware and a dashboard with access to several vision systems. The hardware is called "EdgeBox" and controls all components as well as the data exchange from the cloud to the (vision-) sensor safely and securely. While it is easy to think about how to connect different components, machines and image processing systems for a better overview or data analysis within a large facility or factory, the security aspect is often forgotten. Huge amounts of data are saved on a remote server to make it accessible for anyone in the company who needs it, but whether the data is also protected against attacks from the outside is a question that is often asked too late. What helps are the newest developments in edge computing: Edge computers can manage the different cloud services, locally installed programs and individually working vision/sensor devices and protect them against attacks from the outside. These developments provide more flexibility for machines and support the developments of new business models through cloud services.

If you keep the security aspect in mind, the following scenario becomes easily realizable: A production supervisor can view and control the status of all his machines anywhere in the world simply over his tablet. If an update is necessary, he can advise a (vision-) expert to run it. Once the update is ready, a simple remote reboot is enough to be able to immediately use all the newest functions. Still, sensitive areas stay where they belong: locally protected on site.

So, what does this actually look like? The chain from the cloud to the vision sensor is made up of different components: The edge computer is the central interface to the outside. This means that edge computing forms the interface between the machine and the internet. Cloud services can run on the edge computer itself. The cloud services of big suppliers are now so developed that their services can run on local computers, making server farms unnecessary. Furthermore, the local cloud services can

be combined with many other services from the cloud – depending on where sensitive data should and could be processed (take Microsoft Azure, for instance). Via Ethernet, all other desired components can be connected, like e.g. the already mentioned vision sensors.

Where does the security come in? The consensus is that the lower levels of a computer are coupled cryptographically with the hardware, which is provided through a separate chip or directly on the processor. IMAGO's EdgeBox, which will be presented at the SPS IPC Drives, already provides these necessary security aspects. A secured firmware with cryptographical processes as well as a safe Linux operating system ensure security for the implementation of cloud services.

Author: Vivien Möslang, Marketing

IMAGO Technologies GmbH: The company, founded in 1994, offers manufacturers of series systems specifically optimized VisionBoxes based on processors from Texas Instruments, Intel and NXP. A technology kit includes camera, I/O, LED Controller, Ethernet and fieldbus interfaces. Combined with the standard products, an ODM (Original Design Manufacturing) design is quickly and easily created. Depending on the processor type, the systems run in real-time mode on RT Linux, Linux or Windows Embedded. IMAGO supplies customers in the areas of industrial image processing and traffic engineering as well as device manufacturers, with the main focus always lying on optimized image processing functionality.



Embedded-Vision-Architects since 1994

IMAGO Technologies GmbH
Strassheimer Straße 45
61169 Friedberg
+49 6031 684 26 11

[Reader's Contact](#)

info@imago-technologies.com

[Press Contact](#)

marketing@imago-technologies.com

[Website Pressroom](#)

www.imago-technologies.com/press

[Website](#)

www.imago-technologies.com