EMP
TECHNICAL
GROUP

The Internet of Things

One of the latest buzz words floating around is, "The Internet of Things". Like BYOD (Bring Your Own Device) and Cloud Computing, The Internet of Things is revolutionary and will shape the way we live and do business.

The idea for the Internet of Things (IoT) first started in the 1990's with the advent of the internet itself. The concept was that soon everyday electronics that are all around us would be able to talk to each other and we would be able to remotely talk to them. An obvious example of this is the now very real smart house, which allows you to remotely monitor and control your home including its heating and air-conditioning, lighting and major appliances.

Another extension of IoT is the smart car. GM started this revolution with OnStar, allowing your car to notify OnStar in case of a crash, or for you to contact OnStar to make a dinner reservation. Other auto manufacturers are now following suit and the possibility of your car being able to notify you that it needs an oil change via your iPhone is now a reality.

The next reach for IoT, which more directly applies to our work here at EMP, is the smart warehouse and factory floor. The concept being that machinery and equipment will be able to talk amongst themselves, be able to notify users of status and be remotely controlled and monitored through the internet.

For years now, PLC networks have allowed pieces of equipment on the factory floor to "talk amongst themselves" and even notify users of status or alarm conditions via proprietary networks such as PROFIBUS or MODBUS and even Ethernet. But IoT takes this beyond internal proprietary networks and introduces the power of the World Wide Web to the solution.

SOTI MobiControl
Motorola had a product called MSP for many years to remotely manage and control their wireless devices. The problem with MSP was that it only supported Motorola hardware. With the advent of BYOD (referenced earlier), the need for device management software to also support an Android device or an iPhone became more important. The Blackberry was dying as quickly as the desire of large corporations to try to supply and manage phones and data devices for their employees.

Motorola sold off MSP and partnered with SOTI to offer a much further reaching mobile device management software. SOTI is able to not only manage Motorola rugged devices but also everyday consumer grade devices that are becoming more prevalent in business. EMP is a full SOTI partner and we now have several deployments under our belt. The IoT angle is that SOTI allows you to remotely monitor and control your mobile devices, and gather statistics from the device, such as battery life and location. You can also geo-fence a device, allowing you to shut it down if it leaves a certain geographic location where it is supposed to live.

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Zebra Link-OS
Zebra has made some puzzling company acquisitions over the past few years (the Motorola acquisition being the exception). The companies they purchased didn't seem to make much sense in respect to their core business of manufacturing label printers and media. One example was Zatar, an IoT company whose software allows you to quickly and easily control and monitor items through the cloud. This acquisition started to make more sense when Zebra began introducing new printers with their Link-OS operating system. The concept of label printers coming with more than simple firmware but an actual full featured OS that can be programmed and used to remotely monitor and control your printers is becoming a reality. Want your printer to notify you when the print head needs changed? Want it to tell you how many labels it printed today? Want to have a custom menu on the display specially modified for your users? Want the printer to store formats and not even need a PC at the print station? All of these things are possible with Link-OS.

Cognex Explorer
In a high flow distribution center, a 1% no read rate from a conveyor line scanner can equal tens of thousands of packages that have to be manually processed every 8 hour shift. Maybe you have a conveyor that is not skewing the packages properly. Maybe a print head is faulty on a label printer. Maybe boxes are just coming through upside down from the new guy. Wouldn't it be nice if there was a piece of software that would let the bar code scanner tell you what it is seeing and save the images for you to review later. That is exactly what Cognex is coming out with in its new Explorer program. It allows you to get remote notifications when your Cognex bar code scanners first start seeing signs of trouble, before an entire shifts worth of products have hit the jack pot lane.

As always, the EMP Tech Group is here to do much more than sell you the industry's leading data collection and labeling products. We are here with end-to-end solutions that better allow you to successfully implement the solution and manage it in the long run.

Contact us today for more information on any of these exciting new innovations in our industry.