The European Institute for the PCB Community

EIPC SPEeDNEWS

The Weekly On-Line Newsletter from the European Institute of Printed Circuits.
Issue 28 – September 2021

ELECTRONIC INDUSTRY NEWS

Leveraging the Power of AI

Where We Live and Work

JOIN US SEPTEMBER 28-29, 2021 FOR THIS VIRTUAL EVENT

From data centres, through edge accelerators to endpoint devices: Artificial intelligence (AI) Applications range from large scale analysis of medical data and online retail recommendation engines, to robotics and computer vision, to sensor fusion in the tiniest sensor nodes. The infusion of AI techniques into so many areas of computing is changing compute paradigms across the board.

Our Virtual Event will provide answers to questions like: How to keep up with these changes, especially given AI's propensity to evolve at a staggering rate? How does one design chips or systems for a constantly shifting workload like this? How does one make the call between

maximising performance today and keeping some flexibility for the sake of future-proofing?

The conference sessions will cover:

AI in the Data Centre
AI in the data centre is revolutionising online retail in the cloud and applications like medical imaging and the financial sector at the enterprise level. What are the challenges of AI compute at this scale? And are the big CPU and GPU players keeping up with challenges from a new breed of high-profile AI chip start-ups?

AI at the Edge
Advances in neural networks and specialised accelerator hardware are making more and more AI possible outside the data centre. Edge compute “boxes” in the field as well as device-level applications like robotics are becoming more and more powerful, processing more data more quickly. But what are the limits of what can be done at the edge, and where are the opportunities to save power and cost?

AI in the Device
While AI techniques traditionally required huge compute power, the technology has come far enough that even battery-powered devices can take advantage of it. Under what circumstances does it make sense to analyse sensor data where it is collected, at the periphery of the IoT? The growing trend for voice activation and voice control of consumer electronics and smart home appliances is a big driver for AI in endpoint devices, and can even be done with microcontrollers today. This event will explore what’s possible with the bare minimum of power.

These topics, and many more, will be discussed during the event.

About The AI Everywhere Forum

The AI Everywhere Forum is a 2-days virtual conference and exhibition. Just like joining a real life event, you may join conference sessions, pick

up technical materials and visit an exhibition hall with booths of leading AI companies.

The conference will focus on AI in the Data Centre, at the Edge, in the Device and for the IoT. It features Keynotes about major technical trends, market requirements, new applications areas and more, Panel discussions with industry experts, Technical presentations about products and solutions.

Presentation hours are 8:30 am – 5:15 pm EDT/New York Time (14:30 - 23:15 CEST/Paris Time) (13:30 – 22:15 in the UK)

The Exhibition Hall features virtual booths from technology leaders. It starts on Sep 28 at 13:00 CEST (7:30am EDT) and will be open during the whole event. Here you can to gather informational resources from leading AI companies and add materials to your "Swag Bag" for future reference. A Live Chat tool enables visitors to directly contact the booth personnel. Live Chat hours are on both days from 10:30am – 11:30am and 1:30pm – 2:30pm EDT (16:30 – 17:30 and 19:30 – 20:30 CEST). (13:30 – 22:15 in the UK)

A game changer in IT security

As companies move to the cloud, they're losing track of what they own. To guard against cyberattack, they need to first monitor all their assets—from laptops to cloud services.

by
MIT Technology Review Insightsarchive page
September 8, 2021
Sponsored Content
In association with Cortex Xpanse by Palo Alto Networks

The key to a successful cybersecurity strategy is knowing what you need to protect. Here's the proof: half of companies surveyed by MIT Technology Review Insights and Palo Alto Networks have experienced a cyberattack originally from an unknown, unmanaged, or poorly managed digital asset, and another 19% expect to experience one eventually.

Without a full inventory of internet-connected assets, organizations simply can't identify and remediate exposures to cyberattack. Yet only half of companies surveyed ensure continual monitoring of assets, and just slightly more (57%) cite asset inventory as a critical precautionary measure.

A game changer in IT security

- **Download the full report**
-

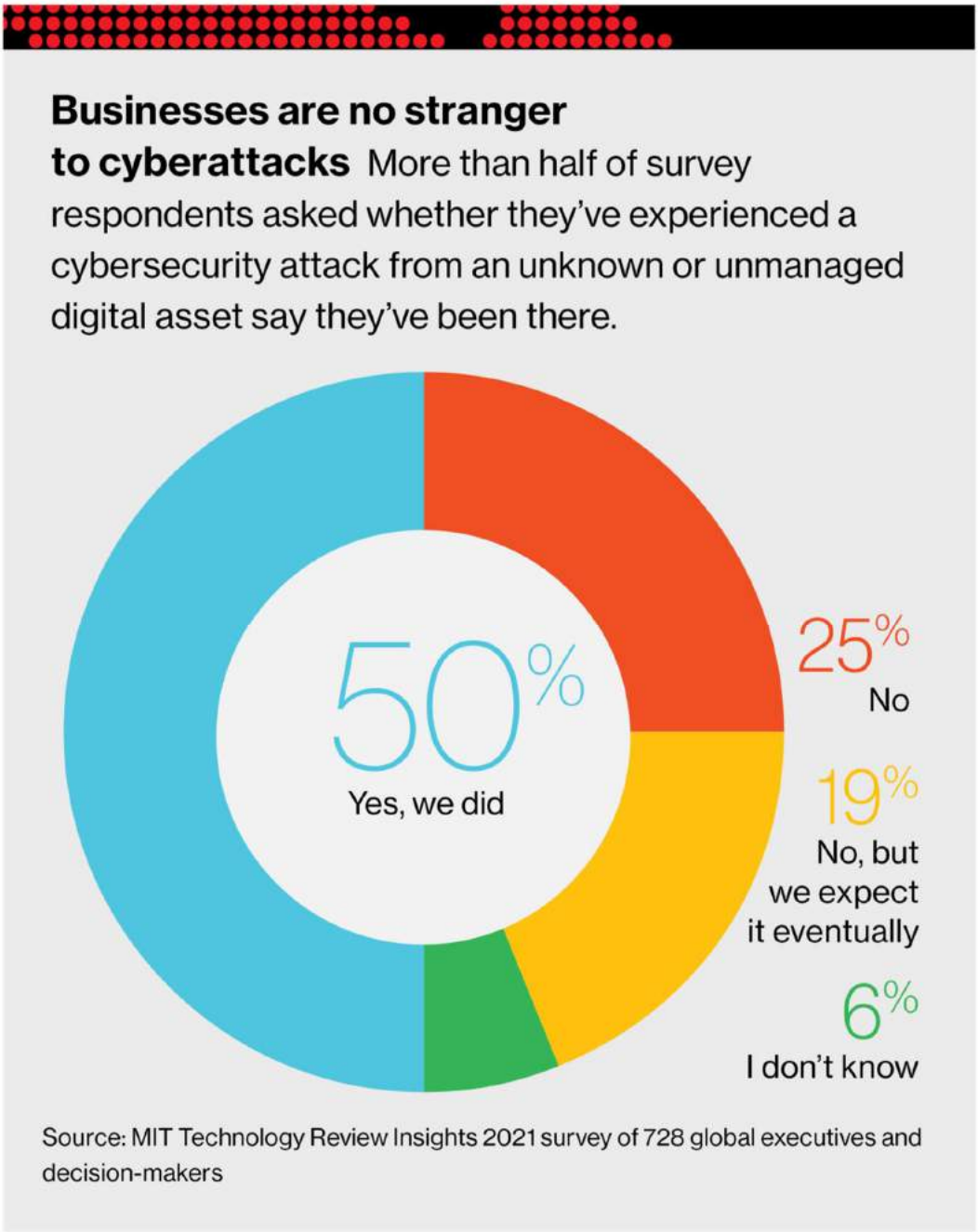
The clock is ticking: while Fortune 500 companies find one serious vulnerability every 12 hours, it takes attackers less than 45 minutes to

do the same as they scan the vastness of the internet for vulnerable business assets.

Making matters worse, bad actors are multiplying, highly skilled IT professionals are a scarce resource, and the demand for contactless interactions, remote work arrangements, and agile business processes continues to expand cloud environments. This all puts an organization's attack surface—the sum total of the nooks and crannies hackers can pry into—at risk.

"We've seen a pretty steady set of attacks on different sectors, such as health care, transportation, food supply, and shipping," says Gene Spafford, a professor of computer science at Purdue University. "As each of these has occurred, cybersecurity awareness has risen. People don't see themselves as victims until something happens to them—that's a problem. It's not being taken seriously enough as a long-term systemic threat."

Organizations must understand where the critical entry points are in their information technology (IT) environments and how they can reduce their attack surface area in a smart, data-driven manner. Digital assets aren't the only items at risk. An organization's business reputation, customer allegiance, and financial stability all hang in the balance of a company's cybersecurity posture.



To better understand the challenges facing today's security teams and the strategies they must embrace to protect their companies, MIT Technology Review Insights and Palo Alto conducted a global survey of 728 business leaders. Their responses, along with the input of industry experts, provide a critical framework for safeguarding systems against a growing battalion of bad actors and fast-moving threats.

The vulnerabilities of a cloud environment

The cloud continues to play a critical role in accelerating digital transformation—and for good reason: cloud offers substantial benefits, including increased flexibility, huge cost savings, and greater scalability. Yet cloud-based issues comprise 79% of observed exposures compared with 21% for on-premises assets, according to the "2021 Cortex Xpanse Attack Surface Threat Report."

"The cloud is really just another company's computer and storage resources," says Richard Forno, director of the graduate cybersecurity program at the University of Maryland, Baltimore County. "Right there, that presents security and privacy concerns to companies of all sizes."

Even more concerning is this: 49% of survey respondents report more than half of their assets will be in the public cloud in 2021. "Ninety-five percent of our business applications are in the cloud, including CRM, Salesforce, and NetSuite," says Noam Lang, senior director of information security at Imperva, a cybersecurity software company, referring to popular subscription-based applications handling customer relationship management. But while "the cloud provides much more flexibility and easy growth," Lang adds, "it also creates a huge security challenge."

Part of the problem is the unprecedented speed at which IT teams can spin up cloud servers. "The cadence that we're working at in the cloud

makes it much more challenging, from a security perspective, to keep track of all of the security upgrades that are required," says Lang.

For example, Lang says, in the past, deploying on-premises servers entailed time-consuming tasks, including a lengthy buying process, deployment activities, and configuring firewalls. "Just imagine how much time that allowed our security teams to prepare for new servers," he says. "From the moment we decided to increase our infrastructure, it would take weeks or months before we actually implemented any servers. But in today's cloud environment, it only takes five minutes of changing code. This allows us to move the business much more quickly, but it also introduces new risks."

Download the full report.

Find out what organizations in Asia-Pacific, Europe, and the Middle East and Africa are doing to understand and counter today's cyber threats.

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NEWS FROM GERMANY

DIGITALES Microseminar 2021 – Leistungselektronik

Wir bleiben dran und die Planung steht!
In diesem Jahr führen wir ein Webinar zum Thema Leistungselektronik durch:

- Leistungselektronik und deren Anwendungen
- Materialien und Technologien der Leistungselektronik

Seien Sie dabei und halten sich den 23.09.2021 von 14.00-16.30 Uhr frei.
Die Vorträge finden in deutscher Sprache statt.
Bei Interesse melden Sie sich an über eine Mail an abauer@ccieurolam.com und sichern sich den Zugangslink zu diesem Event.
Wir freuen uns auf Sie!
Ihr CCI Eurolam Team

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NEWS FROM PRODUCTRONICA

IoT and 5G—The perfect combination

The IoT (Internet of Things) has been around in business for a long time. But now, thanks to the new 5G mobile communications standard, it is able to tap into its full potential. You can find out what opportunities this opens up for the electronics manufacturing industry "live" at productronica 2021 from November 16–19 in Munich. VDMA Productronic acts as an ideal partner for the event.

The Internet of Things (IoT) can't be slowed down—not even by the coronavirus pandemic. IoT remains one of the fastest growing technology sectors. The market research firm Statista therefore expects that there will be nearly 31 billion IoT devices online by 2025. Other estimates predict more than double that amount.

According to Market Research Future, the global market for IoT in manufacturing alone is to grow to USD 751.3 billion by 2023, with a compound annual growth rate (CAGR) of 24 percent. Grand View Research predicts a global market volume of USD 1.11 trillion in the sector by 2028. The reasons for the analysts' optimistic outlook include advancing automation, predictive maintenance and supply chain management.

The IoT study from Computerwoche and CIO highlights this trend: 44 percent of the industrial businesses surveyed stated that they had increased their IoT budget during the pandemic. The funds primarily went toward quality control and logistics, followed by networked production systems and intelligent products.

More IoT thanks to 5G and 6G

Thanks to the new 5G mobile communications standard, there is now a significant expansion to the range of applications, not just in the industrial setting, but also in

the areas of energy, health, science and consumers. With high bandwidth, strong transmission performance and low latency, in many areas 5G represents the technical foundation for the next stage in the development of IoT.

However, this basis is not perfect. Researchers and companies are already beginning to prepare the next 6G mobile communications standard. This appears to achieve the things that were promised by 5G, according to an interview by Ivan Ndip from the Fraunhofer Institut IZM. 6G is to once again significantly increase the performance of mobile communications in terms of peak throughput, users' data rates, reliability, latency, as well as energy efficiency and precision of localization. The use of terahertz frequencies from 100 GHz therefore allows for data rates up to a terabit per second and latencies of around 100 microseconds – fifty times the data rates of 5G and a tenth of the latency. All with a much higher concentration of connections (devices per square kilometer). Here, 5G can "only" support up to one million networked IoT devices in an area of one square kilometer. 6G increases this tenfold.

Semiconductor market benefits from IoT and 5G

The rapid growth of networked IoT devices therefore demands not only more and more semiconductors, but also increasingly high-quality components for them. This applies to all industry segments and IoT relatives (IIoT, IoMT, AIoT, etc.).

As such, IoT analytics expects the IoT semiconductor market to increase from USD 33 billion (2020) to USD 80 billion by 2025. The focus is on IoT microcontrollers (MCUs), as well as chipsets for IoT connectivity, IoT AI and IoT security.

However, the lion's share goes to IoT connectivity chipsets, with 35 percent. Here, cellular IoT chipsets are now playing a leading role. For this segment, IoT analytics expects a CAGR of 37.5 percent between 2020 and 2025, driven by 5G and "Low Power Wide Area" (LPWA).

Yet, according to analysts, the IoT semiconductor market is still in its infancy. This is expected to change in the years to come. The share of IoT-specific semiconductors will increase from 7 to 12 percent between 2019 and 2025. The Internet of Things is starting to establish itself as a driving force for the semiconductor industry. However, this means that chip manufacturers also increasingly need to meet the typical requirements of IoT, such as ultra-low power, small form factors and integrated security.

productronica 2021, exhibitors on the topic of IoT/5G/6G

iTAC (Hall A3, Booth 161)

iTAC offers MES and IIoT solutions for transparent, automated production processes, and provides various services for the networking, automatization and analysis of manufacturing processes.

Cimetrix (Hall A3, Booth 437)

With the industrial IoT platform Sapience, manufacturers, software developers and OEMs gain access to devices that were previously difficult to connect.

Segger Microcontroller (Hall A1, Booth 174)

Segger delivers complete end-to-end solutions for every IoT scenario that cover all areas from development tools up to standard firmware components.

Orbotech (Hall B3, Booth 320)

The Israeli company distributes new technologies and solutions for manufacturing processes in the field of 5G.

Rohde & Schwarz (Hall A1, Booth 375)

A new family of test devices is tailored to 5G applications in development, type testing and production.

Fraunhofer IZM (Hall B1, Booth 228)

A new generation of thick film paste makes it possible to manufacture extremely high-resolution structures necessary for 5G applications.

Aurel (Hall A2, Booth 481)

The Italian company Aurel develops production systems that are precisely matched to the PI pastes from the Fraunhofer Institute for Ceramic Technologies and Systems.

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NEWS FROM THE UK

An exciting new industry magazine.

Global Industry Focus (GIF), is a new digital magazine.

Focusing on the businesses and the people behind the products and services – delivering a mix of opinions and thoughts on key topics from across the spectrum of the electronics and off-board community. Published 6 times a year, this magazine will be free to read and delivered as a digital page turner.

There are a host of benefits to both the reader and the contributor with delivering a global, fully rounded publication in this format:

For the reader

- Delivered directly to your inbox
- Can be read on a host of different devices
- Safely shared around without worrying about 'multiple touch points'
- Full of unique content and opinions
- Giving you the chance to hear from key industry individuals and get their view on business and opportunities
- Interactive with click points to video, podcasts, webinars and more

For the contributor

- Low cost advertising opportunities
- Feature your company in one of the 'industry insight' top 10 interviews each edition
- A platform that reaches the whole spectrum of the global electronics community
- The option to include interactive elements to your promotion
- Being sent to over 49,000 email contacts and over 20,000 social media contacts who are regularly engaging
- You will receive a breakdown of the engagement your promotion has received

We are offering 10 companies the opportunity to feature in Global Industry Focus as one of the 'industry insight' top 10 interviews for the next edition. We will supply you with a selection of questions, each on key topics, and we will compile an interview with your answers. You will also get:

- Laid out in a double page spread format in the magazine
- Space to have your company logo, photo of interviewee
- Space for product promotion
- The interviewee or company logo featured on the front page of the magazine
- You can embed video, podcasts etc into this space
- The front cover will be displayed on www.globalindustryfocus.com and will be interactive so readers can click on your photo/logo and go straight to your article

All this for just £795.

Other advertising opportunities start from as little as £165 for ¼ page (on series booking).

The first edition of the magazine will be coming out towards the end of September and there are only 3 slots left for the industry insight feature.

News from WECC members

WECC World Electronic Circuits Council

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NEWS FROM THE IPC

Proof of COVID Vaccination or Negative Test Required to Attend IPC APEX EXPO 2022

IPC adhering to California Dept. of Public Health guidelines

BANNOCKBURN, Ill., USA, September 8, 2021 — Attendees, exhibitors, speakers, instructors, staff and all convention centre contractors attending/working at IPC APEX EXPO 2022, to be held in-person January 22-27 at the San Diego Convention Centre in San Diego, California, will be required to present either proof of full vaccination or a negative COVID-19 test (NCT) within 72 hours of arrival to enter the event.

"The safety, security and health of those experiencing IPC APEX EXPO is our top priority," said John Mitchell, IPC president and CEO. "IPC APEX EXPO is a large, indoor event with several thousand attendees expected, increasing the risk of transmission. To mitigate that risk, we will follow the guidelines set by the California Department of Public Health, requiring vaccine verification or negative testing to 'indoor mega events' involving 1,000 or more participants. IPC will continue to

monitor and evaluate the situation and may update protocols as we get closer to the event."

IPC APEX EXPO is the largest North American event for the electronics manufacturing industry, drawing approximately 9,000 attendees from 45 countries. Attendees will have the opportunity to choose from more than 100 educational opportunities, network with hundreds of exhibitors and network with peers and industry leaders from across the world. Registration for the 2022 event will be live by September 17, 2021.

For further information on the guidelines from the California Department of Health, see www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/Beyond-Blueprint-Framework.aspx. For additional information on IPC APEX EXPO 2022, visit www.ipcapexexpo.org. And, for updated COVID protocols at IPC APEX EXPO 2022, visit the FAQ page at www.ipcapexexpo.org/event-information/covid-19.

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International Diary

2021

EIPC @ FED Conference
Bamberg
16 & 17 September

11th EIPC Technical Snapshot Webinar
Registrations via www.eipc.org
22 September

KPCA Korea
6-8 October

12th EIPC Technical Snapshot Webinar
Registrations via www.eipc.org
October

EIPC @ Productronica 2021
Stand B3-529
Messe München
16-19 November

TPCA Taiwan
21-23 December