EC-Council

CYBER BRIEF

OCT 2021

"Cybersecurity is at the heart of every organization, irrespective of the business size and type. An alarming number of cyber breaches disrupted national systems and corporations' operations globally last month. Government and tech giants are investing in cybersecurity infrastructure to raise cyber awareness and strengthen the infrastructure. Just investing is not sufficient; recognizing cybersecurity skills in high school and college students and preparing them for professional competencies can go a long way in addressing the talent drought. Raising awareness and boosting essential cybersecurity skills through our first MOOC series is a small step in that direction."

- Jay Bavisi, President & CEO of the EC-Council Group

Cyberattacks have afflicted private and government security agencies, raising essential questions about strengthening security posture and infrastructure. Last month, there were a series of cyberattacks on national systems worldwide, including, attack on France's visa application website, New Zealand's national postal system website, etc. With the surge of cyberthreats continuing to rise at a dramatic rate, organizations across the globe continue to see a significant increase in cybersecurity spending and a corresponding shortage of skilled labor. This highlights the importance of cybersecurity talent and skills today, given that the talent gap is widening dramatically. To meet the specific demands of the cybersecurity skill shortage, government agencies and corporations across the globe need to take significant steps to expand training partnerships and invest in cybersecurity initiatives. In response to the dire need to boost cybersecurity skills, EC-Council has launched a workforce development program under the Essentials Series - its first MOOC (Massive Open Online Courses) educational series.

With the expanding threat landscape and the sophistication of attacks, it falls on each one of us to keep ourselves current. Updating your security team and assessing your organization's security posture is one way. Keeping yourself updated with the latest type of cyber breaches and types of malware or bugs can be another way to protect your personal and business data. Empower yourself with knowledge and contribute to making cyberspace secure. The October edition of the Cyber Brief offers some critical insights, videos, and infographics for combating cyberthreats. We hope you find these resources valuable, informative, and thought-provoking.

Access EC-Council Cyber Brief Previous Issues »

Penetration Testers

Blog

WHY PEOPLE FAIL THE CIPENT EXAM?

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Ethical Hackers

Blog

HOW TO BUILD A CAREER IN ETHICAL HACKING IN 2021 AND BEYOND

Ethical hacking is emerging as a viable career path for IT and security

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Success Stories

How I Got to a Top 5 Global Bank as a Security Architect Starting with CIEH I Olatunji Taiwo

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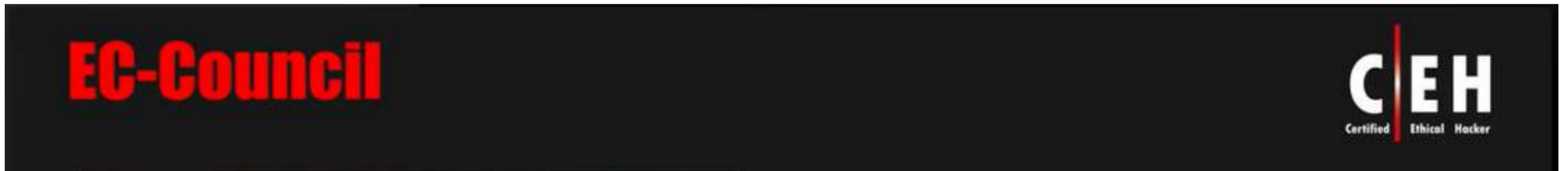

A Career Transition into Cyber Security with Certified Ethical Hacker (Practical) | Maxim Balin

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Why I Hire Certified Ethical Hackers: Erdal Ozkaya, Regional CISO & Chief Cyber Security Strategist

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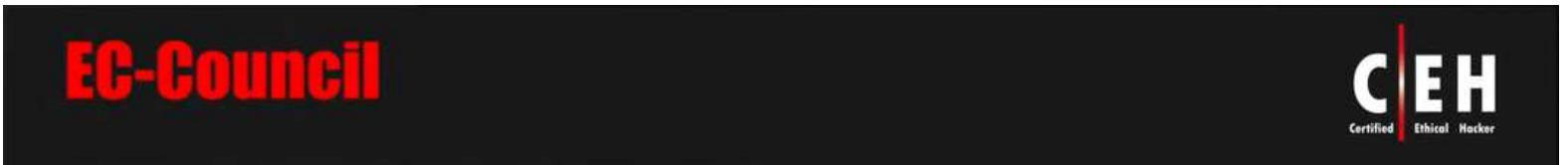
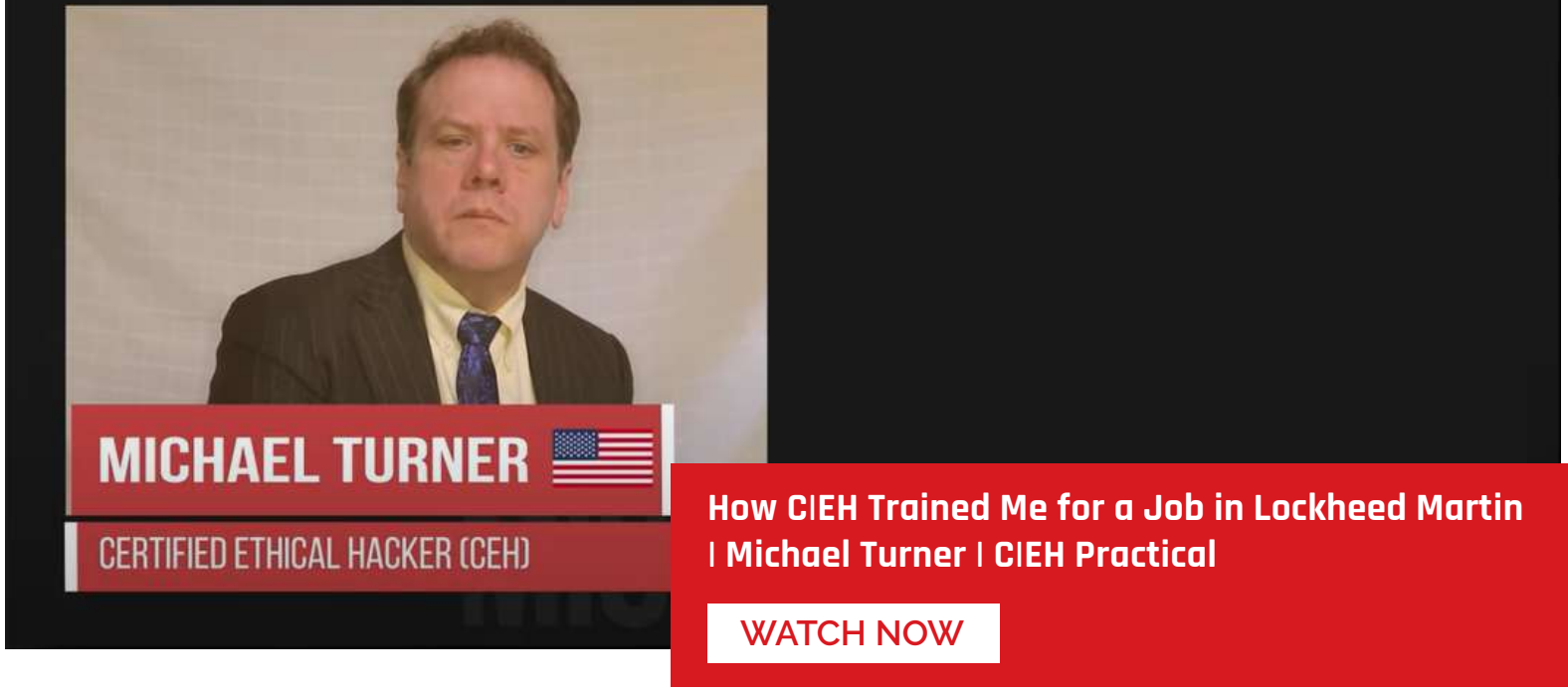
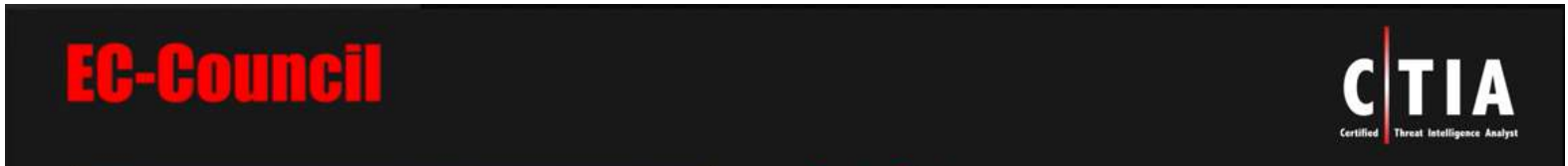




CIEH Practical Scholarship

Threat Intelligence Analysts

Success Story



Boost Your Career in Threat Intelligence with CITIA – John Lim's Journey | EC-Council

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Cyber Forensic Investigator

Blog

How to Become a Successful Digital Forensic Investigator?

Digital forensic investigators play an essential role in solving computer-based crimes...

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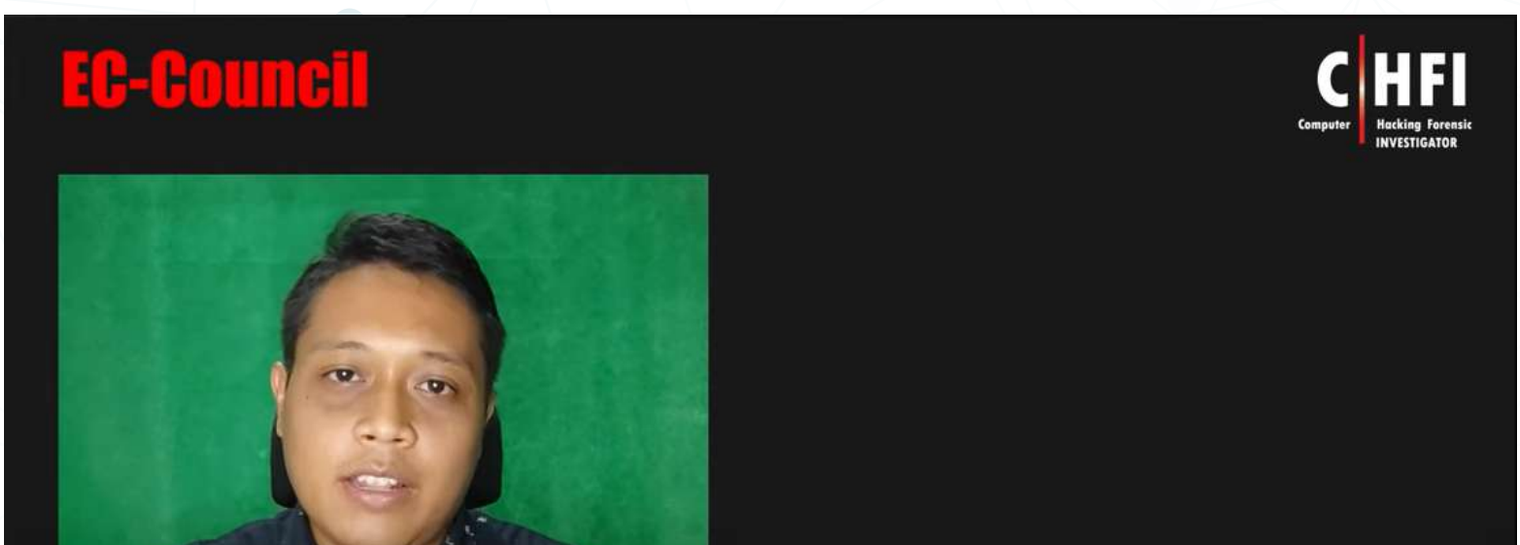
Success Story



Digital Forensics For a SOC Engineer | Ardian Septa Nugraha's Career Journey with CIHFI

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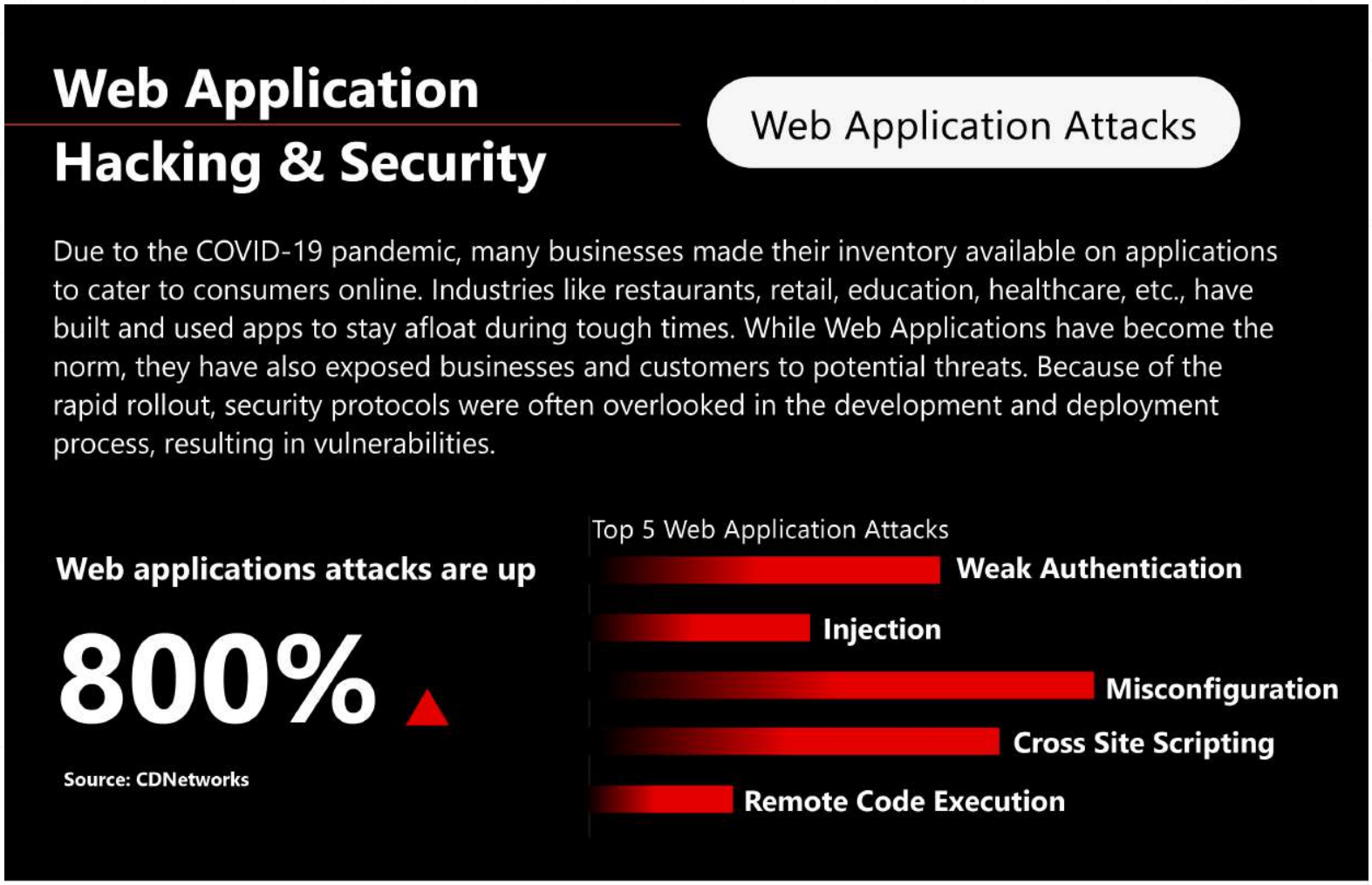
Web Application Hacking and Security

Infographic



Do you build or defend web apps?
Here are five common forms of web application attacks you need to know.

SQL Injection

One of the most popular cyberattack methods, SQL Injection is used to breach the database of an application. Due to the latest updated libraries, the number of these attacks have decreased; however, they still pose a serious threat to countries with weak infrastructure. Lack of web application security solutions can expose you to SQL Injection attacks.

Incidents

11-year-old hacked into a U.S. election website replica in just 10 minutes

Source: pbs.org

SQL injection flaw in Wall Street Journal database led to breach

Source: computerworld.com

Cross-site scripting (XSS)

An XSS vulnerability is a type of injection that allows the hacker to perform unauthorized actions on the user's behalf.

Incidents

British Airways — the second-largest carrier airline in the United Kingdom — faced a data breach in 2018.

Source: bbc.com

PayPal Suffered Cross-Site Scripting -XSS Vulnerability

Source: latesthackingnews.com

Weak Authentication

Brute force login attempts are a result of weak authentication. Hackers try multiple combinations of passwords to gain access to the application.

Incidents

Facebook was breached in September 2018, and over 50 million user accounts were compromised.

Source: techcrunch.com

Cross site request forgery (CSRF)

CSRF attacks intend to trick an unsuspecting user into taking action, like changing their password.

Incidents

Atlassian security flaws could have allowed business app account takeover with one click

Source: techradar.com

Weak Access Controls

As the name suggests, an attacker uses weak access controls and breaches applications' data and its functionality.

Incidents

Air Canada has confirmed a data breach on its mobile app, which the airline said may affect 20,000 people — or 1 percent — of its 1.7 million app users.

Source: techcrunch.com

We've only scratched the surface.
Countless other attack vectors can exploit a web application.

Rise in web application exploits

There are currently **43,986 exploits** (and growing) in the Google Hacking Database. The total number of Common Vulnerabilities and Exposures (CVE) is at a record high, with over 18,000 published in 2020 alone!

Best way to defend - learn to hack

To better understand how the attack vectors work, you need to have a deep understanding of OWASP (Open Web Application Security Project) TOP 10 and beyond. You should have hands-on experience to be an application security professional.

What should you learn?

- Advanced Web Application Penetration Testing
- Advanced SQL Injection (SQLi)
- Reflected, Stored, and DOM-based Cross Site Scripting (XSS)
- Cross Site Request Forgery (CSRF) – GET and POST Methods
- Server-Side Request Forgery (SSRF)
- Security Misconfigurations
- Directory Browsing/Bruteforcing
- CMS Vulnerability Scanning
- Network Scanning
- Auth Bypass
- Web App Enumeration
- Dictionary Attack
- Insecure Direct Object Reference Prevention (IDOR)
- Broken Access Control
- Local File Inclusion (LFI)
- Remote File Inclusion (RFI)
- Arbitrary File Download
- Arbitrary File Upload
- Using Components with Known Vulnerabilities
- Command Injection
- Remote Code Execution
- File Tampering
- Privilege Escalation
- Log Poisoning
- Weak SSL Ciphers
- Cookie Modification
- Source Code Analysis
- HTTP Header modification
- Session Fixation
- Clickjacking

Ready to Learn Web Application Hacking & Security?

Register Today

References:

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https://www.computerworld.com/article/2490318/sql-injection-flaw-opens-door-for-wall-street-journal-database-hack.html
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https://cisomag.eccouncil.org/web-application-attacks-increases-8x-in-h1-2020/

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Market Trends Report: Cloud Forensics in Today's World

Cloud computing is transforming digital and IT infrastructure at an astounding pace...

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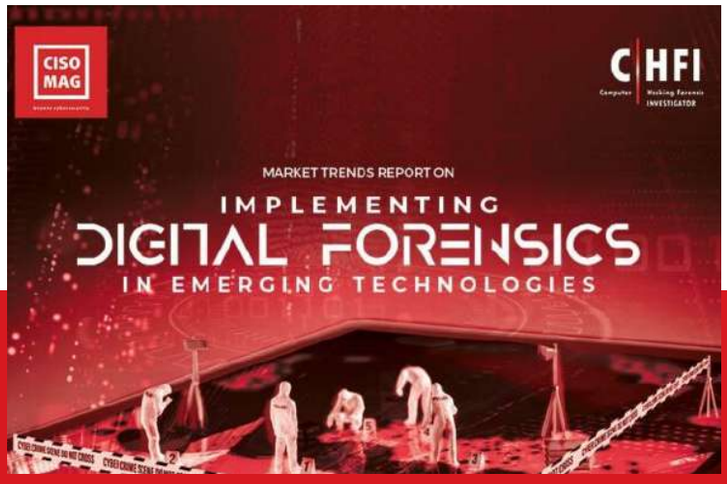

Market Trends Report: Implementing Digital Forensics in Emerging Technologies

Computer Forensics is now known as Digital Forensics and the task of uncovering digital evidence...

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Interviews and Podcasts

Creator of Zero-Trust Model Says Trust Did Not Exist in a Digital World

It seems no security conference or conversation is complete without a discussion on zero trust...

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Expert's Take: Why Organizations Fail to Prepare for Cyberattacks

Failure is not an option. This was NASA's motto for the Apollo space and moon missions in the last century...

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Ransomware Attacks and the Impact on Cyber Insurance

The number of ransomware attacks has increased drastically...

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Malware Through The Green Channel

Ransomware has become synonymous with cyberattacks in the last two years...

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Crisis Management and Resilience in Cybersecurity

Business cyber resilience programs fail when organizations are attacked...

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CodeRed

Cyberattacks are getting increasingly sophisticated, and security vulnerabilities are a significant concern today. It takes unique skill sets to fight cybercrimes and protect organizations - both large and small. CodeRed's Black Friday and Cyber Monday celebrations aim to help cybersecurity professionals and beginners gain new skills to build cybersecurity defenses for their companies and advance their career at a fraction of a cost.

CodeRed's 15 In-Demand Cybersecurity Courses Now Available for Just $1.99 Each »

Cyber Talks Webinars

EC-COUNCIL UNIVERSITY
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CISO MAG

HOW CISOs EFFECTIVELY CLOSE SECURITY GAPS WITHIN YOUR ORGANIZATION

6th October, 2021

8:30 PM IST / 4:00 PM BST / 8:00 AM PST

Dr Asaad Moosa
CISO at BFBS, London, UK

Karl Roberts
Director - Archer IT Limited

How CISOs Effectively Close Security Skill Gap Within Your Organization

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CISO MAG

HOW CAN YOU SECURE THE MODERN API ECOSYSTEM?

20th October, 2021

7:30PM IST / 9:00AM CDT / 7:00AM PDT

Karl Mattson
CISO at Noname Security

How Can You Secure the Modern API Ecosystem?

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CISO MAG

CLOUD SECURITY BEST PRACTICES TO PROTECT DATA IN THE CLOUD

Dr. Wendy Ng
Cloud Security Architect Lead, OneWeb

Cloud Security Best Practices to Protect Data in the Cloud

21st October, 2021

10:30 AM BST | 3:00 PM IST

Satyavathi Divadari
CyberRes Cloud CTO, Micro Focus

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CISO MAG

What is the Importance of Operational Technology Cybersecurity in Technological Advancement?

26th October, 2021

10AM EST / 7:30PM IST / 3PM BST

Mirel Sehic
Global Director Cybersecurity for Honeywell Building Technologies (HBT)

What is the Importance of Operational Technology Cybersecurity in Technological Advancement?

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CISO MAG

Fundamental Causes of Vulnerabilities and How Incident Handling Can Solve Vulnerability Issues

27th October, 2021

10:00 AM EST / 8:00 AM MST / 7:30 PM IST

Stephanie Domas
Director Strategic Security & Communications, Intel Corporation

Ricoh Danielson
Executive Advisory of Incident Response and Digital Forensics – A Cyber Security Firm

Fundamental Causes of Vulnerabilities and How Incident Handling Can Solve Vulnerability Issues

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CISO MAG

VULNERABILITY MANAGEMENT BEST PRACTICES: WHAT YOU NEED TO KNOW

28th October, 2021

4:00PM CET / 7:30PM IST / 7:00AM PST

Andrea Pezzotti
Global Head Vulnerability Management and Technical Risks at Novartis

Vulnerability Management Best Practices: What You Need to Know

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CISO MAG

Data Privacy Exposure and the Cyber Threat Landscape

11th November , 2021

9:00 AM EST / 3:00 PM CET / 7:30 PM IST

John Grim
Head | RDI, VTRAC

Data Privacy Exposure and the Cyber Threat Landscape

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DIGITAL FORENSICS IN 2021: GROWING SCOPE AND EMERGING TRENDS

16th November, 2021

9 AM CDT/ 7AM PDT/ 8:30 PM IST/ 3:00 PM GMT

Ricoh Danielson
Executive Advisory of Incident Response and Digital Forensic for a Private Organization

Sean Pattee
Incident Response Consultant

Digital Forensics in 2021: Growing Scope and Emerging Trends

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CISO MAG

DevSecOps Best Practices You Need to Know to Secure Your Applications

25th November, 2021

4:00 PM EEST / 6:00 AM PST / 7:30 PM IST

Paresh Rathod (PhD)
Technocrat, Innovator, Educator (Laurea-Finland), Co-chair of the European Cybersecurity Organization WG5(Brussels), Expert-Rapporteurs at European Cybersecurity Agency(EU) and Vice-president (IITEDA-UK)

DevSecOps Best Practices You Need to Know to Secure Your Applications

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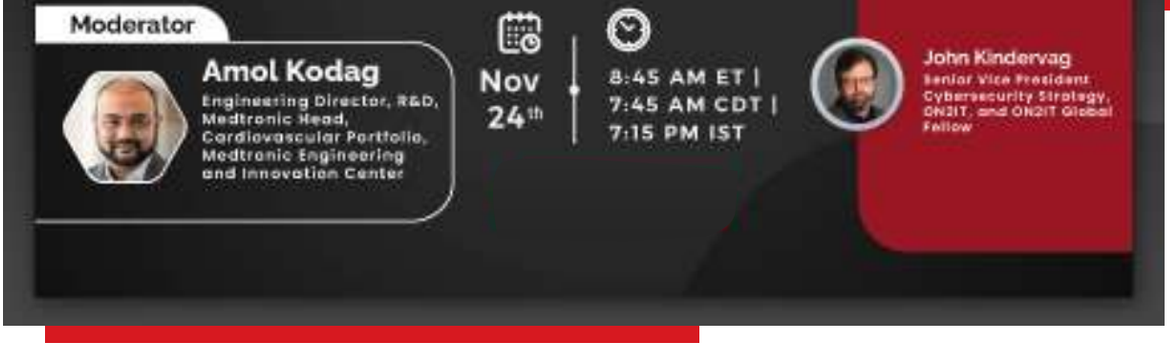
CISO MAG

Zero Trust Network- Going Beyond the Traditional Perimeter Defense

Speakers

Jason Garbis
Chief Product Officer for Appgate

Zero Trust: Securing Access for All Users, From All Locations to All Workloads



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EC-Council Launches a Free Entry-Level Cybersecurity Series the Essentials Series

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EC-Council, a leading cybersecurity certification body...

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In response to the expanding threat landscape...

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EC-Council Partners with MEGA Consulting to Facilitate Career Pathways for Women in Cybersecurity and Technology in KSA

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EC-Council Announces Upcoming Summit on SOC by Global Experts

EC-Council has announced a cybersecurity summit to help SOC teams answer...

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