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**NASSCOM-DSCI**  
ANNUAL INFORMATION  
SECURITY SUMMIT

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15-17 December



Virtual Event



#AISS2021

**EVENT REPORT**

# Table of Contents

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About DSCI	03
AISS 2021 Theme	04
Bird's Eye View	05
Inaugural	06
Workshops	07
Plenary	15
Speakers	20
Track Sessions	23
Keynotes	25
AISS Highlights	30
Report Launch	30
Hackathon	31
Innovation Box	32
Target-DSCI-EWF Workshop	32
Digital Forensics Sub-Summit	33
Excellence Awards	36
Sponsors	41
Partners	42
Exhibitors	42



## About DSCI

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Data Security Council of India (DSCI) is a premier industry body on data protection in India, setup by NASSCOM®, committed to making the cyberspace safe, secure and trusted by establishing best practices, standards and initiatives in cyber security and privacy. DSCI works together with the government and their agencies, Law Enforcement Agencies (LEA), industry sectors including IT-BPM, BFSI, CII, telecom, industry associations, data protection authorities and think tanks for public advocacy, thought leadership, capacity building and outreach initiatives.

For more information, visit: [www.dsci.in](http://www.dsci.in)

# AISS 2021 Theme

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Amidst the rapidly changing digitization landscape and the highly volatile cyberspace, it becomes important to stay current on the present context and anticipate the challenges in the offering. AISS agenda is typically characterized by presence of a diverse set of themes, sub themes, topics and sub-topics, multiple tracks, varied session formats and plethora of activities and experiences that make up for a rich three-day engagement and learning for the delegates. This edition shall entail deliberations organized around the broad areas of cyber security leadership, enterprise security strategy, securing third parties and nth relations, security technology & architecture, digital risk management, cyber resilience, expectations and obligations around data protection, security consolidation, platformization, security operations excellence et. al.

The core and fundamental intent of the Summit is to enable, facilitate, organize and orchestrate collective learning, experience sharing, impactful dialogues, differential diagnoses of the topical security & privacy issues and challenges, consensus building and future casting. This enablement would happen by capitalizing on the elements such as perennial ideas, contextual awareness, technological capabilities, problems and use cases.

An eclectic line up of speakers and subject matter experts from across the board and different parts of the world shall come together to share their perspective as part of different sessions and formats.

AISS 2021 hosted sectoral meetups, sub summits, parallel track sessions, fire side chats, short presentations, masterclasses and host of other formats.

The Summit also hosted the eleventh edition of the Excellence Awards which have been celebrating the noteworthy contributions of individuals and organizations to the subject and profession of Cyber Security & Data Protection.

# BIRD'S EYE VIEW



## KEY HIGHLIGHTS

**230+**  
Global Speakers / Leaders

**42**  
Sponsors, Partners & Exhibitors

**09**  
Deep-dive Workshops

**50+**  
Women Speakers

**2000+**  
Attendees

**20**  
Keynote Presentations



# INAUGURAL SESSION

Inaugural session of the sixteenth AISS took stock of the key developments in the year 2021 that were instrumental in shaping the domains of Cyber Security & Data Protection. There was also a significant mention of the trends around the evolution of technology that has been making substantive contributions to solution engineering in a complex and dynamic cyberspace.

Key points mentioned:

- Cyber risk has now started prominently featuring as part of the board room deliberations of several enterprises.
- With the cloud first policy, organizations are tasked with greater responsibilities for coming up with a comprehensive cloud security strategy. This essentially extends to adoption of all the emerging technologies.
- The role of a CISO has been undergoing constant churn. Expectations from security leaders for comprehensively protecting their organizations' respective attack surfaces have been mounting with every passing day. There is also an urgent need to strengthen the CISO function and empower them further so that they are better placed in taking prompt and proactive decisions.
- India's Cyber Security industry has been significant strides with the products and services segment clocking robust revenue growth YOY. This is being fuelled by constant innovation and strong research work.



**Ms. Rama Vedashree**  
CEO, DSCI



**Mr. Rajendra S Pawar**  
Chairman, DSCI

# WORKSHOPS

1

Masterclass by Microsoft - Holistic Approach to Information Protection, Governance, Risk Management & Compliance

2

Masterclass by Tata Communications - Building a Smarter SOC - Practical applications of the MITRE ATT&CK Framework

3

Masterclass by Palo Alto Networks - Addressing Cloud Security Blinspots with a platform centric approach

4

Masterclass by Synopsys - Intelligenc “ing” your AppSec Program- Building Orchestration and Correlation

5

Masterclass by McAfee Enterprise - A Practitioners Guide to Extended Detection and Response (XDR)

6

Masterclass by Tenable - Anatomy of a Modern Ransomware Attack

7

Masterclass by Dell - VMware Carbon Black - Securing Endpoints & Workloads

8

Masterclass by Forcepoint - Workforce Protection with Zero Trust Approach

9

Masterclass by Cisco - Simplify Your Security with Integration and Automation

# 1.

## Masterclass by Microsoft - Holistic Approach to Information Protection, Governance, Risk Management & Compliance



Presented by:

- Smita Jain, Technology Specialist – Cybersecurity, Microsoft India

Organizations need to think holistically across data access, protection, DLP, backup, availability, audit, supervision, privacy, governance, discovery, compliance management diverse objectives to de-risk their data estate. The Microsoft approach to information protection & governance is: know your data, protect your data, prevent data loss, and govern your data. IDC estimates that in 2025, the world will create and replicate 163ZB of data, representing a tenfold increase from the amount of data created in

### Key Takeaways:

1. Microsoft helps organizations review existing data strategy and associated risks across a fragmented landscape, simplify GRC objectives, experience Integrated Information Protection & Compliance solutions, and lay the foundation for better PDPB preparedness.
2. Organizations face various compliance challenges and identifying where to start can be a daunting task. Microsoft Information Governance and Records Management (IG/RM) is a solution to this.
3. SharePoint Syntex is a new knowledge solution that can be used for document understanding and form processing to address structured and unstructured content by easily assigning a retention label created in Microsoft 365 compliance centre, leveraging the classification in SharePoint Syntex.
4. The difference between Microsoft 365 and other service providers is that we can automatically map third-party accounts with its accounts via Active Directory, reconstruct Instant Bloomberg chats, along with advanced eDiscovery and DLP.
5. Microsoft demonstrates their leadership in innovative data governance, archiving, eDiscovery, and compliance solutions:
  - a. Protect and govern data wherever it lives
  - b. Identify and take action on critical insider risks
  - c. Simplify compliance and reduce risk
  - d. Investigate and respond with relevant data

2016. In the past, organizations primarily dealt with documents and emails. But now, they are also dealing with instant messaging, text messaging, video files, images, and DIO files. Customers must follow several requirements, solutions, and regulations because the market is very fragmented and confusing. It is essential for organizations to collect customer data. Microsoft IG/RM are built-in, intelligent capabilities that help to retain, delete and store information and records across workloads in a compliant manner automatically.

### The key points from the masterclass are:

- a. Compliance Manager
- b. Information Governance
- c. Applies to Office 365 Workload
- d. Records Management
- e. Auto-classification
- f. SharePoint Syntex
- g. Information Archiving Flow
- h. Microsoft Information Protection



## 2.

# Masterclass by Tata Communication | Building a Smarter SOC - Practical applications of the MITRE ATT&CK Framework



Presented by:

- Avinash Prasad, VP & Business Head, Managed Security Services, Tata Communications Limited
- Anup Haridas, Deputy General Manager, Managed Security Services, Tata Communications
- Ramesh Kumar N, Deputy General Manager, Security Engineering, Tata Communications

MITRE ATT&CK as a framework how it help us to building maturity in cloud SOC services. In session there is discussion about how MITRE ATT&CK framework help to create smarter SOC for next generation. There are other frameworks as well but MITRE combining offensive and defensive security aspects. There was a discussion on how MITRE align to smarter SOC.

Smarter SOC focuses more on automate the response and creating strong information base to determine TTP's. Results in reducing the human intervention at least for the first level of response.

### Key points:

- Threat Intelligence should be specific to vertical in which it operates.
- Proactive threat hunting.
- Automate the response
  - High severity alert: - Automate maximum number of high severity alerts
  - Low severity alert: - Search for all known attacks for triggered TTP's.
- Create use case library.
- Exchange of information between Blue team and Red team.



### 3.

## Masterclass by Palo Alto Networks - Addressing Cloud Security Blindspots with a platform centric approach



Presented by:

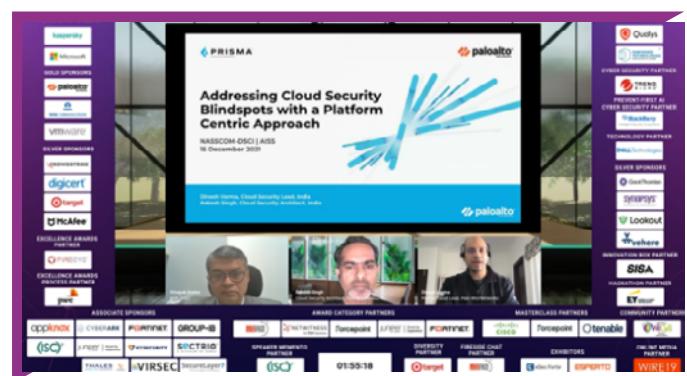
- Rakesh Singh, Cloud Security Architect, Palo Alto Networks
- Dinesh Varma, Prisma Cloud Lead, Palo Alto Networks
- Vinayak Godse, SVP, DSCI

The focus of this masterclass was on mitigating blind spots in cloud through platform centric approach. With the increase in cloud services and rising data storage over the cloud, security and privacy issues have been a key challenge for cloud users. Today's enterprises operate several cloud services such as cloud apps, Paas, IaaS, SaaS, etc. Cloud asset management is need of an hour service/product required by enterprises to track and maintain the cloud assets.

1. Moving to a public cloud enables enterprises to have a dynamic environment, security as a shared responsibility, and decentralised security (DevOps driven)
2. Cloud is modernizing the software development lifecycle by the following transition— waterfall to agile, monolith to microservices, batch release to DevOps, and custom to common cloud operating model

3. Risk is present across cloud environments and applications through insecure IAM credentials, host vulnerabilities, insecure networks, and compliance risks

Key security challenges in cloud are— data privacy and security, compliance, host and container security, etc.



### 4.

## Masterclass by Synopsys - Intelligenc "ing" your AppSec Program- Building Orchestration and Correlation



Presented by:

- Pavan Kumar Boggarapu, Senior Sales Engineer, Synopsys Inc
- Vinayak Godse, SVP, DSCI

In today's world, most businesses run on the web and mobile apps, which includes personal entertainment delivery, e-commerce, internet banking, remote work applications, etc.— the need of protecting web application is the priority of enterprises.

1. Modern software is seen complex software design has changed to microservice and serverless, a software is built and delivered faster, and deployed in number of ways (cloud, container)
2. There are a number of AppSec tools, and it continues to increase such as— SAST, DAST, SCA, IAST, container security tools, network vulnerability analysis tools, etc.
3. Application security orchestration and correlation deliver three primary benefits— efficiency, scalability, and accountability



Presented by:

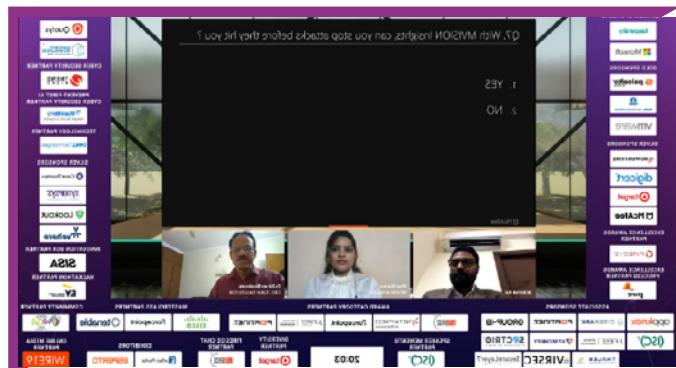
- Hiral Sharma, Sr Cyber Security Advisor – India, McAfee Enterprise
- Abhishek Rai, Cyber Security Consultant, McAfee Enterprise
- Dr. Sriram Birudavolu, CEO - Cyber Security Centre of Excellence, DSCI

The Security Operations Centre (SOC) serves as a core function in an organization's cybersecurity charter. However, it is being given away by 1/3rd of the security professionals claiming an increase in its difficulty. The McAfee Enterprise masterclass aims to discuss the need for a multi-vector detection, remediation, and response framework in the SOC along with evolution & importance of XDR in the SOC. It covers typical security operations, industry view on XDR, platform and approach, use cases and demonstration.

McAfee's approach to XDR is through a method involving the following steps:

- Attack Planning
- Attack Launched
- You are Hit
- Attack Objective Met
- Attack Complete

It also suggests an increase in proactive and reactive efforts. McAfee's MVISION XDR Pillar mitigates cyber risks and improves SOC effectiveness.



## Key Takeaways:

1. The analysis of XDR focuses on enhancing SOC efficiency and productivity, leveraging proactive and actionable intelligence, gaining unified visibility and control across multiple attack vectors, and reducing costs and resources while increasing SOC capacity.
2. Some of the biggest SIEM challenges for organisations are it being too costly, exceedingly resource intensive, requiring far too much expertise and a lengthy deployment cycle, and various other concerns.
3. 31% of organisations spend most of their time addressing high priority/emergency threats and not enough on a comprehensive strategy and improvement for threat detection and response.
4. Organisations need XDR because EDR is network-blind, SIEM can be endpoint-blind, most organisations are still cloud-blind, security teams struggle with integrity threat intelligence, security alerts/events are incomplete and lack context, and complex investigations require specialized expertise.
5. McAfee positions itself well by providing native integrations with industry leading Threat Intel and Device-to-Cloud portfolio, large MVISION marketplace and extensive 3rd party SIA partner ecosystem, industry-leading Endpoint EPP/EDR to build upon, and broad telemetry across endpoint, network and cloud.
6. McAfee XDR differentiates itself from competitors through proactive actionable prevention with MVISION insights and unified posture, data-aware telemetry for faster, prioritized alert triage and faster response decisions with AI guided investigations to level-up SOC analysts.

# 6.

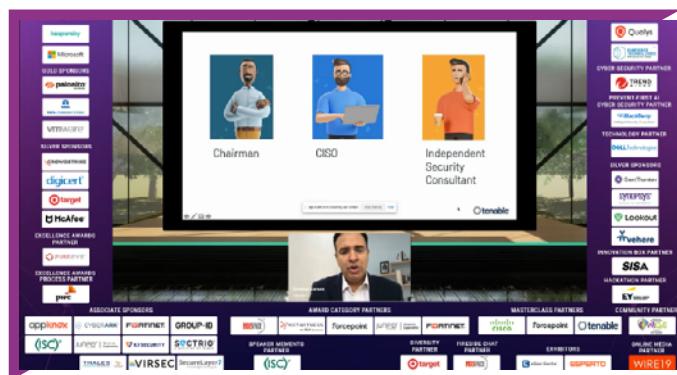
## Masterclass by Tenable - Anatomy of a Modern Ransomware Attack



Presented by:

- Shankar Sareen, Head - Marketing, India & SAARC, Tenable
- Sudeep Das, System Engineering Lead, Tenable India and SAARC
- Zishan Patel, Senior Security Engineer, Tenable
- Kartik Shahani, Managing Director, Tenable India and SAARC
- Ollie Kwan, Senior Director - Sales, Tenable Asia Pacific
- Kenneth Teo, Senior Security Engineer, Tenable

This masterclass employed an intriguing role play based approach to help the delegates comprehend the anatomy of a modern ransomware attack. It accentuated the role played by risk-based vulnerability management in thwarting perilous ransomware attacks.



### Key discussion areas:

1. Roleplayed by risk-based vulnerability management (RBVM) in reducing vulnerabilities across the attack surface by prioritizing remediation based on the risks they pose to an organization
2. RBVM affording complete visibility into the attack surface, including modern asset types like cloud, operational technology (OT), IoT, serverless and containers
3. Risk-based vulnerability management leveraging machine learning to correlate asset criticality, vulnerability severity and threat actor activity. It helps cut through vulnerability overload so that the organization can focus on the relatively few vulnerabilities that pose the most risk to its enterprise
4. Attack paths can be closed by hardening AD, reducing, or fixing misconfigurations, and assessing over-privileged users.

# 7.

## Masterclass by Dell - VMware Carbon Black - Securing Endpoints & Workloads



Presented by:

- Neha Dhyani, Senior Solution Engineer, VMware Carbon Black

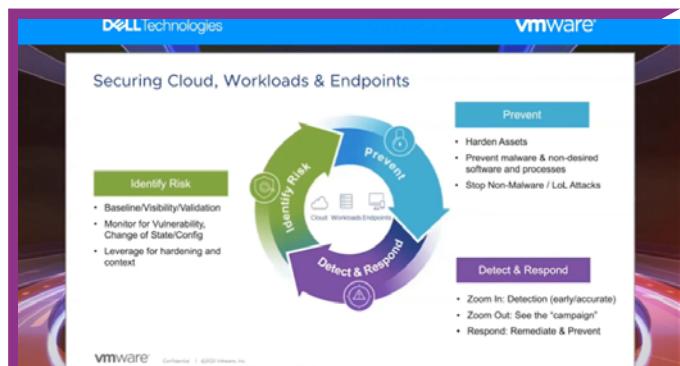
This session talks about securing the endpoint using the VMware carbon-black cloud security solution which is based on SaaS. Initially discussed about importance of endpoint security and awareness to people who are not much aware of technologies and working remotely. Also considering how risk is identified, prevented, detected and responded.

The main focus of session was VMware carbon-black solution which provide security to cloud, workload and endpoints. As industries are moving towards the cloud-based solution to enhance their operation so it important to provide security to assets which is distributed across different geographical locations.

### Key points:

- a. Provides host isolation.

- b. VMware Carbon black solution has different layers of security.
- c. Millions of sensors distributed across globally to detect threat.
- d. Platform independent endpoint security.
- e. Single policy engine.



# 8.

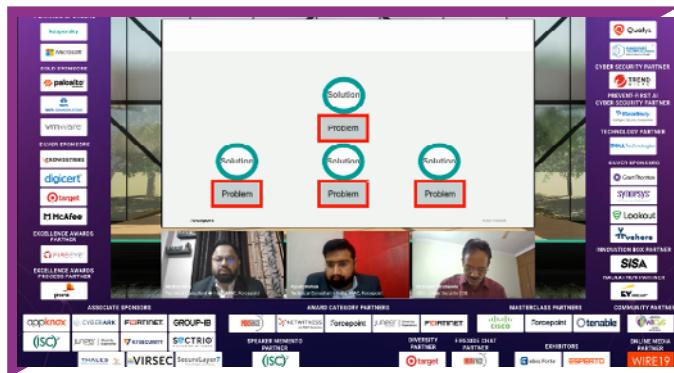
## Masterclass by Forcepoint - Workforce Protection with Zero Trust Approach

Presented by:

- Akshay Garg, Technical Consultant – India, APAC, Forcepoint
- Ayush Mehan, Technical Consultant – India, APAC, Forcepoint

**Forcepoint**

The increased adoption of remote work with the onset of the pandemic has accelerated the need to protect people and applications, making it a business transformation rather than just a digital transformation. Forcepoint is the only company that has instrumented capabilities to deliver automated mitigation of the risk, with the motto to introduce Forcepoint's data-centric approach with risk-adaptive capabilities to all their products. They take the "right of loss" and "left of loss" approaches to reduce risk exposure. Forcepoint's Dynamic User Protection provides rich visibility into risky user behavior and modern visibility for the modern network. This approach improves high-risk behavior detection in organizations by 35% at the initial phase of development.



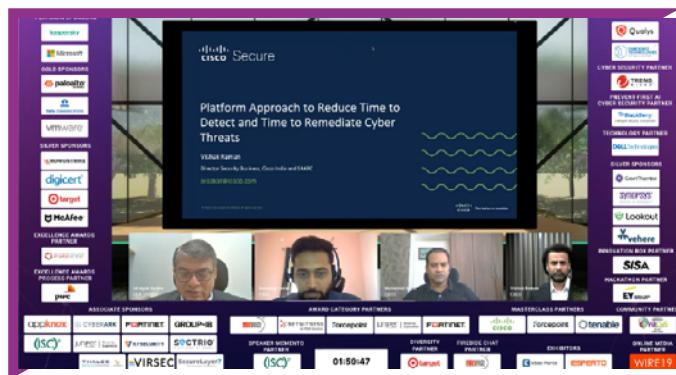
### Key Takeaways:

1. Attributes like hybrid capability, continuous assessment and data-first make Forcepoint unique.
2. The bank benefits through evolving network topology, transformation journey, platform consolidation, and operational advantage/efficiency.
3. The release of DUP last year allowed Forcepoint to successfully manage to offer deep visibility and meaningful alert capabilities to the cloud and making UAM more accessible to the broader market.
4. The purpose of Forcepoint's approach is to improve detection & response time. As a user's risk level increases, their controls need to be adjusted dynamically.
5. The key use cases supported are user activity monitoring, insider threat protection and a complete overview of user actions from the device to the edge, to name a few.

Presented by:

- Vishak Raman, Director, Security Business - India & SAARC, Cisco
- Sandeep Yadav, Technical Solutions Architect - Cyber Security, Cisco
- Mohamed Asraf Ali, Leader, Systems Engineering, Cyber Security Sales - India & SAARC, Cisco
- Vinayak Godse, SVP, DSCI

Security can be simplified with the integration of automation across the attack chain. Security automation refers to the use of technology to accomplish activities with little human intervention in order to integrate security procedures, applications, and infrastructure.



1. Security operation in real world includes— identify, protect, detect, respond, and recover
2. Strategy for cyber threats defence includes— complete visibility, prioritized threats, automated investigation, and proactive hunting
3. XDR is a consolidation of multiple security tools in a single cohesive security platform to deliver enhanced detection and response results
4. XDR enables enterprises to mitigate modern threats and attacks such as ransomware and zero-day attacks by implementing a proactive approach that includes prevention, detection, and response

# Plenary Sessions

1

How to Stop Ransomware Pandemic? Basic Steps and Advanced Approaches

2

PDPB: Enabling Personal Liberty, Digitization and Innovation

3

PDPB & Cloud Strategy ...Program and its Benefits

4

Fraud Frontiers...rising digital footprints and fraud possibilities

# 1.

## How to Stop Ransomware Pandemic? Basic Steps and Advanced Approaches

Security can be simplified with the integration of automation across the attack chain. Security automation refers to the use of technology to accomplish activities with little human intervention in order to integrate security procedures, applications, and infrastructure.

### Key discussion areas:

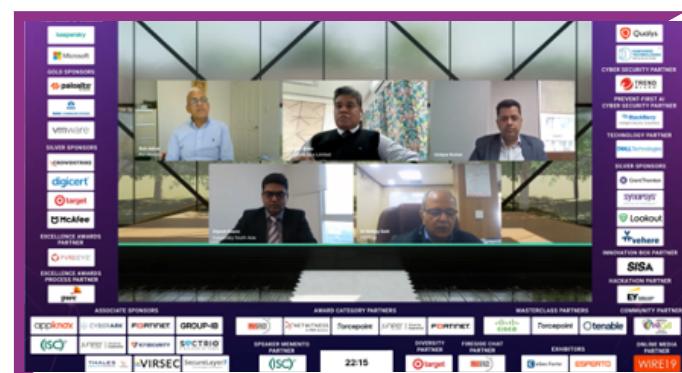
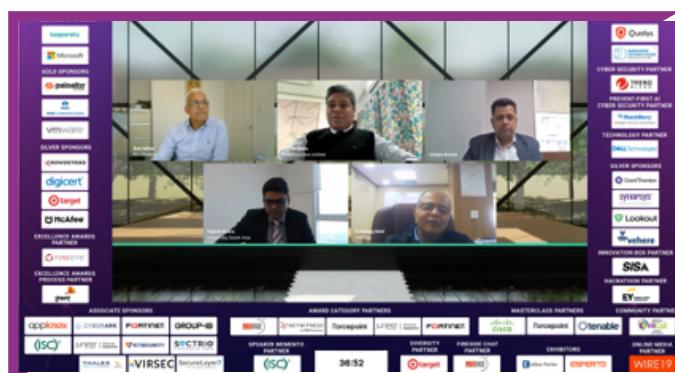
1. Ransomware has now assumed proportions of a pandemic. Also, the COVID pandemic has dramatically escalated the use of ransomware attacks
2. There is a need to coordinate efforts to develop a single, widely adopted Ransomware Framework that will help organizations prepare for and respond to ransomware attacks
3. Ransomware protection starts with fundamental security practices bolstered by customized strategies informed by the prevailing context
4. There is also a strong case to pursue the triple helix model of collaboration (collaboration amongst industry, government and research community) to bridge the gap

### Moderator:

- Sanjay Bahl, Director General, CERT-In

### Speakers:

- Mathan Babu Kasilingam, CISO, Vodafone Idea Limited
- Dipesh Kaura, General Manager, Kaspersky South Asia
- Bob Adhar, BE, MBA, CISSP, Founder & CEO, Randtronics
- Unique Kumar, Group CISO, CK Birla Group



## 2.

## PDPA: Enabling Personal Liberty, Digitization and Innovation

In light of the impending privacy legislation of the country, this panel endeavoured to deliberate the recommendations given by the Joint Parliamentary committee for India's Personal Data Protection Bill.

### Key discussion areas:

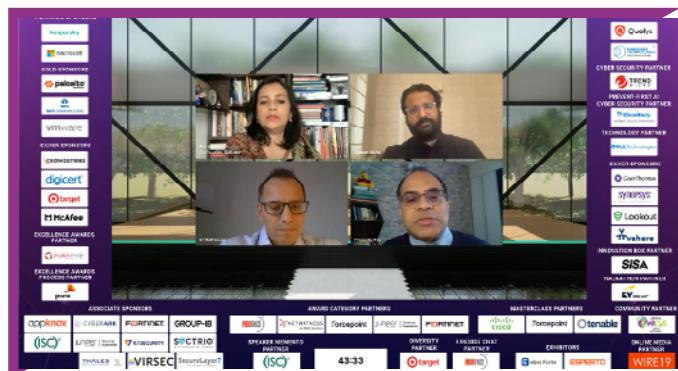
1. Key elements to be covered as part of operationalising right to privacy through a comprehensive legislation
2. Importance of horizontal scope; ensuring continuity of protection in case of data transfers; effective oversight/enforcement by an independent DPA
3. Data transfers – key GDPR instruments: adequacy findings, model data protection contracts (SCCs)).
4. Accountability and Transparency – oversight and enforcement as a (necessary) complement to accountability; key role of independent DPA

### Moderator:

- Prasanto Roy, Senior Director, FTI Consulting, Inc.

### Speakers:

- Shinjini Kumar, Co-Founder, SALT
- Amber Sinha, Executive Director, The Centre for Internet and Society
- Ralf Sauer, Deputy Head of Unit 'International Data Flows and Protection' in the Directorate-General for Justice and Consumers at the European Commission



# 3.

## PDPB & Cloud Strategy ...Program and its Benefits

Data within the organization's boundaries certainly creates the perception of ownership. However, due to various reasons such as cost-effectiveness, enhance productivity, increased agility, and innovation possibilities movement to cloud is advocated. In the paradigm of cloud computing, data is increasingly moving shared cloud infrastructure, going beyond organizational boundaries. Organization should take careful steps while moving to the cloud for ensuring ownership over its data. The proposals, provisions, and ideas practiced and discussed to in devising privacy obligations and liabilities need to be comprehended well by the industry. The draft personal data protection bill (PDPB) derived its many ideas and provisions discussed across the globe while regulating privacy.

### **Key Takeaways:**

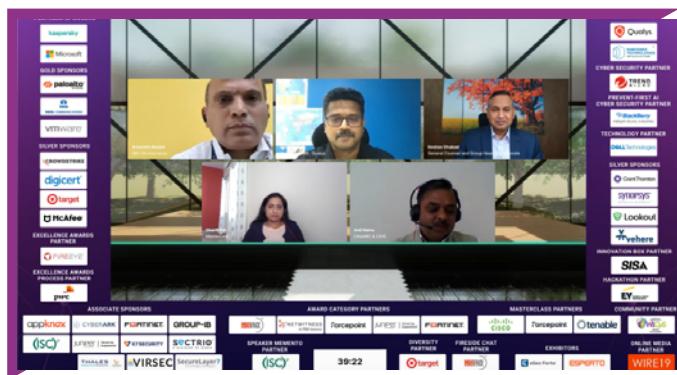
1. Organizations should take an effort of discovering information that can potentially be qualified as personal information. Identifiable personal information will determine the scope of the application of data protection regulation
2. Cloud adoption help organisations meet their data privacy and security needs, as data regulatory environments continue to evolve across the world
3. Organizations need to be mindful of the consideration that need to be taken into account while entering a data processing agreement in context of cloud
4. Performing Privacy risk assessment and management while onboarding a CSP is critical part of a cloud strategy in the light of the evolving data privacy regulations

### **Moderator:**

- Anil Nama, CIO, Cloud4C & CtrlS

### **Speakers:**

- Sreenath Modali, DPO, SBI Life Insurance
- Sherill Pal, Senior Counsel, Privacy and Data Protection, Mastercard
- Keshav Dhakad, General Counsel and Group Head of Corporate, External and Legal Affairs, Microsoft India
- Deepak Naik, Vice President - Cloud Engineering and Operations, Qualys



# 4.

## Fraud Frontiers...rising digital footprints and fraud possibilities

As seen the world over, cybercrimes are on the rise in India too. According to 2020 statistics report Volume -II published by National Crimes Record Bureau (NCRB), MHA on Crime in India, a total of 50,035 cases were registered in 2020 under Cybercrime's head, showing an increase of 11.8% in registration over 2019 (44,546 cases). This is because of the rise in social Media frauds, online financial frauds, data breaches, online gambling frauds, fraudulent loan apps, cryptocurrency related frauds, ransomware, and phishing, etc. This panel discussion was focused on addressing the key issues & challenges faced while investigating the above-said cybercrimes & highlighted the new security challenges that are seen especially in dealing with digital payments & best practices to prevent the same.

### Key Takeaways:

1. Ransomware authors are not only developing new variants of ransomware, but they are also providing Ransomware as a Service (RaaS).
2. New variants of ransomware can encrypt critical and essential workloads but at the same time, those are advanced enough to identify other data backups, evade endpoint security solutions, conduct data exfiltration, evade sandboxing tools, delete the backups etc.
3. In the digital payments space, the infrastructure security continued to be robust, but at the same time, the frauds are happening through the extensive use of social engineering by cybercriminals to commit identity theft, account takeover, etc., causing inconvenience to the consumers.
4. Digital payment frauds are becoming one of the major concerns, even with the network level security & 2-factor authentications. Law Enforcement must join hands with digital payment gateways/payment aggregators to determine the right mechanism to curtail digital payment frauds.
5. Deepfake technology is an escalating cyber security threat to organizations. Cybercriminals are investing in Artificial Intelligence (AI) and machine learning to create synthetic or manipulated digital content (including images, video, audio, and text) for use in cyber-attacks and fraud. The criminals are using deepfake enhanced social engineering to lure Victims effectively.
6. Artificial Intelligence's growing pervasiveness gives rise to "adversarial AI," as attackers exploit machine learning models.
7. Collaborations between Law Enforcement & Intermediaries are very much important for the attribution of cybercriminals.
8. Adoption of the Public-Private Partnership (PPP) model may help in capacity building.
9. Setting up centralized fraud management systems or unified fraud management to ensure a single strategy to detect and prevent fraud.

### Moderator:

- Prof. V Sridhar, IIIT Bengaluru

### Speakers:

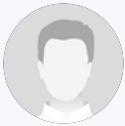
- Dr. Balsing Rajput IPS, Deputy Commissioner of Police, Technology and Crime Prevention, Mumbai Police
- Anuj Bhansali, Head-Trust & Safety, PhonePe
- Tamaghna Basu, Co-Founder & Chief Executive Officer, DeTaSECURE



# EVENT SPEAKERS



**Abhishek Rai**  
Cyber Security Consultant,  
McAfee Enterprise - India



**Aditya Agarwal**  
Country Manager - India &  
SAARC, RSA



**Agnaldo Dsouza**  
CISO, Kotak Mahindra Bank



**Agnidipta Sarkar**  
Group CISO, Biocon



**Ajay Kumar Dubey**  
Country Head - Mid Market and  
Channels, Forcepoint



**Ajay Prakash Sawhney**  
Secretary, MeitY



**Akshay Garg**  
Technical Consultant - India,  
APAC, Forcepoint



**Akshay Garke**  
Partner and Leader - Cyber,  
Grant Thornton Bharat LLP



**Alain Sanchez**  
EMEA CISO & Senior  
Evangelist, Fortinet



**Amarjeet Khanuja**  
CISO, Star Health and Allied  
Insurance Co. Ltd.



**Ambarish Kumar Singh**  
CISO, Godrej & Boyce



**Amber Sinha**  
Executive Director, The Centre  
for Internet and Society



**Amit Dhawani**  
CISO and DPO, Birlasoft



**Amitava Mukherjee**  
Director - Cybersecurity,  
Siemens



**Amol Pitale**  
Managing Director, Ankura  
Consulting



**Amrita Bhanja**  
Automotive Security Tester,  
Escrypt



**Anagha Mujumdar**  
BFSI Head,  
Trend Micro India



**Anand Pande**  
Vice President & CISO,  
GSTN



**Anil Nama**



**Dr. Anirban Sengupta**



**Anuj Bhangali**  
Head - Trust & Safety,  
PhonePe



**Arvind Sivaramakrishnan**  
Chief Information Officer,  
Apollo Hospitals



**Asheeta Regidi**  
Associate Director, Policy,  
Cashfree



**Ashish Tandon**  
CEO, Indusface



**Ashutosh Bahuguna**  
Scientist, Indian Computer  
Emergency Response Team  
(CERT-in)



**Atanu Niyogi**  
Head - Cyber Security (IoT, IoT  
& Products), L&T Technology  
Services



**Avinash Prasad**  
VP & Business Head,  
Managed Security Services,  
Tata Communications Ltd.



**Ayush Mehan**  
Technical Consultant - India,  
APAC, Forcepoint



**Babitha B P**  
CISO, CSB Bank Ltd.



**Dr. Balsingh Rajput**  
DCP-Technology and Crime  
Prevention, Mumbai Police



**Dr. Bharat Saraf**  
Director - Privacy, PhonePe



**Bithal Bhardwaj**  
Group CISO, GMR Group



**Bob Adhar**  
BE, MBA, CISSP, Founder  
& CEO, Randtronics



**Brenda Bjerke**  
Senior Director, Cybersecurity,  
Target



**BS Bindhumadhava**  
Senior Director, CDAC  
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Bangalore Section



**Chandan Pani**  
CISO, Mindtree



**Charles Gillman**  
Head of Information Security,  
Moula



**Cherian Samuel**  
Research Fellow, Manohar  
Parrikar Institute for Defence  
Studies and Analyses



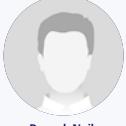
**Prof. Dr. D. Janakiraman**  
Director, IBRT



**Debadish Jyotiprakash**



**Debdeep Mukhopadhyay**



**Deepak Naik**



**Devesh Verma**



**Dhananjay Khanna**



**Dharshan Shanthamurthy**



**Dilip Panjwani**



**Dinesh Varma**



**Dipesh Jain**



**Dipesh Kaura**



**Durga Prasad Adusumalli**



**Don Tan**



**Frank Morris**



**Ganesan Ramani**



**Garima Gupta**



**Gaurav Agarwal**



**Gurprit Singh Grewal**



**Gyan Pandey**



**Harshit Agarwal**



**Heena Mukadam**



**Himanshu Mehta**



**Hiral Sharma**



**Huzefa Motiwala**



**Iftekhar Hussain**



**Inès Herbosch**



**Isabel Barberá**



**Ivana Bartoletti**



**Jaspreet Singh**



**Jayant Gupta**



**Jayesh Kumar Warier**



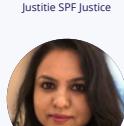
**Jitendra Purwani**



**Joe Robertson**



**John McClurg**



**Joyce Rodriguez**



**K M Reddy**



**Kalpesh Doshi**



**Dr. Karpagam Vilvanathan**  
Professor, Sri Ramakrishna Engineering College, Coimbatore



**Kartik Shahani**  
Managing Director, Tenable India and SAARC



**Kartik Shinde**  
Partner – Cybersecurity, EY



**Kavitha KJ**  
Release Train Manager, NatWest Group



**Kenneth Teo**  
Senior Security Engineer, Tenable



**Keshav Dhakad**  
General Counsel and Group Head of Corporate, External and Legal Affairs, Microsoft India



**Keyur Desai**  
CIO-Essar Ports & Shipping and Head InfoSecurity – Essar



**Kumar KV**  
Group Head, Information Technology, Narayana Hrudayalaya Ltd



**Kunal Sehgal**  
Former Managing Director, Global Resilience Federation, APAC



**Lalit Kalra**



**Lekshmi Nair**  
Managing Principal, SIG Consulting, Synopsys Inc



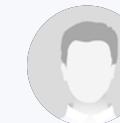
**Linda R. Dolceamore**  
Chief Leadership Development Officer, Executive Women's Forum



**Loga Murugan T V**  
Head - Global Privacy Office, TCS



**Dr. Lopa Mudraa Basu**  
Advisor, Cloud Security Alliance APAC Research Advisory Council



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VP & CISO, DMI Finance Private Limited



**Manish Sinha**  
Director Sales Engineering-India and SAARC, McAfee Enterprise



**Manoj Nayak**  
CISO, SBI Life Insurance Co. Ltd.



**Marco Rottigni**  
Chief Technical Security Officer EMEA, Qualys



**Marlon Domingus**  
DPO, Erasmus University Rotterdam



**Mathan Babu Kasilingam**  
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Head - IT Infrastructure and Cyber Security, Marico



**Meetal Sharma**  
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**Mike Nelson**  
VP, IdT Security, DigiCert



**Mohammed Asraf Ali**  
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**Mohit Ramlal**  
M.S (BITS Pilani) Msc (Physics), CISSP, Founder & CEO, Ramognee Technologies



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Head of Product Management, Mobile Financial Solutions, Comviva



**Moon Elvangel**  
Industrial Networks and Cybersecurity - Senior Consultant



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GM-IT,

Oil India Limited



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**Murali Rao**  
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**Muthu Raja Sankar**  
Managing Director- Managed Security Services, Accenture



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CISO, Bank of India



**Nandi Dhama Kishore H.N.**  
Assistant Vice President, K7 Threat Control Lab



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GGM - CISO, ONGC



**Narendra Nath Gangavarapu**  
Joint Secretary, National Security Council Secretariat, Government of India



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CISO, Acko



**Navaneethan M**

CISO,

Growth



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VP, Technology Audit,

Citibank



**Neha Taneja**

Head Cybersecurity,

Citibank



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**Parag Deodhar**

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**Paul Nelson**

Vice President, Cybersecurity Solutions, Target



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CISO and DPO,

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and Vice President

Engineering & Center Head,

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**Praveen Jaiswal**

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IBM Security



**Dr. Ralf Sauer**

Dy Head of Unit 'International

Data Flows and Protection'

in the

Directorate-

General

for

Justice

and

Consumers

at the

European

Commission



**Rajendra S Pawar**

Chairman, DSCI



**Rajesh Dhuddu**

VP & Practice Leader, Block-

chain &

Cybersecurity,

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**Rajesh Hemrajani**

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**Rajesh Kumar**

Head - Information Security,

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and

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.com

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**Rajesh Nair**

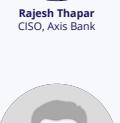
Sales Head - Multi-Cloud Management, VMware India



**Rajesh Seshan**

Head of Sales Engineering,

FireEye India



**Rajesh Thapar**

CISO, Axis Bank



**Rakesh Singh**

Cloud Security Architect,

Palo Alto Networks



**Rama Vedashree**

CEO, DSCI



**Ramachandra Kulkarni**

Managing Director - Technology

Risk,

Goldman

Sachs



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CISO, TSGENCO



**Ramesh Kumar N**

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Security

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Transformation Director - Risk Advisory,

EY



**Ratnaboli Ghorai Dinda**

Deputy Director General (Scientist-G), National Informatics Centre



**Reyaz Ahmad**

Head - Crisis and Business

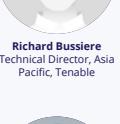
Continuity Management,

Global

Shared

Services,

BP



**Richard Bussiere**

Technical Director, Asia

Pacific,

Tenable



**Ripu Bajwa**

Director & General Manager-

Data

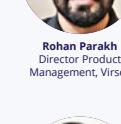
Protection

Solutions,

Dell

EMC

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**Rishi Rajpal**

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**Rohan Parikh**

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**Rohan Vaidya**

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**Saritha Auti**  
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**Satbir Singh**  
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**Sateesh Palagiri**  
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**Satyanandan Attyam**  
Chief Risk Officer,  
Tata AIG General Insurance  
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Evangelist, Sectrio APAC



**Sharda Tickoo**  
Technical Director,  
Trend Micro India



**Sherill Pal**  
Senior Counsel, Privacy and  
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**Shinjini Kumar**  
Co-Founder, SALT



**Shivanath Somanathan**  
Ex-CISO, Freshworks



**Shivani Arni**  
Head of Information Security,  
TransUnion CIBIL Limited



**Shobha Jagathpal**  
Managing Director and India  
CISO, Morgan Stanley



**Shree Parthasarathy**  
National Managing Partner  
Trust & Transformation,  
Grant Thornton Bharat



**Siddharth Vishwanath**  
Leader Cyber Security and Risk  
Consulting Partner, PwC



**Smite Jain**  
Technology Specialist –  
Cybersecurity,  
Microsoft India



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**Sreenath Modali**  
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**Shrihari Kotni**  
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**Srinidhi Venugopal**  
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**Srinivas Poosala**  
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Chief Privacy Officer & DPO,  
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Santhanam**  
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Zoho Corporation



**Srinivas Rao Muppaneni**  
Group CIO, Telangana State  
Cooperative Banks



**Srinivasan Mahalingam**  
CISO, Fusion BPO Services



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**Subhajit Deb**  
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**Subbanna Tummalapalli**  
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**Sunder Krishnan**  
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**Sunil P**  
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and Engineering, Epsilon



**Sunny Athwal**  
Chief Privacy Officer,  
HCL Technologies UK Ltd.



**Suresh Sankaran Srinivasan**  
Group Head of Cyber Defence,  
Axiata



**Surojit Dasgupta**  
Country Manager,  
India & Saarc, Lookout



**Susmita Sankaran**  
Associate Director, Head of  
IDAM Practice, Happiest Minds  
Technologies



**Tamaghaba Basu**  
Co-Founder & Chief Executive  
Officer, DeTASECURE



**Tejasvi Addagada**  
Data Protection Officer,  
Axis Bank



**Terence Gomes**  
Country Head - Security,  
Microsoft India



**Unique Kumar**  
Group CISO,  
CK Birla Group



**Dr. Urbi Chatterjee**  
Assistant Professor,  
IIT Kanpur



**Dr. V Sridhar**  
Professor, Centre for IT and  
Public Policy, International  
Institute of Information  
Technology Bangalore, India



**Vaisakh Rajeevan**  
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**Vaishno Chaitanya**  
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**Ved Prakash**  
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Manager – Banking & Enterprise  
- India, Thales Group- India



**Venkata Satish Guttula**  
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Rediff.com India Ltd



**Venkatasubramanian  
Ramakrishnan**  
Head - Cybersecurity Practice,  
L&T Smart World



**Veena Vinod**  
Data Protection Officer,  
Asia Pacific Region, Asset  
Management MNC



**Vijay Mahajani**  
Principal Consultant,  
Infosys



**Vinay Bhat**  
Director - Networking and  
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**Vinayak Godse**  
SVP, DSCI



**Vipul Kumra**  
Director - Systems Engineering,  
Vehere



**Dr. Vireshwar Kumar**  
Assistant Professor, Depart-  
ment of Computer Science &  
Engineering, IIT Delhi



**Visagan Subburayalu**  
Senior Director, Technology,  
Target India



**Vishak Raman**  
Director, Security Business -  
India & SAARC, Cisco



**Vivek Srivastava**  
Director Sales , Mid Market  
India & SAARC , CrowdStrike



**Vivienne Artz OBE**  
Senior Data Strategy and Policy  
Advisor, Centre for Information  
Policy Leadership



**Dr. Yash**  
CISO, IOCL



**Yogini Shahane**  
Vice President,  
JP Morgan Chase



**Zhanwei Chan**  
Global Head of OT/IoT Practice,  
NTT Ltd.



**Zishan Patel**  
Senior Security Engineer,  
Tenable

# Track Sessions

## Day 01

**Cloud Security Governance**  
... Drivers, Capabilities, References, Principles, Areas, & Coverage

**DPO**  
... Roles, Responsibilities, & Organization Culture

**Attacks on Energy Infrastructure**  
... Preparedness, Interventions, and Accountability

**Resiliency for Digitizing Enterprises**  
... Refining Recovery & Continuity in the age of Extreme Digitization

**SOC for OT Environment**  
... Capabilities, Technologies, and Integration

**Privacy Compliance**  
... Function, Automation, & Process Revitalization

**Hardware for Hybrid**  
... Turning on the hardware chips to secure hybrid world

**XDR: A Security Fabric**  
... Consolidating, Converging, Integrating, Automating, and Simplifying

**No-code/ Low-code: Security \ Catastrophe?**  
... How to Mitigate Risk while Accelerating Innovation

**Bearing the Weight of the Digital Security**  
... Criticality of Identity & Access Management

**SASE**  
... Roadmap for the Convergence

**Crises Management**  
... Individual Effort, Collective Actions, & National Preparedness

## Day 02

**Remote Access: a Threat Vector**  
... Key Challenge in Realizing Digitization Possibilities of the OT Environment

**Data Governance Strategy**  
... Program and its Benefits

**EDR or XDR?**  
... What is the Best for Security Buyers?

**Application Security Program**  
... Delivering Security in Fast-paced Digitization

**Fostering Diversity in Cyber Security**

**Cloud Native DevSecOps**  
... Securing Pipeline of the Development of Modern Apps

**Attack Surface Management**  
... Data Collection, Reconciliation, Prioritization, & Triggering Response

**Handling Security Incidents in 2021**  
... Making use of approaches and capabilities to address nuances, complexities, and scale

**One-to-One Session with CrowdStrike & DSCI**

## Day 02

Clamping down on Ransom Payments  
... Policy actions & proposals

Insurance Security Baseline  
... Industry Actions and Regulatory Interventions to improve the Baseline

Security Consolidation  
... Conflict between Delivery & Innovation

Detection: Hunting in a Dense Jungle  
... Visibility, Coverage, Accuracy, Intelligence, Tools, and Expertise

Zero-day exploits  
... Blood diamond in the Security Trade

Devising Incident Response Plan  
... Plan, Processes, Technologies, Expertise, & Services

Resistance to Adversarial Pursuit  
... Role of Threat Intelligence

IoT: Accommodating Security  
... Constrained Resources Research/Innovation Possibilities

## Day 03

Ransomware 2021  
... Targeted, Polymorphic, Malware Associated, & Double/Triple Encryption

2020: Inflection Point of Accelerating ICS Vulnerabilities  
... VA/PT, VM, and CTD in ICS environment

Identity: Central to Fintech Revolution  
... Role of ID and ID Verification in the Volume & Velocity of Transaction Processing

Hybrid Workforce  
... Risk Scenarios, Realities, and Mitigation

Innovation for Digital Innovation  
... Privacy Engineering to Enabled Digital Innovation

Cloud and Managed Security  
... Managed Security Services in the Paradigm of Cloud

App Modernization  
... Thinking through Security

Examining the National Digital Health Mission  
... Data Sharing, Privacy & security considerations

# Keynotes



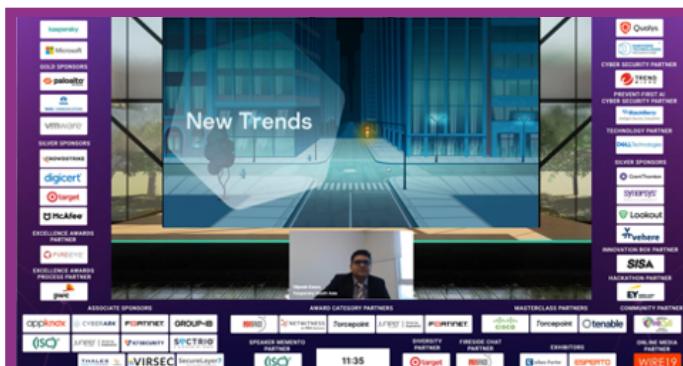
## Security Automation for the Digital Journey

**Speaker:** Marco Rottigni, Chief Technical Security Officer EMEA, Qualys



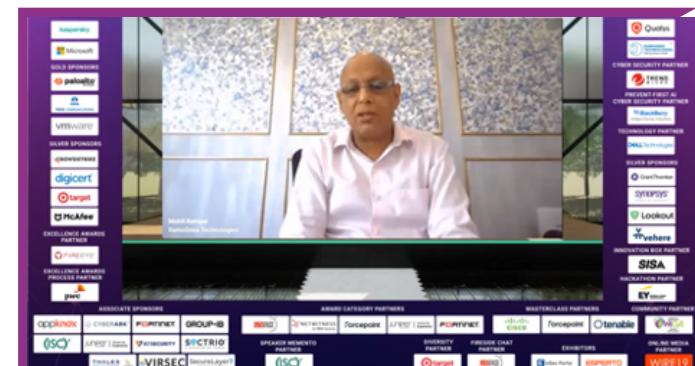
## Top 5 Cybersecurity Resolutions for 2022

**Speaker:** Terence Gomes, Country Head - Security, Microsoft



## Reinforcing Cybersecurity Strategy

**Speaker:** Dipesh Kaura, General Manager, Kaspersky South Asia



## Disrupting Application Architecture

**Speaker:** Mohit Rampal, Founder & CEO, RamoGnee Technologies



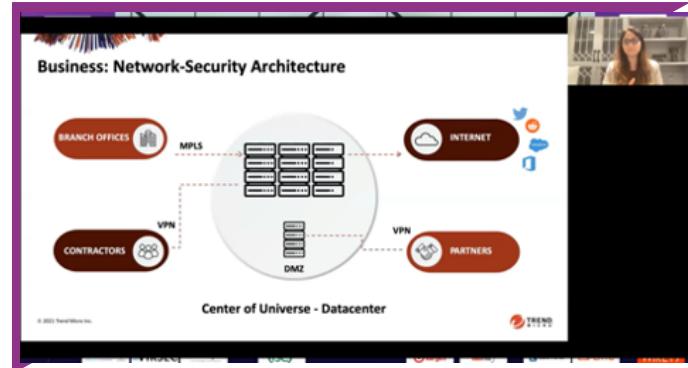


## Prevention First and AI as a business critical advantage

**Speaker:** John McClurg, Sr. Vice President and CISO, BlackBerry



Intelligent Security. Everywhere.



## Building Cyber Resilient Enterprise

**Speaker:** Sharda Tickoo, Technical Director, Trend Micro India & SAARC



Learn how one of India's leading consumer goods companies "Marico Ltd" is staying ahead of the curve in safeguarding its Digital Infrastructure from Ransomware and DDoS attacks

### Speakers:

Ashish Tandon, CEO, Indusface

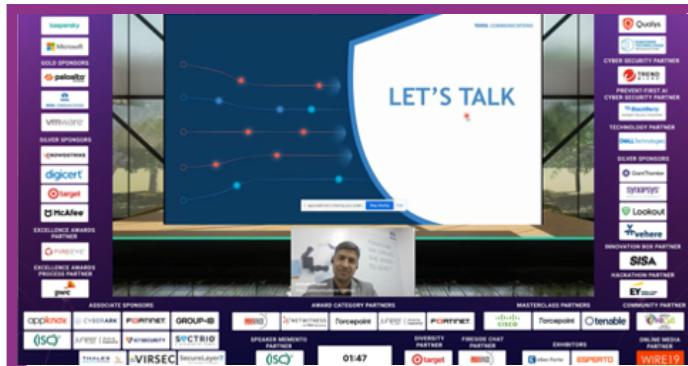
Mayuresh Purandare, Head – IT Infrastructure and Cyber Security, Marico



## Introducing 'Zero Trust' for the Modern Day Enterprise'

**Speaker:** Huzefa Motiwala, Director, Systems Engineering, India & SAARC, Palo Alto Networks





## Next-Gen Cyber Defence - Delivered from the Cloud

**Speaker:** Avinash Prasad, VP & Business Head, Managed Security Services, Tata Communications Limited



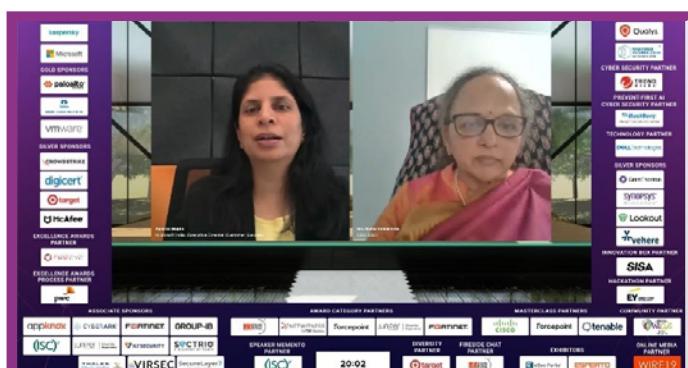
**TATA COMMUNICATIONS**



## Innovative data protection for multi-cloud workloads

**Speaker:** Ripu Bajwa, Director & General Manager- Data Protection Solutions, Dell EMC India

**DELL Technologies**



## Special Interaction: Prepping a robust Cyber Security talent pipeline

### Speakers:

Aparna Gupta, Executive Director, Customer Success, Microsoft India

Rama Vedashree, CEO, DSCI

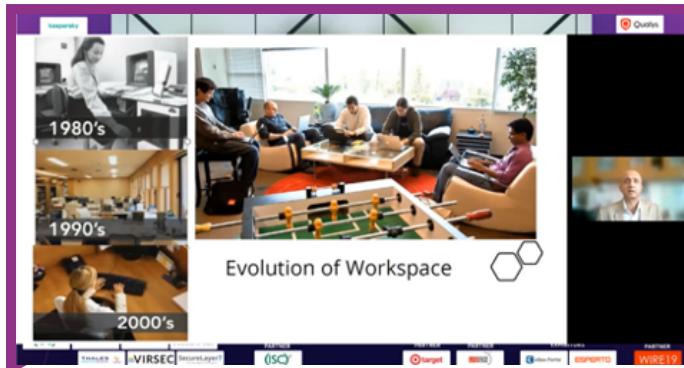
**Microsoft**



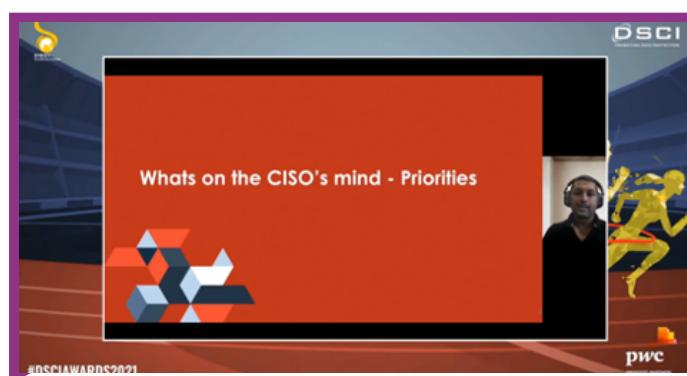
## Realize Zero Trust Security Model

**Speaker:** Gaurav Agarwal, Sr. Director - Enterprise Sales, VMware India

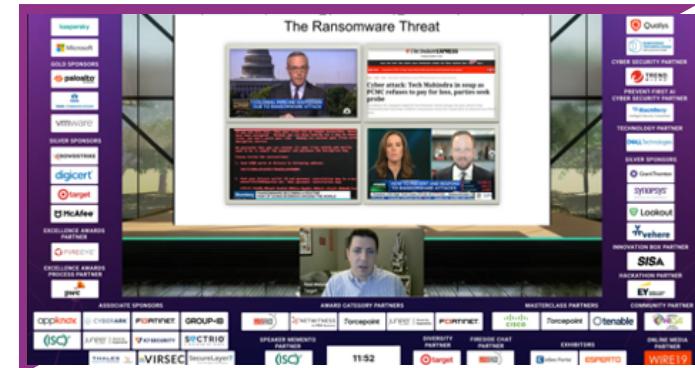
**vmware**®



**What got us here, won't take us there**  
**Speaker:** Sanjay Manohar, Managing Director, McAfee Enterprise



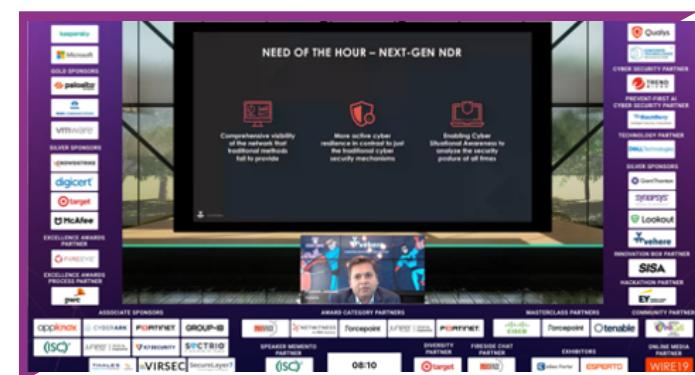
**How Do These CISO Priorities Align With Your Own?**  
**Speaker:** Rajesh Seshan, Head of Sales Engineering, FireEye India



**Practical Ransomware Defense**  
**Speaker:** Paul Nelson, Vice President, Cybersecurity Solutions, Target



**Elevating it beyond security and moving to an area of trust**  
**Speaker:** Shree Parthasarathy, National Managing Partner - Trust & Transformation, Grant Thornton Bharat



**Security Risks & Solutions in a Perimeter-Less Network World**  
**Speaker:** Praveen Jaiswal, Founder and Chief Strategy Officer, Vehere



**Don't Wait to be a Cyber Victim : Search for Hidden Threats**  
**Speaker:** Satbir Singh, SE Manager, CrowdStrike



**ANNUAL INFORMATION SECURITY SUMMIT**

**Common CISO Challenges**

- ❖ Convergence of IT & OT
- ❖ Security of products in customer environment
- ❖ Rapid growth of connectivity (internal / external)
- ❖ Lack of control
- ❖ Knowing where to start
- ❖ Vendor management

**MIKE NELSON**  
VP of IoT Security  
**digicert**

## Unified PKI Management - Best Practices to Control, Transparency and Security

**Speaker:** Mike Nelson, VP, IoT Security, DigiCert



**EDUCATION**

**Frank Morris**

**The pace of change in Cyber Security**

**Speaker:** Frank Morris, Managing Director, EMEA and APAC, SIG Consulting, Synopsys

**SYNOPSYS®**  
Silicon to Software™

**Lookout**  
Founded in 2007, HQ in San Francisco  
Global Presence with worldwide distribution & Support  
6,000 Enterprise & 100k SMB customers  
Over \$450M+ investment

200M+ MOBILE DEVICES   150M+ APPS ANALYZED   4.5B+ VIES PER DAY

**MACHINE INTELLIGENCE** → 4K+ FRESHLY SIGNED APPS   9K+ MALICIOUS KEYWORD

## The Mobile World

**Speaker:** Don Tan, Senior Director of Sales, APJ, Lookout



**Compliant Organizations are Getting Breached\***

**Dharshan Shanthamurthy**

**Redefining Innovation with Forensics Learning**

**Speaker:** Dharshan Shanthamurthy, Founder & CEO, SISA

**SISA**

# AISS HIGHLIGHTS

## Report Launch

### India Cybersecurity Industry: Services and Product Growth Story



 Report overview: Working on our CSTF vision of making India a global hub for cybersecurity, DSCI has launched a new study focusing on India's 'Cybersecurity Services and Products' industry. It showcases the capabilities, achievements, innovation and 360-degree scale-up, that cybersecurity products and services industry in India has embarked upon.

[Click here to view report.](#)

It covers the facets, such as: revenue growth, innovation strategy, expansion of global footprint, talent initiatives, and advancements in technology adoption, process automation, deployment models, offering capabilities, framework & policy creation, and deployment models. Further, the report features a compendium of rich case studies, carefully curated to showcase how they are enabling a secure digital transformation and cloud adoption. It also captures the voice of industry leaders.

The report is a sequel to the reports we did in 2020.

- ["India Cybersecurity Services Landscape"](#)- was a testimony to the growth of Indian cybersecurity service companies in terms of people, process and technology.
- ["Indian Cybersecurity Product Landscape 2.0"](#)- showcased the growth of Indian cybersecurity product companies in terms of innovations, technology integration, global presence, GTM, niche and next-gen product offering.

#### Key Report Highlights:

- **Revenue:** The cybersecurity services and product industry exhibited a robust growth on back of increased demand for digital transformation and cybersecurity compliance requirements
  - The services and product industry have a total revenue of USD 9.85 Bn in 2021 and grew at a CAGR of ~40% in the last two years.
  - The Indian Cybersecurity services Industry grew from USD 4.3 Bn in 2019 to USD 8.48 Bn in 2021 at CAGR of 40.33%.
  - Indian cybersecurity products grew from USD 740 Mn in 2019 to reach USD 1.37 Bn in 2021 at a CAGR of 36.49%.
- **Cultivation of platform capabilities** - The industry is moving towards a platform-based approach to offer holistic solutions and simply security integration & deployment
  - 78% of Indian cybersecurity services companies analyzed offer platform-based services

- ~76% of product companies analyzed offer platform-based products.
- From the analyzed companies, 74% of the product and services companies leverage AI/ML to enhance their offerings.
- **Talent:** There has been a huge demand for cybersecurity talent.
  - In 2021, cybersecurity services companies had a cybersecurity workforce strength of 2.18 Lakhs
  - In 2021, product companies had a workforce of ~27K
- **Geographic presence:** The Indian services and product industry are constantly expanding their global footprint. Key countries with the presence of Indian companies are US, Canada, UK, France, Australia, Singapore and UAE
  - The services companies garnered 80-85% of their revenue from the global markets
  - For the product companies, revenues predominantly come from India- 60-65%
- **Case studies:** The innovative services and products offered are enabling the Indian cybersecurity industry to provide secure cloud adoption and enhance business resilience
  - The services companies have been enabling large MNCs and Conglomerates to securely adopt cloud, by offering end-to-end security solutions implementing a shift-left security by design approach and implementing DevSecOps.
  - The product companies are providing next gen products and solutions to customers: IAM solutions (PAM, PIM, Multilevel Security (MLS)), next gen firewall, risk quantification & management, data security (advanced encryptions, DLP, data anonymization) and quantum encryption.

## Capture the Flag (CTF) - Cyber Security Hackathon



 DSCI in association with EY hosted a Cyber Security Hackathon (virtual) on the side-lines of Annual Information Security Summit. The hackathon which is 5th in series of Capture the Flag (CTF) Competition is conducted to recognise and reward the best brains and talent in Cyber Security in the country. The hackathon received a mix of participants/teams from Academia & Industry background along with participation from some Cyber Security Enthusiasts and young Turks. 245 teams participated in the hackathon and winners were felicitated at DSCI Excellence Awards ceremony.

Position	Team Name	Members
Winner	Toman	Himanshu Gangwani Pratik Roopchandka
First Runner-up	p00n1nghub	Paritosh Kabra Priyansh Rathi
Second Runner-up	s0cg3n	Nipun Gupta Faizal Alimohmmad Hasanwala

## Innovation Box – Most Innovative Product of the Year



DSCI hosted the 8th edition of Innovation Box to encourage budding entrepreneurs and start-ups by recognizing the innovation they are doing in the domain of cyber security and privacy technology. Under the Innovation Box, we recognize, honour and reward products of start-ups as 'Most Innovative Product of the Year' which addresses real risks, builds resilience, increases trustworthiness, and creates a conducive environment for businesses, thus enabling organizations to harness security as a lever for business growth.

The initiative is an attempt to provide support to product start-ups in various aspects by bringing these new players nearer to established security leaders, innovators, and other stakeholders on a common platform for idea sharing, guidance, and collaboration.

It is a live contest where start-ups pitch their solution for five minutes, and the winner gets decided by the Jury and a live audience poll wherein there were five finalists this year.



## Target-DSCI-EWF Workshop



It was a closed-door online workshop with the title "Developing Women Leaders in Cyber Security" organized by DSCI in association with Target & EWF to enhance the representation of women in Cyber Security under the umbrella of the larger EWF program entitled "Breaking Internal Barriers program".

In this program, Women executives across varied organizations gained clarity on the four main barriers derailing them and develop strategies to overcome them.

The workshop was designed to have multiple breakout sessions for each barrier where women executives from different organizations in a group of 4-5 discussed the challenges they face for e.g., Communication barriers and then the facilitator explained the way and strategies to overcome from those barriers.

It was an interactive workshop where the forum was open for everyone to discuss any challenges or barriers they are facing or faced during their career and how it can be overcome.

## Digital Forensics Sub-Summit - Third Edition

The Sub-Summit was inaugurated by Hon'ble Justice Talwant Singh, High Court of Delhi in the presence of Mr. Praveen Sood, IPS, DG & IGP, Karnataka State & Ms. Rama Vedashree, CEO, DSCI at NASSCOM-DSCI Annual Information Security Summit 2021.

Ms. Rama Vedashree, CEO, DSCI gave an insight into some of the key initiatives and efforts by DSCI in association with the industry, government, and academia, to expand the Digital Forensics ecosystem across India.

**Mr. Praveen Sood** in his special address congratulated DSCI for organizing the sub-summit and helping the law enforcement agencies in building their capacity in handling Cybercrime cases. He pointed out that geographical jurisdiction has become a big concern in the investigation as the data stolen is transferred across multiple jurisdictions effortlessly in a matter of seconds. He expressed the importance of the golden hour in online banking crime Investigation where police act quickly to stop the transfer of money that is siphoned off through cyber fraud.

**Hon'ble Justice Talwant Singh**, in his inaugural address, emphasized the importance of the need for Standard Operating Procedures (SOPs) for efficient handling of cybercrime investigation, and the third edition of the Cybercrime Investigation Manual would surely act as reference resource for police, prosecution, and judiciary.

Hon'ble Justice Talwant Singh, High Court of Delhi released the **Cybercrime Investigation Manual- third edition** in the presence of Mr. Praveen Sood, IPS, DG & IGP, Karnataka State, Ms. Rama Vedashree, CEO, DSCI.

Post release of the manual "Digital Forensics Paatshaala"- a special feature where subject matter experts from LEA, and industry deliver 15 minutes short lectures on various advanced topics related to Digital Forensics.



# Digital Forensics Paatashaala

## iOS Forensics – Recent Developments

**Speaker:** Mr. Yuri Gubanav, CEO, Belkasoft

### Key Takeaways

- Lockdown files or pairing records contain cryptographic keys that allow iOS devices to communicate with the computers to which they are connected. This file is stored in a synchronized device (Desktop/Laptop) & allows to acquire iTunes data without unlocking the device.
- Even though Jailbreaking the iPhone allows access to acquire “full file system copy” using the popular jailbreaking tools including unc0ver, checkra1n, odyssey. But it is not a completely forensically sound method.
- The agent-based acquisition is proved to be a forensically sound method because it uses various exploits available to access a device without jailbreak & allows full file system access if the Phone is in an unlocked condition.
- Checkm8 is a Secure ROM exploit that takes advantage of a vulnerability in the iOS devices to grant a user administrative (root) access to the device. Checkm8 allows you to perform a tethered jailbreak. This includes an exploit code executed in the device’s RAM. After a restart, the user will not see any obvious sign that indicates that their device was jailbroken.

## A Primer to Malware Detection

**Speaker:** Mr. Abhijit Mohanta, Malware Researcher

### Key Takeaways

- Effective use of Yara rules may help in the detection of the malware or entire families of malware by creating a rule that looks for certain characters, patterns, etc.
- Usually, sophisticated malware which resides only in memory uses antivirus evasion techniques that include process memory injection, inline function hooking process, process hallowing, DLL injection, etc.
- Using Volatility Framework, the Process Hallowing can be detected by determining parent-child process relationship, comparing PEB (Process Environment Block) and VAD (Virtual Address Descriptor) structure, and detecting suspicious memory protection, etc.

## Email Forensics

**Speaker:** Mr. Pramanik, Co-Founder, SysTools

### Key Takeaways

- The key applications of email forensics include Business Email Compromise (BEC), spoofing, email financial frauds, etc., which would include identification of the actual sender and recipient of a message along with some other information such as date/time of transmission and intention of the sender.
- The investigator may leverage the email investigation tool to view, filter & search the keywords of interest, identify the geolocation of the image attachments within the emails. Examine the direct or indirect conversation using advanced link analysis, and timeline analysis.

## Dealing with Damaged Storage Devices

**Speaker:** Vikas Seth, CEO, Data Track Systems

### Key Takeaways

- The physical media are prone to logical and physical damages resulting in data loss. To address this issue & recover data, there are various modern data recovery techniques are available. Most of the storage media can be recovered, even after serious catastrophic damage.
- The logical data Losses occur due to Operating System failure, boot partition failures, virus infection, partition corruption, and many more. The major symptoms that are noticed in a logical data loss are the failure of a system to boot normally or the RAID storage being offline.
- The best option to recover the hard drive after physical damage is to open and inspect it, replacing any component that is damaged. This process is quite complex, and this operation needs a cleanroom. It is always better to use specialized equipment for removing and replacing damaged components from the storage media. It is advisable to seek the help of data recovery experts who work in a specialized laboratory, with greater precautions and expertise.

## Primer on Preventive Forensics

**Speaker:** Mr. Nilay R Mistry, Assistant Professor, National Forensic Science University

### Key Takeaways

- The Preventive digital forensics is the need of the hour to deal with sophisticated cyber-attacks more proactively.
- Preventive digital forensics demands a modification to the traditional digital forensics (NIST SP 800-86), and it is based on experiment, iteration, and learning.
- This approach allows designing, developing, and evaluating a set of digital forensics capabilities that are implemented in organization's critical IT services & helps in crime detection, identification, and prevention in early stages.
- Benefits would include effective response to computer security incidents in the shortest possible time and with reduced cost.
- Pre-incident evidence which is the product of preventive digital forensics is a reliable source to detect and mitigate threats.

## Challenges in MAC Forensics

**Speaker:** Manoj Kumar, Founder, Forensodigital

### Key Takeaways

- As Apple devices use Apple File System (APFS), using Windows-based forensic tools for analyzing the mac images is not a good option.
- Imaging the Apple Fusion drive involves a complex process.
- Even though Apple metadata is a goldmine for evidence, it changes with different versions of macOS.
- Apple macOS wants the examiner to ignore the POSIX timestamp for forensic analysis because Apple macOS's daemons touch files for indexing thus changing the POSIX timestamp.
- As Apple machines are always indexed, using native macOS for analysis results in lightning-fast searches on both live machines and mounted forensic images.

## Mobile Forensics

**Speaker:** Mr. Stuart Hutchinson, Managing Director, EMEA, Oxygen Forensics

### Key Takeaways

- The cloud extractor option enables the acquisition of data from the most popular cloud services such as WhatsApp, iCloud, Google, Microsoft, Mi Cloud, Huawei, Samsung, E-Mail (IMAP) Servers, etc. Also, various social media services are supported to include but are not limited to Facebook, Twitter, Instagram. Investigators can use usernames and password combinations, or tokens extracted from the mobile device or PC to gain access to cloud storage even when two-factor authentication is enabled on selected services.
- Some of the mobile forensic tools decrypt credentials from the iOS keychain and Android KeyStore finds them in application databases and web forms which allow Investigators to find passwords and tokens to various applications.
- Few mobile forensic tools support extraction & analysis of drones. It parses GPS locations showing valuable route data in Maps. Allow extraction of data from drone cloud services, like DJI cloud, SkyPixel, Parrot, etc.
- Enables extraction and analysis of data from IoT devices such as Amazon Alexa and Google Home. This allows access to the Amazon Alexa cloud using a username and password or token.



# CELEBRATING THE CYBER CHAMPIONS

## DSCI EXCELLENCE AWARDS 2021

CELEBRATING EXCELLENCE IN CYBER SECURITY  
AND PRIVACY FOR A DECADE

#DSCIAWARDS2021



**pwc**  
(PROCESS PARTNER)

DSCI successfully hosted the 11th edition of its Excellence Awards 2021 on the side-lines of AISS 2021. Excellence Awards, is an effort to recognise and honour organizations and individuals who have taken proactive and innovative security and privacy efforts to address security risks, build resilience, increase trustworthiness, and create a conducive business environment amid these unprecedented times.

The winners were selected by an esteemed Jury panel chaired by Som Mittal and Raman Roy in the Corporate and Product Segments respectively. This year, we received maximum nominations till date. A brief snapshot of nominations is as below.

## Total nominations received: 278

Segment	Number of Categories (21)	Number of Nominations (278)
Corporate Segment	16	200
Law Enforcement Segment	03	55
Product Segment	02	23
Most Hotly Contested Category	Security Leader of the Year	47

This year also witnessed the maximum number of categories being awarded and introduction of **New Categories**. DSCI & EY also jointly hosted the 5th CTF Cyber Security Hackathon which witnessed extensive participation from 415 participants under 245 teams ranging across 25 challenges.

Original Categories	21
Total Categories Awarded	29 (including sub-categories created due to sectoral nominations)
Total no. of Winners Awarded	32 (including Special Jury + Hackathon)
New categories introduced in 2021	<ul style="list-style-type: none"> <li>Best Security Practices in Healthcare Sector</li> <li>Best Security Operations Centre of the Year (User Org.)</li> <li>Best Security Practices in Post Pandemic Scenario</li> <li>Capacity Building in Cybercrimes, Cyber Laws &amp; Digital Forensics by Academia (LEA Segment)</li> </ul>
5th DSCI-EY Hackathon	<ul style="list-style-type: none"> <li>245 teams (415 participants)</li> <li>25 challenges</li> <li>3 Winners</li> </ul>

Various large enterprises such as TCS, Tata Communications, Vodafone Idea; banks, namely HDFC Saraswat, Ujjivan; SMEs such as AGS Health, UST Blueconch; Govt. & PSUs such as ONGC, Central Board of Indirect Taxes and Customs (CBIC), CCoE West Bengal; start-ups Instasafe, Seconize; and Academia, namely National Law School, Bengaluru, Amrita Vishwa Vidyapeetham were few of the many winners at this edition.

# CORPORATE SEGMENT

## Esteemed Jury



**Som Mittal**  
Former President &  
Chairman, NASSCOM  
**JURY CHAIR**



**Arvind Sivaramakrishnan**  
Chief Information Officer,  
Apollo Hospitals



**Dr. G Narendra Nath**  
Joint Secretary, National  
Security Council  
Secretariat, Gol



**Praveena Rai**  
Chief Operating Officer,  
NPCI



**Vidya Srinivasan**  
Senior Vice President,  
Genpact

## CORPORATE SEGMENT WINNERS

### Best Security Practices in Organization

Banking Sector



NBFCs and Small Financial Institutions



Critical Information Infrastructure



Insurance Sector



IT-ITeS Sector

Large



Small

UST BlueConch

Energy Sector



Healthcare Sector



Operations Centre of the year (User Organizations)



Post Pandemic Scenario

IT Sector



Enterprise / Government



### Best Privacy Practices in Organization



### Cyber Security Evangelists

Cyber Security Services



Cyber Security Education



Cyber Security Awareness

Businesses



Government/NGOs



## Industry Leaders of the Year

Privacy Leader of the Year



**Sameer Ratolikar**  
HDFC Bank Limited

Security Leader of the Year (IT-ITeS)



**Arup Chatterjee**  
WNS Global Services (Pvt.) Limited

Security Leader of the Year (CII)



**Mathan Kasilingam**  
Vodafone Idea Limited

Security Leader of the Year (BFSI)



**Deepak Shukla**  
Canara Bank

## Special Jury Recognition

Cyber Security Awareness (Businesses)



Privacy Leader of the Year



**Anil Lole**  
UST BlueConch Technologies

Security Leader of the Year (BFSI)



**Navaneethan M**  
Groww

## PRODUCT SEGMENT Esteemed Jury



**Raman Roy**  
Chairman & MD, Quattro Global Services  
**JURY CHAIR**



**Ajit Menon**  
Chief Security Officer,  
Tata Consultancy Services



**Rajnish Kapur**  
Managing Partner,  
India Angel Network



**Ratnaboli Ghorai Dinda**  
Deputy Director General,  
NIC



**Shilpa Kumar**  
Partner,  
Omidyar Network India

## PRODUCT SEGMENT WINNERS

Security Product Company of the Year



**InstaSafe**  
Cloud. Secure. Instant.

Innovation Box - Most Innovative Product of the Year



## LAW ENFORCEMENT SEGMENT

### Esteemed Jury



**Loknath Behera IPS**  
Former DGP,  
Kerala Police



**Pratap Reddy IPS**  
Addl. DGP,  
Karnataka Police



**S. K. Bhalla**  
Deputy Director General,  
Telecom Security, NTIPRIT



**Vakul Sharma**  
Advocate,  
Supreme Court

## LAW ENFORCEMENT SEGMENT WINNERS

India Cyber Cop of the Year



**K. N. Yashavantha Kumar**  
DySP, Cybercrime Division,  
C.I.D. Karnataka

Excellence in Capacity Building of Law Enforcement Agencies



Telangana State Police

Excellence in Capacity Building in Cybercrimes, Cyber Laws & Digital Forensics by Academia



**National Law School  
of India University**  
Bengaluru

## EXCELLENCE AWARDS PARTNERS

Awards Process  
Partner



Awards Partner



## CATEGORY PARTNERS

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Insurance Sector

Cyber Security  
Awareness

Best Security  
Practices in  
Healthcare Sector

Best Security  
Practices in Banking  
Sector

Security Leader of  
the Year

Innovation Box



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## EXCELLENCE AWARDS PARTNER



Best Security  
Practices in  
Insurance Sector

Cyber Security  
Awareness

Best Security  
Practices in  
Healthcare Sector

Best Security  
Practices in Banking  
Sector

Security Leader of  
The Year



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# THANK YOU

From Team DSCI for being a part of  
the 16<sup>th</sup> edition of ANNUAL INFORMATION SECURITY SUMMIT 2021  
and making it a success.

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