

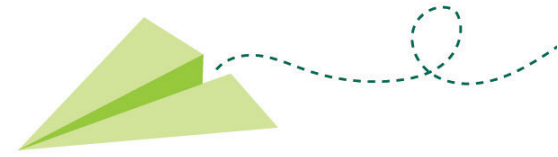


EAST BAY

The Gift of Experience 2020 In Review 2021, Full Steam Ahead

Connect | Educate | Inspire | Secure





7:00 PM
Welcome to

The Year We've Had, and
The Gift of Experience



EAST BAY

Robin Basham, CISSP...
(ISC)2 East Bay Chapter President,
Conference Chairperson
December 10, 2020

(ISC)² East Bay Community Mission

Informed

Engaged

Relevant



Security and Risk Management



Asset Security



Security Architecture and Engineering



Communication and Network Security



Identity and Access Management (IAM)



Security Assessment and Testing



Security Operations



Software Development Security



Legal & Social Issues Impacting our Field



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Normally – 3 Conferences 7 Member Events, Annually

(ISC)² East Bay Fall Conference
 Security in Online Retail – Charge the Holidays
 November 16th 2017 – 8:30 AM to 6:00 PM
 Castlewood Country Club, 707 Castlewood Club Cir, Pleasanton, CA 94566

(ISC)² East Bay Chapter, Security and Privacy Entrepreneurs Conference

Security and Privacy Entrepreneurs Conference November 8th, 2019 at Saba Software in Dublin

Cyber Health, Privacy, and Automation
 in HIPAA Regulated Environments

Regulations
 Security Lessons for Implementing the HITRUST Framework
 Examining HIPAA – HITECH Title 45 C.F.R. § 164
 What is specifically meant by breach notification rule?
 What are the regulatory risks and goals of cyber health?
 How are political trends working for or against us?

Privacy
 What is the current state of privacy rule
 How might technology influence or change what we choose to remain private

Automation
 Tools that monitor security
 Process Automation
 Robots
 The price of automation

How will automation and robotics affect your cyberhealth and humanity?

November 8th, 2019
 9 AM - 6 PM
 SABA SOFTWARE
 Blvd. Amenity
 In, CA 94568

If a complete stranger walked into your living room and started spewing vitriol you'd call the police. What happens when a thousand strangers walk into every living room in the United States?
 What are the goals for security and privacy? How much of our digital life should we spend cleaning, selling, teaching, preaching? How has the digital revolution gotten out of control and how will this affect society?

All Bouhouch, Chairman Of The Board
 The Good Data Factory
 Responsibility in the Cyber/Cognitive Era

Eric Heltzman, Director of Business Development, Security Compass
 Closing The Gaps Between Security Policy and Execution

Doug Meier, National Director of Information Security and Data Governance
 Slipping Behind the Curve of Reality

Johanna Lyman (pronouns she/her), NextGen Orgs, Why Culture Matters

Ron Herardian, Cofounder Basil Security The Legitimate use of Blockchain for Security and Privacy

Michelle Fineran-Dennedy, Chief Executive Officer at DrumWave

NextGen Orgs logo

Basil Security logo

REGISTRATION SPEAKER TOPICS ABSTRACTS AND BIOS
<https://isc2-eastbay-chapter.org/>

ISC² East Bay Security Integration & GRC Conference
 April 12th, 2019

Best in speaking, attending, or sponsoring
prisetgrc.com
 M to 5:30 PM
 Livermore, CA 94551

IPv6 and IOT: Price of Admission

PRODUCTION DIRECTOR CAMERA DATE SCENE
 TICKET ADMIT ONE
 2024 1970
 0167 0001
 ADMIT ONE
 1970

(ISC)² East Bay Chapter
 Cybersecurity Government Sector
 March 9th 2018
 Conference
<https://isc2-eastbay-chapter.org/>

SEPIO SYSTEMS
 KFORCE
 Basil Security
 netskope



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The Best Laid Plans of 2020

We planned to address Resilience and then life happened.

- » Bob Gilbert, Netskope
- » Bruce Klafter, Flex
- » Henry Simmons, Bloom Energy
- » Nalin Narayanam, Intarcia
- » Charles Brucker, Educator and Leader from Mission San Jose High School, highlighting the accomplishments of students Akul Shourie, Chloe Gong, Inimai Subramanian, Kartik Narang
- » Months of preparation canceled by Pandemic and Lockdown
- » ...where do we go from here?

Climate Security Conference
((ISC)² East Bay
March 13th, 2020
Saba Systems, Dublin CA
Topics: California Wild Fires, Rising Sea Levels, Flood, and the emerging role of climate defense in cyber resilience

Friday, March 13th, 2020
Reg. 8 AM - 9 AM - 6 PM
Venue: **SABA SOFTWARE**
4120 Dublin Blvd. Amenity Hub, Dublin, CA 94568

((ISC)² East Bay invites you to a one day Climate Security conference. ISACA and ISSA members also welcome

8 CPE Event - Pricing for ((ISC)², ISACA, and ISSA Members - \$55
Non-Members - \$75

Member Sponsors (Paying it forward) \$100 - this is a charitable donation
Students - \$35
Past Presenters - Your thank you certificate entitles you to one free admission—for more info email conferencedirector@isc2-eastbay.chapter.org

1.1 Bruce Klafter, Vice President, Corporate Social & Environmental Responsibility at Flex - The Earth is warming

1.2 Henry Simmons, CISSP, CCSK (CSA), AWS-CSA, Sr. IT Security Architect at Bloom Energy

1.3 Joan Ross, Regional CISO at Fortinet Security Engineering in a Firefight

1.4 12:30 to 1:55 Students Who Lead. Akul Shourie: Forestation and climate change / Kartik Narang: Machine learning applied to climate change / Inimai Subramanian: Clouds and climate change / Chloe Gong: Carbon capture and climate change

1.5 Dr. Charles F. Brucker, A Choice – Sacrifice Low-Lying Island Nations or Climate Engineering

1.6 Bob Gilbert, VP GTM Strategy, Chief Evangelist at Netskope What would a climate security policy look like? Doing our part to reduce the carbon footprint

1.7 Nalin Narayanam, CISO Intarcia Therapeutics: Planning 4 Pandemic - Implementing the Plan

REGISTRATION SPEAKER
TOPICS ABSTRACTS AND BIOS
<https://isc2-eastbay.chapter.org/>

Sponsors: Bloomenergy, Intarcia, 50 YEARS, netskope, CYBERARK



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How We Met The Moment (or tried)

We Changed

- » Tolerance & Slack
- » New Board Member
- » New methods to communicate
- » Rethinking rules
- » Seeking a return to normalcy, and
- » Redefining normal

- » **Financial Data in the Cloud**, Donald E. Hester (January 9th)
- » **Cyber-laundering**, Faranak Firozan (February 13th)
- » **IT Assurance Across System Boundaries**, David Trepp (May 14th)
- » **Data-Centric Security in an entirely Remote World**, Daniel H. Gallancy, CEO, Atakama (June 11th) Seminar Playback -> AND Lunchbox in October.
- » **The Road to Zero-Trust: Past, Present, and Future**, Abhishek Singh, CEO, Araali Networks (July 9th)
- » **Life Sciences & Health Care, Medical Device Manufacturing and Cybersecurity, A Strategy**, Robin Basham, CEO EnterpriseGRC Solutions, (August 13th) LSHC Webinar Replay
- » **“Get Hired” Cyber Security event**, @CodeRedPartners, Tom Alcock, Bruce Pendrey (September 10th)
- » **Vulnerability Prioritization: Are You Getting It Right?** John Timberlake, Dima Gorbonos, Senior Sales Engineer at WhiteSource (October 8th) Webinar Playback
- » **Data-Driven Decision Making in Cyber Security**, Dr. Marty Trevino, Joan Ross, Chief Intelligence Officer (November 12th)
- » **The Gift of Experience: Lessons Learned and The Road Ahead, (ISC)2 East Bay Board of Directors Sharing Insights and Ideas** (December 10th)

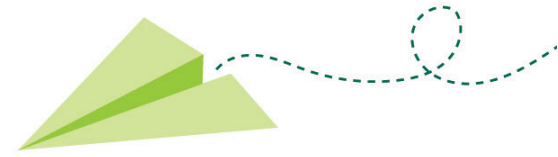
✓ Total 21 CPE

✓ Board 31 CPE

✓ Mentoring and DoGood 40 CPE



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7:15 PM



Topic: Maturing The SOC



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Denise Bonds, CISSP
Director Programs
December 10, 2020

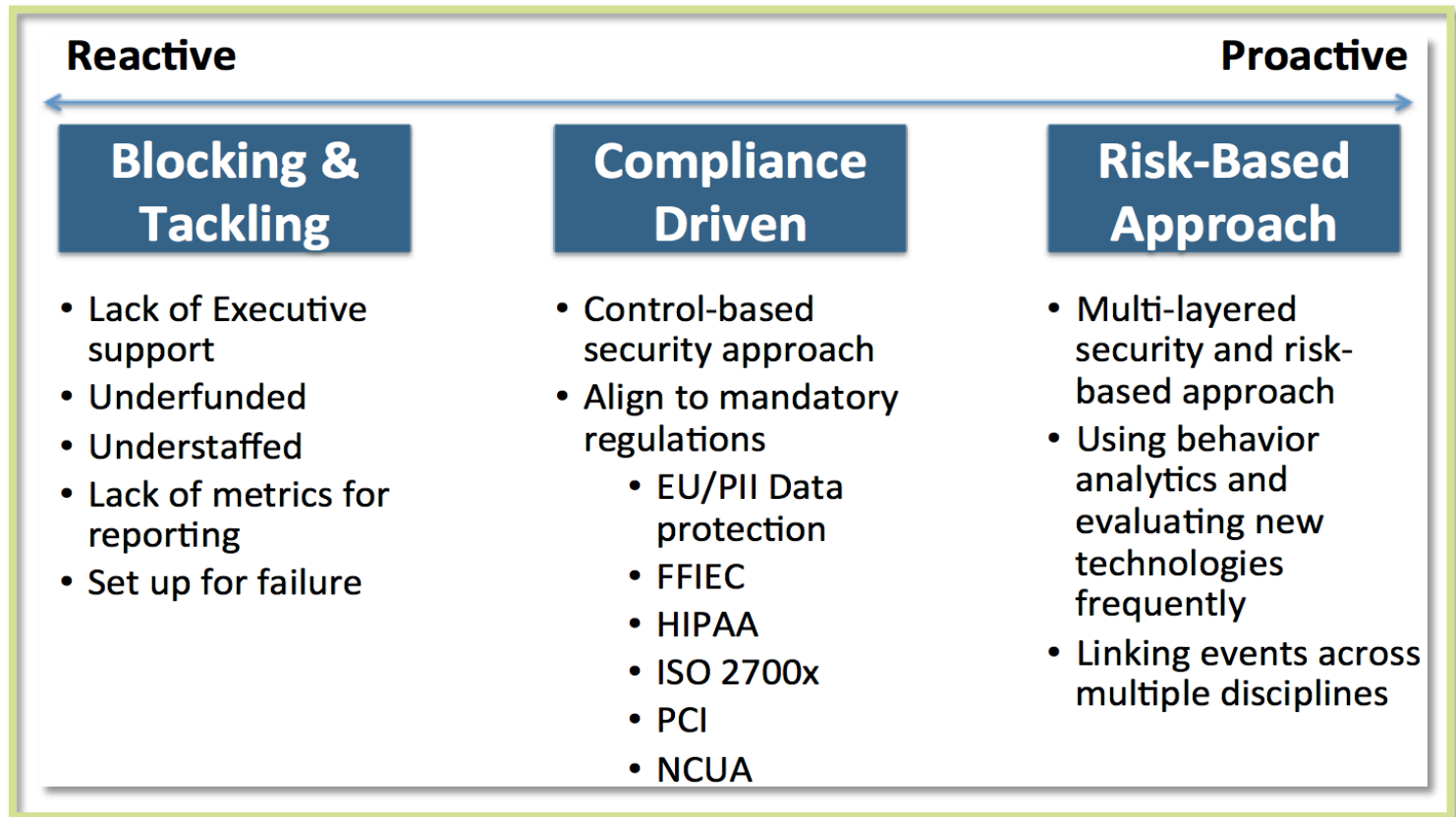


AGENDA

- » What is Risk-Based Alerting?
- » Creating a Risk Matrix
- » Building Search Inventory
- » Developing Targeted Detections
- » Operationalizing Alerting



SDLC: The Capability Maturity Model






Unanswered Questions

“SO, what’s going on?”
-Every Manager Ever

“Were there any other alerts?”
-The Concerned Manager

“Where did it come from?”
-The Curious Manager

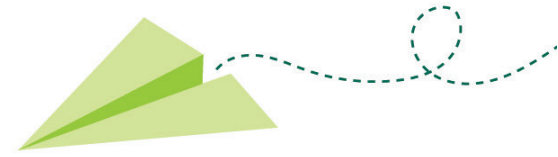




“The Risk Analysis framework provides the ability to identify actions that raise the risk profile of individuals or assets.”

- -Risk Analysis Framework in Splunk ES





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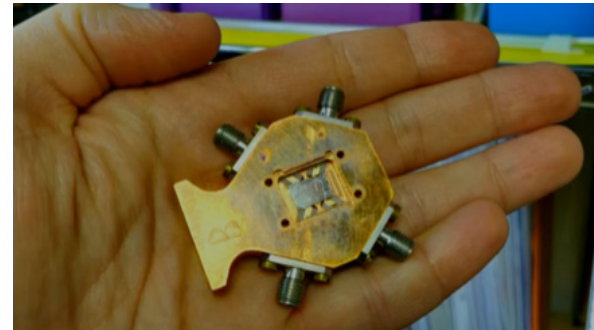
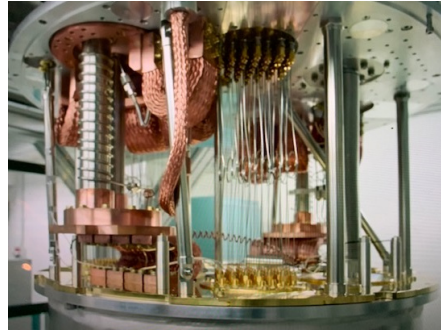
Topic: Quantum Computing



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Maura Jones, CISSP, Director
Education and Career Development
December 10, 2020

What is Quantum Computing?



- » Quantum computing is the use of quantum phenomena such as superposition and entanglement to perform computation.
- » Computers that perform quantum computations are known as quantum computers.
- » Quantum computers differ from classical machines:
 - a classical bit is either 1 or 0,
 - a quantum bit, or qubit, can exist in multiple states at once.
- » When qubits are inextricably linked, physicists can exploit the interference between their wave-like quantum states to perform calculations that might otherwise take millions of years.





What are the Quantum Drivers?

- » Executive Order “Establishing the National Quantum Initiative Advisory Committee” of August 2019
- » Various efforts research
 - In February 2020, scientists and engineers from the Pritzker School of Molecular Engineering and Argonne established one of the longest land-based quantum networks in the nation; 52-mile test bed, an early building block for the quantum network, reported at the University of Chicago
 - Congress passed 1.35 billion in quantum research demonstration and application projects, which will establish several national quantum info science centers. Note private parties active are:
 - IBM, Google, AT&T...
 - Quantum device performs 2.6 billion years of computation in 4 minutes, reported 12/7/20 in arstechnica.com



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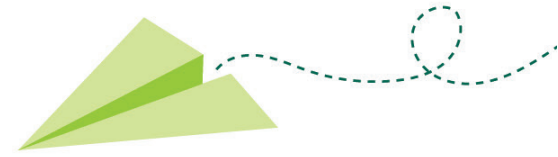
Where is Quantum Heading?

- » NIST is working on Post-Quantum Cryptography Standardization, with the most recent cut occurring in July of 2020:

Type	PKE/KEM	Signature
Lattice ^{al}	CRYSTALS-KYBER - NTRU - SABER	CRYSTALS-DILITHIUM , FALCON
Code-based	Classic McEliece	
Multivariate		Rainbow

- » Why care?
 - Quantum computers might one day run revolutionary algorithms that could, for example, search unwieldy databases or factor large numbers — including, importantly, those used in encryption.
 - While sources of copious amounts of data seem unreadable or too obscure for concern today, we should **WORRY NOW ABOUT THE DATA SCRAPPING** that will become readable in the future.
 - Quantum Computing will eventually, if not very soon, decode the meaning of all the digital information we generate each and every day.
 - Just as Cloud Computing changed many aspects of networking and security, Quantum Computing will be equally, if not more disruptive





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Topic: Securing IOT - Challenges



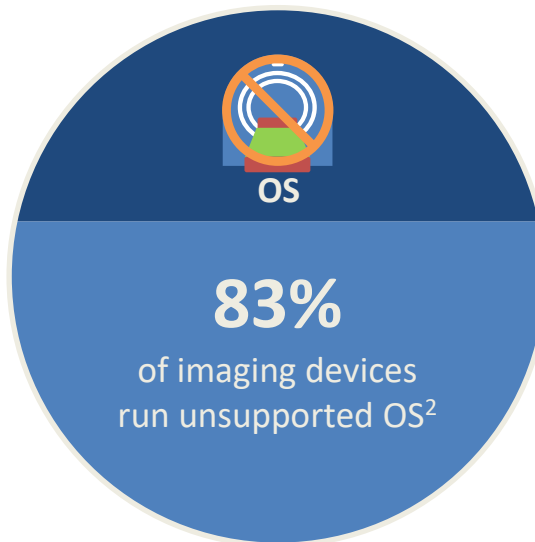
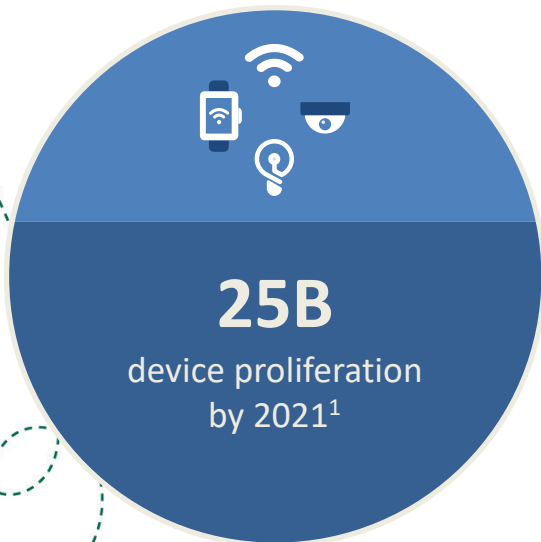
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Krishnan Thiruvengadam, CISSP
Director Marketing & Communication
December 10, 2020



Connecting machines and people securely

Challenges in IOT



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¹ [A-critical-look-at-gartners-top-10-iot-trends.html](#)

² [iot-threat-report-2020](#)

Threat from Unsecured IOT

Reconnaissance



Targeting



Breach



Examples:
MIRAI
WannaCry
Peekaboo



Data Theft

Data Tampering

Ransomware

Denial of Service

Unsecured IoT can be the attack target as well as the route to expanded network attacks



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IT and OT convergence



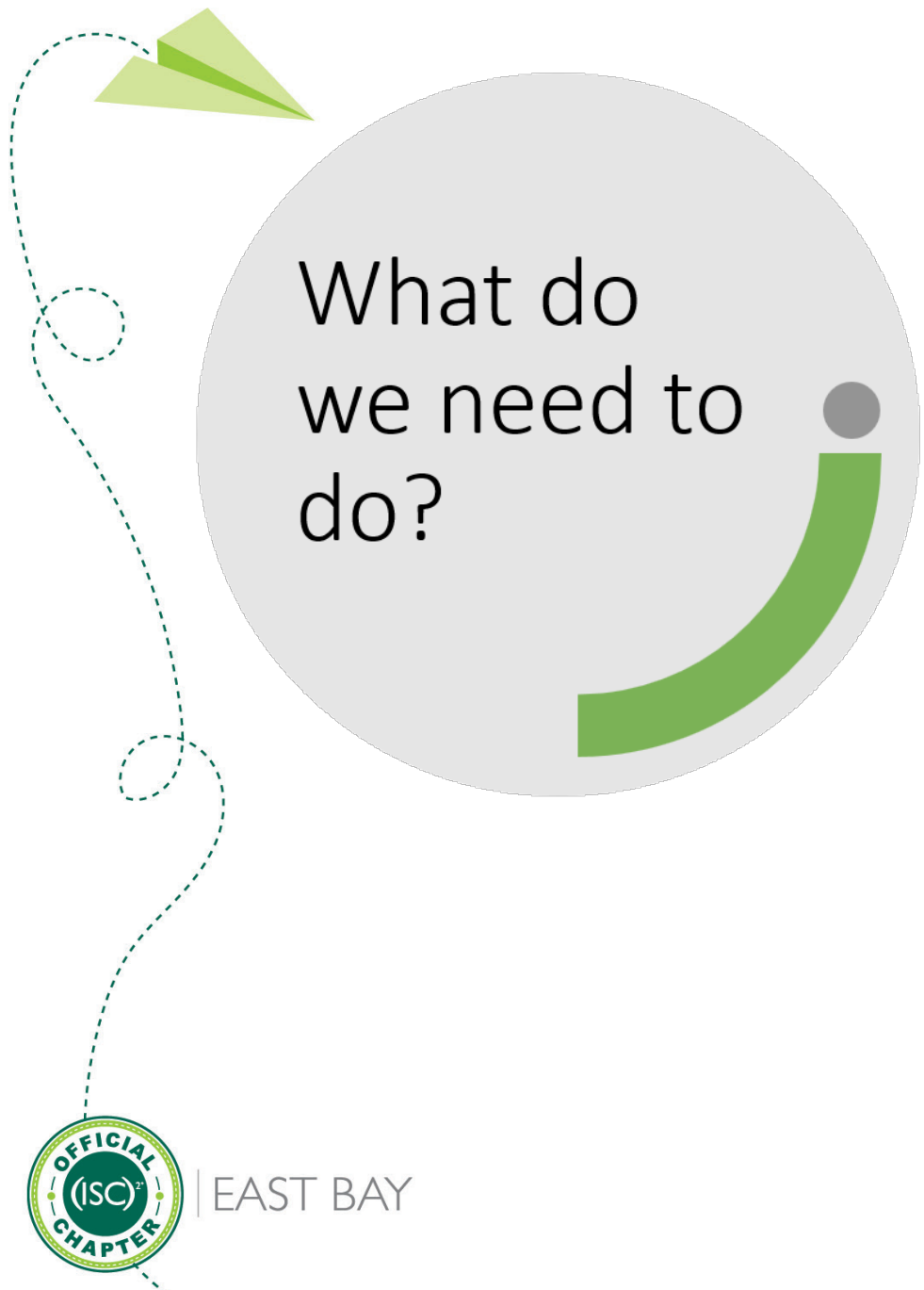
EXAMINE FUNCTIONS,
MOTIVATIONS AND GOALS



UNDERSTAND THE ENVIRONMENT
AND HOW IT CHANGES



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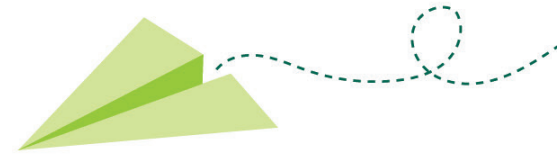


What do
we need to
do?

- » *KNOW* your IOT
- » *SEE* their behavior
- » *DO* the right access control
- » *TRUST* nothing until understood
- » *REMEDiate* as needed
- » *SECURE* data and data path



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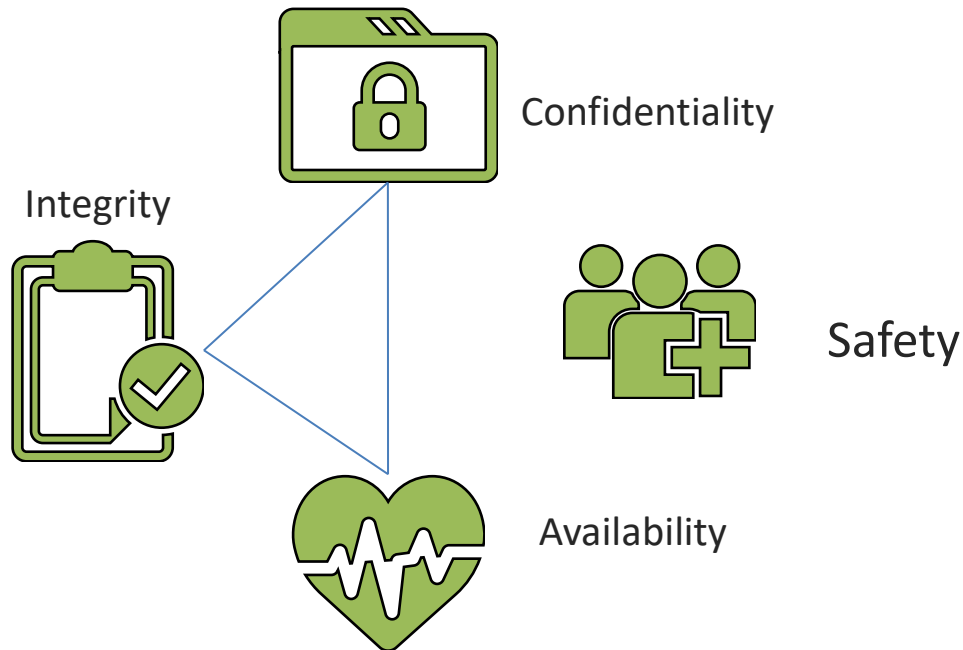
Topic: Maturing Cloud
controls using validation and
deception



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Istvan Berko, CISSP
Chapter Vice President
December 10, 2020

Controls – what are we talking about



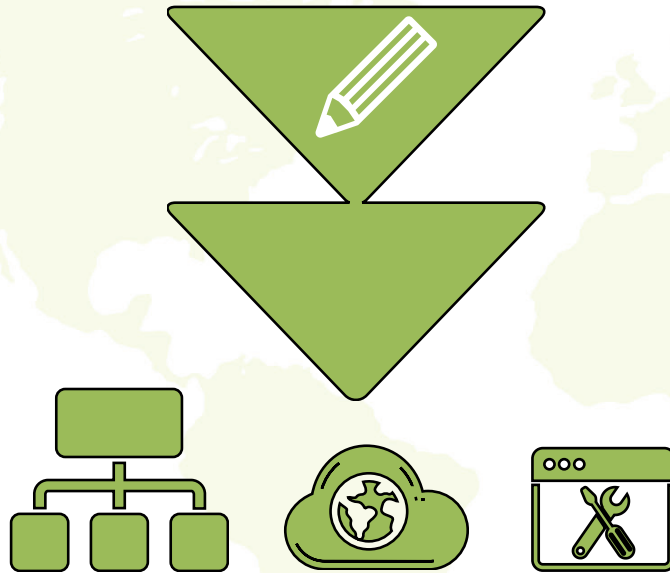
- » Network controls
- » Identity & Access management
- » Encryption
- » Data integrity

Andrew Stanford - <https://and-sanford.medium.com/an-improved-cia-triad-the-cias-triad-6bc17825f1e7>



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Controls as Code



- » Cloud has shifted the way we deploy
- » We started the shift with virtualization, but it is now far beyond hardware abstraction
- » Infrastructure as code, provides resources
 - Just in time
 - Right sized
 - Secured
 - And in a perfect world ephemeral
- » **Enables the shift left culture!**



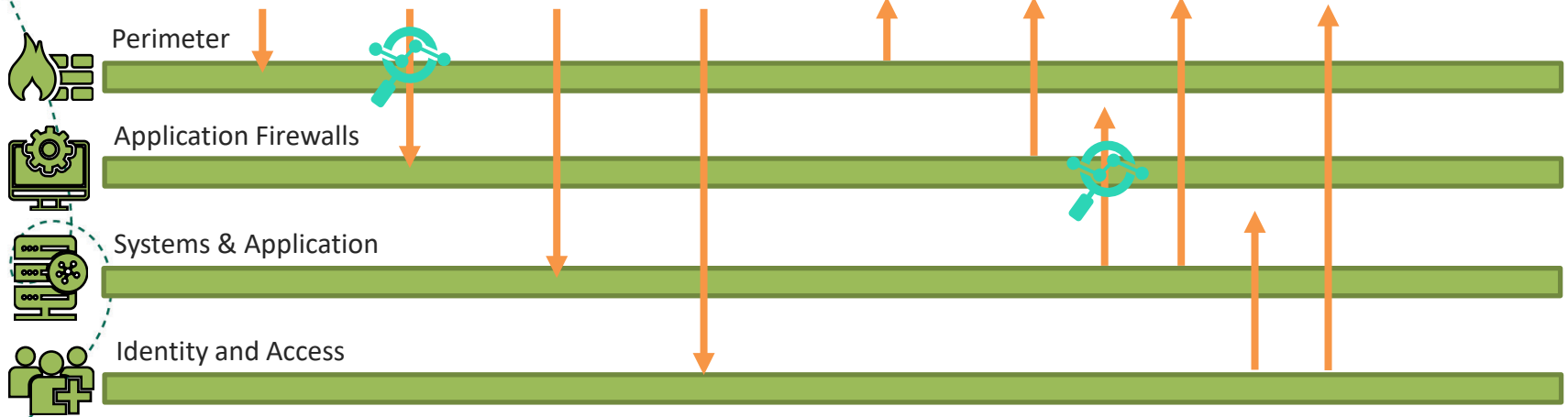
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Layers to the Onion



Attackers

Command & Control



Compromise
Email Attacks

Data exfiltration
Command & Control



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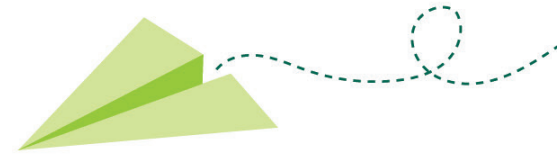


Validation and Emulation automation

- » Leverage tools that provide you with an external attack surface analysis and deploy continuous attacks emulation and validation.
- » Mandiant Security Validation
- » AttackIQ
- » Cymulate
- » PAN Expanse
- » Caldera 2.0



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8:15 PM



Topic: Data Governance



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Kerry Bryan, CISSP
Director Membership
December 10, 2020



What is Data Governance?

- » “**Data Governance** is the exercise of authority and control (planning, monitoring, and enforcement) over the management of data assets”
- » Data Governance is the discipline of **cataloging** and **defining** important data, assigning **ownership** of data, and incorporating governance of data into the **everyday business process.**”





Data Governance is NOT

- » **Data Management** – Not the management of the data lifecycle needs (e.g., quality, security, DB ops, MDM, nor warehousing)
- » **Master Data Management** - **Not** focused on quality, completeness, accuracy, and availability.
- » **Data Stewardship** - does **Not** include the activities necessary to make sure that the data is accurate, in control, and easy to discover

Data governance is mostly about strategy, roles, organization, policies, and framework to align the above practices.





“The process of Data Governance

- » To truly manage data as a valued enterprise asset, data governance must be managed as a business function like finance or human resources”

- » The primary business processes enable data governance and stewardship, e.g., processes that cleanse, repair, mask, secure, reconcile, escalate, and approve data discrepancies, policies and standards.





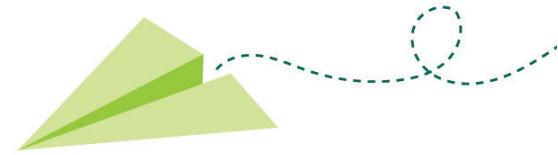
Benefits of Data Governance

- » Improved and more comprehensive decision support.
- » Optimized cost of data management and use, and efficiency through the use of synergies.
- » Clear communication through standardization.
- » Higher confidence in data through quality-assured and certified data.
- » Improve security with clarity of accountability.

Reference: Data Governance, from [CIO Wiki](#), licensed under CC BY-SA/3.0.



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8:30

Business Resiliency

or

“How to succeed in business ... requires
hard work”



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Carmen Parrish, CISSP
Chapter Secretary
December 10, 2020



What is Resilience?

- » Resilience – ability to adapt quickly and recover from known or unknown changes to your environment
- » Business Resiliency – Processes, procedures, policies, people designed to help your business survive unexpected events
- » Builds on
 - Understanding of essential functions to continue during disruptions
 - Identifying threats / risks and creating strategies to recover, restore, reconstitute business functions
 - Taking actions as described in Business continuity, disaster recovery, contingency planning, incident response, continuity of operations, etc.
 - Testing plans and learning from failures
 - Applying Lessons learned





Who's Responsible?

- » Business resiliency is not just for IT
- » Specifically addressed in security domains
 - Security and Risk Management, e.g., BIA, BCP
 - Security Engineering, e.g., Datacenters
 - Communications & Network Security, e.g., threats and countermeasures
 - Security Assessment & Testing, e.g., penetration testing, red/blue teams
 - Security Operations, e.g., Incident management, DR (RPO, RTO, MTD)
- » NIST SP 800-34 Contingency Planning
- » NIST SP 800-53 Security & Privacy Controls
 - CP control family
- » CIS Critical Security Controls





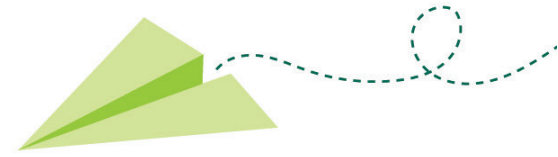
Is Failure an Option?

- » Business resiliency should be a goal, not just a buzz word
- » There was a time having data backups, extra hardware on the shelf, and a UPS was a good contingency plan, and migrating to the cloud even better
- » Working through a pandemic demonstrated how unprepared many businesses were
- » Recovering, restoring, and reconstituting businesses will help us in recovering, rebuilding and redefining our lives and livelihood

“Failing to plan is planning to fail”



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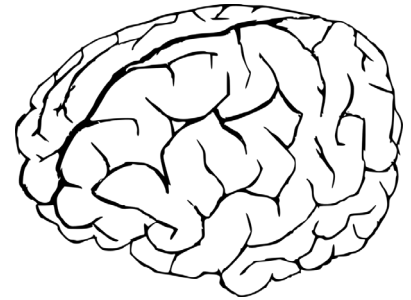
Topic: Mentorship



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Gary Dylina, CISSP
Treasurer and Finance
Director, Founding Member
December 10, 2020

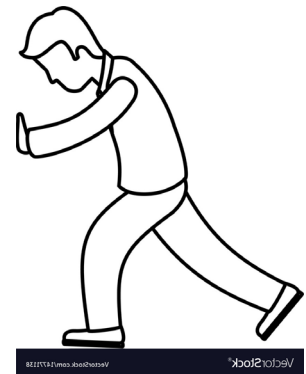
**Mentoring is
a brain to pick,**



an ear to listen,



**and a push in
the right direction.**



-- [John Crawford Crosby](#)



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Why is it important?

- » Increase knowledge transfer
- » Job satisfaction
- » Succession planning
- » Develop leadership skills
- » Achieve team goals and objectives
- » Enhance teamwork
- » Improve staff retention
- » Pay it forward



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How to be a good mentor

- » Establish credibility
- » Model desired behaviors
- » Encourage curiosity
- » Watch for teachable moments
- » Respect your potential mentees
- » Maintain confidentiality
- » Be unfailingly kind





How to be a good mentee

- » Ask questions
- » Take action
- » Don't be afraid to disagree
- » Be open to feedback
- » Be clear on your needs
- » Respect your mentor
- » Put your back into it



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From all of us at (ISC)2 East Bay
Chapter, We Wish You All
The Happiest of SAFE Holidays
and a Joyous New Year



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