



Welcome to the Cyber Risk Insights Conference!

Welcoming Remarks



Rebecca Bole
EVP & Editor-in-Chief
Advisen

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NAS insurance



TRAVELERS 



ThreatMetrix®
The Digital Identity Company™



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BITSIGHT®
The Standard in SECURITY RATINGS



Co-Chair Opening Remarks



Steve Anderson

Vice President, Product Executive –
Privacy & Network Security
Specialty Insurance
QBE



Pascal Millaire

VP & GM
Symantec

Keynote Address

Sean Kanuck

First US National Intelligence Officer
for Cyber Issues from 2011-2016
and Advisor at Cyence, Inc



FROM THE DNI'S WORLDWIDE THREAT ASSESSMENT

“Several critical governmental, commercial, and societal changes are converging that will threaten a safe and secure online environment.” (2014)

“Cyber threats to US national and economic security are increasing in frequency, scale, sophistication, and severity of impact. The ranges of cyber threat actors, methods of attack, targeted systems, and victims are also expanding.” (2015)

“The consequences of innovation and increased reliance on information technology in the next few years on both our society’s way of life in general and how we in the Intelligence Community specifically perform our mission will probably be far greater in scope and impact than ever.” (2016)

CONCEPTUAL FRAMEWORK

~~international~~ → global

~~cyber~~ → information

~~security~~ → risk

GLOBAL INTEROPERABILITY

physical connectivity

technical functionality

politico-economic regulation

TECHNOLOGICAL CONVERGENCE

networks / devices / protocols

infrastructure as a (worldwide) public utility

upstream / downstream integration

cross-sectoral interdependence

INCREASING RATE OF CHANGE

data analytics / machine learning

artificial intelligence / augmented reality

additive manufacturing / materials science

synergy of info + bio + nano

IoT + AI = POTENTIAL VOLATILITY

insecure

decentralized

automated

bi-directional

FROM THE DNI'S 2016 WORLDWIDE THREAT ASSESSMENT

“Countries are becoming increasingly aware of both their own weaknesses and the asymmetric offensive opportunities presented by systemic and persistent vulnerabilities in key infrastructure sectors”

“Future cyber operations will almost certainly include an increased emphasis on changing or manipulating data to compromise its integrity (i.e., accuracy and reliability) to affect decisionmaking, reduce trust in systems, or cause adverse physical effects.”

“Efforts to mislead or compromise automated systems might create or enable further opportunities to disrupt or damage critical infrastructure or national security networks.”

CYBER ATTACK TRENDS

(what is coming “in” the future ?)

intervention

industry and infrastructure

indirect

integrity of information

ATTRIBUTION & RESPONSE

(the 3 “C”s)

certainty

capability

credibility

IMPROVING RESILIENCE

focus on enterprise value

assume compromised environment

avoid single “points” of failure

address low-probability-high-impact scenarios

UNDERSTANDING CONSEQUENCES

technical standards / network architectures

supply chains and outsourcing

cascading effects

norms, precedents, and incentives

DISTRIBUTING RISK

through aggregation by service providers
across geographic locations / jurisdictions
between public and private sectors
via legal and regulatory liability

FROM THE 2014 CORPORATE STATEMENT BY CODE SPACES

“In summary, most of our data, backups, machine configurations and offsite backups were either partially or completely deleted.”

“Code Spaces will not be able to operate beyond this point, the cost of resolving this issue to date and the expected cost of refunding customers who have been left without the service they paid for will put Code Spaces in an irreversible position both financially and in terms of ongoing credibility,”

“As such at this point in time we have no alternative but to cease trading and concentrate on supporting our affected customers in exporting any remaining data they have left with us.”

CYBER INSURANCE -- “KNOWNNS”

remediation expenses / increased costs

business interruption / lost revenues

legal liability (contract / tort)

regulatory actions (civil / criminal)

CYBER INSURANCE -- “UNKNOWNNS”

theft / extortion

industrial espionage

brand reputation

existential risk

QUANTIFYING LOSSES

latency of discovery and effect

evolving disclosure requirements

problem of isolating impact

difficulty of measuring damages

COMPILING ACTUARIAL DATA

regulatory agencies / law enforcement

accountants / auditors / legal counsel

IT security firms / service providers

risk rating companies

CHALLENGE PROBLEMS

basic education and training

corporate policies and best practices

what does diversification look like

how to evaluate maximum probable loss



Managing Cyber Risk in Your Organization: A Cal State Case Study



Managing Cyber Risk in Your Organization

- **Leslie DeCato**, Application Security Manager, California State University
- **Chris Fowler**, General Counsel, California State University
- **Zachary Gifford**, Director of System-wide Risk Management, California State University
- **William Perry**, Chief Information Security Officer, California State University

Managing Cyber Risk in Your Organization



Leslie DeCato
CSU



Chris Fowler
CSU



Zachary Gifford
CSU



William Perry
CSU

Morning Break

Coming up next...
Art versus Science

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Art versus Science

Art versus Science



Lisa Phillips
National Practice Advisor
Wells Fargo Insurance Services
Moderator

Art versus Science

- **Lisa Phillips**, National Practice Advisor, Wells Fargo Insurance Services (Moderator)
- **Christine Eveland**, Technology, Media & Business Services, Beazley Insurance Services
- **Ozzie Fonseca**, Senior Director, Data Breach Resolution, Experian
- **Austin Murphy**, Director, Incident Response Services, CrowdStrike

Art versus Science



Lisa Phillips
Wells Fargo



Christine Eveland
Beazley



Ozzie Fonseca
Experian



Austin Murphy
CrowdStrike



The Cloud

The Cloud



David Bradford
Co-Founder &
Chief Strategy Officer
Advisen
Moderator

The Cloud

- **David Bradford**, Co-Founder & Chief Strategy Officer, Advisen (Moderator)
- **Robin Mestre**, Principal Strategic Advisor, Google Cloud Platform
- **Mark Weatherford**, SVP, Chief Cybersecurity Strategist, vArmour

Business Interruption



David Bradford
Advisen



Robin Mestre
Google Cloud Platform



Mark Weatherford
vArmour

Insuretech: What Are They After?

Insuretech: What Are They After?



Garrett Koehn
President Northwestern US,
Regional Director
CRC Insurance Group
Moderator



Insuretech: What Are They After?

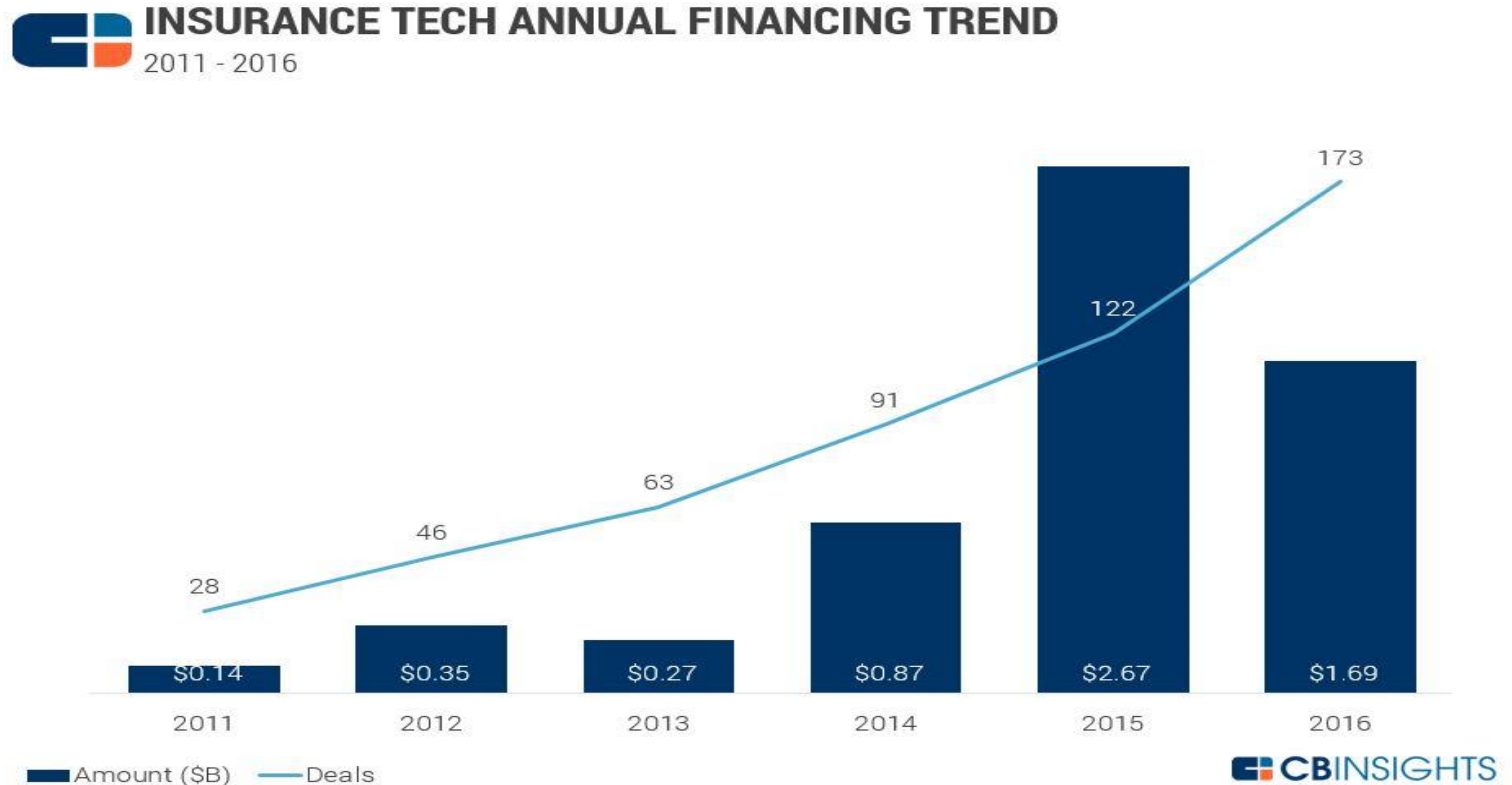
- **Garrett Koehn**, President Northwestern US, Regional Director, CRC Insurance Group (Moderator)
- **Yida Gao**, Investor, New Enterprise Associates (NEA)
- **Sidd Gavirneni**, Co-Founder, Zeguro
- **Philip Rosace**, Solutions Manager, Cyence
- **Jay Sarzen**, Senior Analyst (Consulting & Research Lead), P&C Insurance Segment, Aite Group

Cyber Insurance Startup

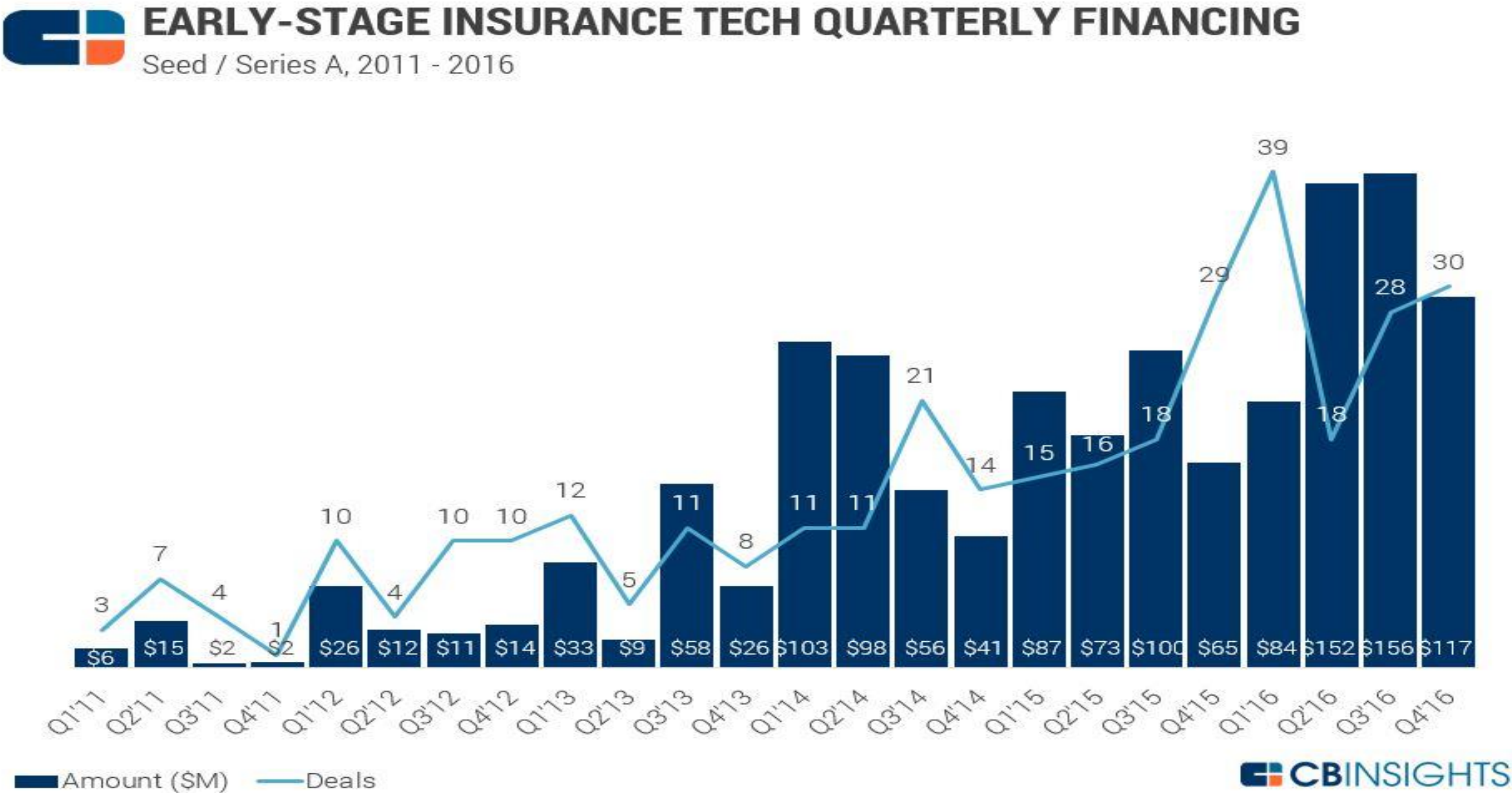


CRC Group
Wholesale & Specialty

Startups and VCs are attacking Insurance



Startups and VCs are attacking Insurance



Startups and VCs are attacking Insurance

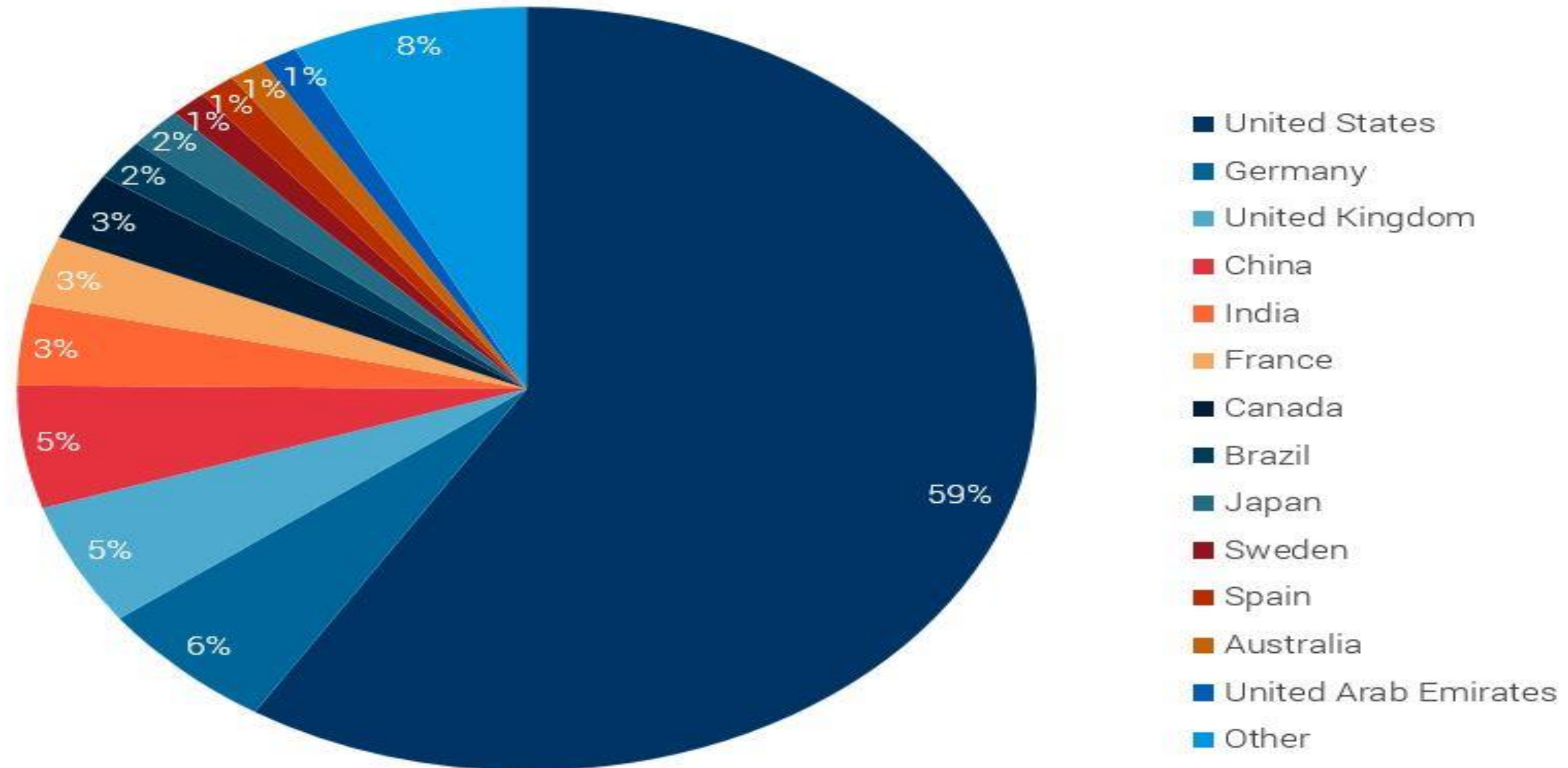
Top VC investors are making bets into insurtech



Startups and VCs are attacking Insurance



INSURANCE TECH DEALS BY GEOGRAPHY
2016



Startups and VCs are attacking Cyber

Cybersecurity Dashboard: January 2017



\$279 Million
Financing Volume

21
Financing Transactions

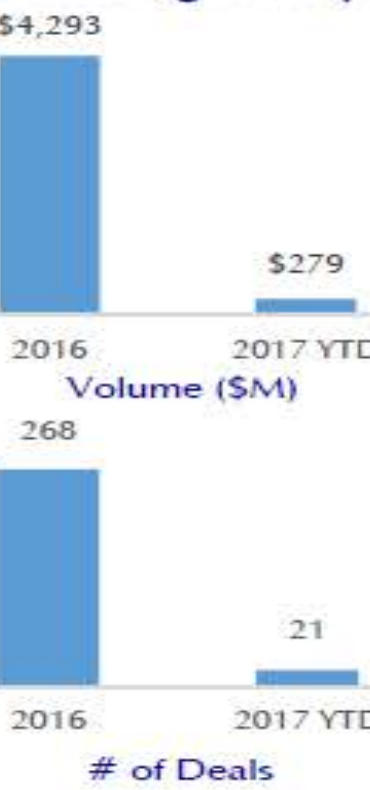
\$2,731 Million
M&A Volume

14
M&A Transactions

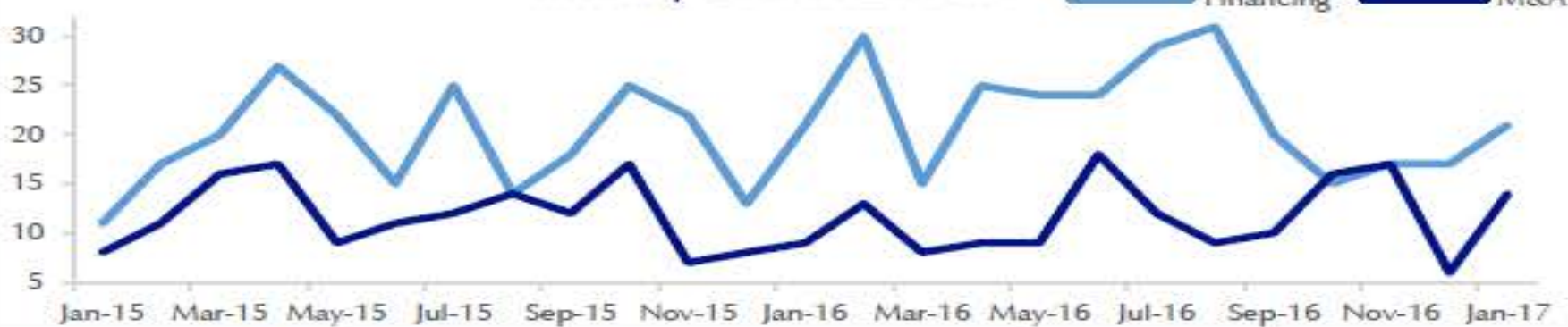
Notable Financing Transactions

Date	Company	Amount (\$M)
01/25/17	SentinelOne	70.0
01/06/17	bitglass	45.0
01/12/17	TRANSMIT SECURITY	40.0
01/18/17	PROTECTWISE™	25.0
01/05/17	PAYFONE	23.5
01/17/17	OPAQ Networks	21.0
01/09/17	TEAMS	14.0
01/10/17	Phantom	13.5

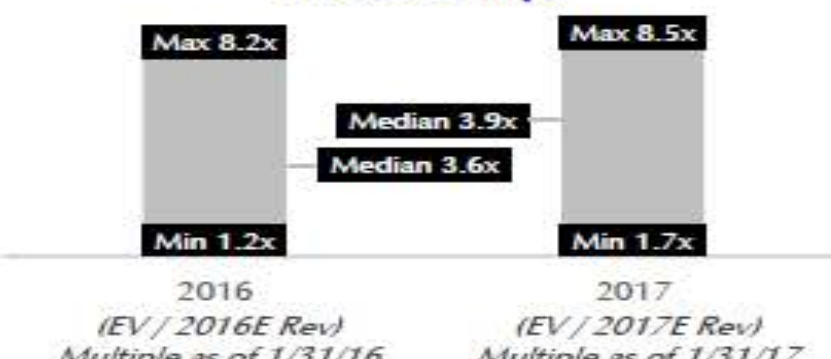
Financing Activity



Monthly Deal Count Pulse



Public Comps



M&A EV / Rev Multiples



M&A Activity

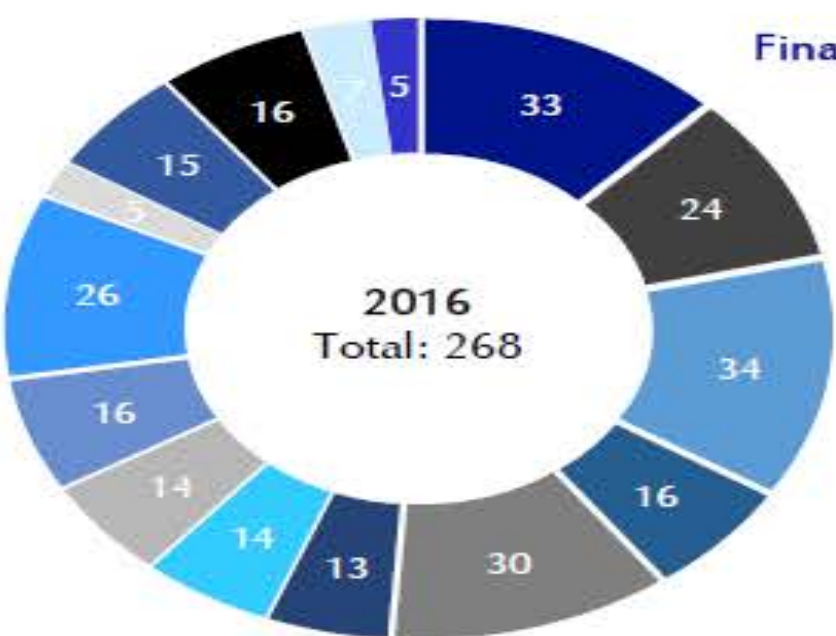


Notable M&A Transactions

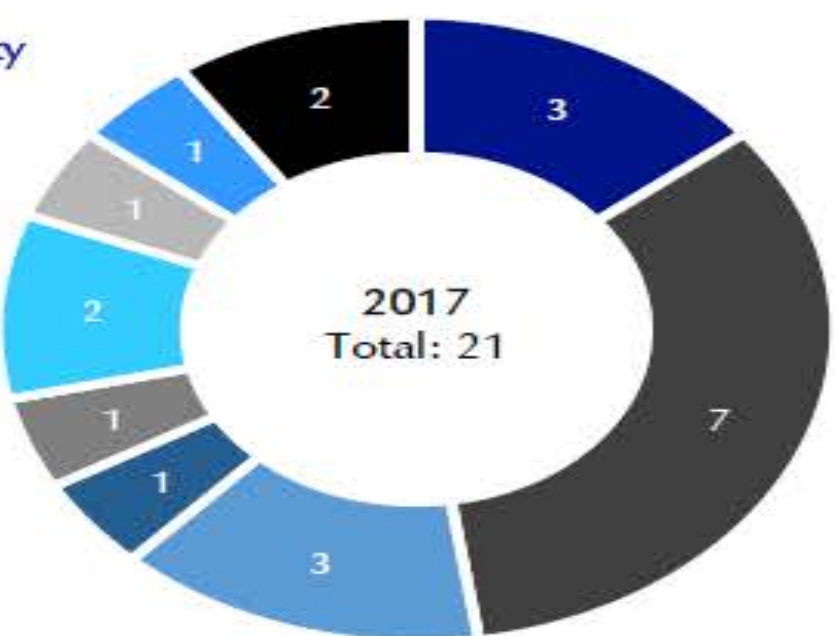
Target	Acquirer	Amount (\$M)
ixia	KEYSIGHT TECHNOLOGIES	1,527
LANDESK	HEAT software	> 1,100
BLU VECTOR	LLRpartners	~50
harvest.ai	amazon	20
Seculert	radware	--
BATBLUE	OPAQ Networks	--
APPERIAN	ARXAN	--
denyall	ROHDE & SCHWARZ Cybersecurity	--

- Specialized Threat Analysis & Protection
- Identity & Access Management
- Threat Intel / SecOps / IR
- Cloud Security
- Data Security
- Mobile Security
- Endpoint Security
- Fraud Prevention / Transaction Security
- Application Security
- Risk & Compliance
- Web Security
- Industrial / IOT Security
- Network Security
- Messaging Security
- MSSP

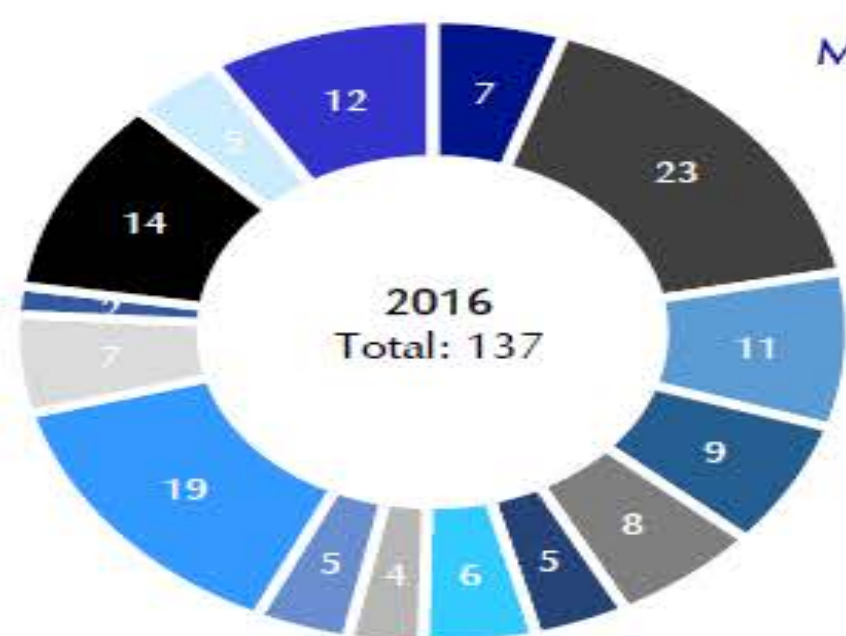
Financing Activity



2017 Total: 21




M&A Activity



2017 Total: 14



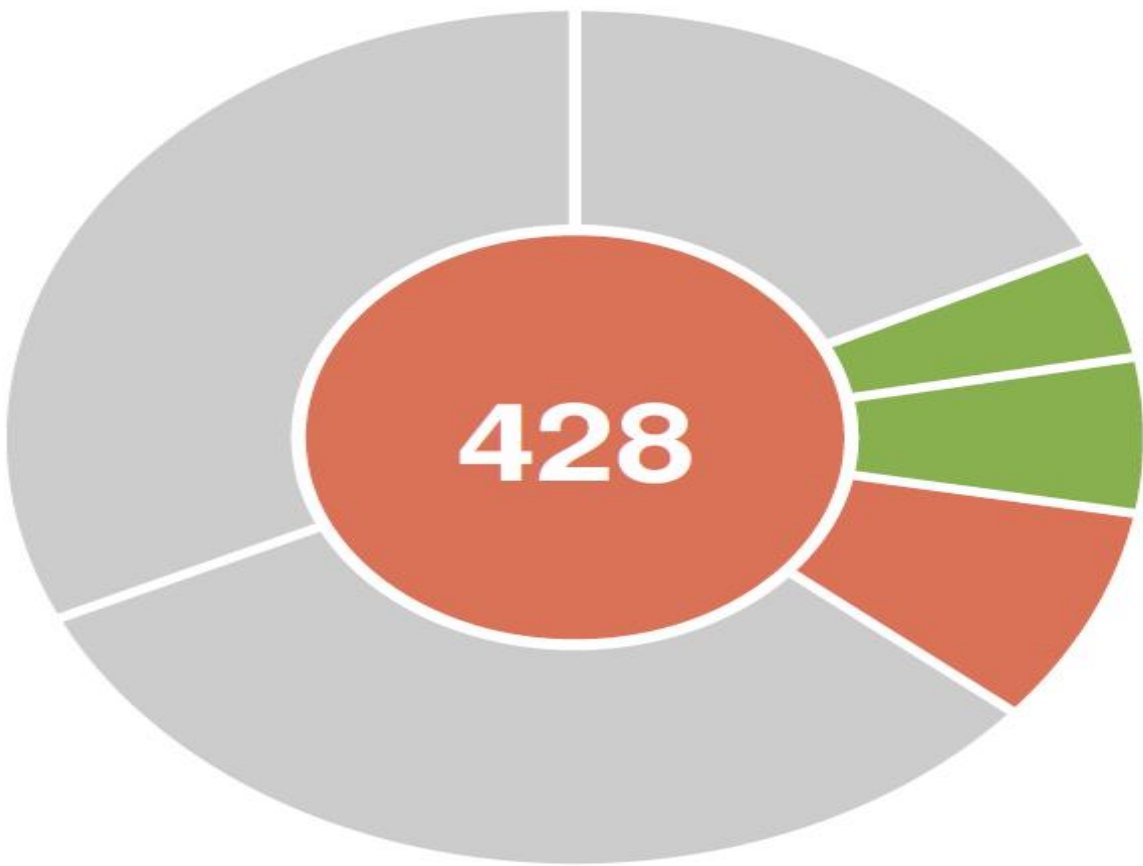
Severity and Susceptibility



External Cyber Risk Assessment for www.advisenltd.com

For www.advisenltd.com, the overall cyber risk profile is Poor. The business risk profile is Excellent, the website security is Poor, and email integrity is Good. However, only 10% of the cyber risk surface is exposed externally. To answer the questions raised during the external audit requires an internal assessment of the system's configuration state.

Total Risk Profile



Executive Summary

See [online report](#) for full results

Business: 950

Checks: legal environment, geographic risk, industry risk and more

Communications: 866

Checks: SPF record, DKIM, DMARC and more

Website: 426

Checks: SSL enabled, domain expiry, X-powered by header and more

Security [Requires Internal Scan](#)

Checking servers for known vulnerabilities requires internal scan

Compliance [Requires Internal Scan](#)

Running compliance checks relevant to industry requires internal scan


Severity and Susceptibility



Cyber Limits Assessment Report

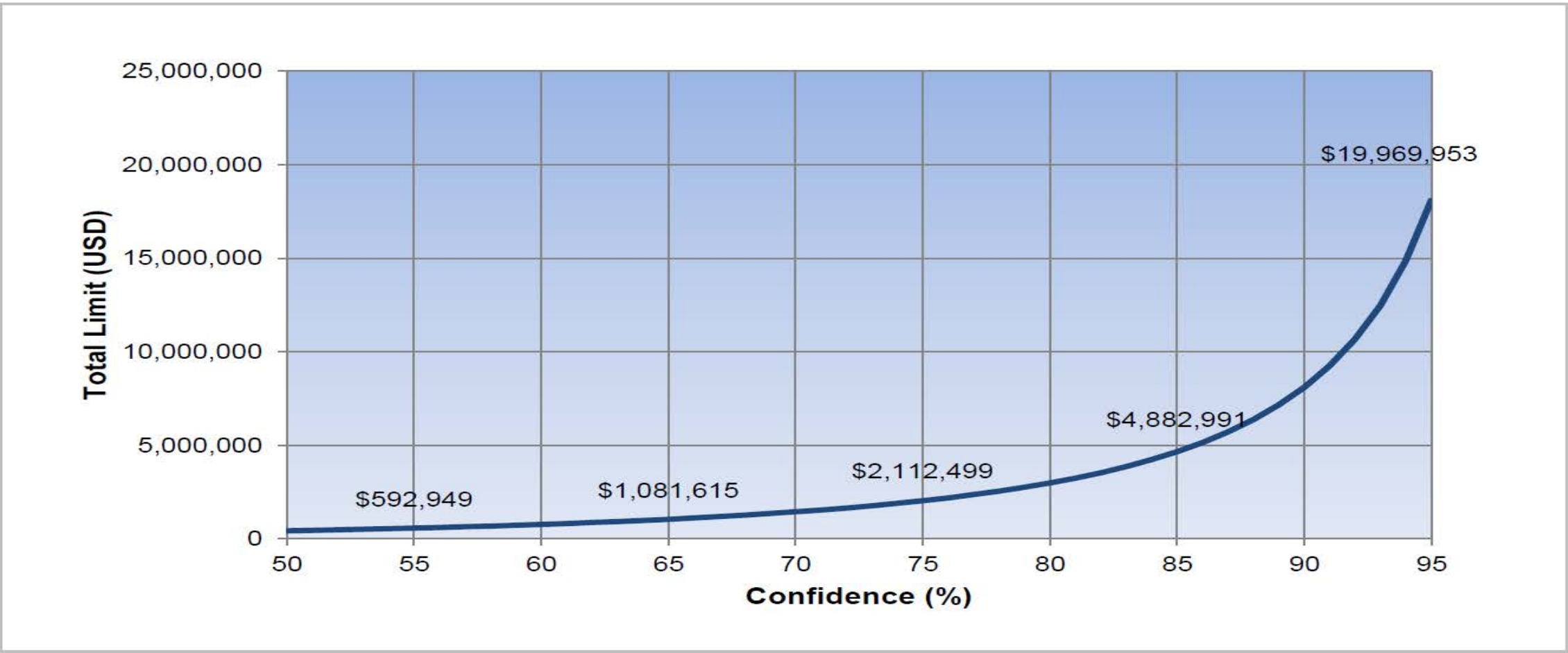
Prepared For:
Total Revenue:
Assumed No. of Records Lost:
Record Type

ACME Inc.
\$40,000,000
3,000
PFI



Based on selected assumptions, the following total limits are recommended. Confidence levels shown indicate the percentage certainty proposed limits will cover the cost of a possible data breach.

TOTAL LIMITS	CONFIDENCE
\$1,000,000	63.74%
\$4,000,000	82.90%
\$9,000,000	90.33%
\$20,000,000	95.01%



The following limits illustrate severity within the dataset when losses of each type occur exclusively.

FIRST PARTY LIMITS		CONFIDENCE		THIRD PARTY LIMITS		CONFIDENCE	
\$1,000,000		75.93%		\$1,000,000		92.69%	
\$2,000,000		90.68%		\$1,000,000		92.69%	
\$4,000,000		95.37%		\$1,000,000		92.69%	
\$9,000,000		97.92%		\$2,000,000		95.76%	

Are we doing it correctly? Disruption?

- Distribution?
- Underwriters look at the risks one way
- Technical people might look at it another way, BUT
- Isn't everyone making money?

Insuretech: What Are They After?



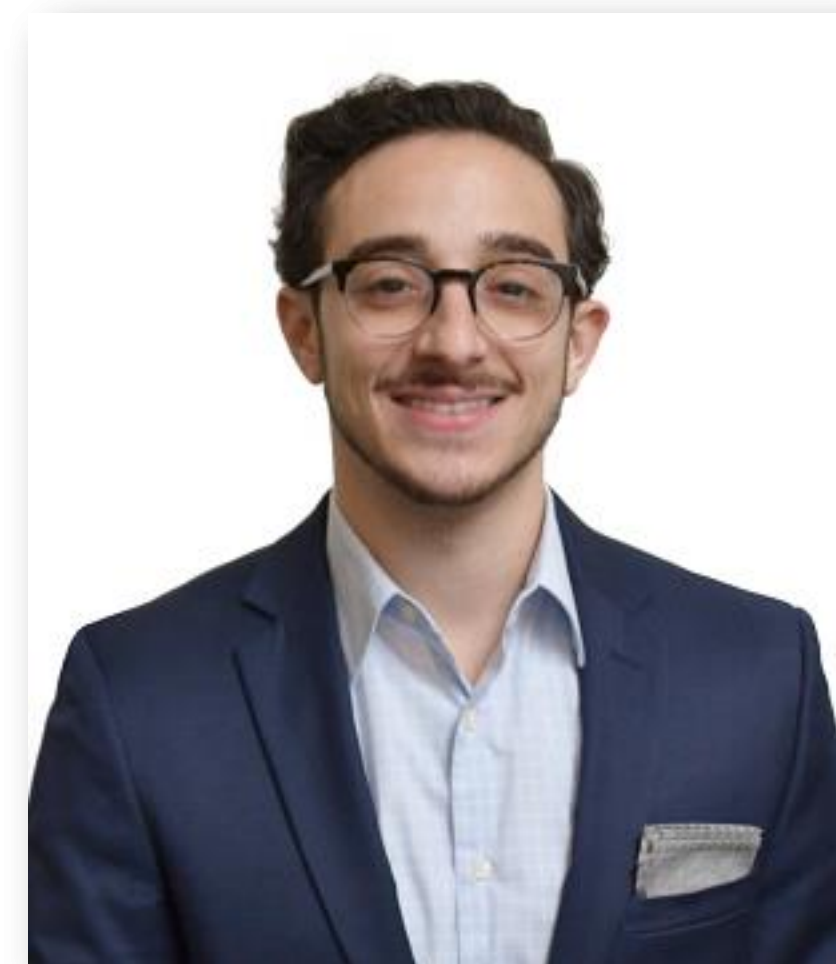
Garrett Koehn
CRC Insurance Group



Yida Gao
New Enterprise Associates



Sidd Gavirneni
Zeguro



Philip Rosace
Cyence



Jay Sarzen
Aite Group



Conference Luncheon

Coming up next...

SME FOCUS

***Join Advisen experts for an optional workshop on
“Actionable Intelligence” near the registration
table.***



SME Focus

SME FOCUS



Bill Cosgrove

Managing Principal & Practice Leader,
Financial & Executive Risks

EPIC

Moderator

SME Focus

- **Bill Cosgrove**, Managing Principal & Practice Leader, Financial & Executive Risks, EPIC (Moderator)
- **Winston Krone**, Managing Director, Kivu Consulting
- **Jordan Rankell**, Assistant Vice President, West Coast Regional Underwriting Manager, NAS

SME Focus



Bill Cosgrove
EPIC



Winston Krone
Kivu Consulting



Jordan Rankell
NAS



Growing the Cyber Insurance Market: The Government Roadmap

Growing the Cyber Insurance Market:



Davis Hake

Cybersecurity Strategist,
Center for Strategic and International
Studies
Moderator

Growing the Cyber Insurance Market:

- **Davis Hake**, Cybersecurity Strategist, Center for Strategic and International Studies (Moderator)
- **Geoff Belknap**, CSO, Slack
- **Andy Steingruebl**, Senior Director, PayPal
- **Brian White**, COO, RedOwl

Growing the Cyber Insurance Market:



Davis Hake
Center for Strategic and
International Studies



Geoff Belknap
Slack



Andy Steingruebl
PayPal



Brian White
RedOwl



Afternoon Break

Coming up next...

Coverage and Conditions: A Moving
Feast

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Coverage and Conditions: A Moving Feast

Coverage and Conditions

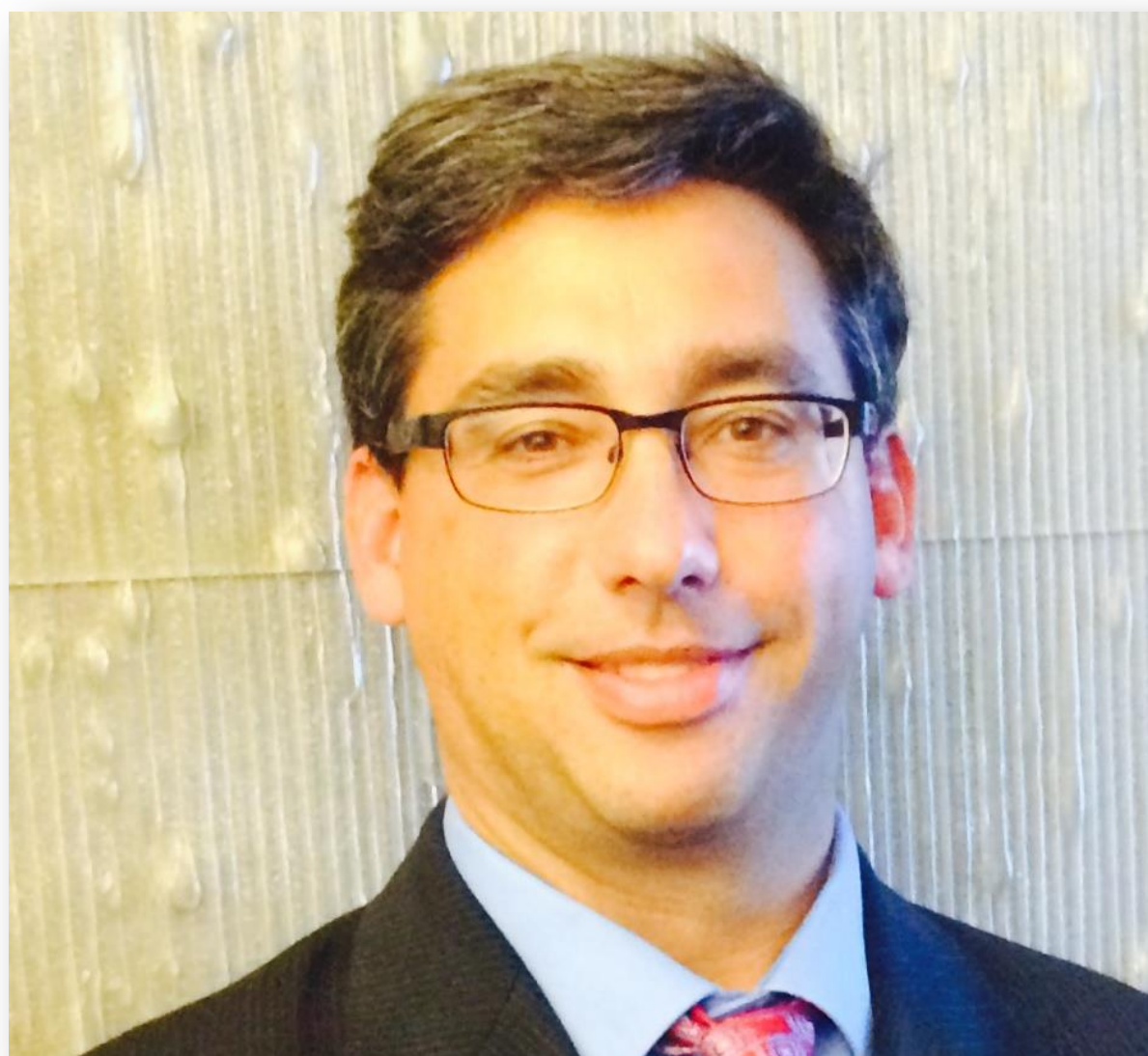


Tim Francis
Enterprise Cyber Lead
Travelers
Moderator

Coverage and Conditions

- **Tim Francis**, Enterprise Cyber Lead, Travelers (Moderator)
- **Jason Glasgow**, Vice President Cyber Lead, Allied World
- **Florence Levy**, Senior Vice President, Cyber / E&O Practice, JLT Specialty USA
- **Bob Parisi**, Managing Director, Marsh

Coverage and Conditions



Tim Francis
Travelers



Jason Glasgow
Allied World



Florence Levy
JLT Specialty



Bob Parisi
Marsh



Reaching Capacity?

Buying and Claims Trends

Buying and Claims Trends



Gregory Bautista
Partner
Wilson Elser
Moderator

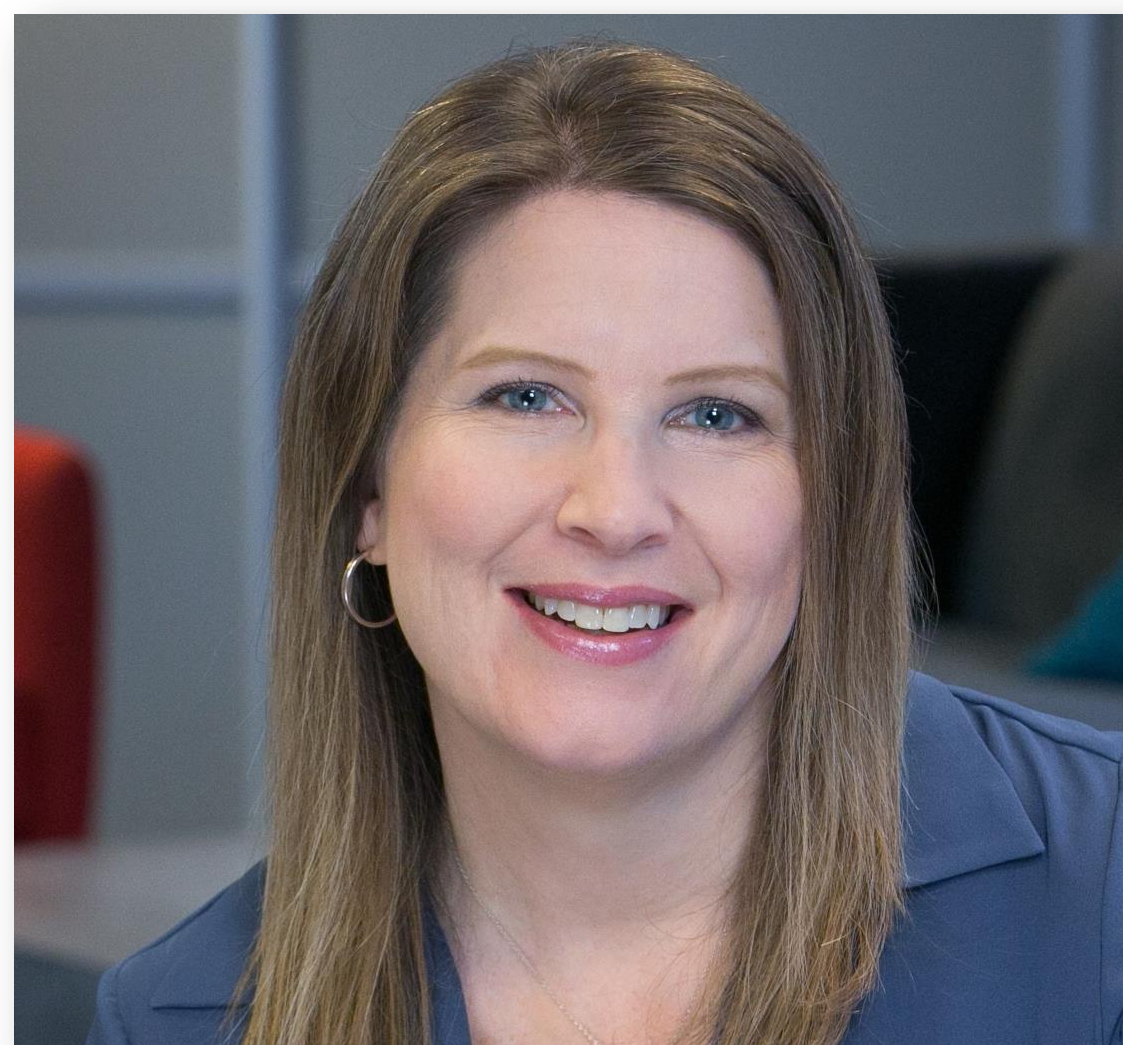
Buying and Claims Trends

- **Gregory Bautista**, Partner, Wilson Elser (Moderator)
- **Lauri Floresca**, Senior Vice President & Partner, Co-Chair, Cyber Liability Team, Woodruff Sawyer
- **Aaron Laderman**, Regional Underwriting Manager, Financial Lines, AIG
- **Catherine C. Lyle**, Claims Expert, Swiss Re Corporate Solutions

Buying and Claims Trends



Gregory Bautista
Wilson Elser



Lauri Floresca
Woodruff Sawyer



Aaron Laderman
AIG



Catherine C. Lyle
**Swiss Re Corporate
Solutions**

Closing Remarks & Reception



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