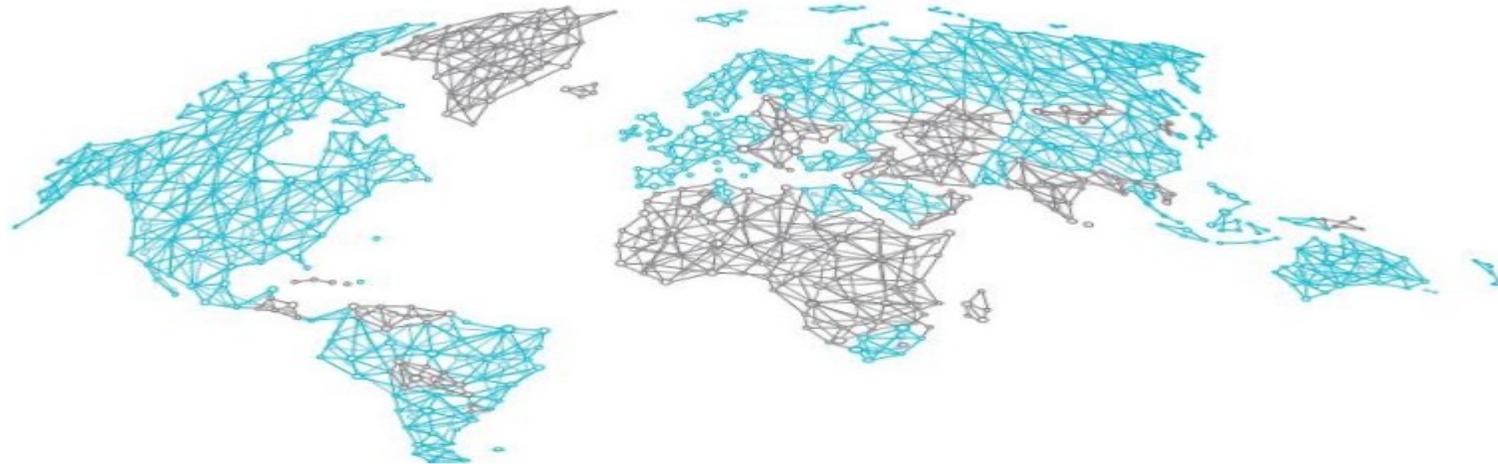


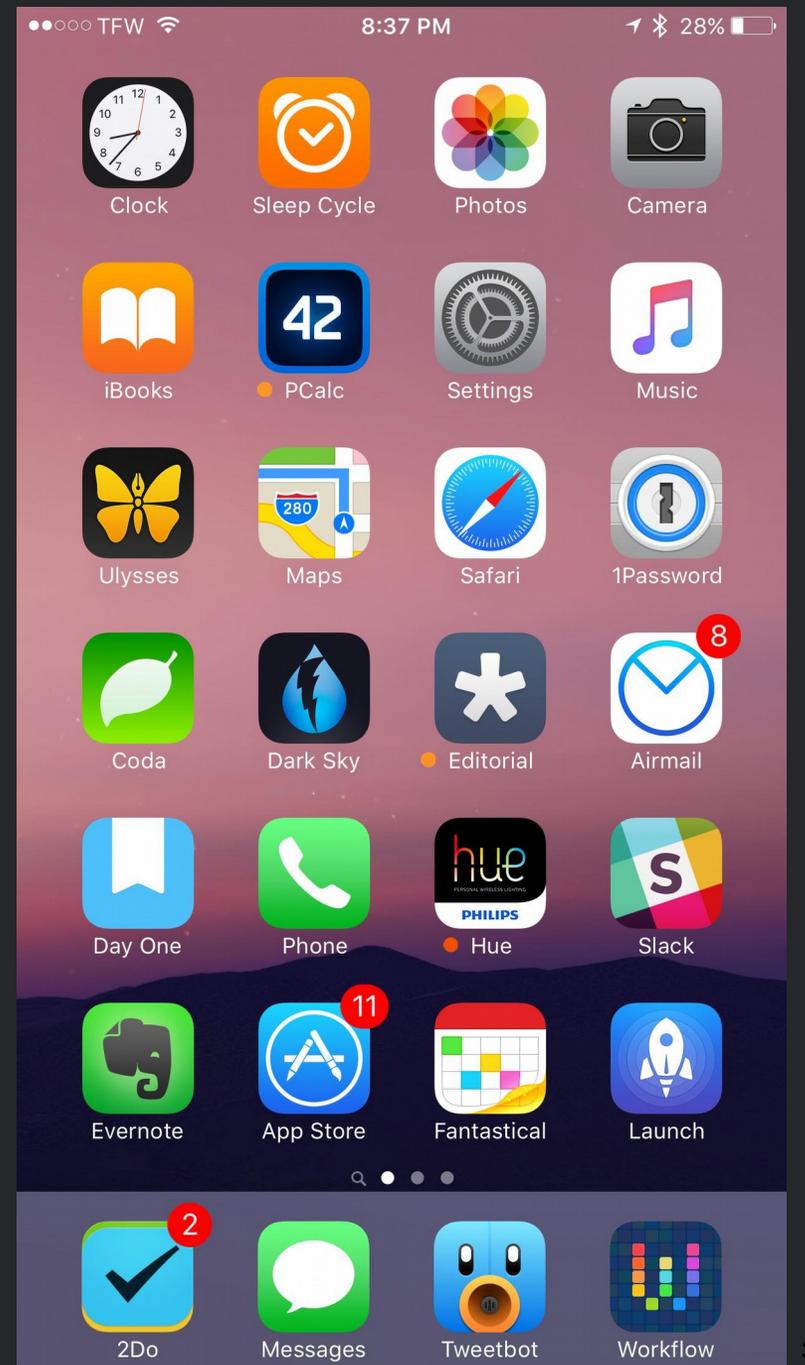
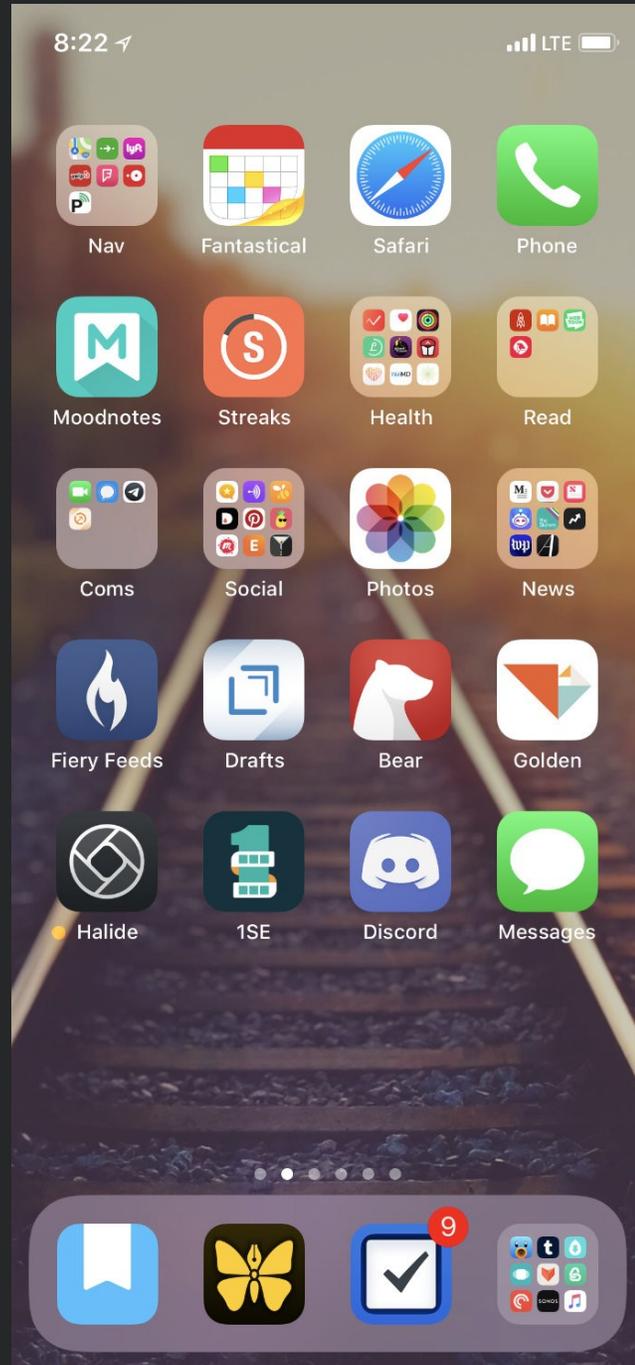


ERM – Cyber Insurance
CHUBB experience
Nikolay Dmitriev

About Chubb

- The world's largest public P&C insurer with market cap \$63B (April 5, 2019)
- Acquisition of Chubb by ACE Group in 2016 for \$29.6B
- Financial strength rating AA by S&P and A++ by A.M.Best
- Total capital - \$63.2B, Total Assets - \$167.8B at 31.12.18
- Operating subsidiaries in 54 countries, 32,700 employees
- 2018 GWP = \$38B, 5 year Average CoR = 89.8% (9.8% better than US peers)





DAVOS 2019 – PWC CEO survey

TOP 2019 THREATS

1. Over-regulation
2. Policy uncertainty
3. Availability of skills
4. Trade conflicts
5. Cyber threats

1. Geopolitical uncertainty
2. Protectionism
3. Populism
4. Technological change
5. Exchange rate volatility



“There are two kinds of big companies. There are those who’ve been hacked... and those who don’t know they’ve been hacked.”

James Comey, former Director of the FBI

NotPetya – the Global Cyber Catastrophe

<https://www.wired.com/story/notpetya-cyberattack-ukraine-russia-code-crashed-the-world/>

SECURITY

NotPetya ransomware outbreak cost Merck more than \$300M per quarter

The massive ransomware bill faced by Merck echoes the financial hits taken by other enterprises like Maersk and FedEx.

Reckitt Benckiser blames NotPetya outbreak for £100m revenue loss that took down key applications and systems, and disrupted factories

Consumer goods giant admits that some factories still haven't recovered from NotPetya a week after the attack



Security

NotPetya ransomware attack cost us \$300m – shipping giant Maersk

Security

FedEx: TNT NotPetya infection blew a \$300m hole in our numbers

File-scrambling malware put a bomb under shipping giant's sales growth

The Digital Age

- Industrial Age polices are not designed for the **digital age exposures** businesses now face.
- **Cyber insurance** is a new evolving insurance product.
- **The inevitable breach** - it's no longer about keeping them out, it's about minimizing the damage.
- **Mobile devices** and instant access to information are the norm. Mobile networking has expanded dramatically creating ever more nodes to a network.
- Privacy concerns and evolving **global legislation**.
- The crisis management and investigation costs are too much for some businesses to incur and survive. **Cash flow protection**.

Cyber Policy – Insuring Agreements

1. Privacy Liability
2. Network Security Liability
3. Media Liability
4. Cyber Extortion
5. Data Asset Loss
6. Business Interruption

Including Incident Response Costs



Chubb ERM V2
Cyber wording

Cyber ERM coverage summary

Privacy Liability	Network Security Liability	Media Liability	Incident Response	Cyber Extortion	Data Loss	Business Interruption
<p>Liability arising from the duty to maintain confidentiality of:</p> <ul style="list-style-type: none"> - Personal information, or - Corporate information. 	<p>Liability arising from the duty to maintain network security for third parties.</p>	<p>Liability arising from harm to the reputation, defamation, infringement of copyrights in the performance of providing online media</p> <ul style="list-style-type: none"> - Includes Social Media Websites 	<p>Supports all insuring agreements to efficiently mitigate <u>any covered event</u>.</p> <ul style="list-style-type: none"> - Forensic Investigation - Breach Notification - Legal advise - Public Relation - Call center 	<p>Cover for expenses and ransom (where insurable)</p> <ul style="list-style-type: none"> - Multinational - Ability to Pay in Bitcoin 	<p>Cover for destruction, lockout, or corruption of data, caused by:</p>	<p>Costs and lost income due to the inability to access computer systems caused by:</p>
<p>Lawyers' fees, expert fees and other fees and costs incurred in the Investigation and Defense of a covered claim</p> <p>Regulatory penalties and fines as per applicable Privacy legislation</p>					<ul style="list-style-type: none"> - Malicious Acts & Malware - Hacking - Unauthorized use - Programming Error - Human error - Accidental Events - the reasonable and necessary shutdown of all or parts of Your Computer System in an attempt to prevent or mitigate the above 	

Which incidents are insurable?

Malicious Insiders

- Malicious Code
- Unauthorised Access or Use
- Targeted Attacks
- Non-Targeted Attacks
- Channel Attacks
- Cyber Terrorism
- DDoS
- Ransomware
- Toll Fraud
- Wire Transfer Fraud
- Phishing / Social Engineering
- Data Theft
- Data Deletion / Encryption

Malicious Outsiders

Accidental Insiders

- System Failure
- Security Failure
- Unpatched Vulnerabilities
- Expired Security Certs
- Negligence
- Human Error
- Programming Error
- Power Failure
- OSP Failure
- Telecom Failure
- Physical Loss / Damage

Accidental Outsiders

Which exposures are insurable?

Privacy Liability	Network Security Liability	Online Media Liability	IT Forensics	Individual Credit and Fraud Monitoring	Notification Costs	Legal Review
Regulatory Defence	Fines and Penalties	Indemnity Costs	Income Loss	Data Recovery	Cyber Extortion Response	Increased Costs of Working
Relocation Costs	Forensic Accounting	Emergency Costs	Increased Costs of Labour	Toll Fraud	Fraudulent Transfer of Money (Crime)	Property Damage
Bodily Injury	Product Defect	Inventory or Material Impairment	Equipment Disposal and Replacement	Product Recall Costs	Contractual Penalties	Dependent Business Interruption
Betterment	Recovery and Restoration	Consumer Redress Funds	Reputational Harm and Public Relations	IP Prosecution Costs	Civil and Criminal Bonds	Investigative Impairment

Incident Response Time Line and Activity

1st Call

- 365/ 24 /7
- Incident response manager Appointed
- First response to the Insured

5 Hrs

- Appoint specialists
- Triage call (s) with stakeholder
- Commence investigations
- Immediate mitigation
- Clear discovery plan emerges

24hrs

- Investigation well underway
- Initial indications emerging
- Mitigation work continues
- Regular updates to stakeholders

48 hrs

- Initial investigations concluded
- Regular updates to stakeholders continued
- Policy coverage view emerging
- Clear solution plan emerging

“The worst thing a company can do when it’s been hacked is try and think on their feet.”

The Chubb Incident Response Solution

- 24/7/365 hotline
- Guaranteed response within 1 hour from an incident manager
- Incident response plan of action in place in 4 hours
- Global Capability
- Local Vendors, Local Incident Responders
- Responds to all insured cyber risks including DDoS, Ransomware, Cybercrime
- Post-Incident reporting
- Insured retains power to choose vendors and direct response.



Enhancements for Chubb Cyber ERM Proposition

Dynarisk Partnership

Free licences & exclusive discounts for Chubb Cyber Policy Holders

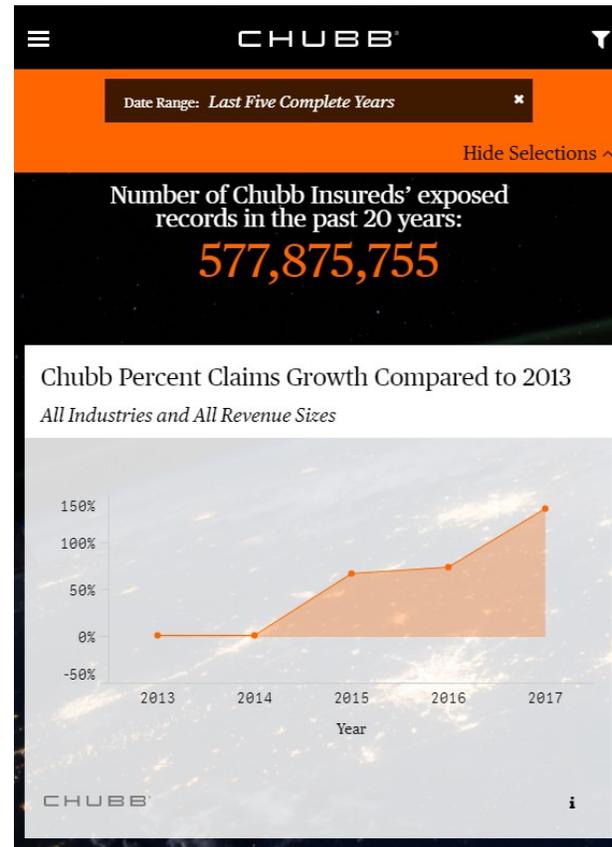
DynaRisk has pioneered the world's first Personal Security Score. DynaRisk's platform gives anyone a tailored security score along with simple actions to take to reduce their risk.



How DynaRisk helps protect you from cyber crime.



www.chubbcyberindex.com



Chubb Cyber Alert App

CHUBB

Cyber AlertSM

Chubb's Cyber AlertSM application is designed for Chubb's cyber policyholders and offers 24/7 incident reporting at your fingertips.

Cyber Market

- Estimated at **\$4.3B globally**, fast growing; Chubb share 15%.
- Competition: AIG, Beazley, Liberty, Allianz, Zurich, CFC Underwriting, HCC Tokio Marine, Hiscox, QBE, 80 markets in London.
- Chubb “working” **capacity \$20m**, up to \$100m for Major Accounts.
- Dedicated Chubb **Cyber underwriters in 35 countries**, Cyber Engineering teams in the key markets.
- 20+ years of Cyber underwriting and claims handling experience.
- Main **pricing factors**:
 - Business activity
 - Size of the company
 - Controls
 - Redundancy of the systems and restore time objective

Chubb Cyber Appetite Guide

Preferred	Accepted	Selective	Opportunistic
Advertising	Accountants	Assisted Living Facilities	Casinos
Agriculture	Allied Health Providers	Broadcasting	Critical Infrastructure
Architects & Engineers	Asset Managers	Call Centers	Data Processing
Art Galleries & Museums	Billing Services	Collection Agencies	Direct Marketing
Automotive Dealers & Service Stations	Colleges and Universities	Commodities Traders	EMR Storage
Chemicals and Allied Products	Computer Hardware / Software	Currency Exchanges	Factoring Companies
Communications	Doctor's/Dentist's Offices	Depository Institutions	Health Systems
Construction	Employment Agency / Personnel Agency	Financial Institutions	HMO / PPO
Engineering and Management Services	General Contractors	Hospitals	Insurance Carriers - Personal Lines
Manufacturing	Law Firms - Corporate Based	Insurance - Non-Personal Lines	Online Gaming Platforms
Food Production / Manufacturing	Management Consultants	Investment / Fund Managers	Online Media Streaming
Government	Marketing Consultants	Notaries	Payment Card Processing
Industrial Manufacturing	Mining	Nursing / Retirement Home	Payroll Services
Non-Profit	Mortgage Brokers	Public Authority / Special District	
Printing and Publishing	Performing Arts & Theatres	Restaurants / Hospitality	Prohibited
Products Manufacturing	Personal Services	Retail	Adult Content
Public Administration	Professional Services - Not Otherwise Listed	Retail Savings Bank	Airlines
Real Estate	Technical Consultants	Securities and Commodities Brokers	Data Aggregators
Small Schools / School Board Pre-K to 12	Trade Associations	Telecommunications	Online Exchanges
TV/Radio/Movie Production	Transportation Services - Not Otherwise Listed	Telemarketing Services	Social Networking Site / Application
Wholesalers		Title Agents	Trading Platforms
		Utilities	

Summary

- Cyber **threat is real** and high on business leaders' agenda.
- Much of the exposure is **insurable**.
- There are **specialized underwriters and intermediaries** in this Line.
- **Products are complex** and evolving – talk to professionals.
- **Competitive** market.
- We have **existing Cyber clients** in Pakistan and the submission flow is growing.
- **Consider Chubb for your Cyber insurance needs.**

CHUBB®

Questions