

BTA National Conference

The growing importance of cyber security

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Merrill Lynch

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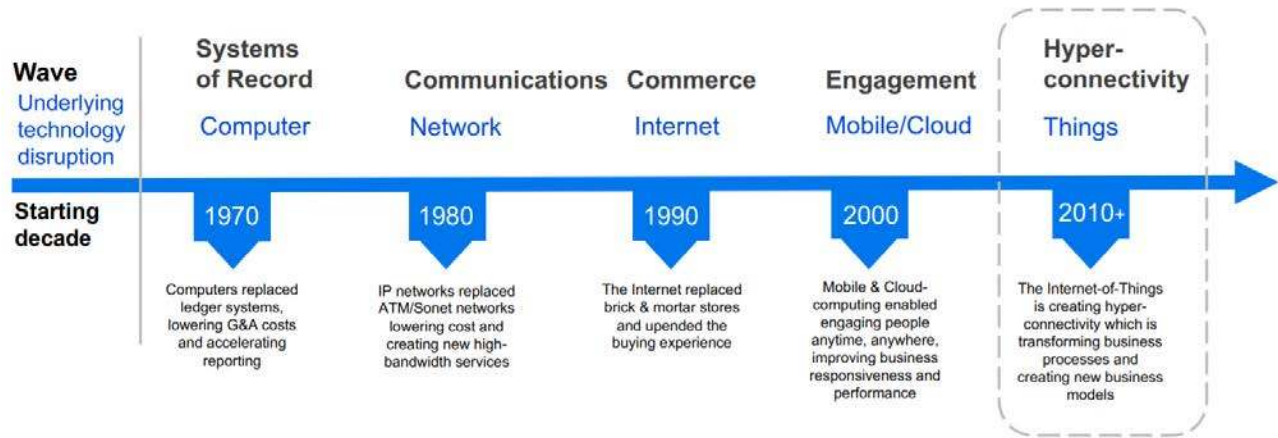
Agenda

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- Hack / Threat environment
- Attack vectors and cyber complexity
- Why it matters: business costs
- Ways to protect and defend
- Emerging areas of cyber security & vendor strategies
- Conclusions

Hack / Threat environment

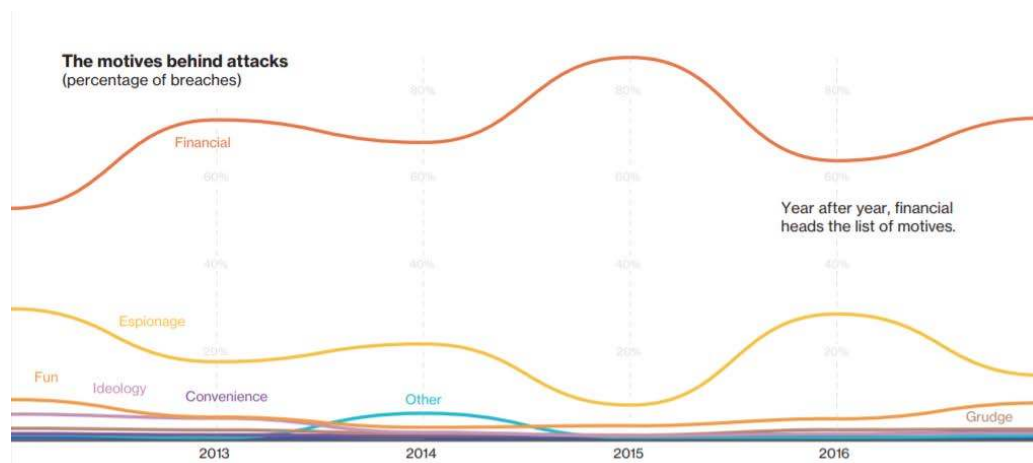
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Source: Blackberry

Hack / Threat environment

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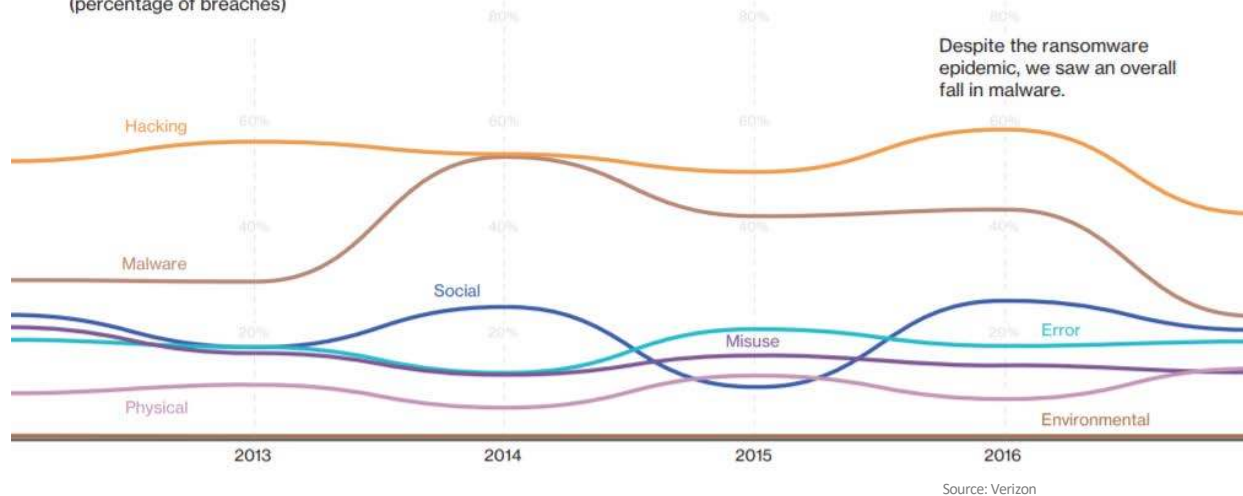


Source: Verizon

Hack / Threat environment

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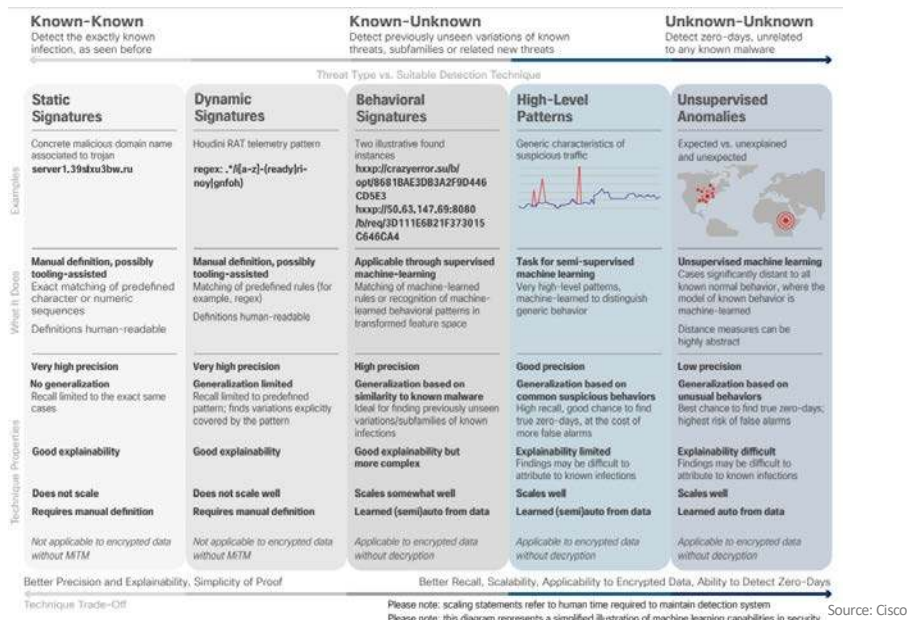
The leading threat actions
(percentage of breaches)



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Hack / Threat environment

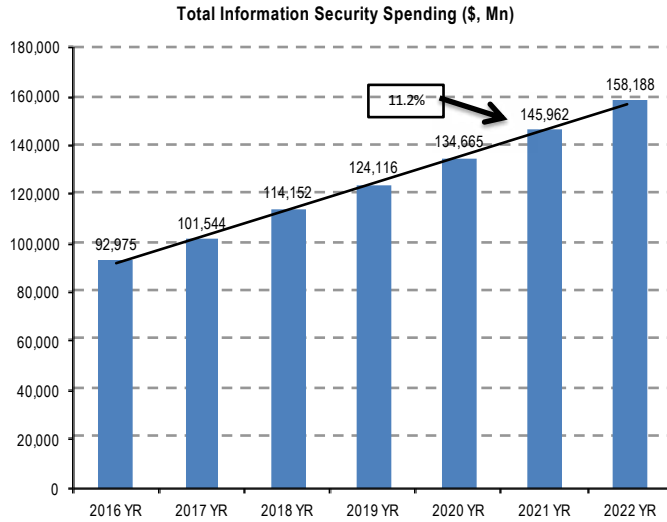
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Hack / Threat environment

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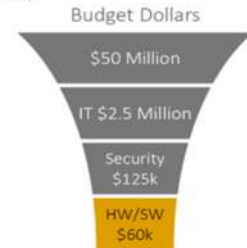


Overlay Economic Reality

- 5% of revenue on IT
- 5% of IT budget on security

People versus equipment

- 45% hardware / software
- The rest is personnel, outsourcing and consulting

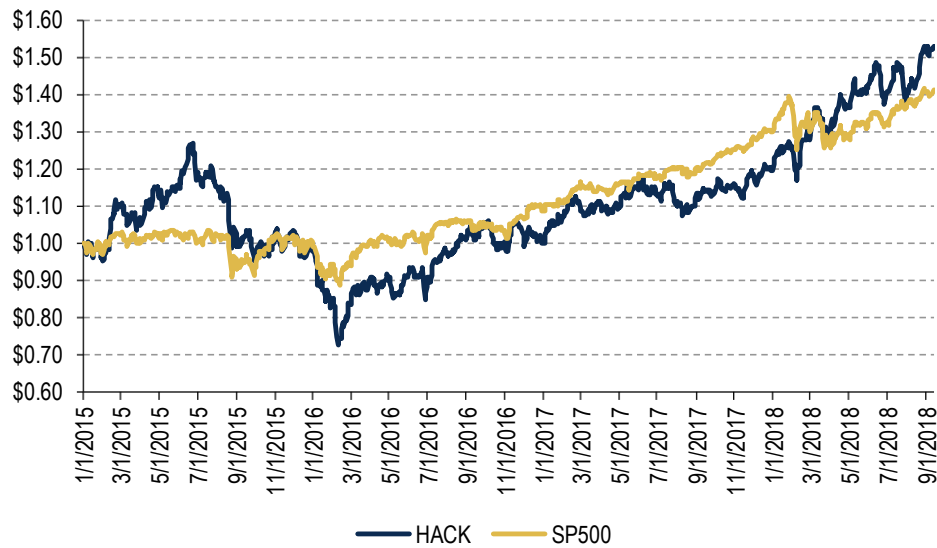


Source: Gartner, Barracuda Networks

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Hack / Threat environment

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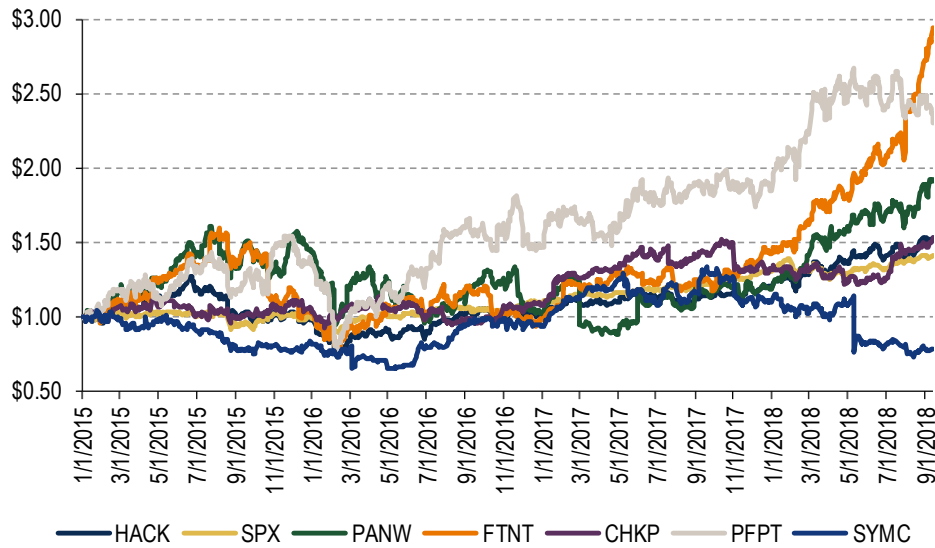


Source: Bloomberg, BofA Merrill Lynch Global Research

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Attack vectors and cyber complexity

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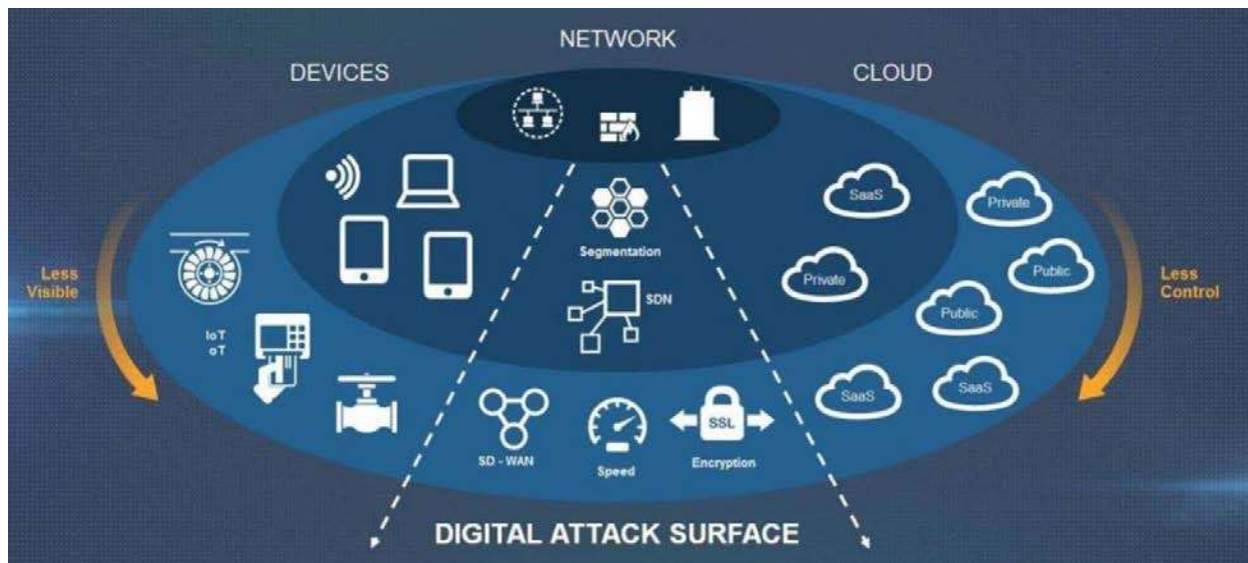


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Source: Bloomberg, BofA Merrill Lynch Global Research

Attack vectors and cyber complexity

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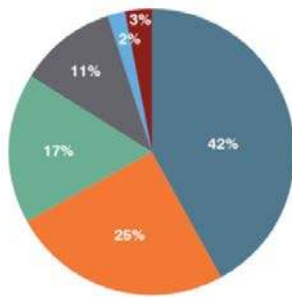


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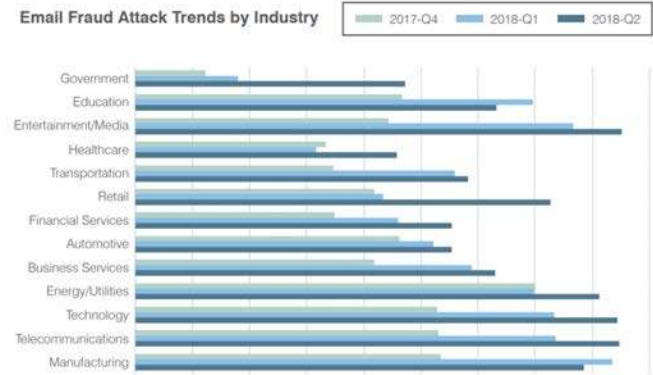
Source: Fortinet

Attack vectors and cyber complexity

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Email Fraud Attack Trends by Industry

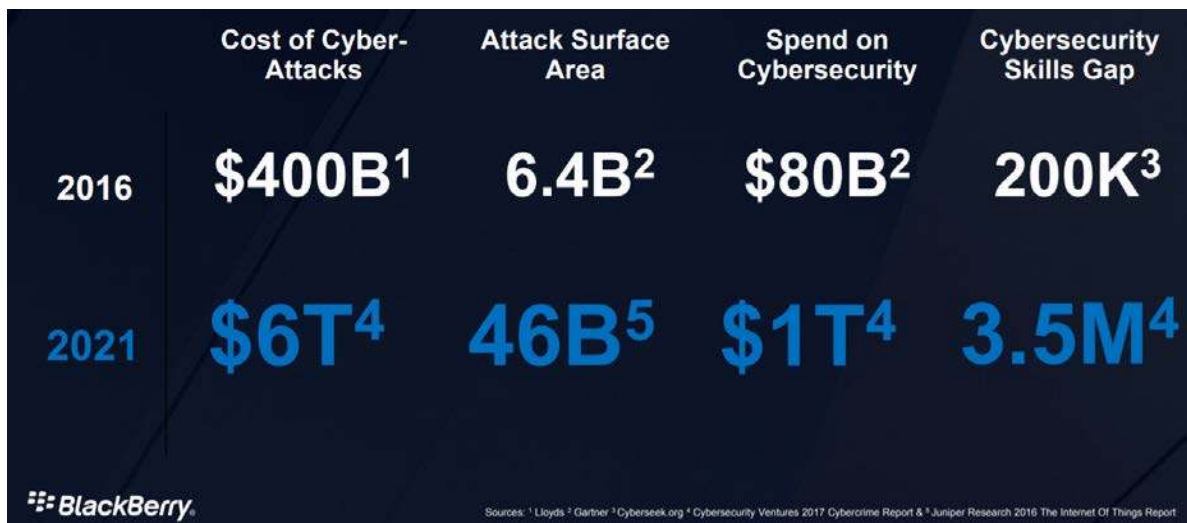


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Source: Proofpoint

Why it matters: business costs

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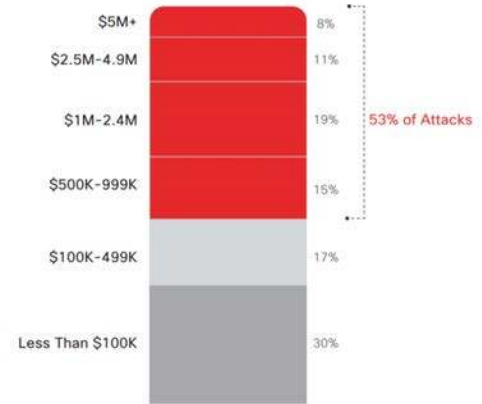


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Source: BlackBerry

Why it matters: business costs

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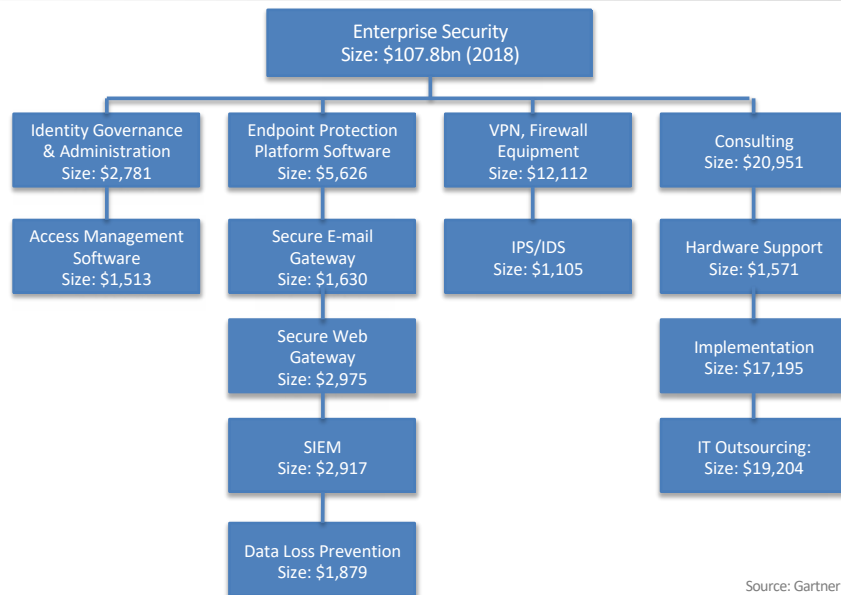


Source: Cisco

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Ways to protect and defend

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Source: Gartner

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Ways to protect and defend

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Source: BofA Merrill Lynch, Global Research

Ways to protect and defend

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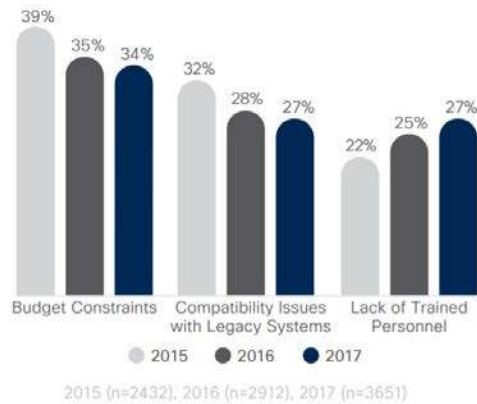
	Identify	Protect	Detect	Respond	Recover
Devices		X	X		X
Applications	X	X		X	X
Networks	X		X	X	
Data		X	X		X
Users	X			X	
Degree of Dependency	Technology				People
	Process				

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Source: BofA Merrill Lynch, Global Research

Ways to protect and defend

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	1H17	2H17
Cloud Security	20%	18%
Firewall	24%	15%
Next-Generation Endpoint Security	NA	17%
Secure Web Gateways	NA	13%
Anti-Virus Solutions	16%	18%
Security Outsourcing Services	4%	8%
Privileged Account Management	9%	11%

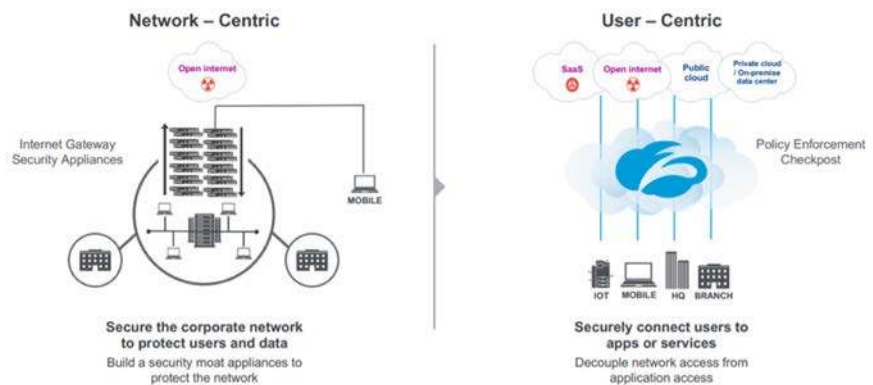
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Source: Cisco, 451 Research, BofA Merrill Lynch Global Research

New and emerging areas of cyber security

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- 1) Cloud
- 2) Social
- 3) Endpoint / IoT
- 4) Services / Automation



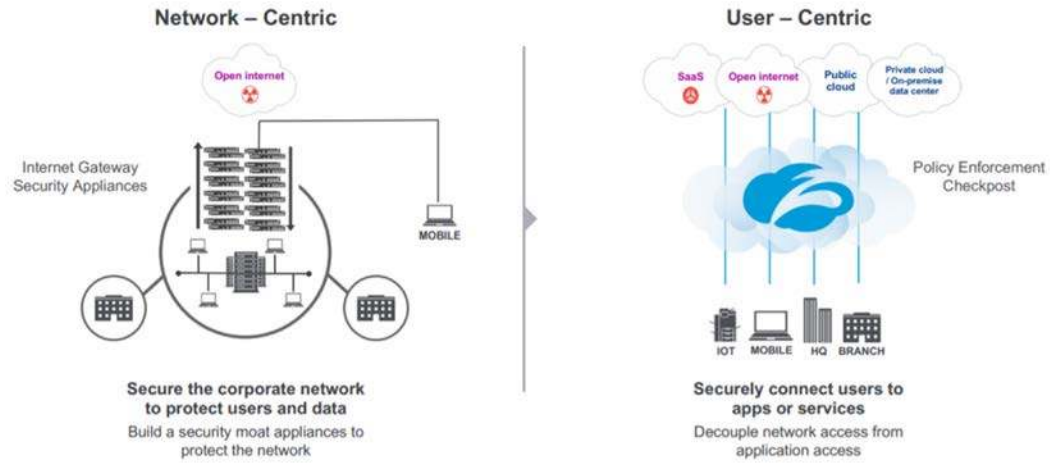
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Source: Zscaler

New and emerging areas of cyber security

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- 1) Cloud



Source: Zscaler

New and emerging areas of cyber security

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- 2) Social



Source: Proofpoint

New and emerging areas of cyber security

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- 3) Endpoint / IoT



Source: Cisco

New and emerging areas of cyber security

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- 4) Services / Automation



Source: Cisco

Conclusions

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- Security is a consistent growth industry
- Cloud is a massively disruptive force
- Focus shifts from network to data / users
- Problems: people, vendors, and rate of change
- Solutions: outsourcing, partners, and re-architecture

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Underperform	N/A	≥ 20%

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