Completely Changing The Cyber Landscape - Breaking The Dependence on Networks and Devices

DAFITC

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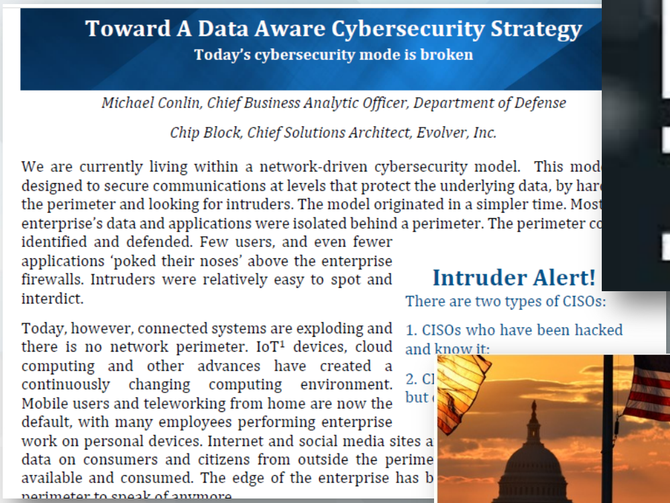
Chip Block

Vice President,
Chief Solutions Architect
Evolver

- Works extensively in cyber research, development & operations for Federal, Defense, Commercial/Financial & Legal Clients
- Frequent author and speaker on cybersecurity, cyber risk, and advanced cyber technologies
- Awarded several high-level honors for his advanced technological achievements



Toward A Data Aware Cybersecurity Strategy
Today's cybersecurity mode is broken

Michael Conlin, Chief Business Analytic Officer, Department of Defense

Chip Block, Chief Solutions Architect, Evolver, Inc.

We are currently living within a network-driven cybersecurity model. This mod
designed to secure communications at levels that protect the underlying data, by har
the perimeter and looking for intruders. The model originated in a simpler time. Most
enterprise's data and applications were isolated behind a perimeter. The perimeter co
identified and defended. Few users, and even fewer applications 'poked their noses' above the enterprise firewalls. Intruders were relatively easy to spot and interdict.

Today, however, connected systems are exploding and there is no network perimeter. IoT[1] devices, cloud computing and other advances have created a continuously changing computing environment. Mobile users and teleworking from home are now the default, with many employees performing enterprise work on personal devices. Internet and social media sites a
data on consumers and citizens from outside the perime
available and consumed. The edge of the enterprise has b
perimeter to speak of anymore

Intruder Alert!

There are two types of CISOs:

1. CISOs who have been hacked and know it;

2. Cl
but

Why the Next White House Cyber Czar should be an Economist

Chip Block
Vice President and Chief Solutions Architect at Evolver, a Converged Security Solutions Company

26 articles

Evolver / SBD^2

We have provided support to clients with:

- Tens of thousands of employees
- Hundreds of thousands customers
- Billions of dollars in assets

Capabilities:

- Cyber implementation and deployment
- Cyber operations
- Risk management and assessment
- IT enterprise infrastructure support

Industries We Serve

- Federal/ Defense
- Financial
- Legal
- Oil and Gas
- Consumer
- Healthcare
- State/Local

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Companies will spend over $219B in 2023 on cybersecurity (IDC)

Cyber criminals made over $10B in 2022 (FBI Report)

Both numbers are rising quickly

What we're doing isn't working!

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WHY WHAT WE ARE CURRENTLY DOING ISN'T WORKING

Current Cyber Approach

Threat Actor

Exploit Target Network

Steal/Lock/ Destroy Data

Disrupt this chain and systems are protected

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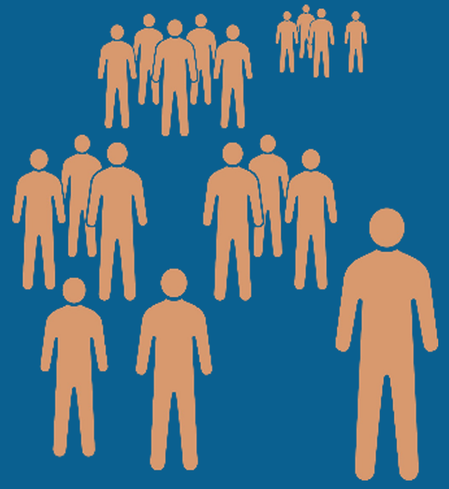
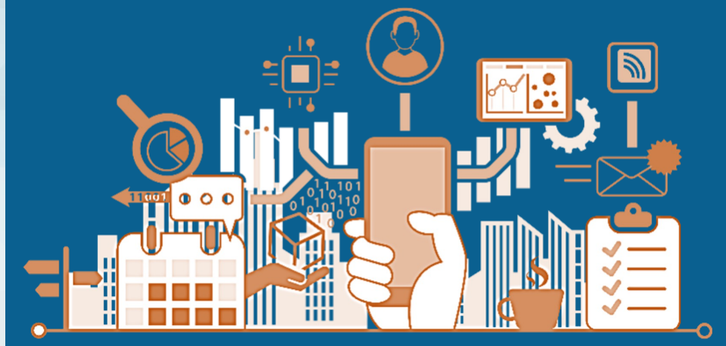
THE REALITY OF CYBERSECURITY



There are an almost unlimited number of digital and human attackers

There is no defined network



2.5 quintillion bytes of data were created every day in 2020 (SG Analytics, 2020)

The scale of the problem makes the current approach infeasible

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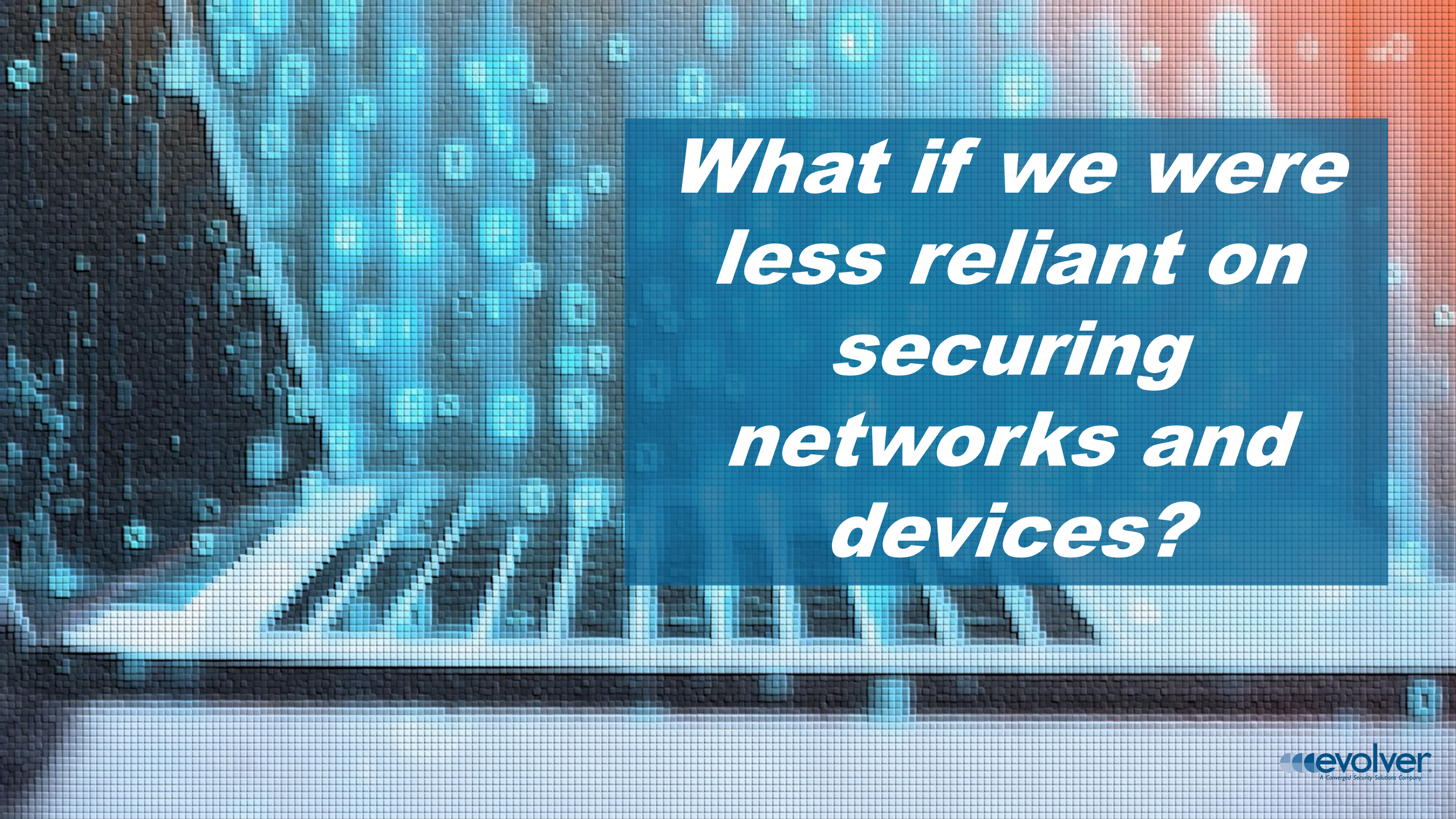
What if we were less reliant on securing networks and devices?

Using concepts developed by Evolver and technology developed by Galaxkey, we can now **secure data at the file level** independent of the network and devices

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EDUCATION EXAMPLE

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Now imagine this at scale

Each sensitive file is uniquely encrypted and only seen by who has authorization to see it.

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The keys for encryption can be controlled…

Data can become meaningless after a period of time

Data can only be seen on certain networks or even in certain geographic locations

Allow automated enforcement of policies

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The focus is on the data and the who, what & how it is managed

By moving to a **data centered security approach**, we are not spending billions of dollars trying to constantly keep up with the daily, or hourly, threat against every device, network and application and the cyber criminals aren't making billions of dollars and State actors are constantly gaining footholds

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The key to making this approach work…

A seamless experience for users still using existing capabilities

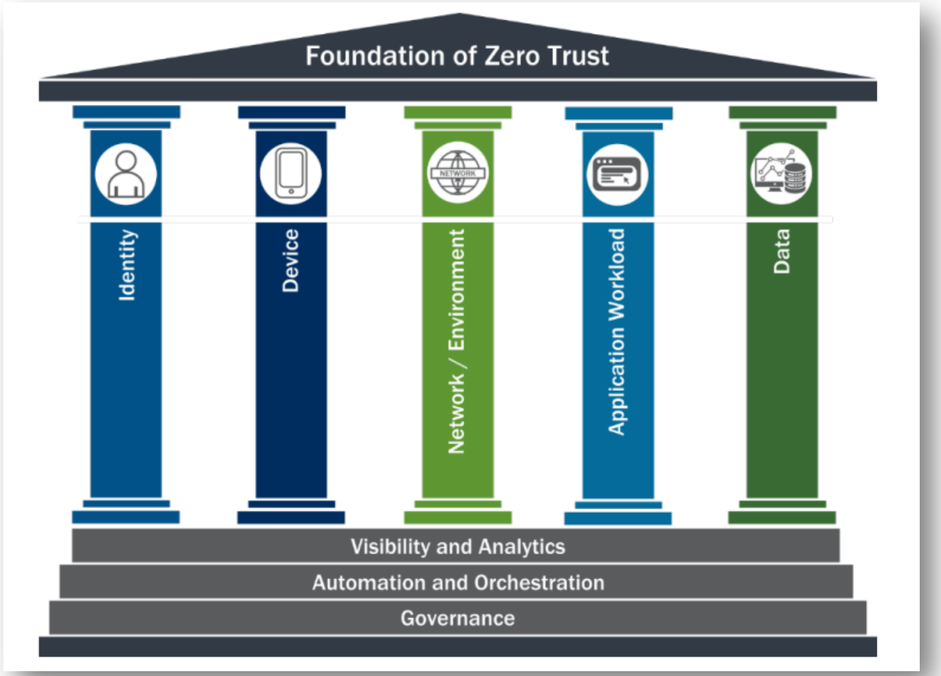
Affordable for the all-size organizations

Scalable to enterprise level

Technology & Tools Needed for Data Aware Security

- Data Control at the Micro/File Level
- Data Automatically Expires Based on Time
- Limitation of Data Movement Both IP & Geographic
- Easily Integrates with Existing Applications

Fulfills Data Pillar of the CISA Zero Trust Maturity Model



CISA Zero Trust Maturity Model

Data Security Independent of Network and Devices Is the Data Pillar

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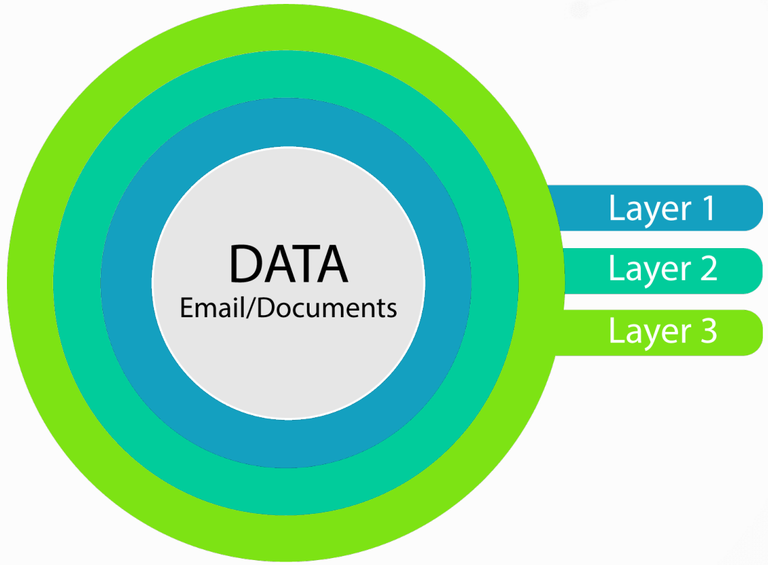
Security

- Each file uniquely encrypted and independent
- Encryption keys generated, managed in data owner's environment
- Federated key management allows for file level security at scale and without large scale breaches
- Identity based encryption
- End to end encryption



AES 256

01

AES 256 Encryption to secure the data. Data can be any form like emails, documents or even raw data.

ASSYM

02

Assymetric Encryption to create identity connection to the encrypted data. Data is encrypted for a specific user.

AES 256

03

Additional layer of encryption to unlock the second layer. The users password and Multi Factor used to protect the identity layer.

File level encryption with local data control changes the entire cybersecurity paradigm. Permissions are controlled by data owners, not IT staff. Data can have time, geography and usage limits controlled by owner key management. Large scale breaches no longer possible as each file is uniquely encrypted.

This is now possible, proven and available

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Q&A

Backup

Market Traction

Some of our users say…

"faster assessment returns, more environmentally friendly, saving time and money on DX and postage"

"It saved time as our bill was looked at straight away, Our documents were safe and reviewed more quickly. This is a much easier way of getting electronic evidence assessed"

KPMG in the Middle East (Saudi, Dubai and Bahrain) have switched to Galaxkey for all e-signature communications in-house and external clients.

Using Galaxkey to secure emails and now have started to use Workspace to share files securely with research organisations Globally.

Chose Galaxkey to secure communication with all the schools and universities in the UK.

Using Galaxkey in bespoke mode to secure highly confidential data with three authentication model and Yubikey for single sign on.

Deployed Galaxkey in 2020 and have received over 20TB highly sensitive files securely from over 8000 solicitors in the UK.

UK & Europe GE operations now use Galaxkey to share & collaborate highly confidential data via secure Workspace.