New threats from a changing security landscape. Symantec insights from ISTR

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Internet Security Threat Report

Volume

23





Brute force attacks

Trojans Phishing Worms Malware

DDos Intrusions SQL Injection

Session highjacking Vulnerabilities

Remotes scans Botnets

Internal Threat Virus Spoofing

Spyware Attacks Scams Control Spionage Scripting

Malicious code Hacktivism

Disgruntled employees

Information

Tactics Auditing Trust Strategy
Business
Technology KPIs
Real-time

Dashboards Efficiency

Partners Availability

Responsibility Value Resiliency KGIs Access

Governance Indicators

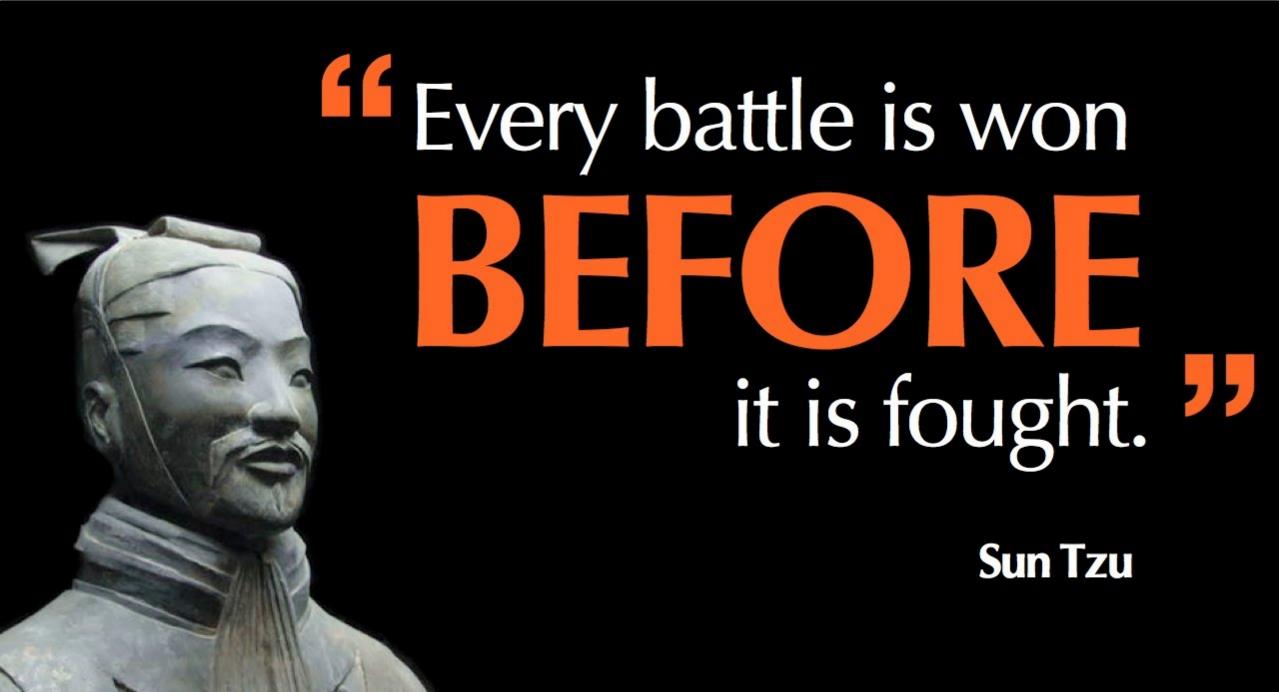
Architectures Effectiveness

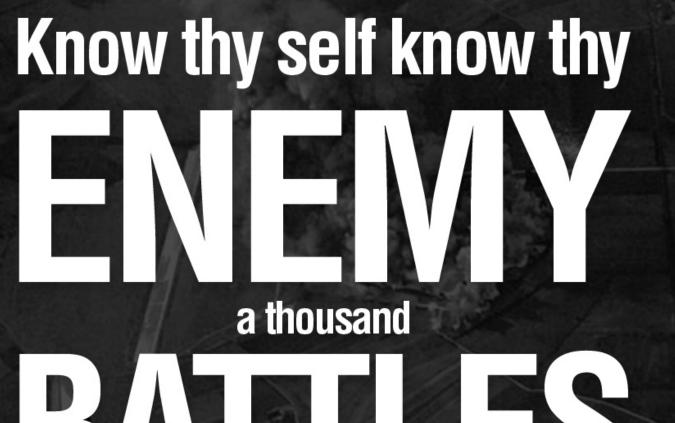
Compliance Integration Identity Management





Art of WAR





BAILES

a thousand

VICTORIES





Internet of Things

Internet of Everything

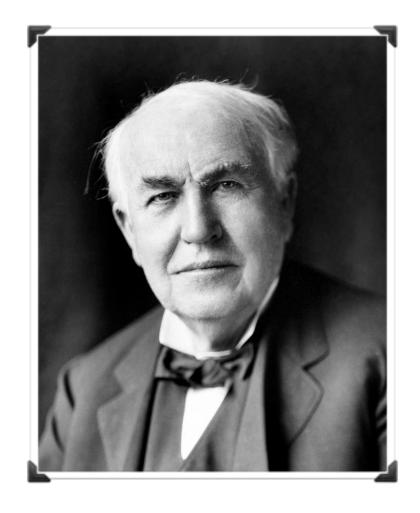
Internet of Threats

Internet of Trouble



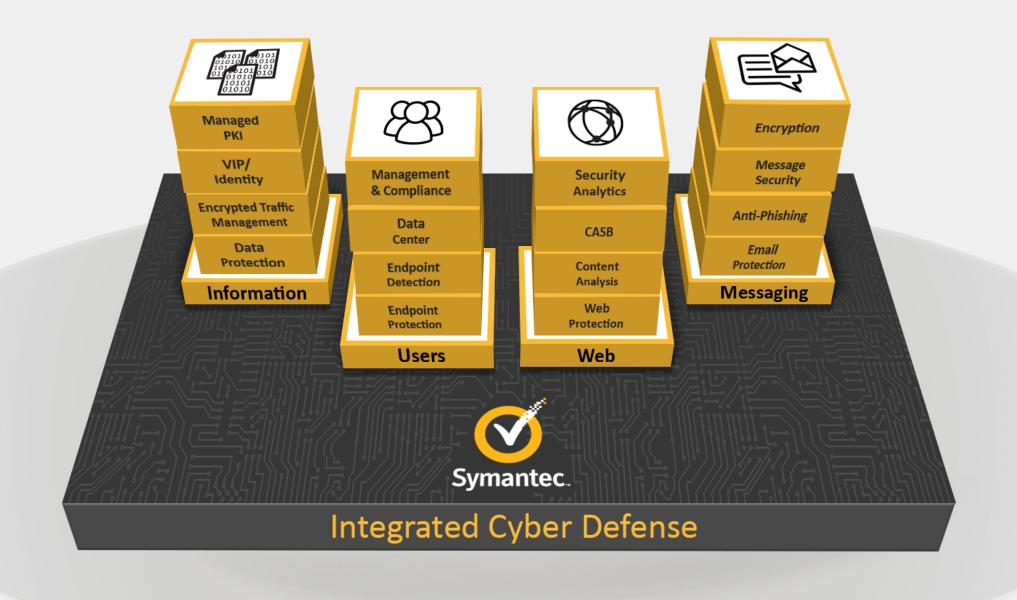




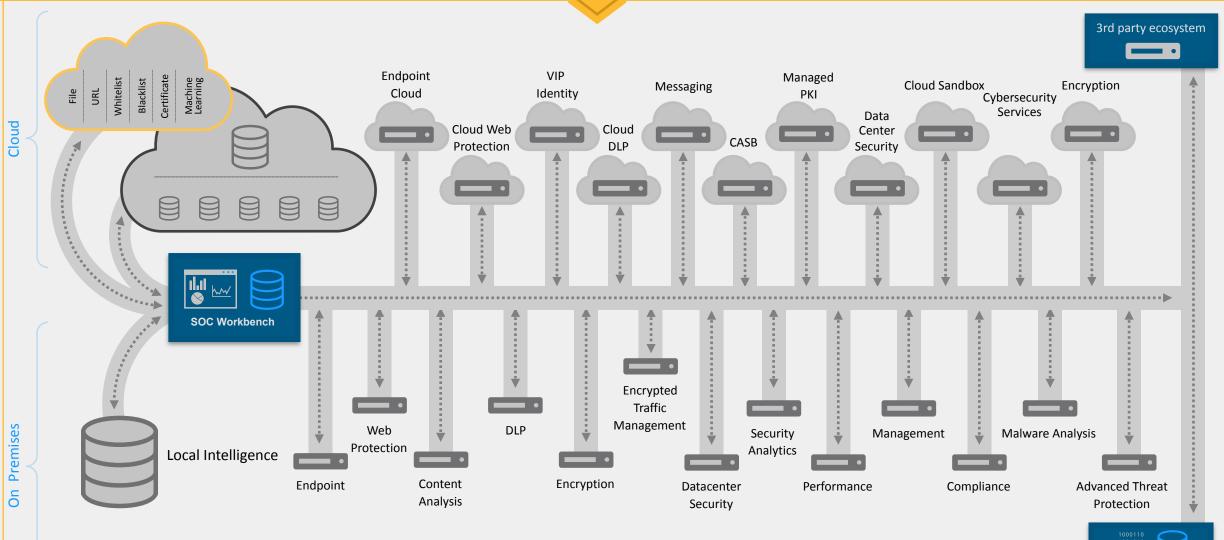


Thomas Edison, 1847-1931

'A vision without execution is a hallucination'



Cyber Defense Integrated Platform







Security Vendors Arising Across Cloud Continuum

Needs Exist in Several Distinct Areas

PROTECTION & SECURITY



Anti-Malware Engine Black/White Listing File Reputation File Prevalence and

Endpoint

Frequency

Full Packet Capture

Threat Forensics

Incident Workflow

Network Recording Reconstruction

Forensics & Recording

Data Sovereignty

Cipher and Tokenization

Inline Enforcement Based on Policy

Encryption & Tokenization

API Cloud Integration

Data Origination and **Destination Awareness**

Federated User-Based Policy Enforcement

Data Discovery and Machine Learning Classification

Real-Time Bi-Directional DLP

Big Data Visualization

Compliance Standards, Reporting & Enforcement

> Reporting & Audit

Light-weight agents

Low latency communications

Anomaly Detection

Cloud-based PKI & **Device Certification**

Compliance with IoT Standards

Device / IoT

COMPLIANCE & GOVERNANCE



IP & URL Filtering

Internet Classification

Malnet & Reputation Machine Learning

Multi-Language

Real-Time Risk Scoring

Adv. Malware (Sandbox)

Customizable Detonation **Environments**

Real-Time Detonation and File Analysis

Evasion & Obfuscation Detection

Analytics & Intelligence

Cloud SOC

Anomaly Detection

User Risk Analysis

Cloud Application Risk Scoring

Integrated Cloud Data Analysis

API Cloud Integration

Machine Learning Data Algorithms

> Real-Time Data Aggregation

Data Visualization and **Compliance Reporting**

Access & Authorization

Inline Policy Enforcement

Federated Identity Integration

Granular Access Policy for Thousands of Cloud **Applications**

Visibility & Discovery

Application Identification Library

Risks Scoring per Application

Compliance Reporting for Sanctioned & **Unsanctioned Apps**

Federated Identity of **User Behavior**

Messaging

Targeted Attack Protection

Malware & Spam Filtering

> Data Loss Prevention

Encryption

Anti-Phishing



Security Vendors Arising Across Cloud Continuum

Needs Exist in Several Distinct Areas



















Szscaler



















Process



Retain and secure



Govern

Define and locate personal data

Secure technology that collects personal data

Record consent from data subjects

Pseudoanonymize and obfuscate personal data

Detect and block threats to data in use

> Validate data processors

Evaluate the impact on privacy (PIA)

Secure transfer and storage of collected data

Restrict processing of data that organization has to retain

Prevent data loss

Control access to data

Protect data 'at rest' in the datacenter

Risk Management of Info Lifecycle

Validate data subjects invoking rights

Educate DPOs on Cyber Risk

Minimize, Anonymize, Delete data









DLP Classification Policies

Deepsight / CSS SEP / ATP / DCS .Cloud / DLP

Access Control
Encryption

Risk Management on Info Lifecycle

MPKI
Website Security
DCS:SA

Control Compliance
Suite Vendor
Manager

Encryption DLP Validate Data
Subjects invoking
rights

Control Compliance
Suite

Evaluate the impact on privacy (PIA)

Access Control
SAM / VIP / MPKI

Blackfin/ Security
Simulation

Encryption MPKI



Encryption MPKI

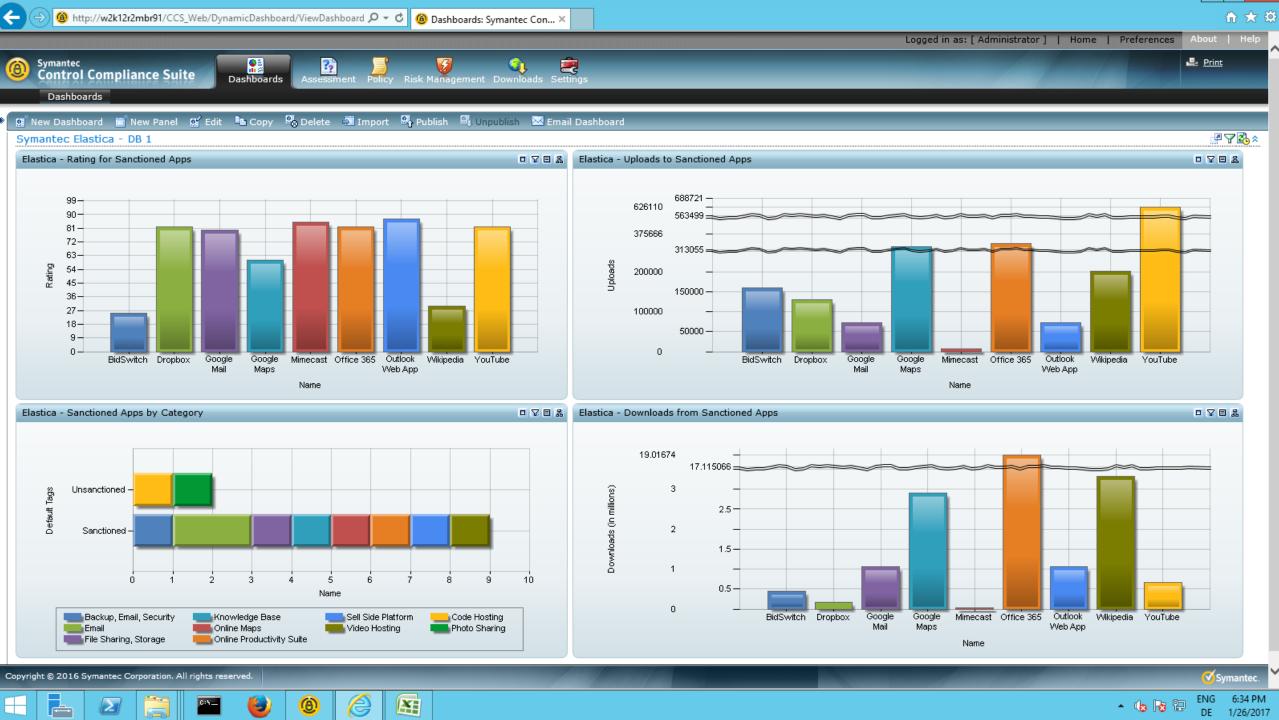


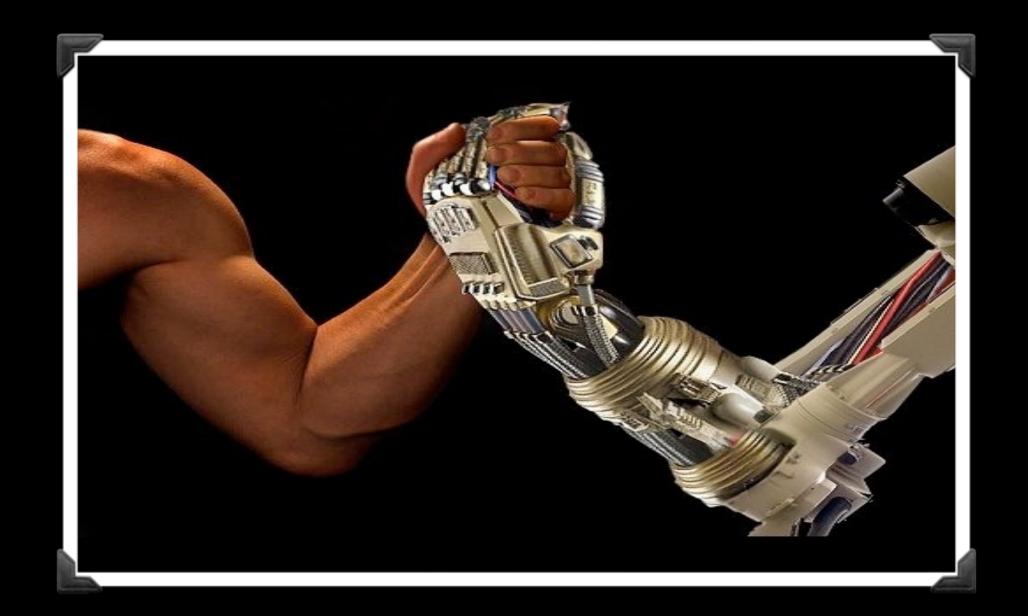
Encryption / DLP SEP / ATP / DCS

Q#	Art.	Process question	Level 0	Level 1	Level 2	Level 3	Level 4
	• •	Do you apply pseudonymization and anonymization to personal data you hold, so as to minimize exposure to privacy risk?		I know about those concepts but I don't think they are relevant to us	We only implement pseudonymization and anonymization when specifically asked to do so	·	We apply them wherever possible, including technical controls to prevent the reversal of pseudonymization or anonymization
4.2P	28	Do you follow a clear selection process to choose the suppliers who process personal data for you?		We try to aim for cost efficiency and ease of use	We try to use only large reputable vendors	We select specialized vendors with references and certifications specific to our needs	We thoroughly vet eligible candidates and select those which offer all of the guarantees required by the GDPR
	46, 47, 48, 49	Do you implement mechanisms to ensure that any export of personal data outside of the European Economic Area is compliant with EU privacy law?	we export any personal data out of	If we do any export at all, we trust our contractors to do what's required	We only export data to countries we have reasons to believe are safe	We make specific approved arrangements for every particular case	We have a structured streamlined and documented process to legally transfer data outside of the EEA
4.4P	15	Do you enable individuals to get access to personal data you hold about them?	No, the data is ours, I don't see why we should	Maybe we can do that if we get asked to	In general, if it's not unreasonable, we try to be helpful when people ask	we are able to figure out which data	Yes, we have a contact point and a process to respond swiftly, giving all relevant information as required
4.9P			to object in that	If the individual can justify the request, we could probably try to accommodate	To the extent that the objection looks reasonable to us, we will consider it	Unless it is excessively cumbersome to do, we will normally respect such objections	Yes, we inform people of their right to object, we provide them means to do it, and we are able to stop processing unless we can demonstrate a compelling need for us to carry on

Q#	Article	Process question	Lev el 0	Level 1	Level 2	Level 3	Level 4
	Binary answer for general readiness evaluation:			NO (not rea	dy for GDPR)	YES (on track for GDPR)	
	Binary answer for strict GDPR compliance:				NO (not compliant	t)	YES (compliant)
1.1 K	3	Have you integrated privacy law into your legal compliance framework?	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	<u>Absolutely</u>
1.2 K	4(1)	Can you separate personal data from your overall data assets?	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	<u>Absolutely</u>
1.3 K		Can you recognize "indirectly identifiable personal data" within your data assets?	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	<u>Absolutely</u>
		Can you specifically tell what constitutes "sensitive" personal data within your data assets?	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	<u>Absolutely</u>
1.5 P		Do you ensure that personal data is only used for the purpose for which it was originally collected? (Purpose Limitation Principle)	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	<u>Absolutely</u>
1.6 P		Do you ensure that you only ever collect so much personal data as you really need for what you are trying to achieve? (Data Minimization Principle)	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	<u>Absolutely</u>
1.7 P	5(1)(a), 14, 15	Do you tell individuals that you are processing their personal data?	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	<u>Absolutely</u>
1.8 P		When collecting information from individuals, do you get their consent to process their personal data?	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	<u>Absolutely</u>
1.9 P	, , , ,	Have you mapped all the flows of personal data in your organization, including those outsourced to external suppliers?	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	<u>Absolutely</u>
	(f)	If not relying on individual consent, do you rely on any of the other five legal bases for data processing (contract execution, legal obligation, vital interest, public interest, legitimate interest)?	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	<u>Absolutely</u>

Q#	Article	Process question	Level 0	Level 1	Level 2	Level 3	Level 4
		Binary answer for general readiness:) (not ready fo	or GDPR)	YES (on tracl	k for GDPR)
		Binary answer for GDPR compliance:		NO (not compliant)			YES (compliant)
		Are you aware of the circumstances where you are considered as a "data controller" under the GDPR?	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	<u>Absolutely</u>
2.2 P		As a "data processor" under privacy law, do you embed privacy compliance in the services you provide?	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	<u>Absolutely</u>
		Do you currently have a dedicated resource looking after your privacy compliance (e.g. a DPO)?	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	Absolutely
		Do you have a demonstrable privacy compliance program in place? (Accountability Principle)	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	Absolutely
2.5 P		Do you systematically embed privacy compliance into the creation of your internal business processes, products and services? (Privacy by Design Principle)	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	<u>Absolutely</u>
2.6 P		Do you know what precautions to take before profiling individuals, for example when tailoring your online advertising to the preferences of each individual, or when assessing credit-worthiness or insurability?	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	<u>Absolutely</u>
2.7 P		Are the default settings in all your processes, products and services defined to ensure maximum privacy? (Privacy by Default Principle)	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	<u>Absolutely</u>
2.8 P		Do you implement a policy to identify which of your activities create a high privacy risk to individuals?	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	<u>Absolutely</u>
2.9 P		Do you have a specific process in place to carry out Data Protection Impact Assessments (DPIAs)?	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	Absolutely
2.1 0 P		Do you document your activities involving the processing of personal data?	<u>No</u>	<u>Unsure</u>	To some extent	To a large extent	<u>Absolutely</u>





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Sir Isaac Newton, 1642 - 1727

'If I have seen further it is by standing on the shoulder of giants'

Js. Mrwlor

point of view. Trust [trast] n confidence in dendence ingent a



THANK YOU

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