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TURN
IT
UP
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The bridge to possible

Breach Prevention: Email Security Awareness

Driving Success with Email Security and Security Awareness

Filipe Lopes
Technical Lead for Email Security, EMEAR, SBG

DBKSEC-1047

Filipe Lopes

Technical Lead for Email Security, EMEAR, Security Technology Group

Career

- MsC degree in Systems Engineering
- 13 years at Cisco since talent acquisition program – CSAP
- MEO Arena High-Density Wireless
- Cisco's Technical Lead for Web Summit (~60.000 attendees)
- Speaker at Multiple Conferences (Portugal Wireless Conference, Smart Mobility Summit, IoT Vodafone Conference, SEVT, PVT, Cisco Live…)
- Cisco Live Distinguished Speaker
- Part of the Core Team that Designs, Builds and Operates CiscoLive! EMEAR

Personal

- Happy&Proud Father of a 9-year-old Beautiful Daughter_Emma ☺
- Wanna be Chef
- Loves Travelling and Outdoor Sports

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Key Session Objectives

At the end of the session, you will be able to:

- Understand key customer use cases for having a clear Phishing Awareness Learning Program in place
- Differentiate between courses, quizzes, microlearning, nanolearning, phishing simulations campaigns, so you can effectively empower your first line of defense and create an Awareness Culture
- Discover and try hands-on tools that will help you increase participation rate, knowledge retention rate and Reinforce ongoing training and performance, being able to measure it and compare it!

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Agenda

- Number One Threat: Each one of us!
- Real-World Phishing Campaign Attacks
- Secure Email + Security Awareness =
- Creating a Successful Awareness Course
- Demo & Hands-On!
- Best-Practices in Measuring Results
- Case Study and Lessons Learned
- Key Take-Aways & Call to Action

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The Cyber Threat Kill Chain

Reconnaissance

Harvesting email addresses, conference information, etc.

Weaponization (Stage)

Coupling exploit with backdoor into deliverable payload

Delivery (Launch)

Delivering weaponized bundle to the victim email, web, USB, etc.

Exploitation

Exploiting a vulnerability to execute code on a victim's system

Installation

Installing malware on the asset

Command and Control (C2) (Callback)

Command channel for remote manipulation of victim

Actions of Objectives (Persist)

With 'Hands on Keyboard' access, intruders accomplish their original goals

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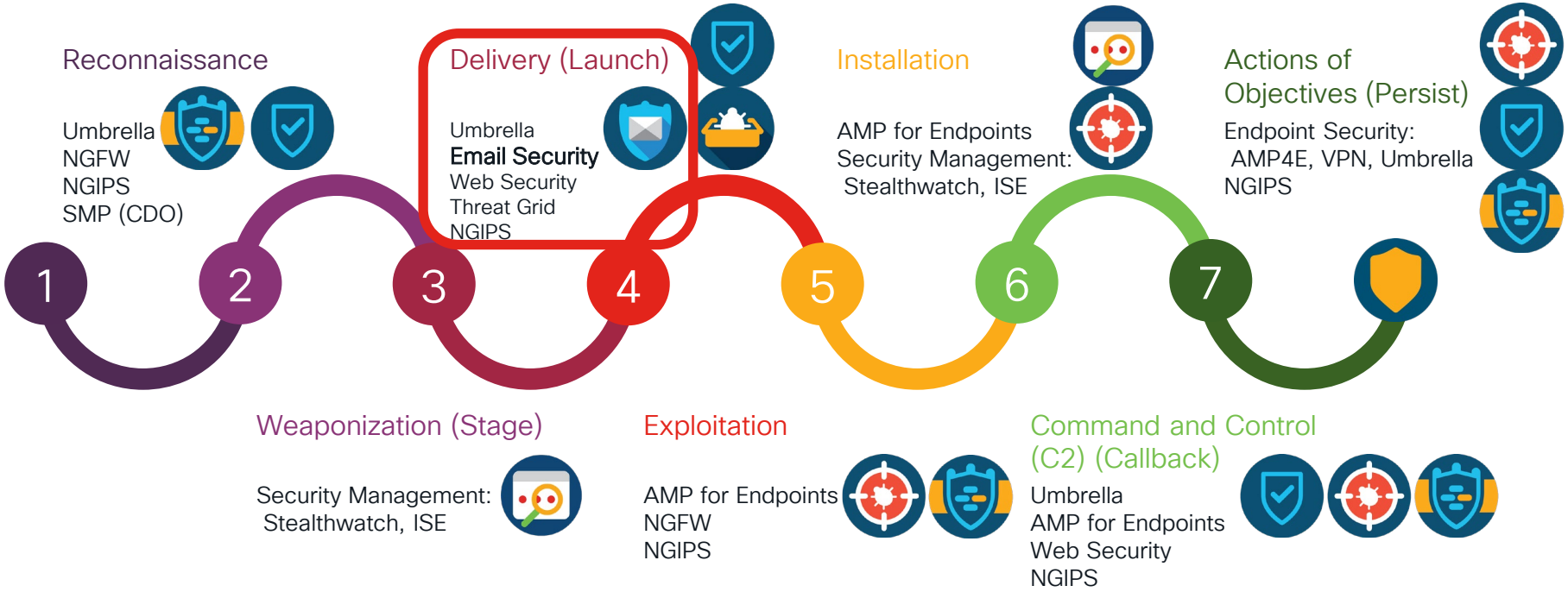
Breaking the Cyber Threat Kill Chain

with Cisco Security Offerings



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Real-World Phishing Campaign Attacks

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It would Never happen to me!

SONY PICTURES

Google

PT

NHS

altice

UPSHER-SMITH

Partners in Health Since 191

Telefónica

UBIQUITI NETWORKS

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IMMEDIATE PAYMENT OF 5.5 MILLIONS UNITED STATES DOLLARS

MO

MR TONY OSAAZE <info@uba.org>
Tue 5/14/2019 4:01 AM
To: Recipients

UNITED BANK FOR AFRICA NIGERIA
HOFFICE ADDRESS UBA HOUSE
57 MARINA P.O. BOX 2406 LAGOS NIGERIA
PHONE +234 8153030515
Greetings,

I must say that I have enormous respect for you considering the manner in which I have made contact with you.

Am Mr. Tony Osaaze, Foreign remittance manager (F.R.M), United Bank for Africa , We had a meeting with the entire board of directors and International Monetary Fund (I.M.F.) in conjunction with Organization of African Unity (O.A.U) today and we have concluded that your compensation payment that is long overdue to be released to you, in this case get back to me now for little instructions to follow and have your compensation payment released to you, both organizations has directed us to pay you FIVE MILLION FIVE HUNDRED THOUSAND UNITED STATES DOLLARS ($5.500, 000.00) in cash through means of diplomatic courier service hand delivery. Take Note: Three thousand united states dollars (us $3,000) have been mapped out for all expenses, Therefore, do forward your home address and Direct phone number, to this email: tonyosaze25@gmail.com

for more details please call phone number +234 8153030515

Thanks

Congratulations

MR TONY OSAAZE
Foreign remittance manager (F.R.M)
United Bank for Africa

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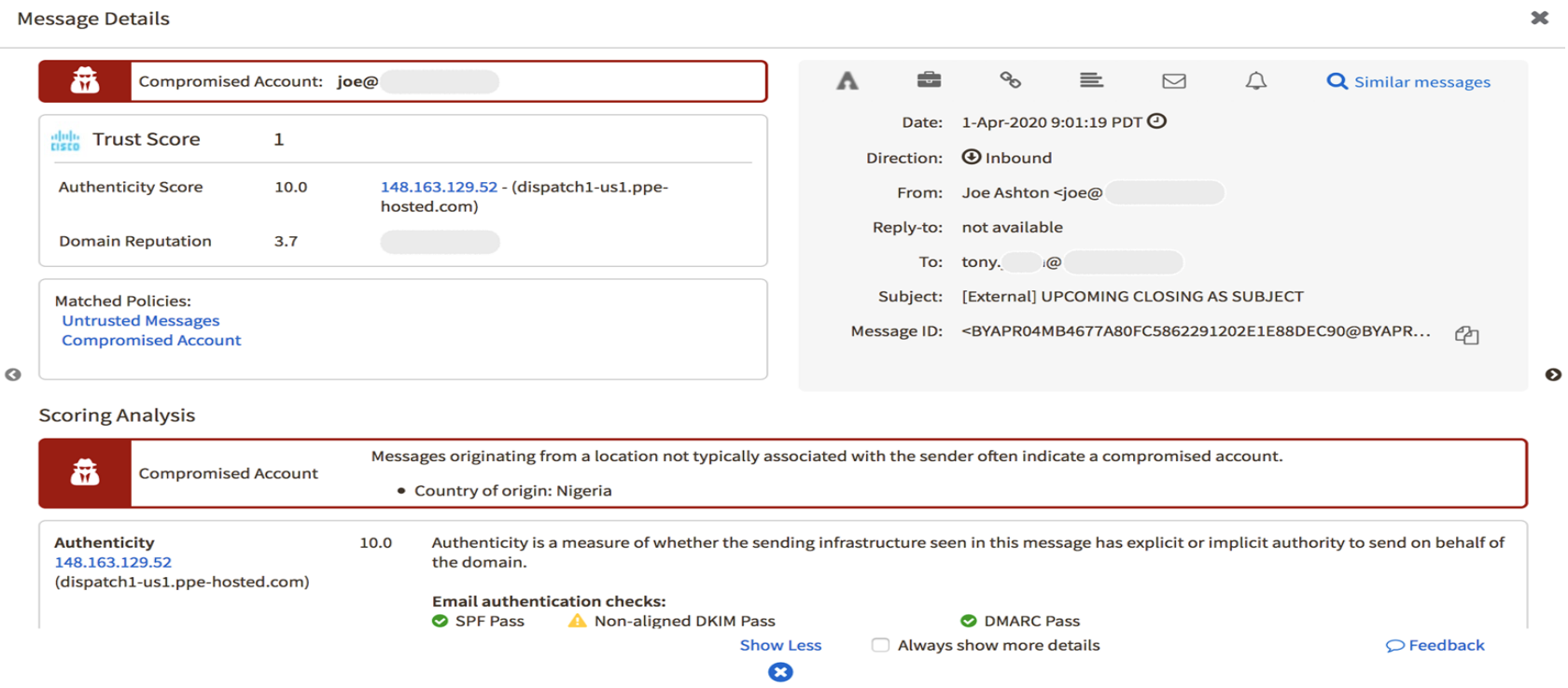
SPF? DKIM? DMARC?... No problem!



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Meanhile… on February 26th, 2020…

Companies have lost **$26 Billion**[1] to Email wire fraud since 2016

"This morning I wired $388,000 into a false bank account abroad…"

– "Shark Tank" star Barbara Corcoran

[1] Federal Bureau of Investigation (FBI)

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Anatomy of a Phishing Attack

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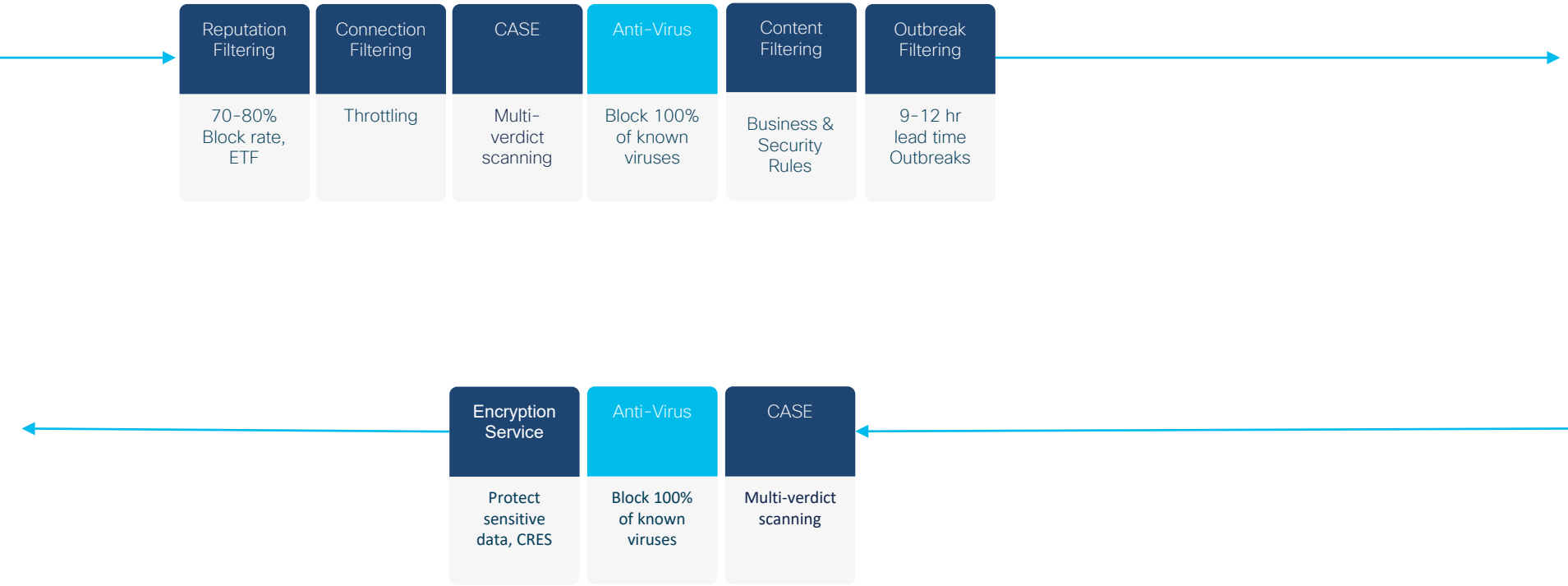
Secure Email + Security Awareness =

Cisco Secure Email: 10 years ago



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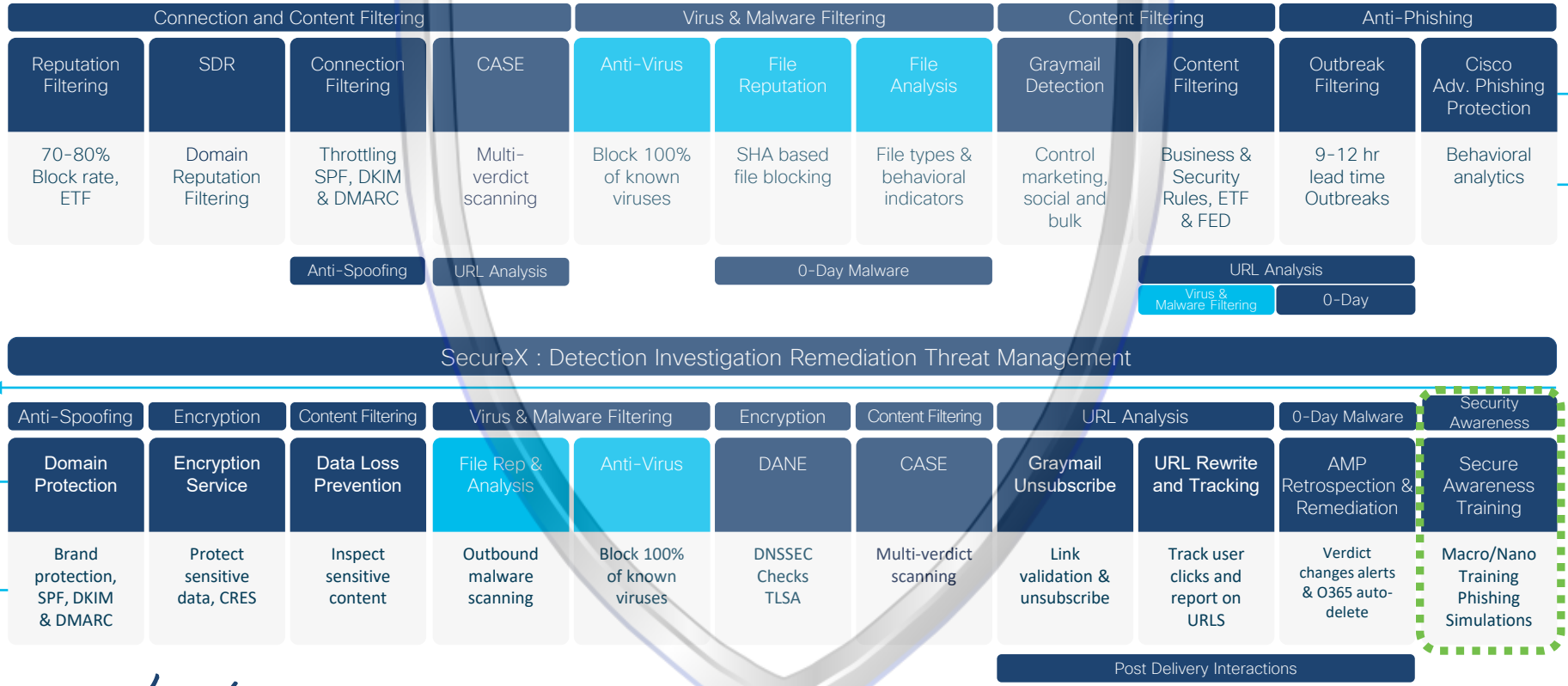
Cisco Secure Email: Today!



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"People influence security more than technology or policy and cybercriminals know how to exploit human behaviors"

* Gartner Magic Quadrant for Security Awareness Computer-based Training 2019 Report

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Creating a Successful Awareness Course

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CISO's Security Awareness Needs

High Importance

Human Element

Compliance

Global Execution

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Email Security Awareness

Simulation, Training, Reporting

- ✔ Drive Security Culture
- ✔ Establish Accountability
- ✔ Maintain Compliance

Automated Results-based Learning Path
Promotes The Right Security Behaviors

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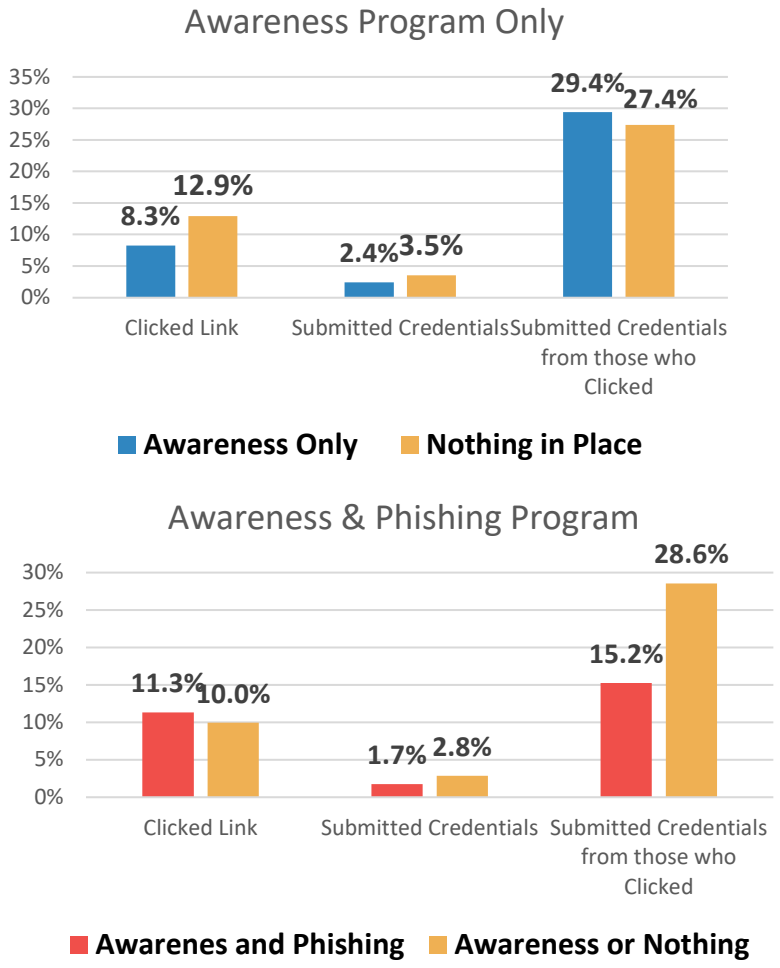
Awareness and Phishing Simulation Together Offer a Significant Advantage!



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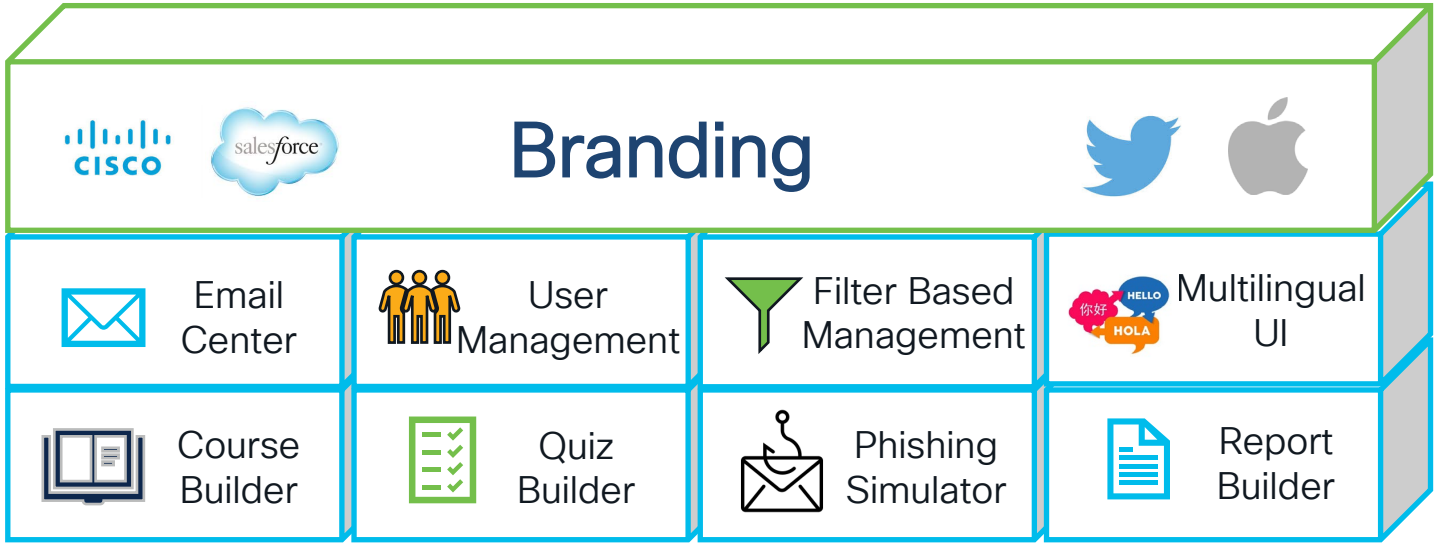
Platform Building Blocks



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What should be your Training Approach?

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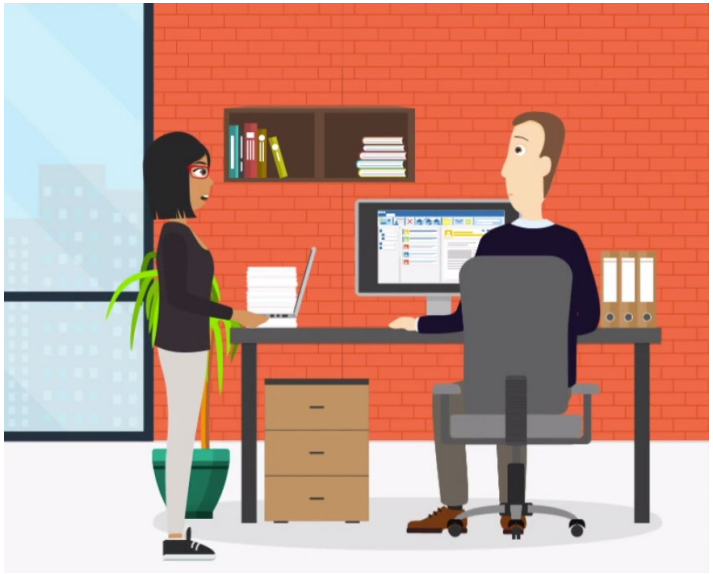
High-Quality Content is central to any security awareness program



- Variety of learning modules
- Multilingual
- Customizable
- Role based
- Gamification

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Communication plays a critical role in installing a security awareness culture and best practice

Security Awareness Communication Kits

- Engage employees
- Increase user participation rate
- Increase knowledge retention rate
- Reinforce ongoing training and performance

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HANDS-ON

DEMO

What now?

- ✓ Everyone can follow along!
- ✓ Create a Course and Quiz
- ✓ Create a Phishing Campaign
- ✓ Run Reports and Interpret Results

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Best-Practices in Measuring Results

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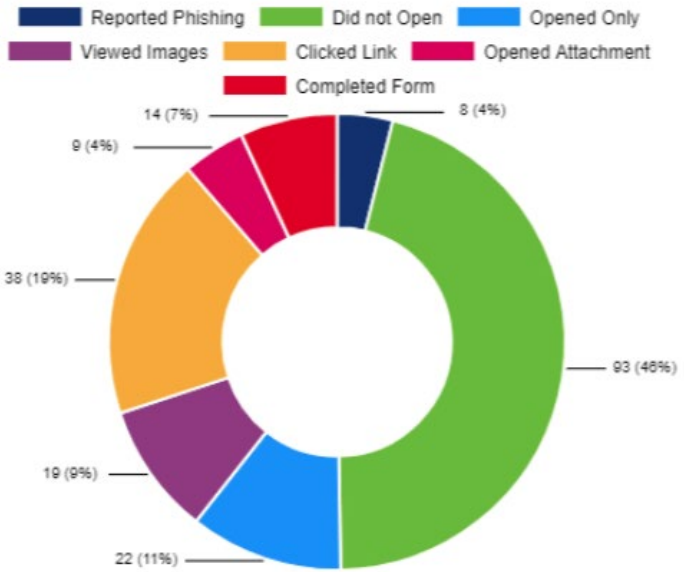
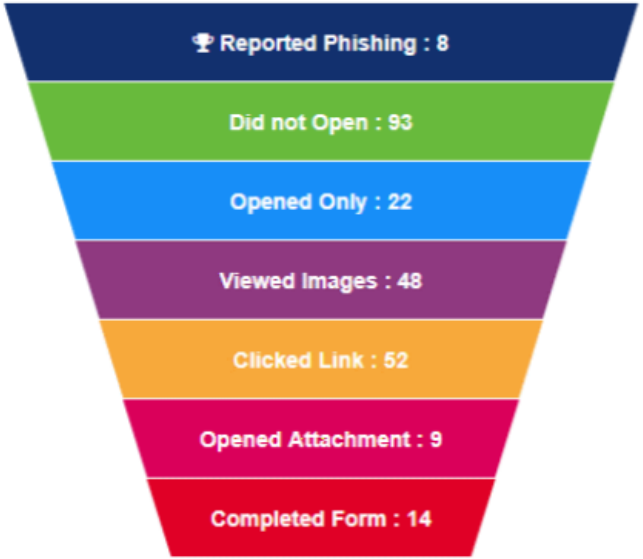
Phishing Simulation Dashboard

Recipient Actions Summary



Actions Performed



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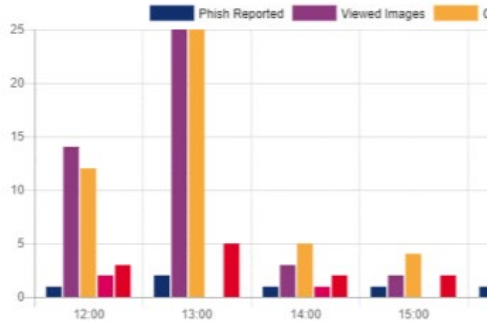
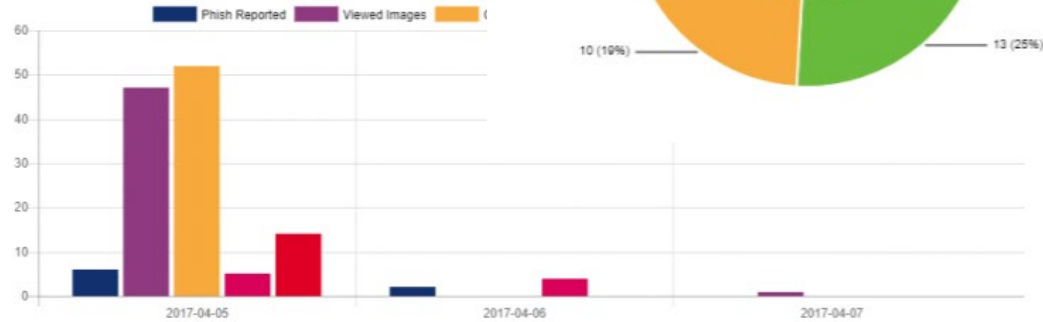
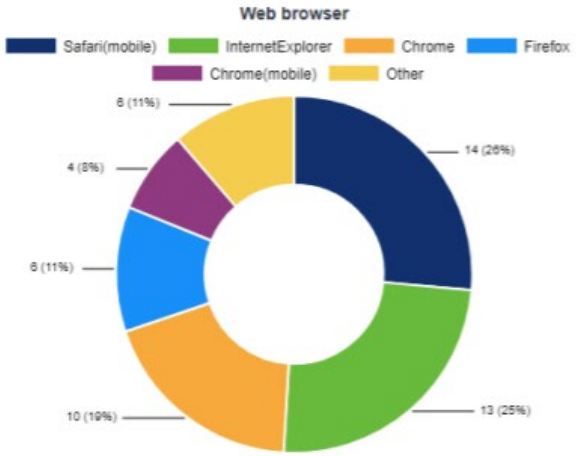
Phishing Simulation Dashboard

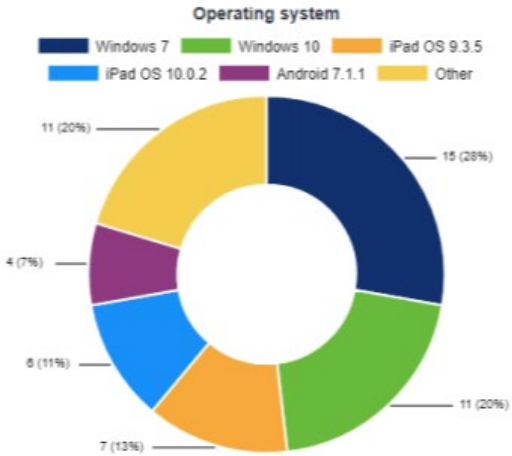
Results Over Time





Web Browser and Operating System





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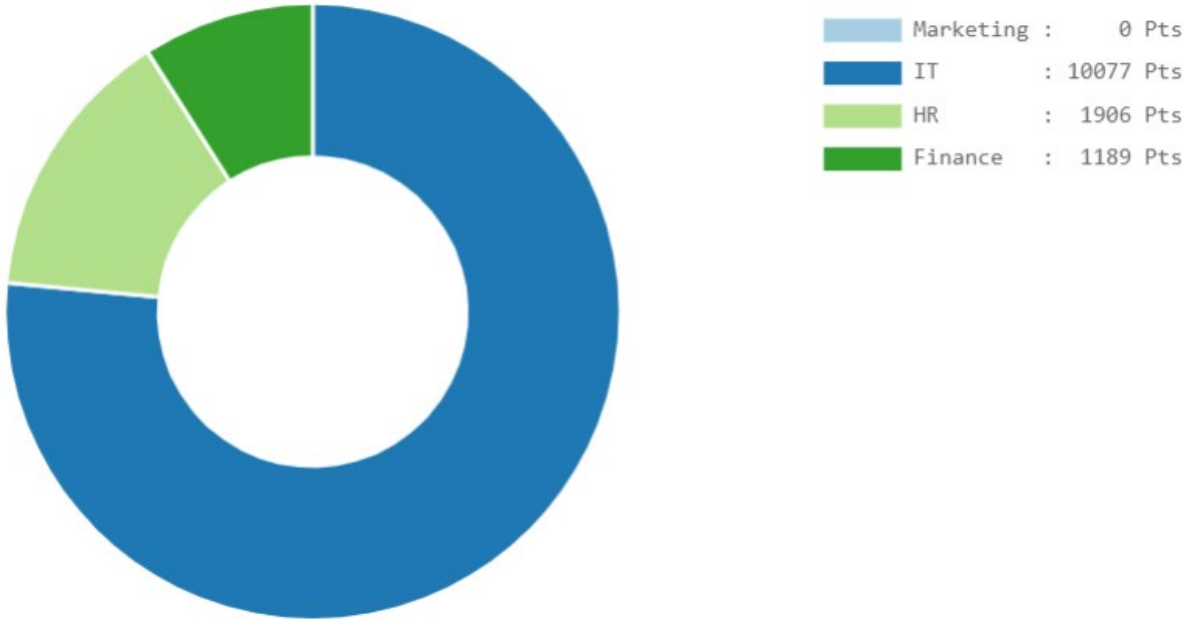
Gamification Dashboard



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Case Study and Lessons Learned

CSA: How Cisco Does it!

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Cisco on Cisco: Keeping us All Safe!

- Pervasive, interactive multimedia internal risk mitigation Awareness and Education Program
- Motivate the entire Cisco Population into sustained action and behavioral change with regards to practicing good digital hygiene
- Introduce new methods for engagement and retention, including gamification, 1-2 minute videos and a reward system
- Prove that Security Awareness and Education can have an impact on Cyber Risk Reduction

WINNER NATIONAL CYBER SECURITY ALLIANCE AWARDS

National Cyber Security Alliance – Cyber Safety in the Workplace

WINNER Info Security Products Guide 2020 GLOBAL EXCELLENCE GOLD

Gold Winner of Info Security PG's Global Excellence Awards®
Cyber Information Security Risk Mitigation Marketing Campaign

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Cisco on Cisco: Keeping us All Safe!

- 97.000, out of 130.000 Cisco Employees and Contractors, actively engaged
- On average, organizations should perform 4 – 6 simulations per year, with at least 4 touch points (awareness activities) on the Phishing Threat
- Look for a 5% improvement of the overall average click rate after 4 – 6 simulations and continuous awareness over a 12-month period
- On average, organizations who perform a simulation for the first time, observe a 20% - 30% click rate and a 10% - 15% form completion rate
- Our studies show that, on average, from the users who clicked the link in a simulation, 50% of them completed the web form included in the attack (i.e., submitted their credentials)
- Scenarios should vary in terms of complexity and story – your average click rate is the average rate of all simulations completed thus far, not just the last one

- 24% of root causes of a data breach is human error
- 90% of data breaches start with a malicious phish

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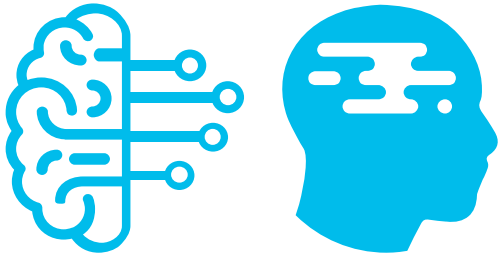
Key Take-Aways & Call to Action

Key Take-Aways & Call to Action



- Are you concerned your collaborators/employees are getting phished?
- Would you like to raise User Awareness, Reduce your Risk, and Empower your workforce?
- Would you like to provide Security training and the Education that helps your employees to work Smarter and Safer?
- Security Awareness:

Content	Value to You
150+ learning modules	CISO coaching
Micro and Nano learning	Deploy, measure, and report
Course builder	Customer success program
Customization of content available	Internal campaign promotion
Role based	Videos, posters, newsletters
High degree of interaction	40+ languages (Narration and/or text)
Gamification	Further customization available

Free Hands-On Demo: https://cs.co/CSAdemo

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Thank you

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