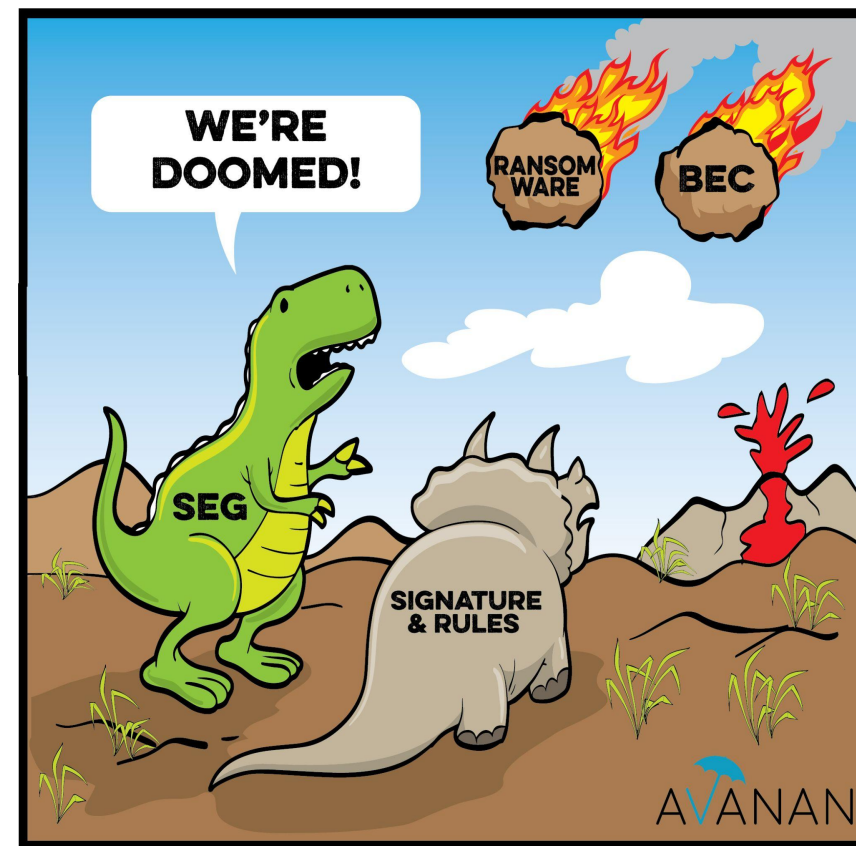


The webinar will start shortly....



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Why You Need Artificial Intelligence for Email Security

September 2021



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About Avanan

- Top Ranked in Gartner Peer Insights (4.8 out of 5)
- #1 Phishing Protection–Expert Insights
- #1 Ranked in G2 (97% Satisfaction Rate)
- Fastest growing email security solution (Deloitte)
- 5000+ Customers Worldwide

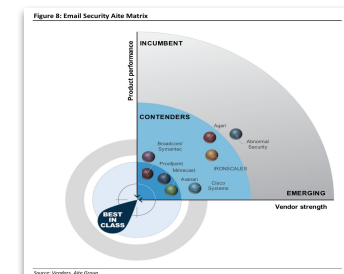


Avanan Notable Achievements

- #1 – Gartner’s Customer Choice for Email Security
- #1 – G2 Cloud Email Security Solutions
- Best in Class Email Security Solution – Aite Group
- 10th Fastest Growing Company – The Financial Times
- Fastest Growing Email Security Vendor – Deloitte & Touche
- Best-of Phishing Protection List – Expert Insights
- Hot 150 Cybersecurity Companies to Watch – CyberSecurity Magazine
- Awards Finalist for Top 25 Information Security Vendor Award – 2021 ONCON ICON
- 5-Star Rating in the 2021 CRN® Partner Program Guide
- Ranked No. 20 on the Inc. 5000 Regionals List of Fastest Growing Companies

FINANCIAL TIMES

ONCONFERENCES



Check Point: **The Leader in Cyber Security**



Global Leader – 100,000+ Customers, 88+ Countries, 6,200+ Partners



Over 25 years of cutting edge technologies, Industry's most visionary player



Innovation leadership – highest number of real-time prevention techniques



Traded on Nasdaq since 1996 - CHKP



6,000+ Employees worldwide, top talent

TRUSTED BY FORTUNE 500 COMPANIES

With Avanan High Level Findings

Global Fortune 500 Results with Avanan

1. **Improve Security: 99.2%**
Reduction in phishing attacks
2. **Improve efficiencies: 71%**
Reduction in end user requests to SOC

5-Minute Deployment



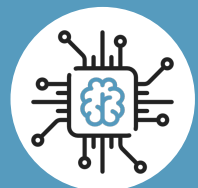
↓ 99.2%

Reduction in phishing attacks reaching end users



↓ 71.2%

Reduction in phishing related alerts to the SOC



The Avanan Patented Email Security Architecture

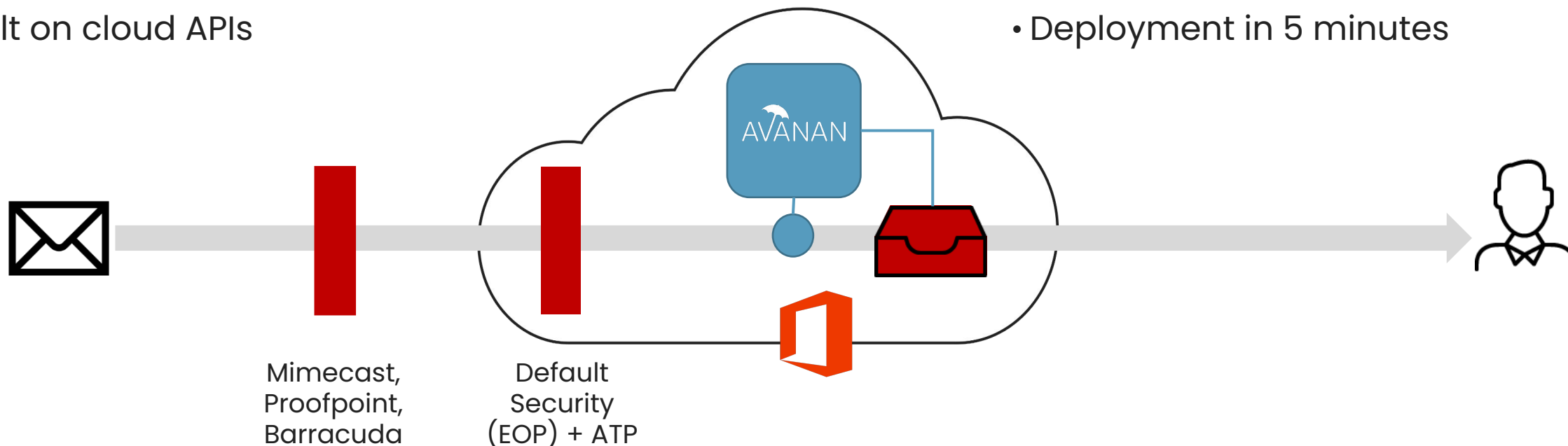
Avanan's Architecture

- Embedded within O365 as a layer
- Last line of defense before inbox
- Built on cloud APIs



Provides our customers

- Better Security
- Save More Time
- Deployment in 5 minutes



About This Webinar

- Rules and signature-based solutions aren't equipped to prevent today's advanced threats
- 51% of today's advanced threats require AI/ML to identify and stop
- Everyone has AI. How do you evaluate it?
- As Gartner says, "Leaders must correctly translate the marketing hype that has heralded AI in misleading terms."
- Today's webinar will provide the tools to perform that translation



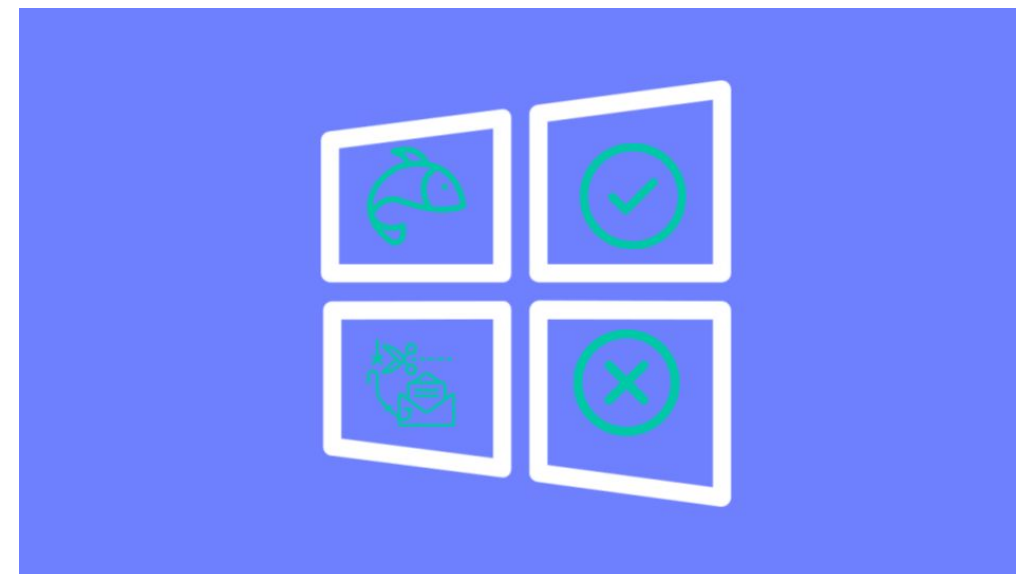
First Gen Email Security: Rules

- Rules have long been the default way of doing email security
- Used to automatically block threats based on a list
- Now, rules are ineffective, cumbersome and hard to manage
- Manual, have to be updated and reviewed regularly
- Just one missed rule can be damaging



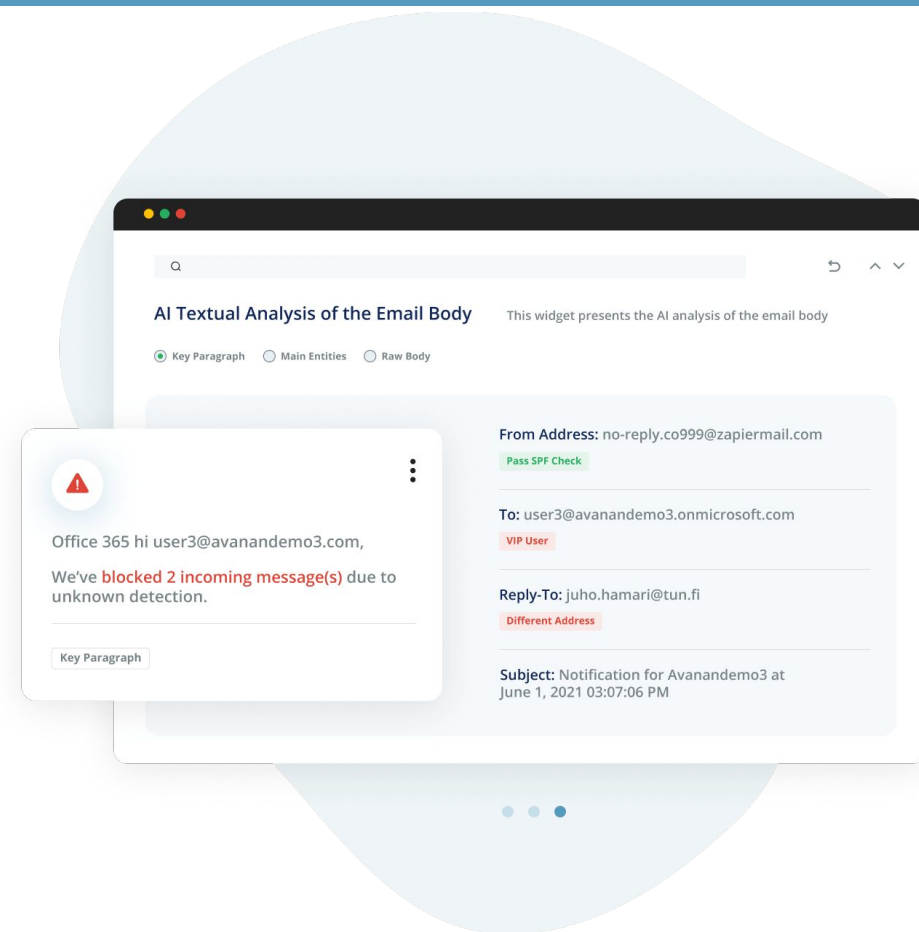
The Problem with Rules

- Example: An attacker sends an email
- In the body, a keyword triggers a rule and blocks the email
- Works for awhile. After a bit, people begin using that keyword for legitimate reasons
- Leads to lot of false positives
- Difficult to build a rule that will sustain course of time
- When a rule no longer works, there will be false positives



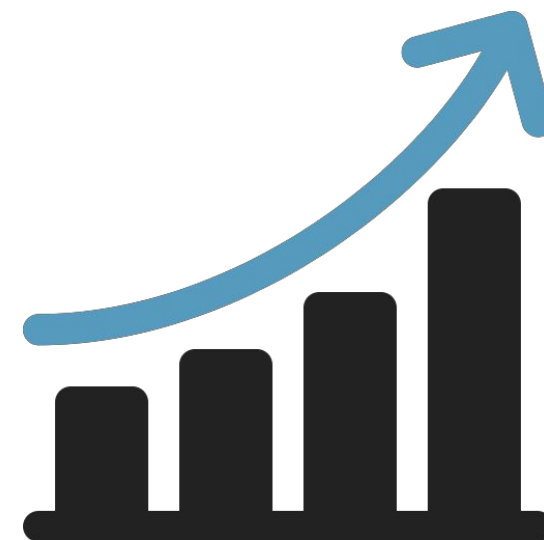
The New Era of Email Security: AI

- AI is real intelligence that exhibits a human-like ability to review data and make a decision
- Instead of relying on pre-approved list of threats, AI learns over time
- Instead of one keyword, correlates many things to make a decision
- Learns from relationships, emails
- Can constantly be trained and improved
- AI is the modern, state of the art way of doing email security.



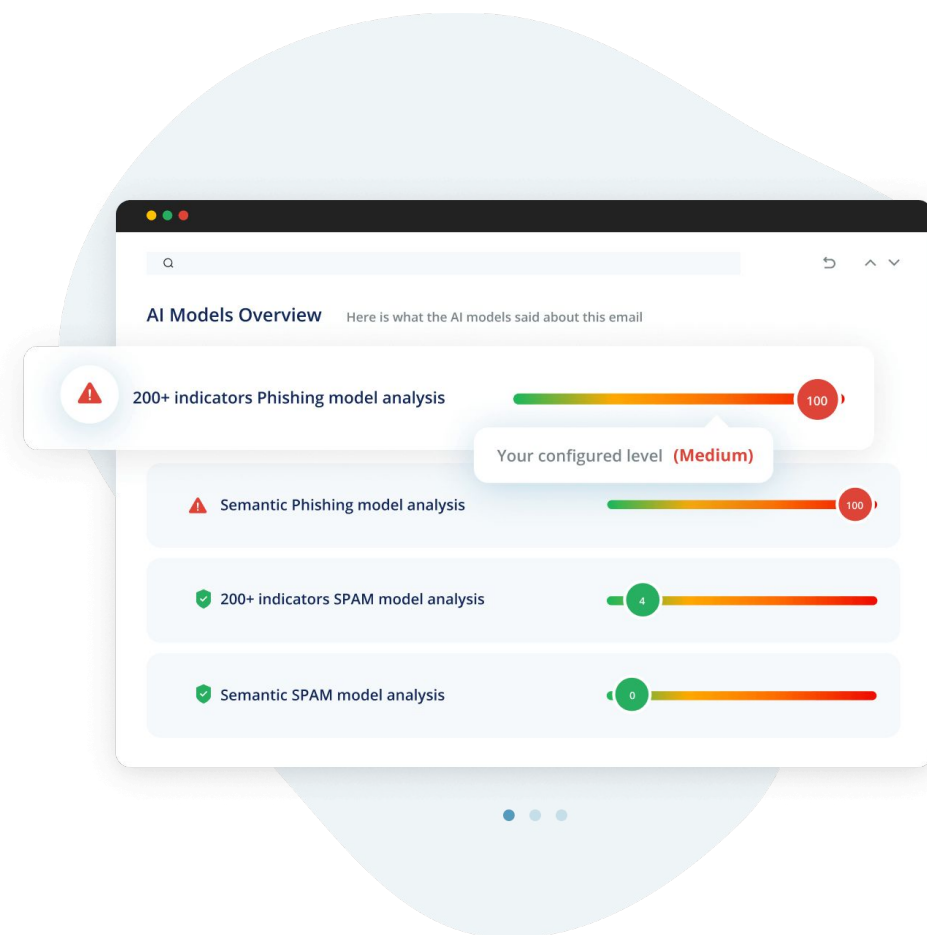
The Importance of Scale

- More good data= better AI
- Avanan's 5,000+ customers gives Avanan unparalleled data to feed its AI
- AI can only do this if trained on best data set and infused through everything you do, like better training, advanced protection, improved response capabilities
- More data means AI can better spot new patterns and threats instantly
- Network effect: If one of our customers is attacked, all others are instantly protected



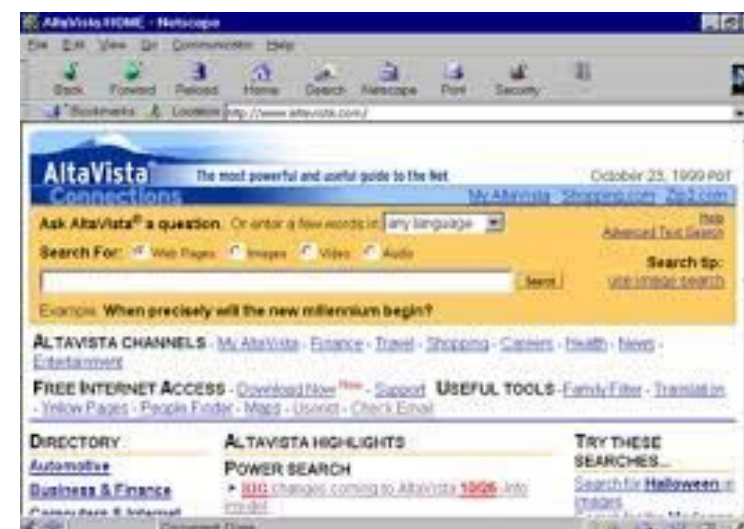
Constantly Learning and Improving

- Every interaction from an end-user or admin turns into a learning experience for the AI
- Learns across all customers
- Combs millions of emails, capture them and input them into data set
- More extensive the network, the most interactions
- No human can compete with this capacity



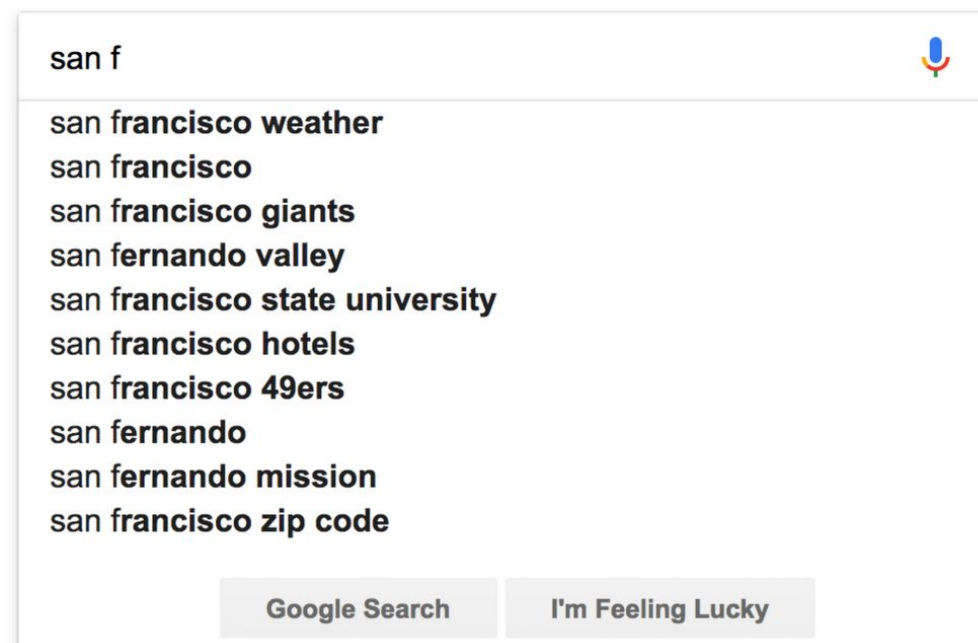
First Gen: Natural Language Processing

- Before, the standard way of analyzing emails worked like this:
- Scan email
- Identify keywords
- If keywords match Block List, email is blocked
- This is similar to how early search engines worked



The New Era of Email Security: Modern NLP

- Things are different now
- Spearheaded by Google, BERT represents a quantum leap in ML and AI
- Can extract meaning for the first time
- Can take two different pieces of text, with no keywords matching, and understand it's saying the same thing
- Or, can take two pieces of text with tons of keywords matching and see it means two different things



The New Era of Email Security: Modern NLP

- Example:
- Roger Federer is the greatest of all-time
- Roger Federer is not the greatest of all-time
- Multiple keywords matching, two different meanings
- Deep learning understands it's different and opposite meanings



roger federer is the greatest of all time



roger federer is not the greatest of all time

The New Era of Email Security: Modern NLP

- Avanan was one of the first to use deep learning for NLP
- We use it because BERT can understand what the email is about, improving accuracy
- When trained on Avanan's data set, BERT gets even more robust



Avanan AI in Action--Auto Scam

The image shows an email interface with several red callout boxes pointing to specific parts of the email content. The callouts are:

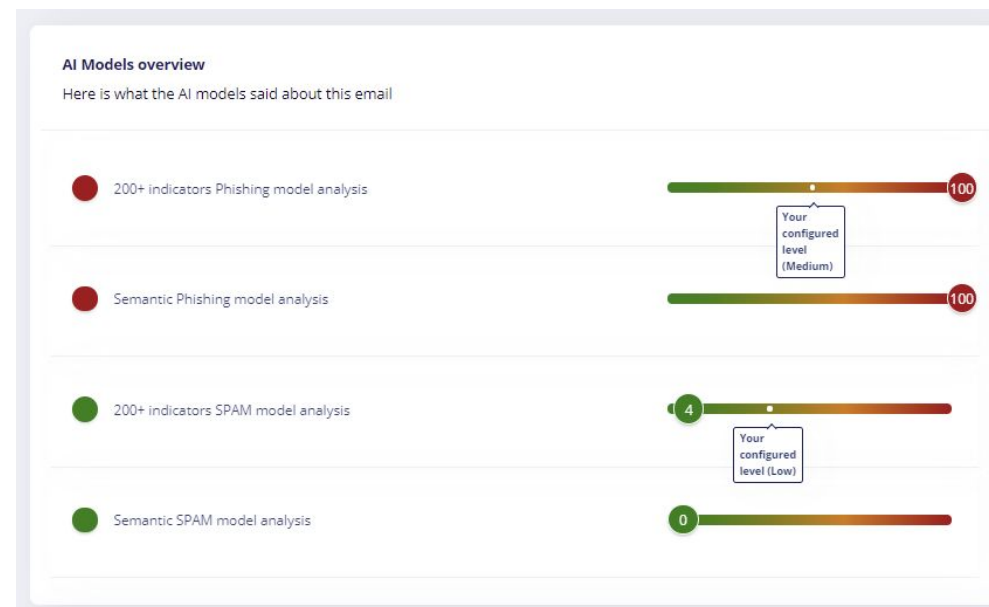
- No history with this sender**: Points to the sender's name 'Ted Smith'.
- Low reputation sender domain**: Points to the email address 'tedconcession1993@aol.com'.
- Not a typical claim number**: Points to the claim number 'L0205157096'.
- Poor phone number reputation**: Points to the phone number '+1 646 980 6856'.
- Indicates a financial request**: Points to the text 'This letter is recognized as an authenticated notification that compensation is being demanded from the vehicle accident that occurred on 07.22.2021. The total demand amount, with direct payments included, is \$346.87'.
- Grammar/Typo**: Points to the sentence 'As it was highlighted previously the location of a automobile accident was abandoned. By following company policy, we will have to report this vehicle accident to the police in the next 72 hours, please give us a phone call without delay to take care of this inconvenience.'.
- Language indicating a sense of urgency**: Points to the phrase 'give us a phone call without delay'.
- Grammar/Typo**: Points to the phrase 'a automobile accident'.

The email content includes:

From: Ted Smith <tedconcession1993@aol.com>
 Subject: Automobile accident report
 To: [Redacted]
 Re: Left site of automobile accident on 07.22.2021
 Claim Number: L0205157096
 Dear [Redacted],
 This letter is recognized as an authenticated notification that compensation is being demanded from the vehicle accident that occurred on 07.22.2021. The total demand amount, with direct payments included, is \$346.87
 Kindly get in touch with us at +1 646 980 6856
 Monday to Friday from 9 am to 6 pm. Our client support will assist you in getting the complete info of the accident along with videos, images of the car plate, and all other sensitive information of the certain scene.
 As it was highlighted previously the location of a automobile accident was abandoned. By following company policy, we will have to report this vehicle accident to the police in the next 72 hours, please give us a phone call without delay to take care of this inconvenience.
 Thank you,

Avanan AI dashboards

- Avanan's dashboard are aimed for transparency and explainability
- Shows how and why the AI classified an email as phishing
- Understand why AI made the decision



Avanan AI dashboards

- Shows specific words and phrases that tipped off the AI

AI textual analysis of the email body
 This widget presents the AI analysis of the email body

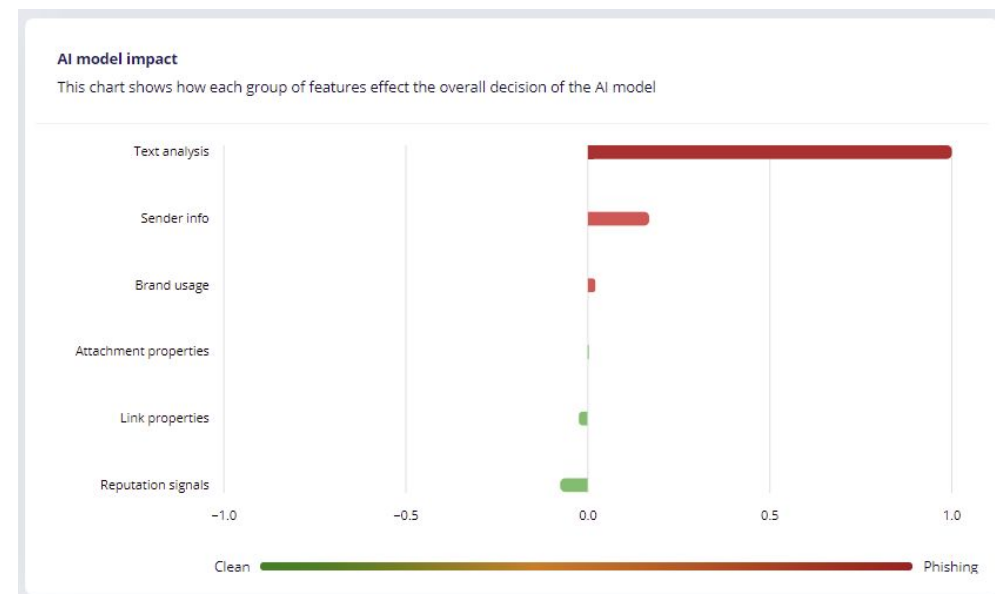
Key paragraph
 Main Entities
 Raw body

From Address: no-reply.co999@zapiemail.com Pass SPF Check
To: user3@avanandemo3.onmicrosoft.com VIP User
Reply-To: juho.hamari@tuni.fi Different Address
Subject: Notification for Avananandemo3 at June 1, 2021, 03:07:06 PM

Office 3 6 5 Hi user3@avanandemo3.com, We've blocked 2 incoming message due to unknown detection. KEY-PARAGRAPH Check and
 choose what to do with them Retrieve Messages: <https://spartantours.co.uk/02/>
 Visit this link to stop these emails: <https://zpr.io/tVurs>

Avanan AI dashboards

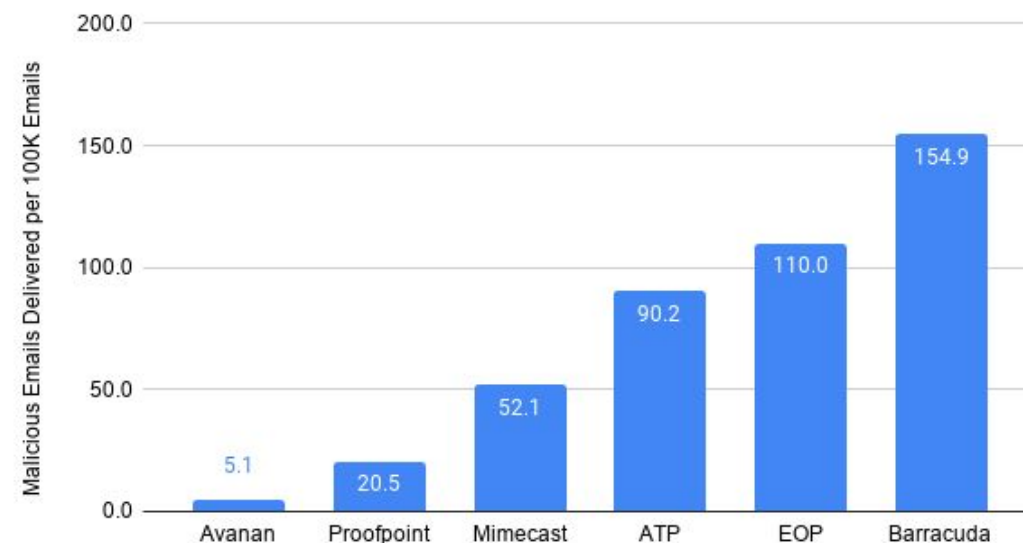
- Shows individual parts that set off alarm bells
- Ranges from text analysis, sender info, brand usage, attachment properties and more



The Avanan AI Difference

- Avanan’s inline security is trained on phishing emails that get past Microsoft EOP or ATP, Google or any other SEG
- By doing so, Avanan is best equipped to stop the newest, most sophisticated and evasive attacks
- In a study of 360 million emails, Avanan was 15x more effective than legacy gateways and 18x more effective than Microsoft ATP

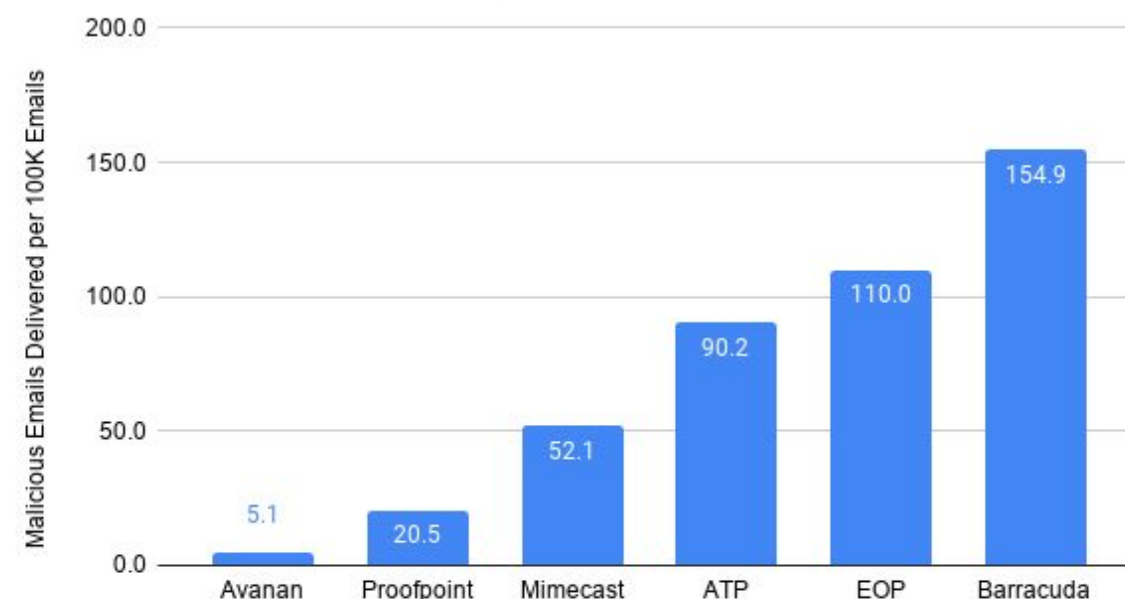
Malicious Emails Delivered per 100K Emails



The Avanan AI Difference

- Avanan leverages multiple types of AI and ML, and combines ML and static analysis to determine phishing
- Uses several techniques, including:
 - Social graph and sender reputation
 - Language Processing
 - Anomaly Detection
 - Anti-Impersonation/Conversation

Malicious Emails Delivered per 100K Emails



Customer Quotes

"I have more **time** to work on the important things the company needs from me."

"Since going live with Avanan enterprise-wide, we have a considerable **decrease** in phishing and malicious emails making it user inboxes."

"It has given our team **TIME back** during the day to move onto other tasks."

"With Avanan's AI, we're putting our foot in the rear of malicious phishing emails before they hit our end user's inbox."

"The number of blocked emails has went up tremendously, and this equates to more **time** for me!"

"Reduced my team's **time** dealing with phishing attempt response by nearly 90%."



Customer Quotes

During the pandemic we have seen a rapid increase of spam, phishing related attacks, and malicious content. With Avanan we put these attacks, and attempts at a **hard stop!**

We see very few false positives, and **almost no phishing/spam emails get through anymore.**

Avanan has solved phishing attacks and malware laden attachments. **Unprecedented accuracy and protection.**

Once you dial in on your settings, you **don't see any false positives.**

Since implementing Avanan, spam and malicious email that reaches end users inboxes is **down by more than 95%**



Questions

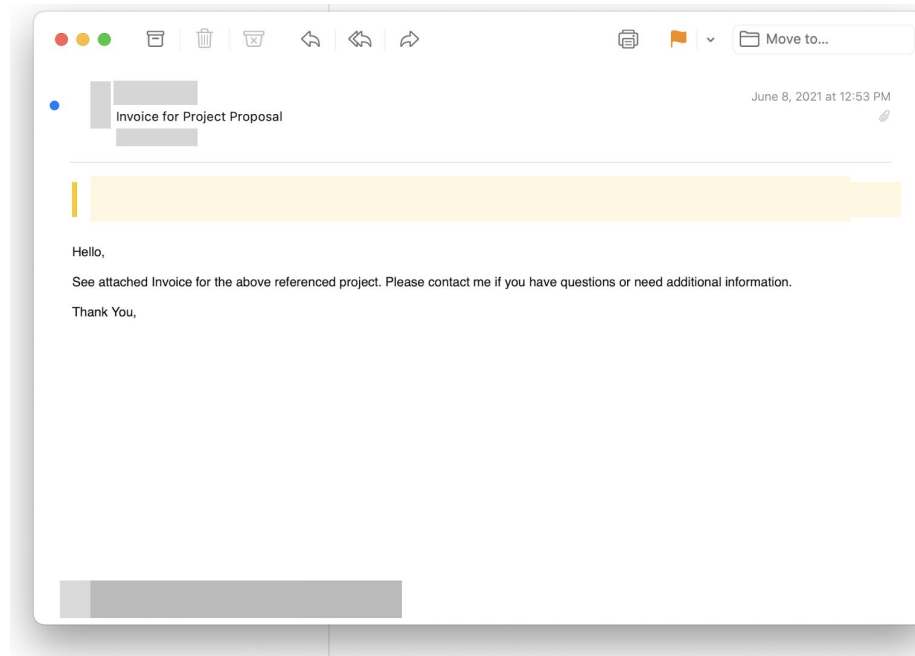


Content to make you...



Laugh

Cyber security comics



Cry

Avanan Attack Briefs – Read up on the latest attack methods hackers are using



Think

The 2021 1H Cyber Attack Report

Thank You



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