

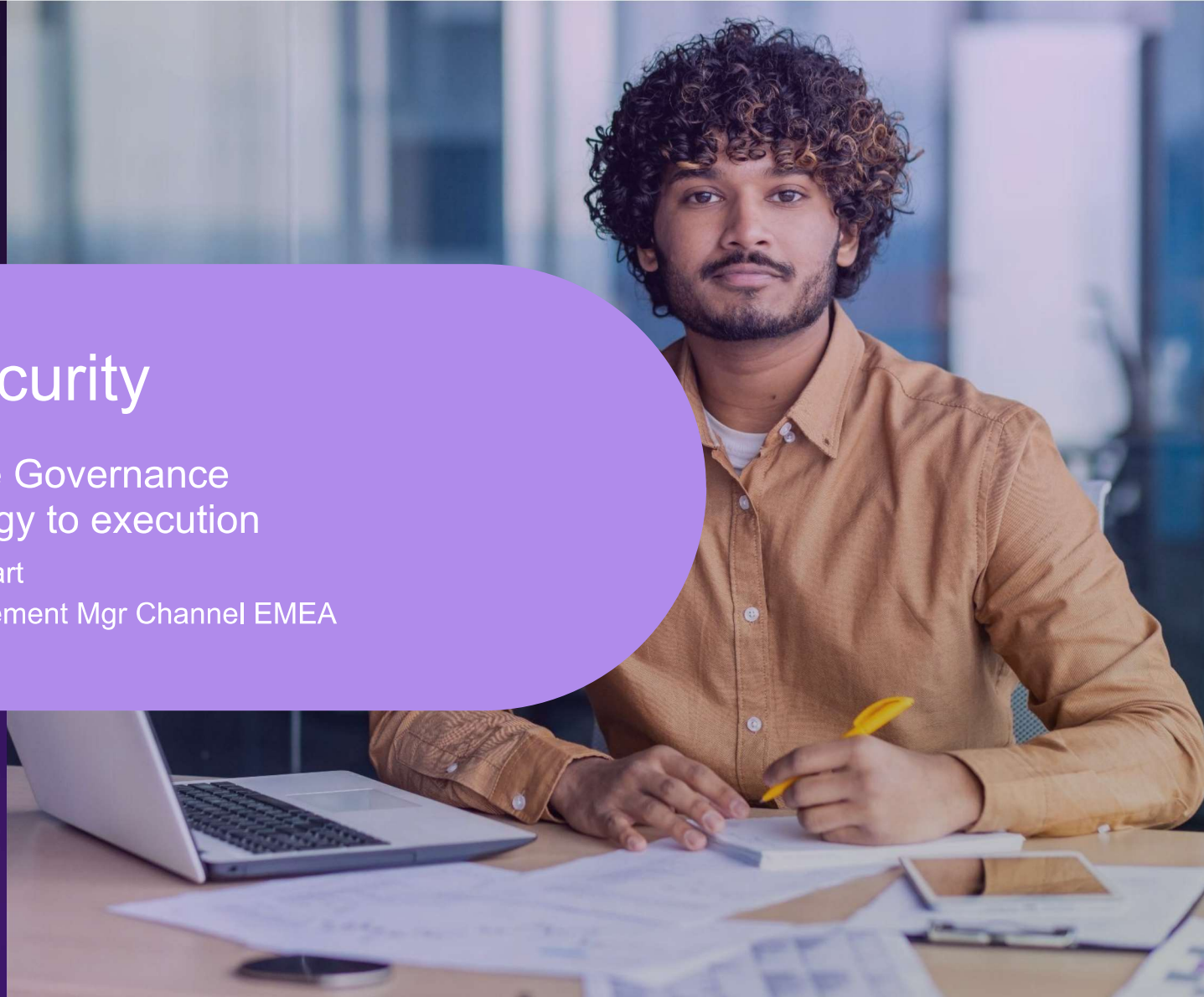
api

Salt Security

API Posture Governance
From strategy to execution

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 SALT



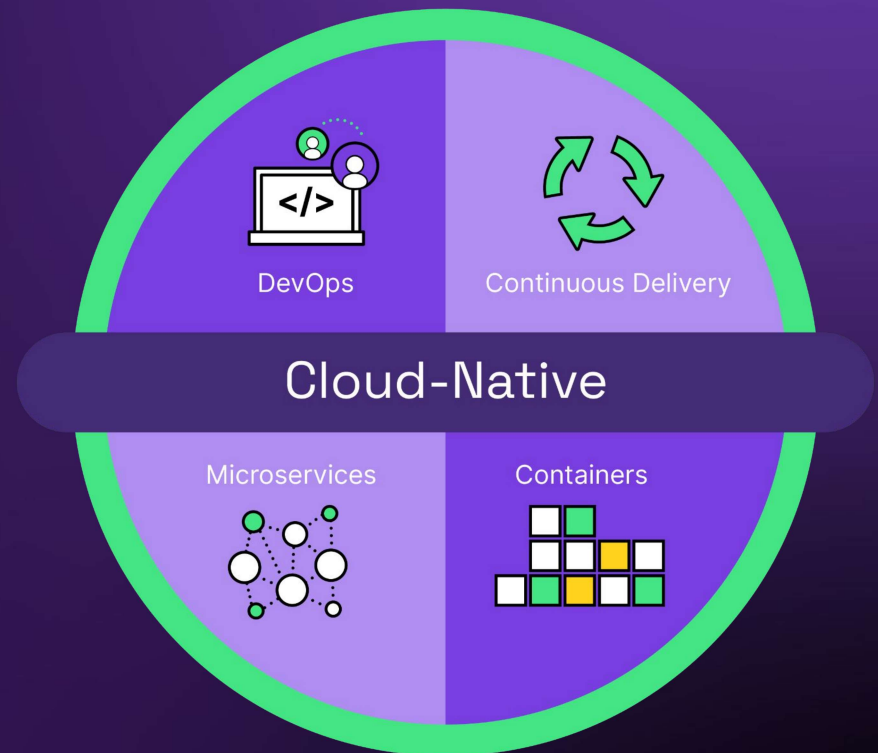


Why API Security?

The Big Industry Wave is Cloud-Native Apps

Every company is moving to modern **cloud-native applications**

This means a disintegration of monolithic applications into **API-first** companies that rely on **microservices** to drive revenue and customer experience



Today, applications are mostly a bundle of interconnected APIs



The Evolution of Applications

Monolithic Apps

Early 2000s until 2015



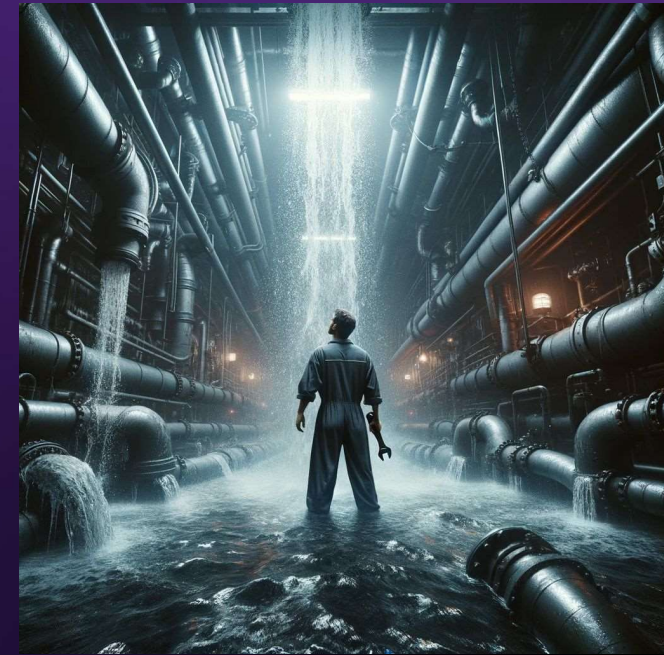
Microservices and Distributed Apps

2015 to 2023



The Era of Generative AI

2024 and beyond



GenAI accelerates business growth...and is a huge cybersecurity risk

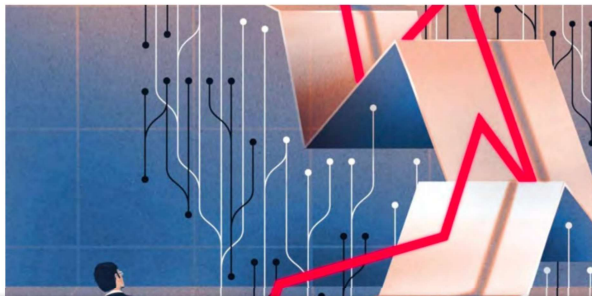
Promising exponential growth and transformation

“Generative AI has the power to be as impactful as some of the most transformative technologies of our time.”

- Siridya Sridharan, VP and group research director at Forrester

“79% of director- to C-suite-level respondents expect generative AI to transform their organizations within three years”

- Deloitte Deloitte's State of Generative AI in the Enterprise Quarterly report January 2024



CIO JOURNAL

AI Is Generating Security Risks Faster Than Companies Can Keep Up

Rapid growth of generative AI-based software is challenging business technology leaders to keep potential cybersecurity issues in check

By Belle Lin

Aug. 10, 2023 2:28 pm ET WSJ PRO



Number of APIs is Exploding with No End in Sight





How to create APIs with AI demo

All of these
Companies Had
a WAF and API
Gateway

They were all
Still Breached

T Mobile

OPTUS



Dedalus
HEALTHCARE SYSTEMS GROUP

PELOTON



coinbase

Doctolib



experian



Ledger

HYUNDAI

circleci



proximus

Security challenges with becoming API-first



API Sprawl and high frequency of updates

- What APIs do I have?
- What is their purpose?
- What data is associated with them?

Inadequate posture governance program

- What risk is associated with our APIs in use?
- Do our APIs meet corporate standards, industry best practices, and regulatory requirements?
- Have we defined our standards for stakeholders?

Security challenges with becoming API-first



Attacks
evade web
defenses

Incumbent defenses serve different purposes and can only detect and block known bad transactions

As a result, malicious behaviors, such as low and slow API reconnaissance and active attack campaigns targeting business logic and misconfigurations go undetected

Security challenges with becoming API-first



Ecosystem
lacks API
awareness

Lifecycle stakeholders

(devops, architects, secops, etc.) are not in sync with security posture governance standards

Existing production shields

don't have API threat intelligence required to provide in-depth defense

Appsec tools

such as DAST, don't have API context to appropriately test APIs

Legacy Technology Can Not Keep up with the Problem

API Security Requirement	WAF/API Gateways
Deep Observability	✗
Complete API Inventory	✗
API Posture Governance	✗
Automatic Business Logic Attack Detection	✗
DAST Integrations	✗
API Inventory Threat Hunting	✗
API SIEM Event Stream	✗



How do we solve this problem?

The **AI-Infused** API Security Journey

Posture Governance

Continuous Discovery



- Accurately inventory API assets with **expert trained & Neural Network powered panoramic discovery**
- Identify sensitive data in motion
- Map APIs to owners & functions

Crawl



Posture Management



- Define & enforce corporate API standards with the industry's only API security posture policy engine
- Adopt industry best practices from expansive API policy library
- **AI-based insights** help assess and prioritize riskiest API assets

Walk



Threat Protection

Behavioral Threat Protection

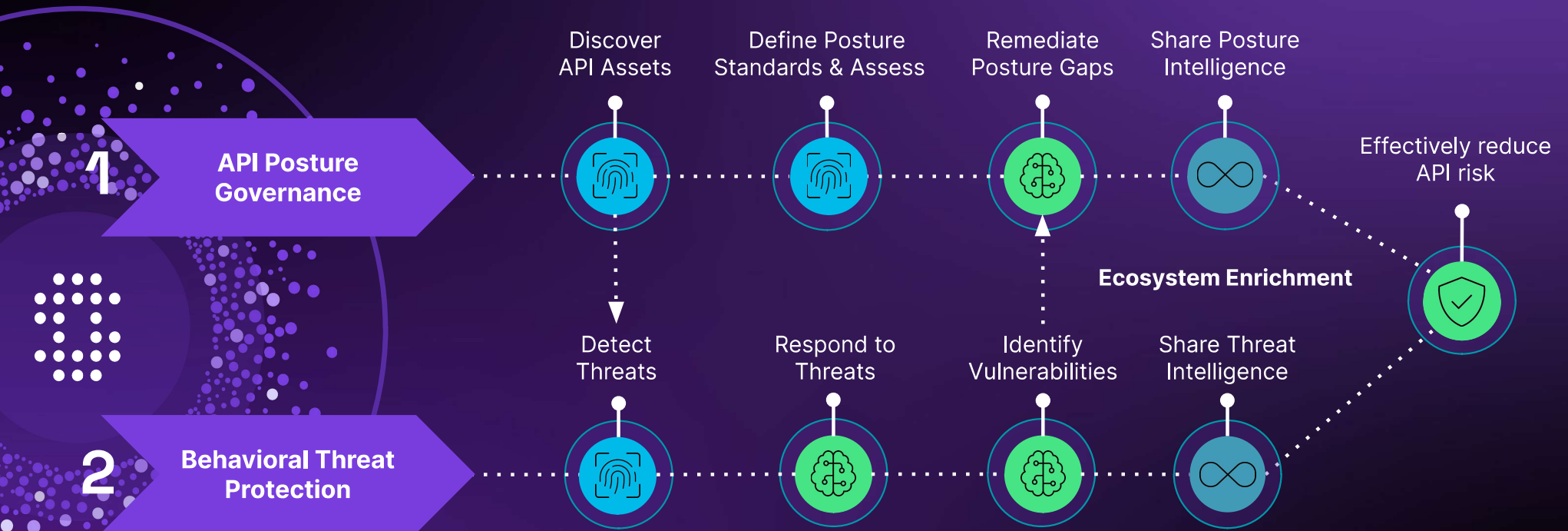


- Identify malicious intent from benign anomalies with extensively trained, cloud-scale AI & ML models
- Deliver API threat intel to SIEM or other tools in the SecOps ecosystem
- **AI-based attacker insights** help assess and prioritize riskiest API assets

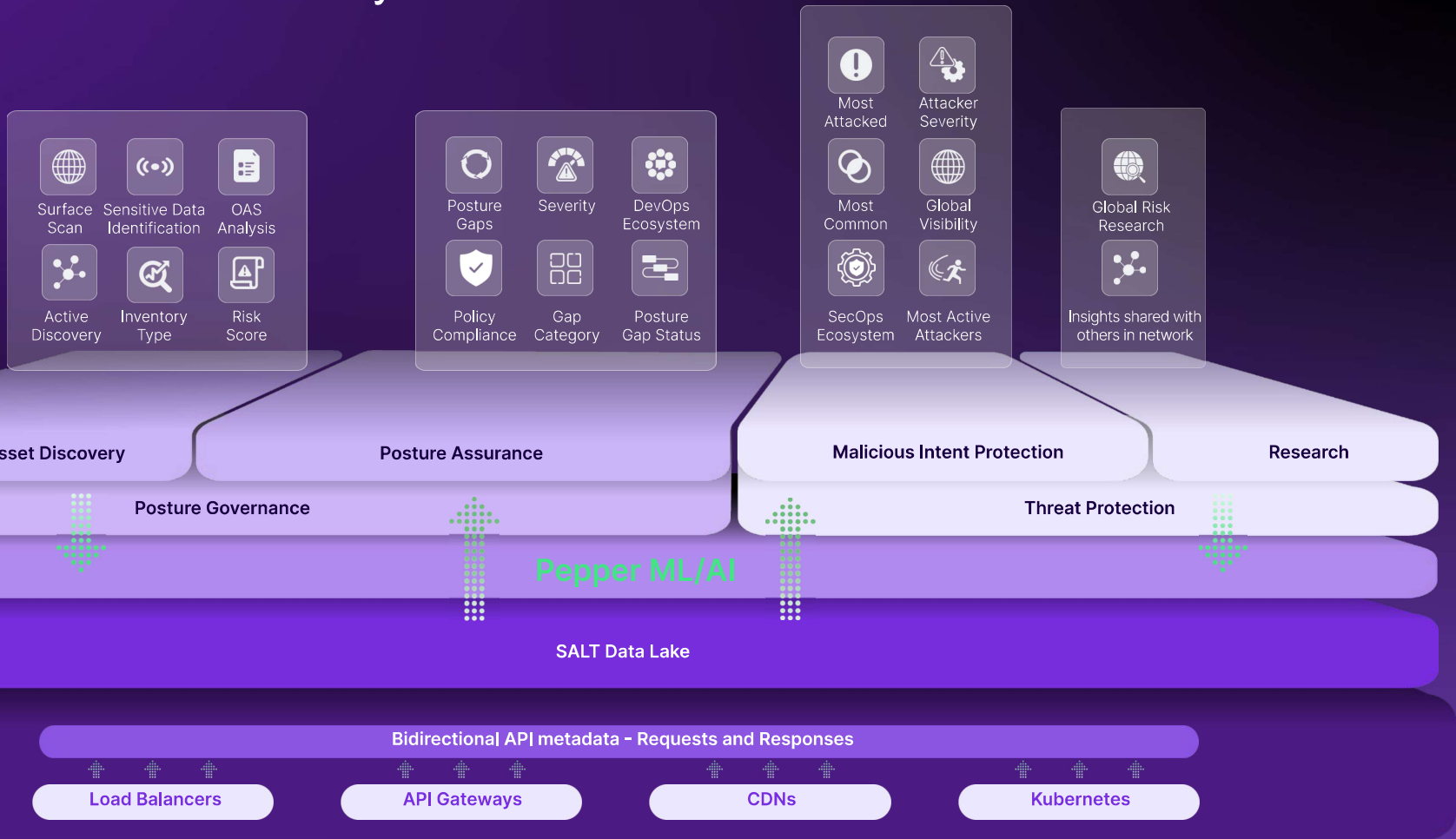
Run



Strategy to Reality: API Risk Reduction Journey



Salt's AI-Infused API Security



Salt's API Posture Governance Engine

Salt's API Posture Governance provides organizations with the ability to inventory their API assets, author corporate API posture standards, assess compliance with those standards, and remediate posture gaps through notifications and workflow integrations with corporate systems such as Jira.

The interface is divided into three main sections:

- Filter Rules:** A configuration area for creating posture gap rules. It includes a 'Where' section with 'Protocol' set to 'Is Not' and 'HTTPS', and an 'And' section with 'Sensitive Data Status' set to 'Is' and 'Sensitive'. A 'Save as Posture Gap Rule' button is present.
- Security Posture Gaps:** A dashboard showing a total of 7 gaps. A donut chart is accompanied by a list:
 - JWT without expiration: 3
 - Sensitive data exposed in response: 2
 - Sensitive data exposed without authentication: 1
 - Sensitive data exposed in the URL: 1
- Posture Gaps by Severity:** A bar chart showing the distribution of gaps by severity level:
 - CRITICAL: 1
 - HIGH: 3
 - MEDIUM: 1
 - LOW: 2

Arrows from the filter rules and posture gap analysis sections point to a 'New Notification' dialog box. This dialog is titled 'New Notification' and includes:

- Name:** A text input field.
- Notification type:** A dropdown menu set to 'Sensitive data exposed in response'.
- Search...** and **Select All** options for choosing specific posture gaps.
- Security Posture Gaps:** A list of checkboxes for selecting specific gap types:
 - Sensitive data exposed in the URL
 - Sensitive data exposed in response
 - Sensitive data exposed without authentication
 - JWT without expiration
 - Zombie endpoint
 - Discovery Insights
- Enter recipients:** A text input field.
- Posture Gap Status:** A dropdown menu set to 'Open'.
- Jira Ticket Status:** A dropdown menu set to 'To Do'.
- Remediation Suggestions:** A section with a 'Go To Ticket' button.

Posture Standards Examples

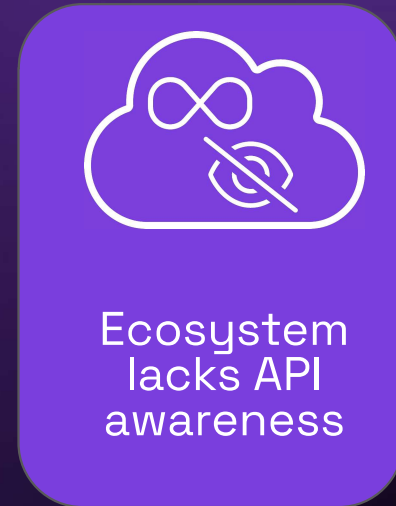
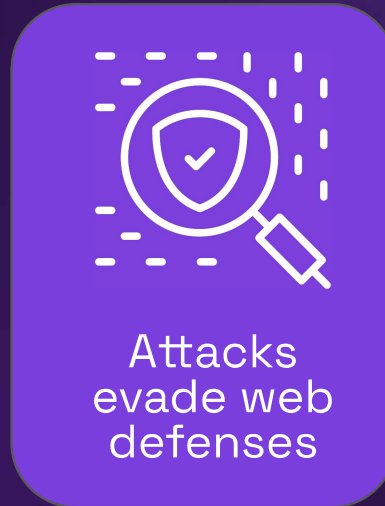
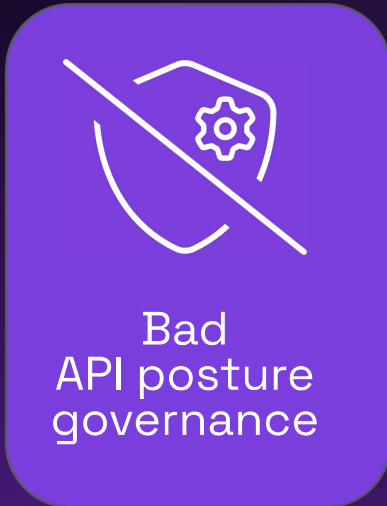
- External API response codes should only be 200, 404, 301
- No API requests should contain API keys in querystrings
- Sensitive data is only to be returned from an HTTP Post
- All APIs that ingest payment data must pass through Cloudflare
- All userids must be in UUID format
- All APIs responses must have internal CMDP appid and workload location in response
- All APIs must have a rate limit configured
- All external CAD design document requests must be authenticated and encrypted
- External / outbound API calls should not contain any sensitive data unless it's going to Salesforce



Demo Posture Gap management

Bottom Line

API risk is an inescapable production reality





Thank you!

Questions?

Please see us at our booth for a more extensive demonstration.