So you got holes in your SOC(k)s

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What we are talking about today

- Whoami
- Security is more than just a thing
- Cisco leading the charge
- Closing thoughts

About me

Scott Wofford scwoffor@cisco.com

- SLED Senior SE – Texas, US
- Joined Cisco November 2019
- 20+ Years experience in the IT industry.
- Past roles included Cisco customer, partner, and now Cisco employee.
- Holds an active CCIE Security and Enterprise Infrastructure, CISSP, and various other industry certifications.
- Identity and ISE expert.

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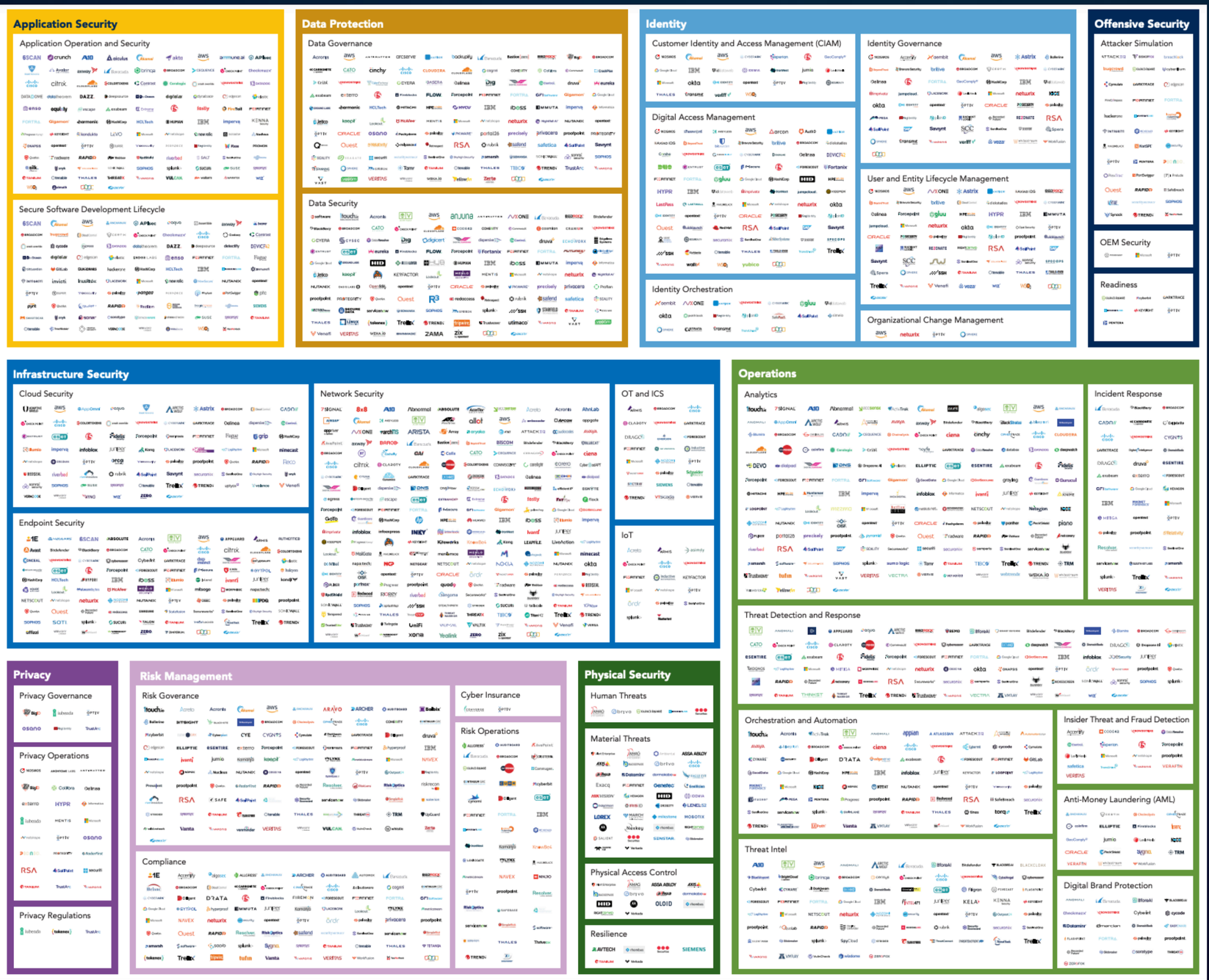
magic bullet.
FAKE
NEWS



Optiv mapped just 450 providers.

Gartner 2024 reports more than 3200 Cybersecurity Vendors

https://www.optiv.com/sites/default/files/2024-07/Cybersecurity-Landscape-Map-2024.pdf

https://digitalisationworld.com/blogs/57542/3200-and-counting-cybersecurity-complexity-is-the-biggest-risk

We won’t get it right on day one, but…

Continuous Improvement, also known as Kaizen that translates from Japanese as “improvement” (kai – “change” – zen “good”), is ongoing effort to improve existing products, services, or processes by implementing rather smaller than major changes.

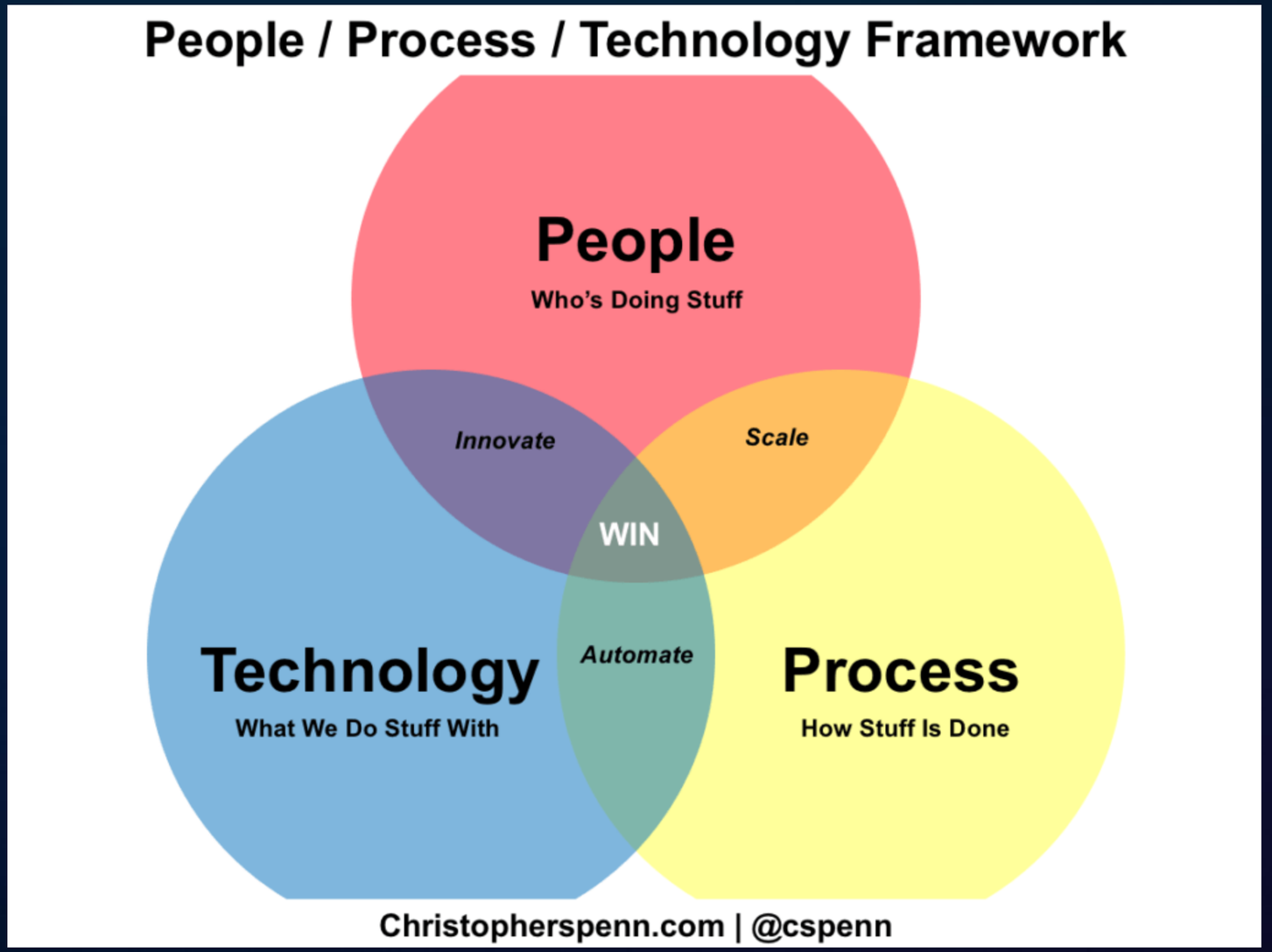
Frequency of Preventable Incidents

2/3

of security leaders experienced an incident that could have been prevented if security operations were improved.

Source: ESG SOC Trends Report 2023

FOUNDATIONS



WE WANT TO WIN

How do we define Success in our SOC

Why:

What is our company's core focus?

"Why do we do what we do? How does our company define critical assets? What is the value executives place on securing those assets?"

Measure:

KPIs to measure success

"Do we have a clear definition for measuring ourselves? Can we find success in our losses"

Repeat:

Results should be reproducible

"What are we doing to streamline our efforts, so they are efficient and reproducible"

GUARDRAILS

Using Frameworks as a blueprint to Win

MITRE ATT&CK:

More than just a catalog of TTPs

* Training
* Response Strategy Development
* Security Posture Assessment
* Attack Simulation
* Threat Detection
* And more...

In a nutshell, cyber security teams can now assess their organizations' cyber defenses against the MITRE ATT&CK's body of knowledge – and use this information in decision-making related to developing their security operations center strategy.

WHY

“If I had one hour to save the world, I would spend fifty-five minutes defining the problem and only five minutes finding the solution. “

– Albert Einstein

Why
Can we articulate the need for:

People:

Do we have the right people to succeed?

“Are we skilled for the appropriate functions?”
“Are we staffed for the expected coverage?”

Process:

Why are we doing this?

“Can we streamline our workflows?”

“What is the value of a playbook?”

Technology:

Solutions abound

“Why do we need this or that tool?”

“How does it help meet our objectives?”

caniphish

MEASURE

“Measurement is the first step that leads to control and eventually to improvement. If you can’t measure something, you can’t understand it. If you can’t understand it, you can’t control it. If you can’t control it, you can’t improve it.”

– H. James Harrington

MEASURE

How are we doing? Inquiring minds want to know

People:

Tracking metrics that matter

“Personal Development”
“Staff workload”

Process:

Is there room to refine

“How are we evaluating our processes for efficiency?”
“Do we have a plan to test and institute change?

Technology:

Does this thing work?

“How well does a widget do it’s job?”

“Is it adding added value to the security stack?”

MEASURE SOC Performance

MTTD – Mean time to Detect

MTTR – Mean time to Resolution

Incident Escalation Rate

Number of Security Incidents

F(PN)R – False positive and negative rates

Incident Escalation Rate

Incident Containment Rate

Incident Closure Rate

REPEAT

“If you always do what you’ve always done, you’ll always get what you’ve always got.”

– Henry Ford

REPEAT

What are we doing to get outcomes we want?

People:

What works?

“Is the culture setup for success?”

“Are we investing in our people?

Process:

Defining success

“Are processes documented?”

“Are they structured for modularity?”

Technology:

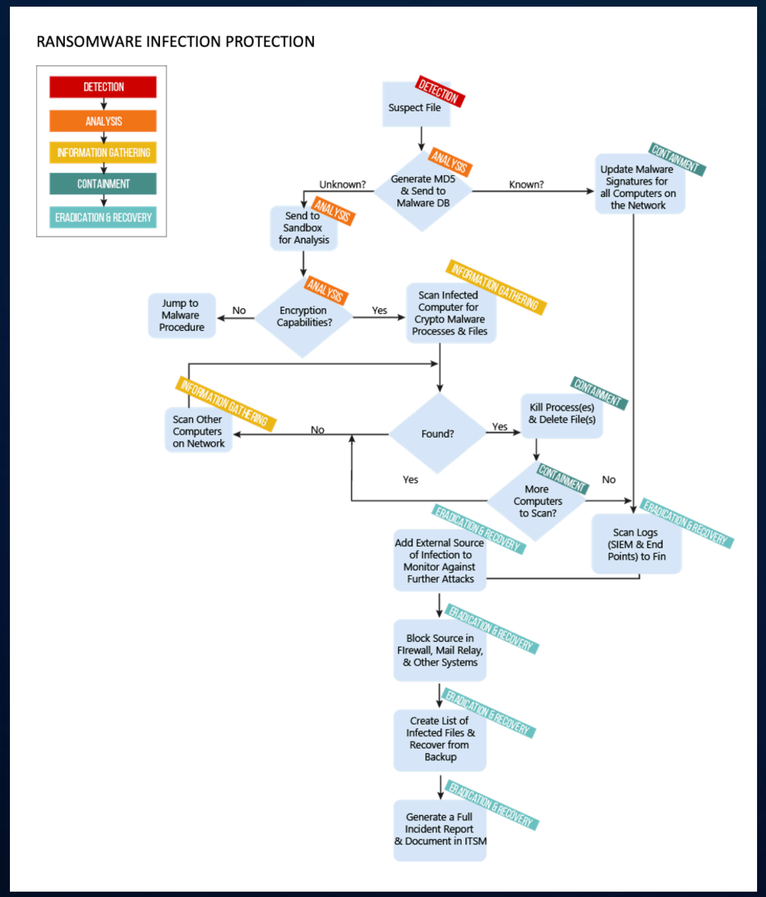
Accelerated Outcomes

“Where can we integrate?

”How do we Automate?”

← Measure →

Playbooks & Workflows



CRYPTOJACKING

Objective: Automatically detect cryptojacking activity, isolate infected systems, and block cryptojacking domains.

Tools Required:

- **SIEM:** (e.g., Splunk, QRadar)
- **EDR (Endpoint Detection and Response) Tools**
- **Firewall**
- **SOAR Platform:** (e.g., Palo Alto Cortex XSOAR, Splunk Phantom)
- **Threat Intelligence Platforms:** (e.g., VirusTotal, DomainTools)

Steps to Implement the Automation:

Step 1: Detection

- **Trigger:** Monitor the SIEM and EDR tools for alerts related to cryptojacking indicators (e.g., abnormal CPU usage, unauthorised mining software, outbound connections to known mining pools).
- **Automation Task:** Use predefined correlation rules to detect cryptojacking activity. For example, if the SIEM detects consistent high CPU usage from a specific endpoint along with outbound connections to a mining pool, it triggers the playbook.

Step 2: Triage and Analysis

- **Trigger:** Once cryptojacking is detected, automatically extract Indicators of Compromise (IOCs) such as malicious file hashes, domains, and IPs related to cryptojacking.
- **Automation Task:** The SOAR platform automatically enriches the IOCs with threat intelligence from external sources (e.g., VirusTotal, DomainTools) to confirm the cryptojacking activity.

Step 3: Containment

- **Trigger:** After confirming cryptojacking, initiate automated containment actions.
- **Automation Task:**
    - **Isolate Infected Systems:** Command the EDR tool to disconnect the infected endpoints from the network to prevent further cryptojacking activity.
    - **Block Domains:** Update firewall rules to block outbound traffic to known cryptojacking domains and mining pools.

How is Cisco + Splunk is helping you stitch up your holes?

Threat actors do not discriminate based on an organization’s size or vertical.

Driving security modernization

across detection, investigation, and response as a top priority to achieve digital resilience.

of organizations claim improving efficacy and efficiency of SecOps is a top 5 priority.

Source: ESG SOC Trends Report 2023

Cisco Delivers
The right partners matter!

People:
World-class experts

“Experts across multiple domains”

Process:
Partners in process

“Customized security operations for the SOC and TDIR”

”Well articulated and clearly defined”

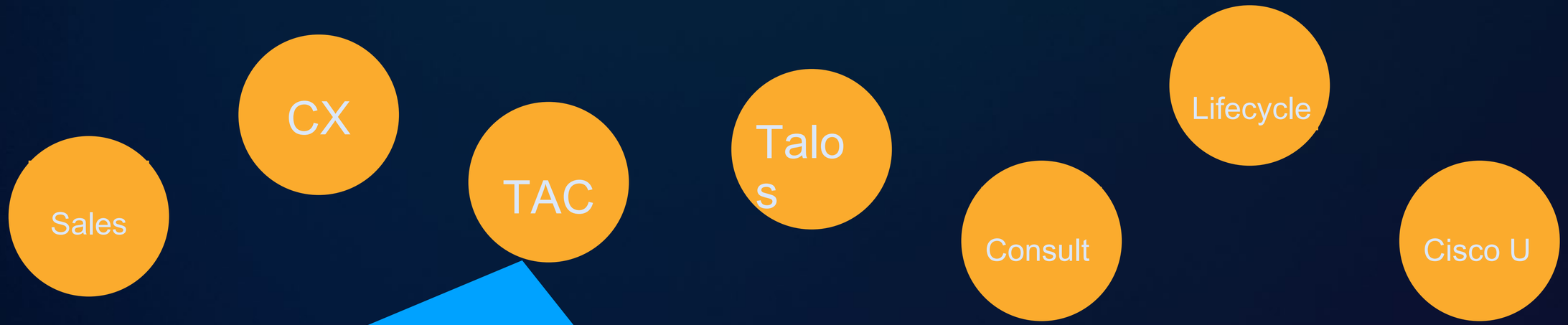
Technology:
Solutions not just widgets

“Architected and engineered to work together and drive success”

People

People & Process

The right partners matter!



We have 3 main priorities going forward in TAC.
1. Provide personalized support
2. Proactive and preventative support
3. Develop future ready skills for our engineers.

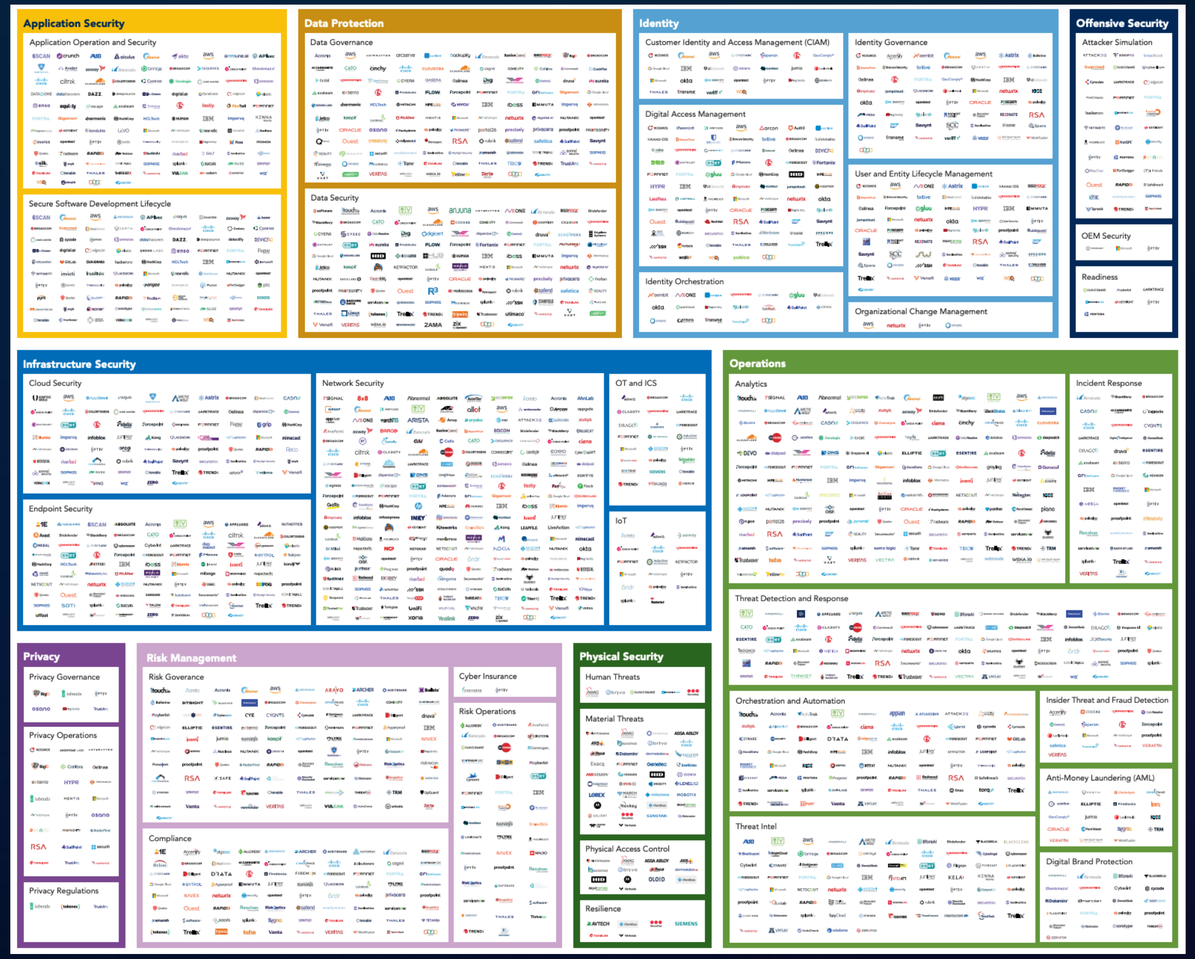
We have initiatives that support all 3 that include fundamental focus areas like
'Radical Ownership’
Technology alignment
AI and Automation everywhere

Scale and persistence of threats vary

Driving the need for a tailored cyber defense strategy.

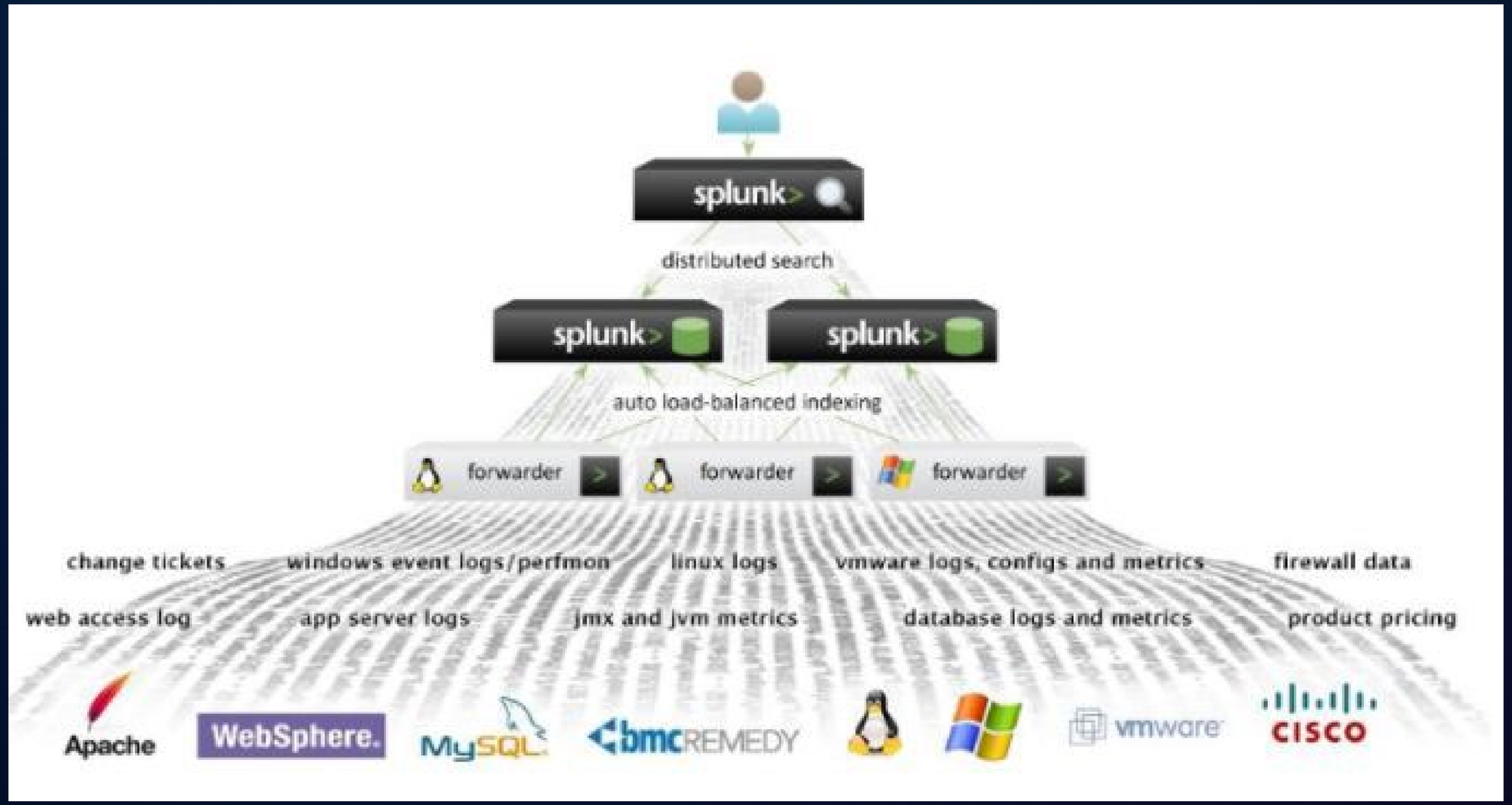
Product

Yes, tools generate a lot of data



Splunk Core

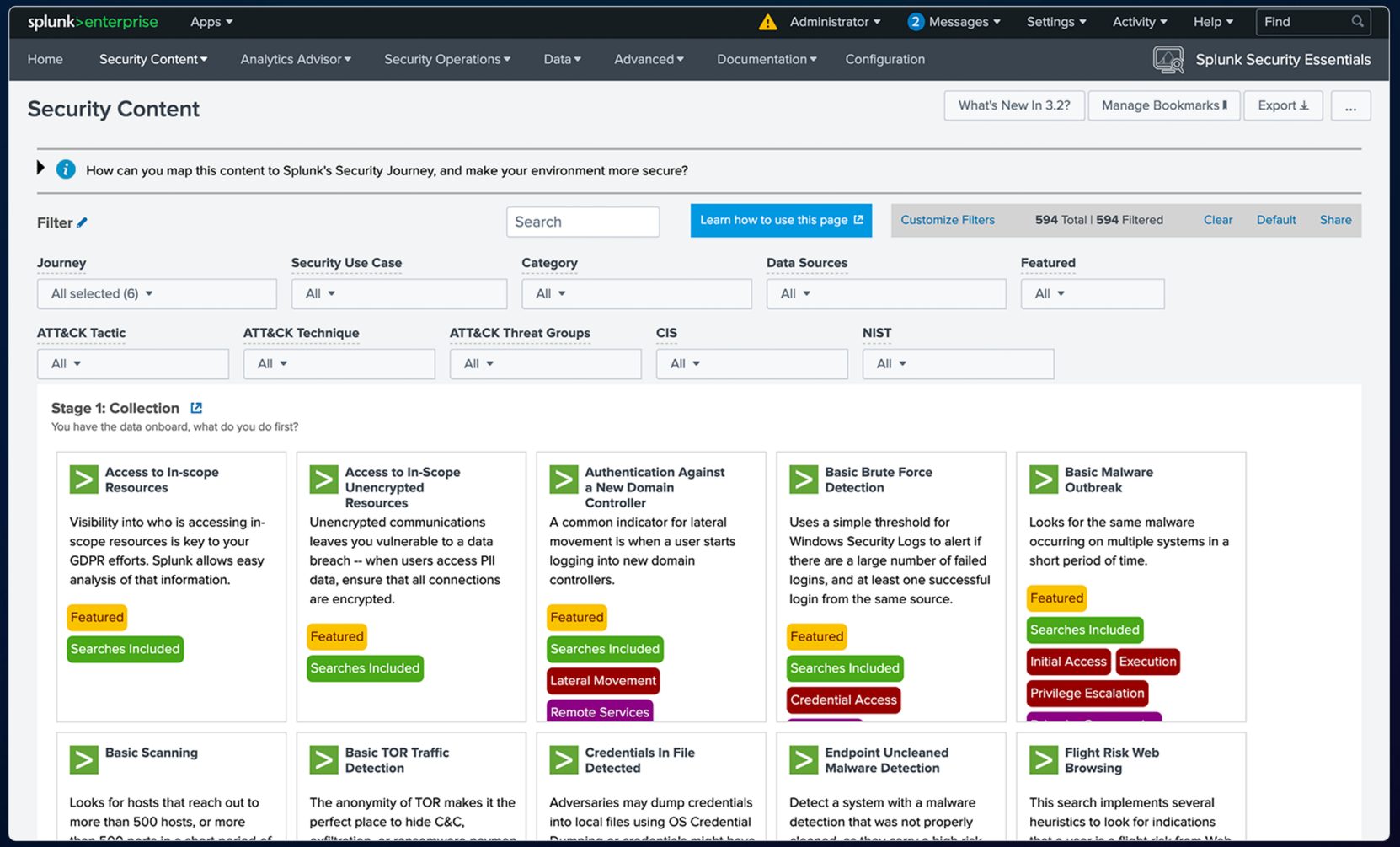
Let's get organized!



Splunk Reporting & Dashboards

Splunk Security Essentials

Consultant in a box…



Product & Process

Different approaches, optimized for different things

...and solving different problems

XDR:

Great at notifying you of an incident

“PowerShell created an internal network connection never seen before. This might be ransomware!!!”

SIEM:

Great at answering complex questions

“View prioritized alerts based on risk from our U.K. subsidiary.”

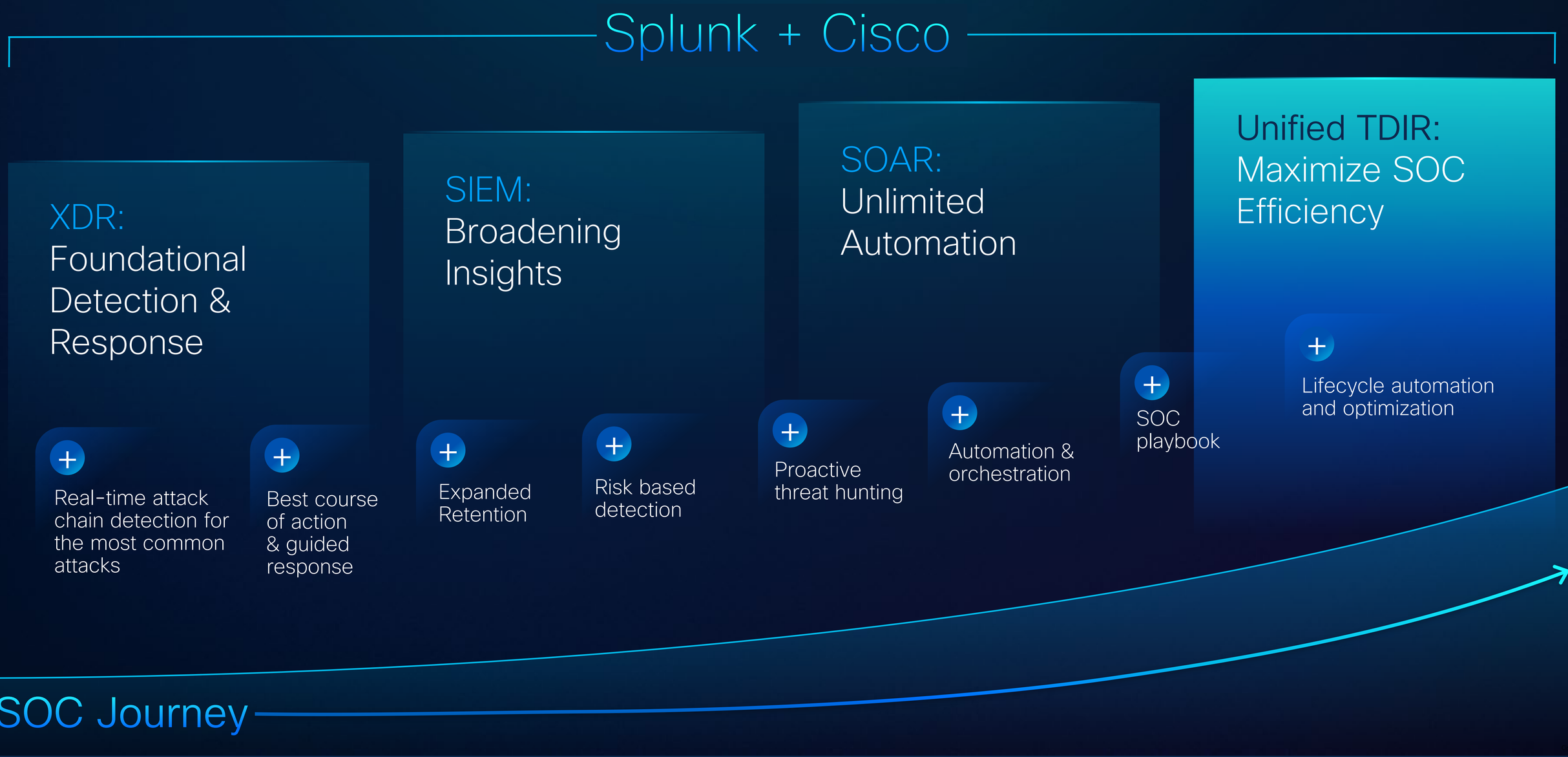
SOAR:

Great at automating workflows & response actions

“Initiate a password reset for all U.K. employees.”

”Quarantine the affected endpoint and take a snapshot of all our data center servers.”

Creating a more efficient and responsive threat detection, investigation, and response capability



People

+

Process

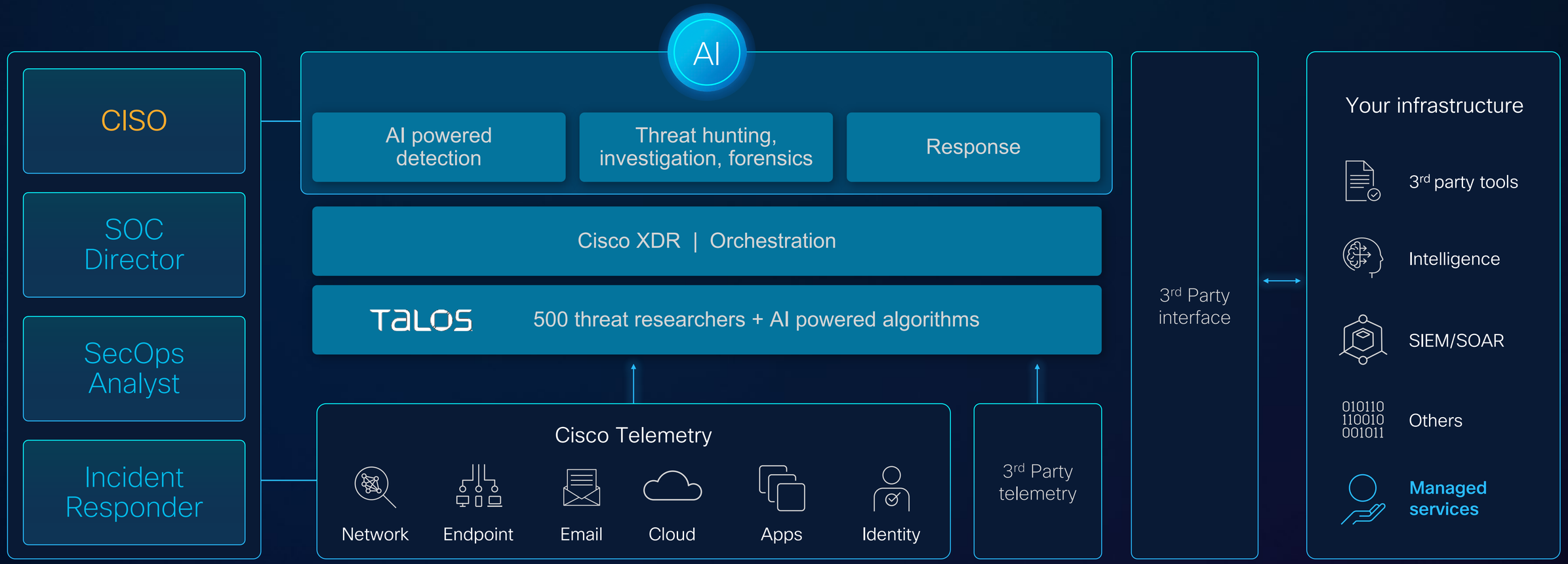
+

Technology

=

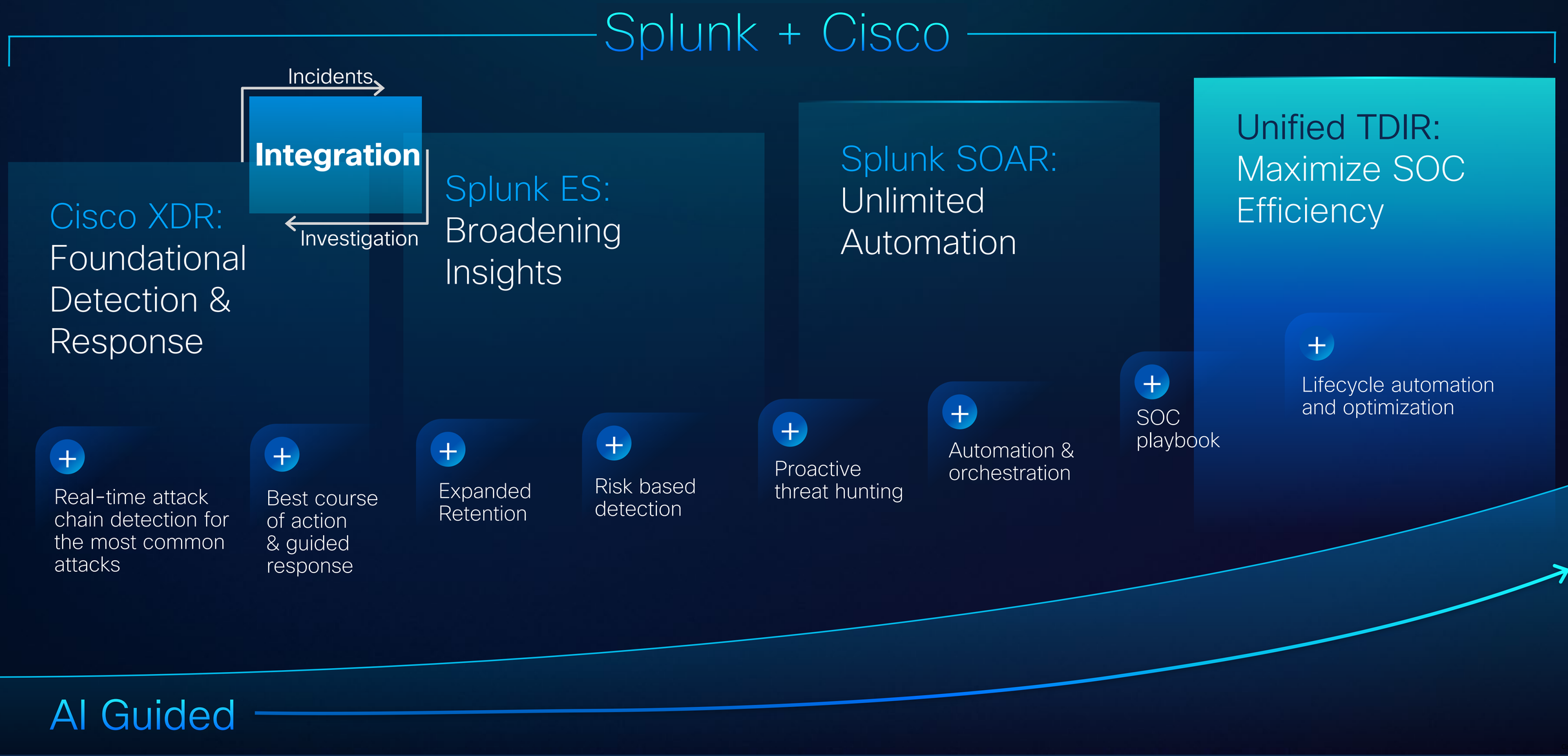
We can meet you
wherever you are
on this journey

Start with the fastest, easiest solution with an AI-first XDR



Real-time attack chain detection for the most common attacks with curated integration and response guidance

Investment protection for Cisco XDR. Even better threat signal for Splunk ES.



How adoption of AI in SOC operations impacts SOC's performance:

- Reduction in mean time to remediation
- Significant decrease in response times
- Enhanced visibility into the scope of incidents and affected systems
- Broadened detection and response capabilities
- Expanded technical security proficiency
- Streamlined and unified threat responses

Enabling powerful security outcomes for our customers

Cisco XDR +Splunk

AI driven | Platform powered | Extensible

To close…

Kaizen – Always be looking to hone and refine

Be intentional

- People – Cultivate a culture where people are invested
- Process – Continue to evaluate and adjust processes
- Technology – Invest in complimentary technology

Measure

- Identify metrics that matter and have a passion to win

Appendix

Use case

Expand visibility across domains

FUTURE

Integrating Cisco XDR with Splunk ES for Enhanced Security Analysis

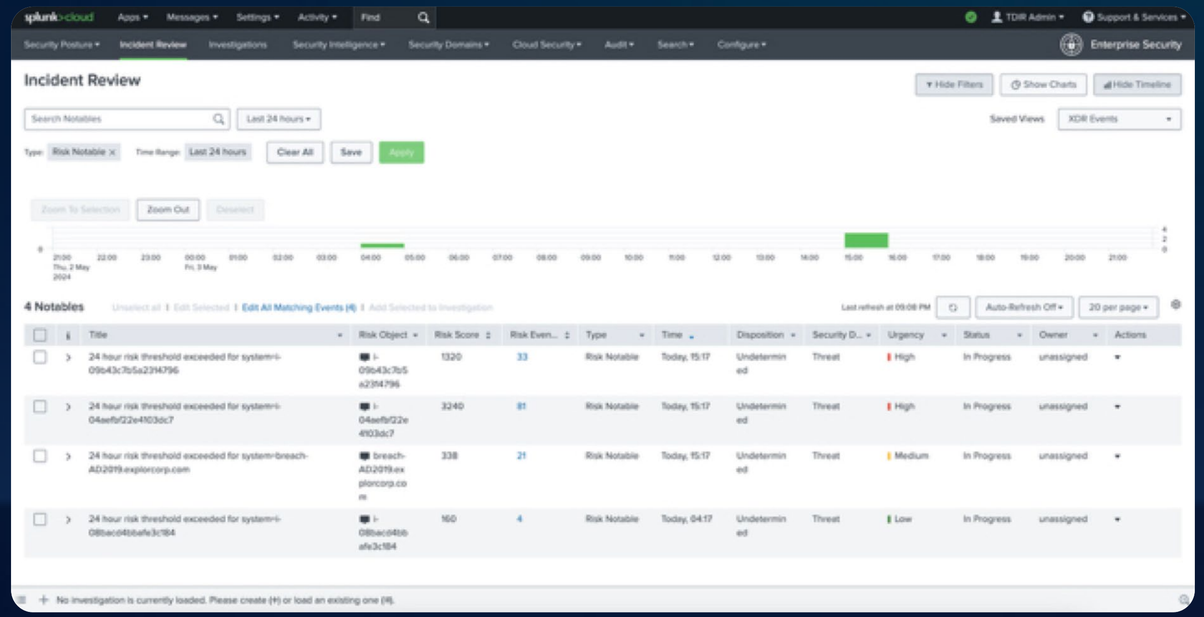
Seamless collaboration for threat identification, action, and investigations

Leverage verdicts from Splunk for correlated verdicts on indicators of compromise

Use case

Deliver higher fidelity alerts for investigation and analysis

FUTURE



Integrating Cisco XDR with Splunk ES for Enhanced Security Analysis

Facilitate efficient analysis and mitigation of security threats with context from multiple sources

Promote incidents detected by Cisco XDR to Splunk ES, allowing SOC analysts to view and analyze incidents