

Clear Verdict. Decisive Action. AI Speed.

Cisco XDR + Splunk

Elliot Riegner
Splunk Senior Solution Engineer

Matt Gockel
Cisco Security Solution Engineer



Agenda

1. SOC Challenges
2. SOC Maturity Model
3. XDR AI Analytics & Forensics
4. One Cisco for Unified TDIR
5. Splunk ITSI
6. Q&A

SOC Challenges

Security Operations Challenges

Constant threats and a growing attack surface add complexity



Lack of Analyst Bandwidth



**Velocity of Credential
Phishing and Malware**



**Limited Visibility and
Context**

What SecOps wants



“I want to have a correlated view of alerts across my environment.”



“I need my security tools to help me work with speed, accuracy, and confidence.”



“I want my team to remediate threats with guidance and automated playbooks.”

SOC Maturity Model

Common SOC Duties



Tier 1 (Triage):

- Phishing campaigns
- Phishing file analysis
- IP/domain analysis
- Mobile device wipes
- Email investigations
- 3rd party vulnerability reports – threat hunt
- Escalate to T2

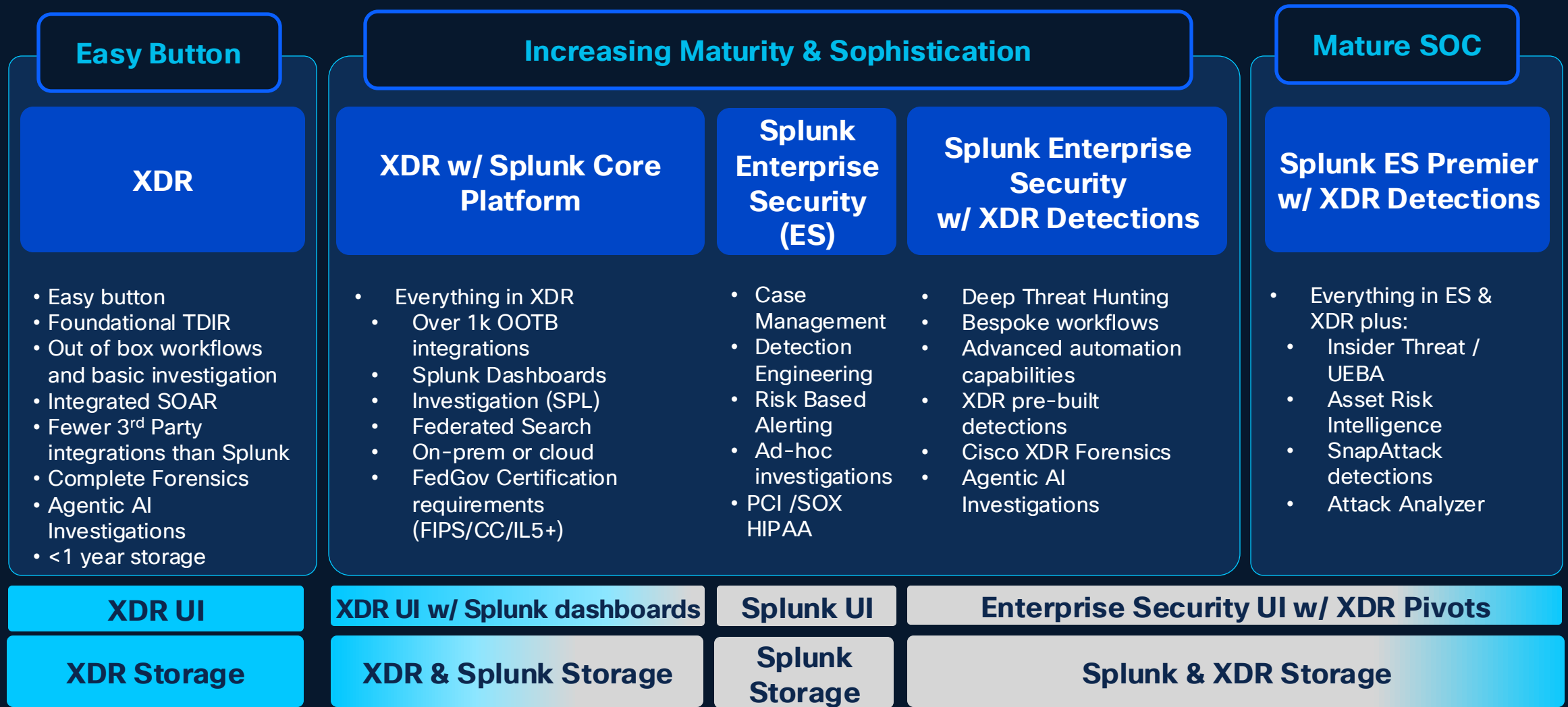
Tier 2 (Sr/Lead):

- IDS/IPS alerts
- Rogue users
- DNS Sinkholing domains
- IP/VPN blocks
- DDoS
- Escalate to CTI/CTA/CTD/IR
- Email pulls
- Account disables/wipes
- Pull forensic package

Shift Lead (Sr/T3):

- Create and Monitor dashboards
- Train new hires
- Make sure everyone is doing their work
- Jump into incidents ad hoc
- Manage the SOC queue
- Interface with vendors

Unified TDIR: XDR w/Splunk

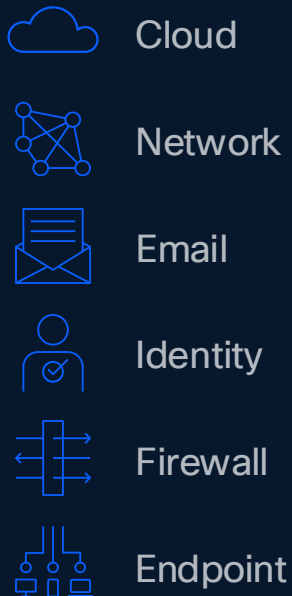


Additive features and functionality starting with XDR, adding Splunk Core then layering in Enterprise Security advanced security use cases

XDR AI Analytics & Forensics

Cisco XDR High Level Architecture

Extended



Raw Telemetry

Events

Threat Intelligence

Enrichment

Device & User
Context

Detection

Behavioral Analytics

Anomaly Detection

Attack Chaining

AI Analytics

Incident Creation

Incident
Prioritization

Automatic Enrichment

User Triggered

Incident Triggered

Scheduled

Automation Rules

Response

Guided Playbooks

Digital Forensics

Automated Workflows

Pivot Menu Actions

Solution Agnostic

Rapid Containment

Multi-vector telemetry ingest network, cloud, endpoint, email, and more from Cisco and 3rd party

Cross domain alert detections and attack chaining with automated incident prioritization and enrichment

Automated or user triggered responses to block observables using any integrated technology

LLM Multi-Agent System for Automated Investigation

Highly specialized agents:

- GenAI/AI model + domain specific knowledge
- Divide and conquer

Orchestration agent

- Coordinate across agents

Summarization agent

- Produce summary of the incident

Planner agent

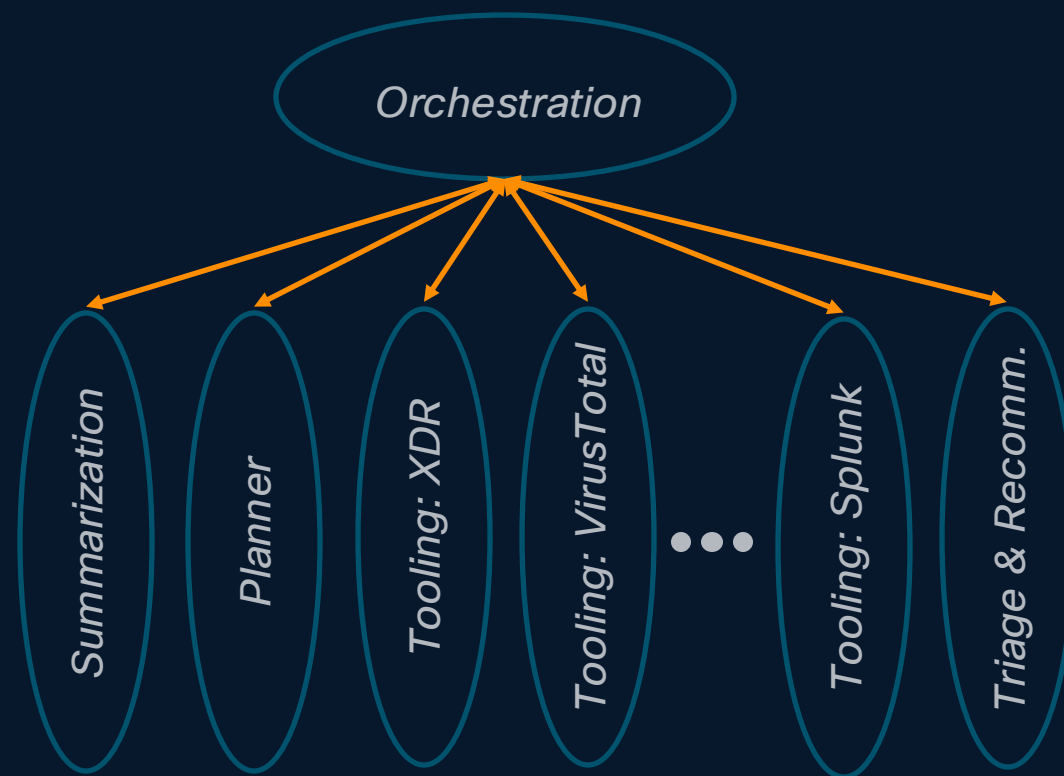
- Generate a list of tasks to do

Tooling agent per task

- Execution agent
- Interpretation agent

Triage & Recommendation agent

Agent Architecture



* tooling agents under development (except VT)

XDR AI Analytics & Forensics Demo

One Cisco for Unified TDIR

One Cisco Security Portfolio

XDR

SOAR

Enterprise Security | UEBA

Splunk Platform

Attack Analyzer

Threat Research | SURGe

Detect

Investigate

Respond

- ➔ 2,800+ Apps on Splunkbase
- ➔ 1,900+ OOTB Detections
- ➔ AI Assistants
- ➔ Community

Use case

Expand visibility across domains

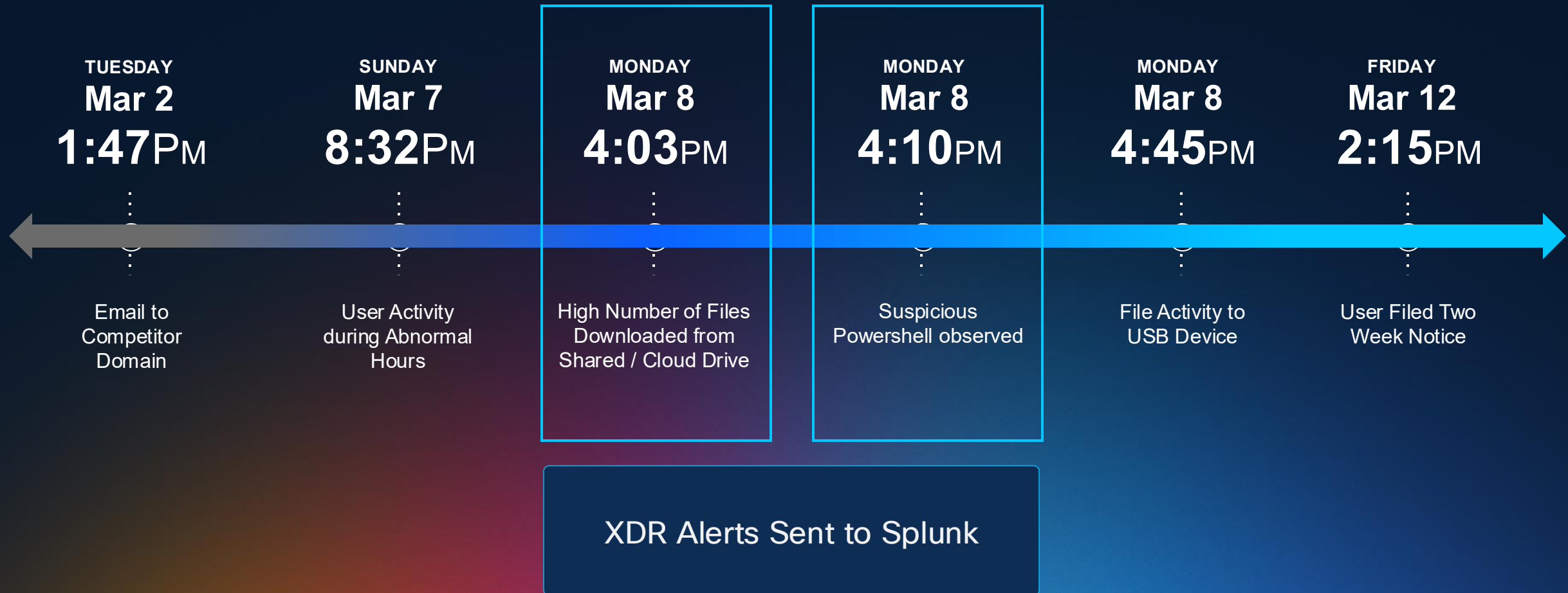


Seamless collaboration for threat identification, action, and investigations

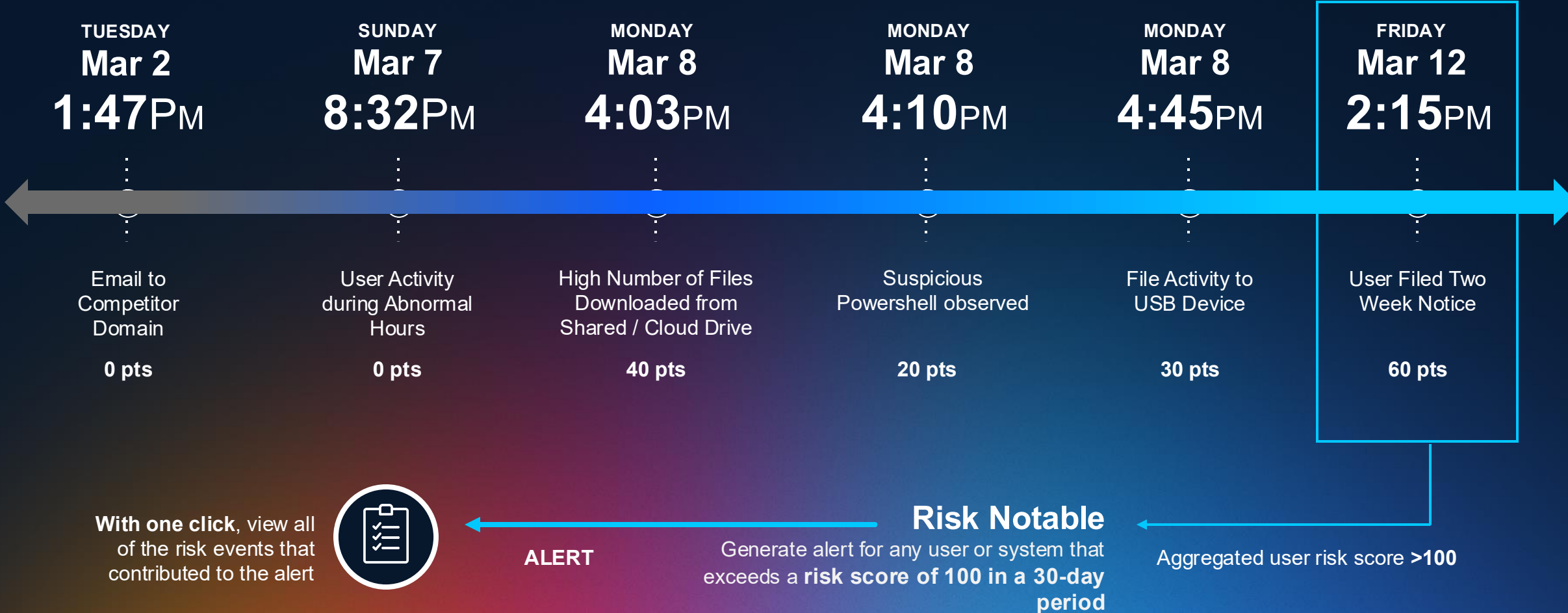
Leverage verdicts from Splunk for correlated verdicts on indicators of compromise

**Integrating Cisco XDR with Splunk ES
for Enhanced Security Analysis**

Better Together Alerting



Better Together Alerting



Splunk ITSI

Data Reuse

```
10.2.1.35 64.66.0.20 - - [17/Jan/2024
16:21:51] "GET
/product.screen?product_id=CC-P3-BELKIN-
SILBLKIPH5&JSESSIONID=SD5SL6FF1ADFF9 HTTP
1.1" 503 865
"http://shop.splunktel.com/product.screen?
product_id=CC-P3-BELKIN-BLK_BT00TH_HFREE"
"Mozilla/5.0 (Linux; Android 12.0.0; FR-
fr; SM-S901B Build/S908EXXU2BVJA)
AppleWebKit/537.36 Chrome/114.0.5735.131
Mobile Safari/537.36" 954
```

DevOps Use Case

Which mobile handsets should I test the most before releasing my new app?

```
10.2.1.35 64.66.0.20 - - [17/Jan/2024
16:21:51] "GET
/product.screen?product_id=CC-P3-BELKIN-
SILBLKIPH5&JSESSIONID=SD5SL6FF1ADFF9 HTTP
1.1" 503 865
"http://shop.splunktel.com/product.screen?
product_id=CC-P3-BELKIN-SILBLKIPH5&JSESSIONID=SD5SL6FF1ADFF9 HTTP
1.1" 503 865
"Mozilla/5.0 (Linux; Android 12.0.0; FR-
fr; SM-S901B Build/S908EXXU2BVJA)
AppleWebKit/537.36 (KHTML, like Gecko) Chrome/114.0.5735.131
Mobile Safari/537.36" 954
```

Platform

Handset model

IT Ops Use Case

Which web pages are
generating the most
errors?

The diagram shows a laptop screen with an HTTP log entry. The log text is as follows:

```
10.2.1.35 64.66.0.20 - - [17/Jan/2024  
16:21:51] "GET  
/product.screen?product_id=CC-P3-BELKIN-  
SILBLKIPH5&JSESSIONID=SD5SL6FF1ADFF9 HTTP  
1.1" 503 865  
"Mozilla/5.0 (Linux; Android 12.0.0; FR-  
fr; Build/S908EXXU2BVJA)  
AppleWebKit/537.36 Chrome/114.0.5735.131  
Mobile Safari/537.36" 954
```

Callout boxes point to the following fields in the log:

- IP of web server: 10.2.1.35
- IP of client: 64.66.0.20
- Page requested: /product.screen?product_id=CC-P3-BELKIN-SILBLKIPH5&JSESSIONID=SD5SL6FF1ADFF9
- ID of web session: SD5SL6FF1ADFF9
- HTTP status code: 503
- Size of objects returned to client: 865
- Web browser: Mozilla/5.0 (Linux; Android 12.0.0; FR-fr; Build/S908EXXU2BVJA) AppleWebKit/537.36 Chrome/114.0.5735.131 Mobile Safari/537.36

Security Use Case

Do we have any malicious user-agents interacting with the network?

IP of web server 10.2.1.35 IP of client 64.66.0.20 - - [17/Jan/2024 16:21:51] "GET /product.screen?product_id=CC-P3-BELKIN-SILBLKIPH5&JSESSIONID=SD5SL6FF1ADFF9 HTTP 1.1" 503 865

HTTP status code 503 Size of objects returned to client 865

"Mozilla/5.0 (Linux; BunnyLoader; FR-fr; SM-S901B Build/S908EXXU AppleWebKit/537.36 Chrome Mobile Safari/537.36" 954

Malicious User-Agent

Bringing Security and IT Together with Business Context

Data Reuse

- Mapping alerts to business services helps teams understand which incidents matter most – not just which are loudest
- ITSI Bridges IT and Security to determine root cause and avoid finger-pointing to accelerate MTTX
- Shared language for collaboration to align IT Operations and SecOps around the same truth

Developing Next

- Integration of additional Cisco networking portfolio (ACI, SD-WAN manage etc.)

