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GO BEYOND

#CiscoLiveAPJC



Demystifying Cisco Secure Access and Umbrella APIs

Navigating Use Cases and Best Practices

Yaron Caspy, Product Manager
DEVNET-2274

CISCO *Live!*

#CiscoLiveAPJC

Cisco Webex App

Questions?

Use Cisco Webex App to chat with the speaker after the session

How

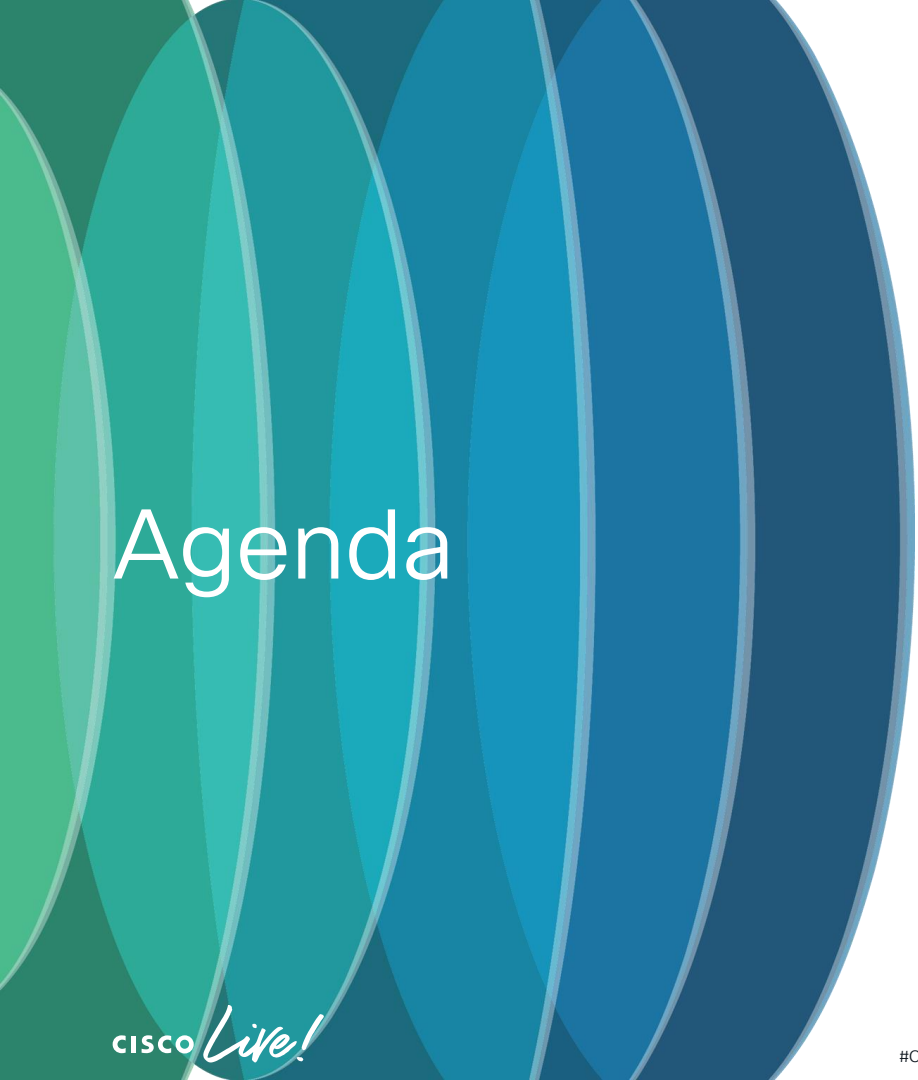
- 1 Find this session in the Cisco Live Mobile App
- 2 Click “Join the Discussion”
- 3 Install the Webex App or go directly to the Webex space
- 4 Enter messages/questions in the Webex space

Webex spaces will be moderated by the speaker until November 15, 2024.

CISCO *Live!*

<https://ciscolive.ciscoevents.com/ciscolivebot/#DEVNET-2274>

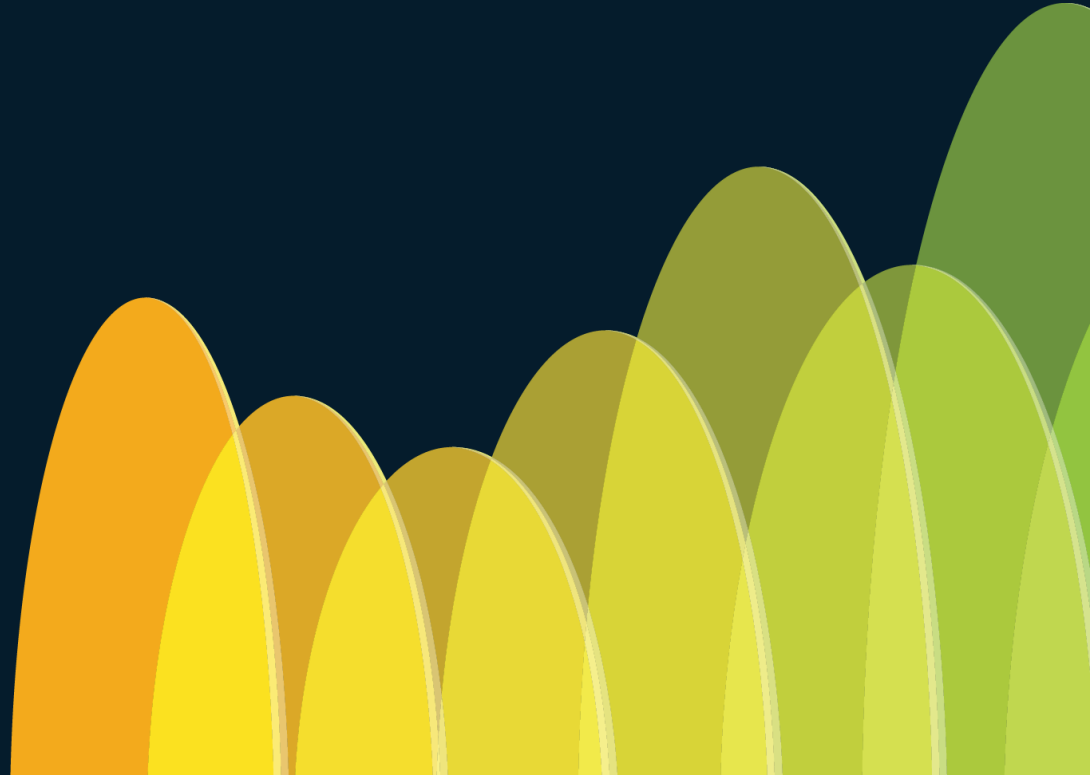




Agenda

- Introduction
- whoami
- APIs and Use Cases
- Navigating Reports
- Navigating Rules
- Transparency
- Resources

Introduction



Introduction

Umbrella -> SIG -> SSE -> SASE



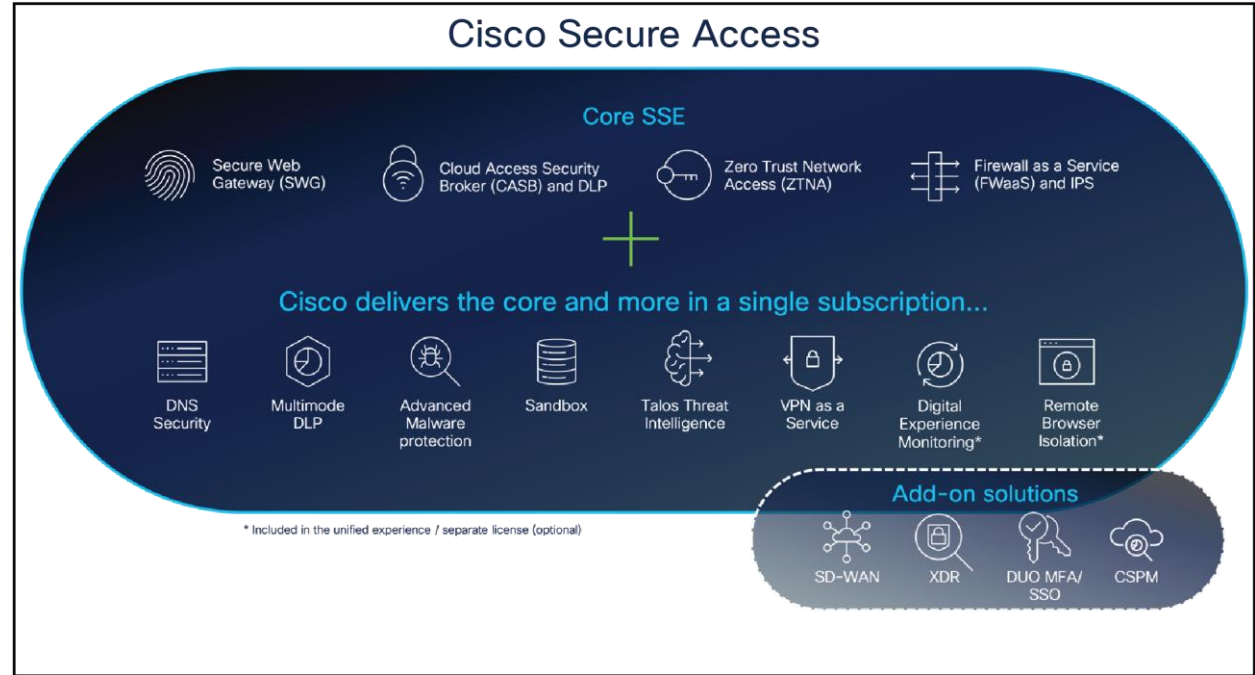
Cisco Umbrella

Secure Web
Gateway
(SWG)

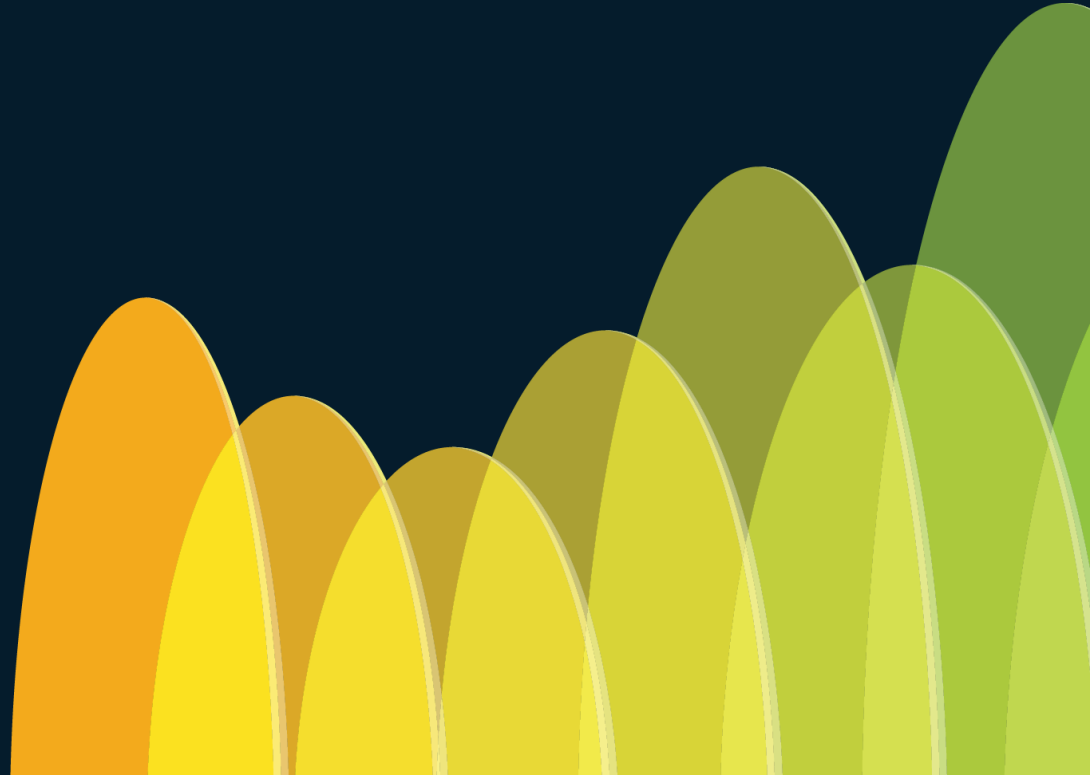
Cloud Access
Security Broker
(CASB)

DNS security

Firewall as a
Service
(FWaaS)



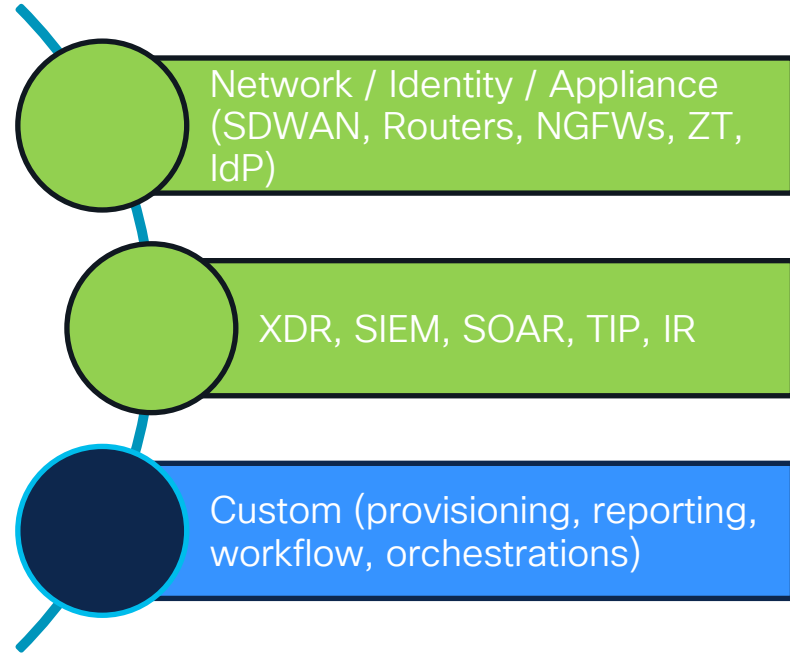
whoami



Who uses our APIs?

whoami

- CISO
- Security Architect
- Security/Network Admins
- Engineers/DevOps/Admins
 - Security
 - Core
 - Outsourced
 - 3rd party



APIs and Use Cases

The Common Denominator is...

Use Case	Examples
Auth	Authentication
Admin	General Configuration
Deployments	Your Identities
Policies	Rules, Lists, etc...
Reports	What is going on?
Investigate	Enrichment

Credential Controls (UI and API)

Cisco Live DEVNET-2040

Created By
Yaron Caspy

Last Modified
Jan 21, 2024

Last Used
Jan 21, 2024

Key Expiration
⚠ Expires in 8 days

API Key Name

Cisco Live DEVNET-2040

Created on Feb 8, 2023

Description (Optional)

Cisco Live Demo Credentials. Please don't delete and co...

Key Scope

Select the appropriate access scopes to define what this API key can do.

☒ Admin 4 >

☐ Auth 1 >

☒ Deployments 15 >

☒ Investigate 2 >

☒ Policies 4 >

22 selected

Remove All

Scope		
Admin / Users	Read / Write	×
Admin / Roles	Read-Only	×
Admin / Password Reset	Read / Write	×
Deployments / Networks	Read / Write	×

Expiry Date

☐ Never expire

☒ Expire on Jan 30 2024

⚠ This key expires in 8 days. To continue using it, you must refresh it or change its expiry date.

Groups=Use Cases

Permissions

Key Refresh Date: Aug 8, 2022

In the Path

Admin

<https://api.xxxxx.com/admin/v2/users>

Reports

<https://api.xxxxx.com/reports/v2/top-categories>

Policies

<https://api.xxxxx.com/policies/v2/destinationlists>

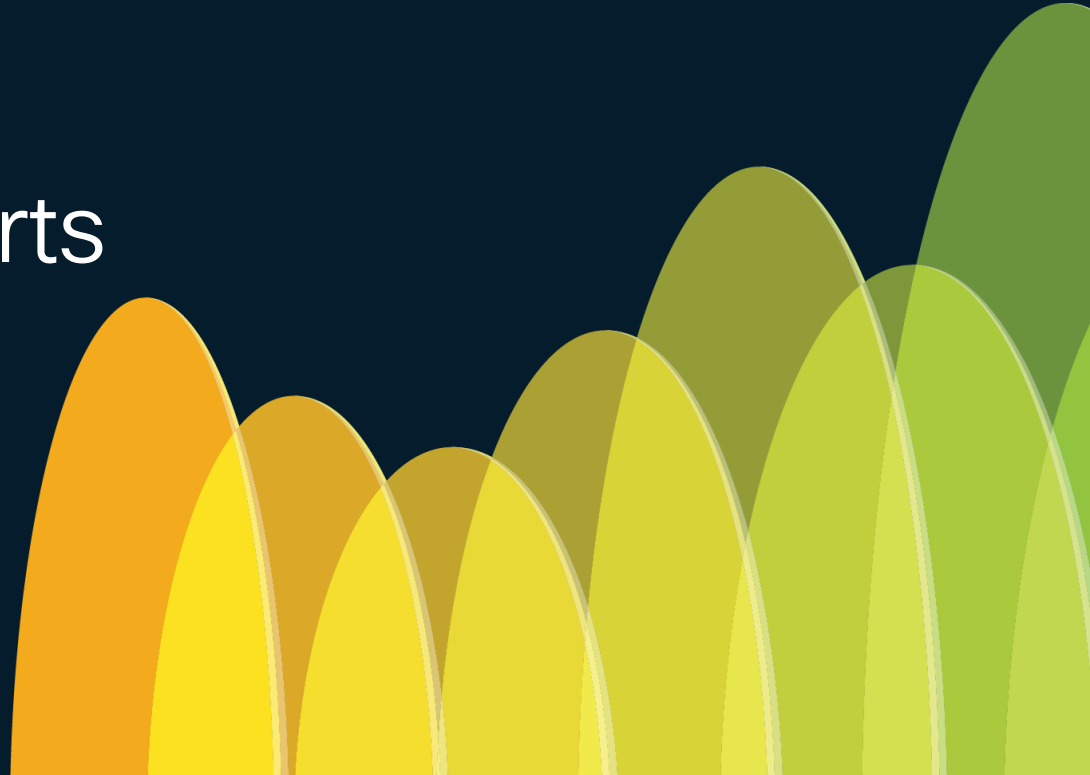
Deployments

<https://api.xxxxx.com/deployments/v2/roamingcomputers>

Investigate

<https://api.xxxxx.com/investigate/v2/domains/categorization>

Navigating Reports



~~IF YK YK~~

reports.granularevents:read

reports.utilities:read

Utilities

../identities
../categories
../applications
../threat-types
....

Granular Events

```
{
  "meta": {},
  "data": [
    {
      "externalip": "52.8.160.247",
      "internalip": "52.8.160.247",
      "polycategories": [
        {
          "id": 66,
          "label": "Malware",
          "type": "security",
          "integration": true
        }
      ],
      "categories": [
        {
          "id": 66,
          "label": "Malware",
          "type": "security",
          "integration": true
        }
      ],
      "verdict": "allowed",
      "domain": "google.com",
      "timestamp": 1548311506,
      "time": "06:31:46",
      "date": "2019-01-24",
      "identities": [
        {
          "id": 1,
          "label": "Catch Rate Testing",
          "type": {
            "id": 21,
            "label": "Sites",
            "type": "site"
          },
          "deleted": true
        }
      ],
      "threats": [
        {
          "label": "Wannacry",
          "type": "Ransomware"
        }
      ]
    }
  ],
  "meta": {}
}
```

"reports.aggregations:read

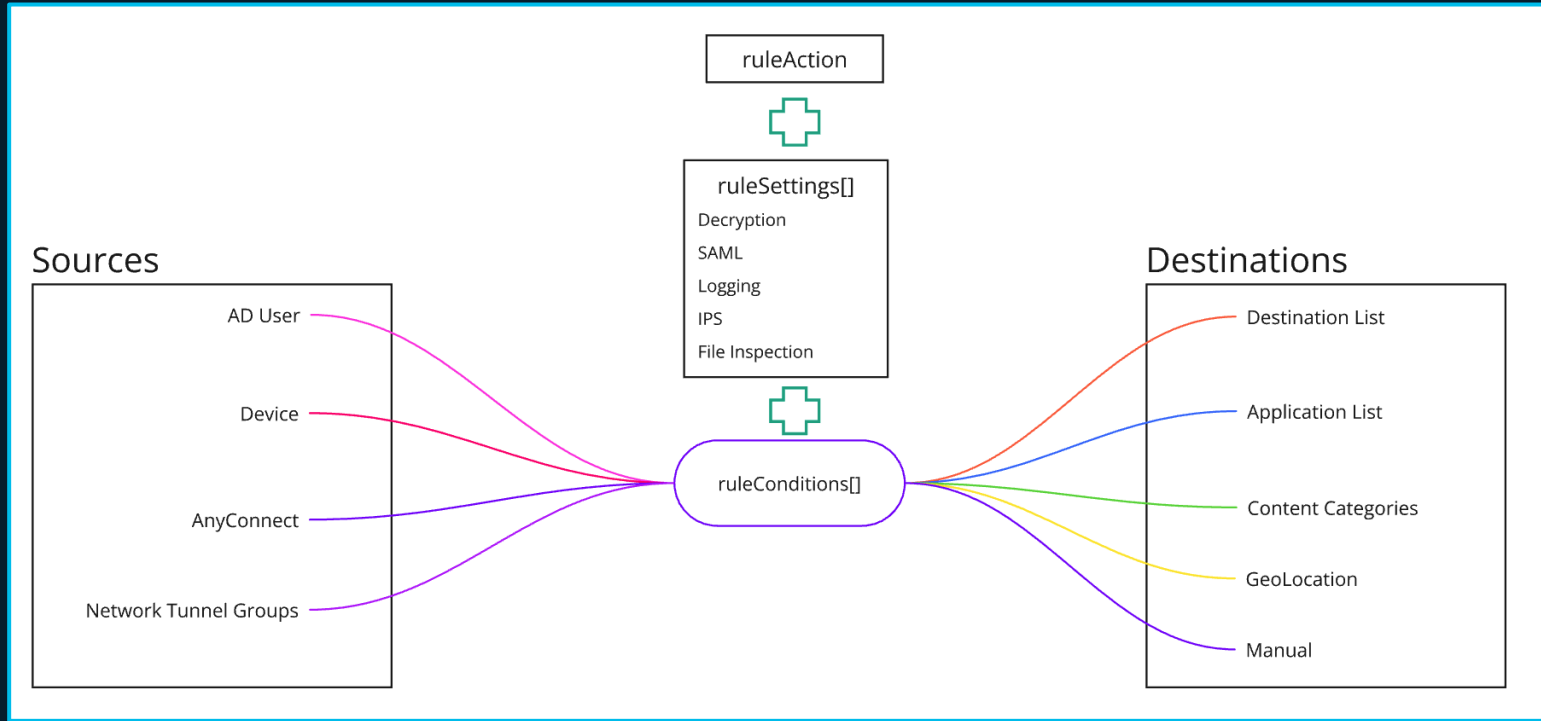
Aggregations

```
{
  "data": [
    {
      "threat": "Wannacry",
      "threattype": "Ransomware",
      "count": 361
    }
  ],
  "meta": {}
}
```

Navigating Rules



Anatomy of a Public Rule



Attributes

Sources

umbrella.source.identity_type_ids

umbrella.source.identity_ids

umbrella.source.ip_address

umbrella.source.port

umbrella.source.xxxxx

Destinations

umbrella.destination.category_ids

umbrella.destination.destination_list_ids

umbrella.destination.ip_address

umbrella.destination.ip_port

umbrella.destination.xxxxx

A Public Rule as an Example

../policies/v2/rules



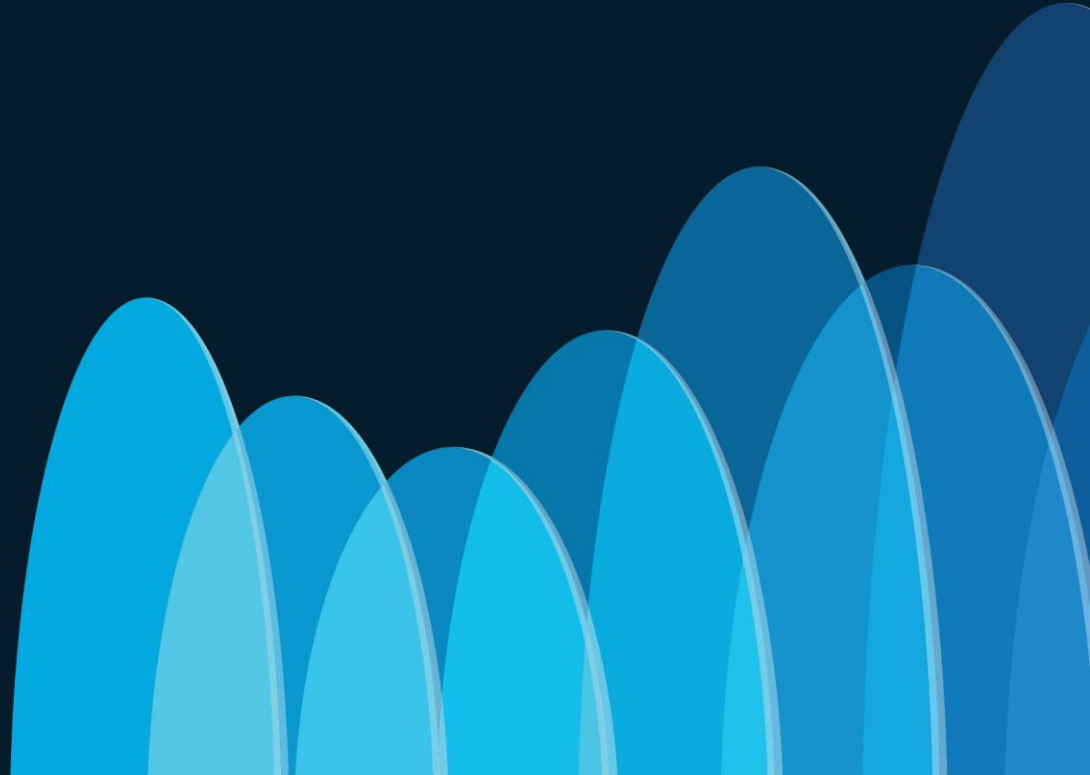
../policies/v2/rules/{ruleId}

High Level info
Action
Priority
.....

Settings and Conditions

```
{  
  "attributeId": 2,  
  "attributeValue": [  
    RoamingComputerID1,  
    RoamingComputerID2  
  ],  
  "attributeName": "umbrella.source.identity_ids",  
  "attributeOperator": "INTERSECT"  
}
```

Transparency



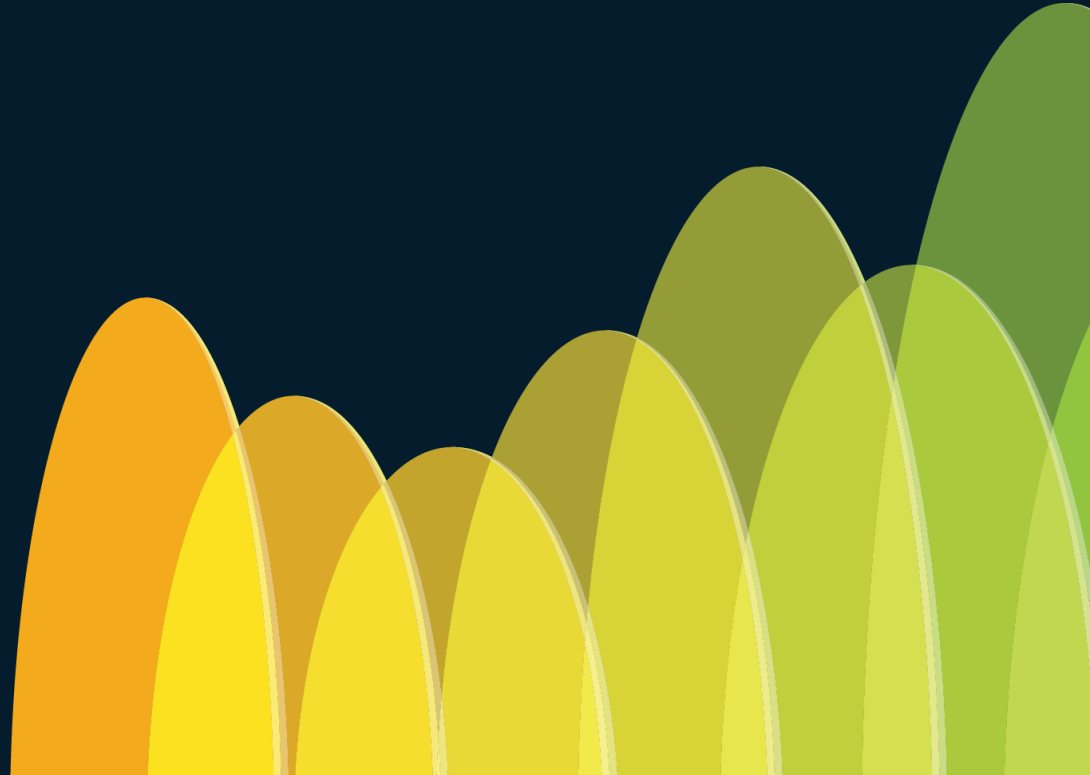
Transparency

```
headers = {'Content-Type': 'application/json',  
          'Accept': 'application/json',  
          'User-Agent': 'CiscoCloudSecurityAppForSplunk/python-requests/3x',  
          'timerange': time_range}
```



```
{"userAgent": "CiscoCloudSecurityAppForSplunk/python-requests/3x",  
 "count": 2242,  
 "requests": [  
   {"path": "/reports.us/v2/total-requests/dns",  
    "verb": "GET",  
    "count": 6},  
   {"path": "/reports.us/v2/total-requests/firewall",  
    "verb": "GET",  
    "count": 6},  
   {"path": "/reports.us/v2/total-requests/proxy",  
    "verb": "GET",  
    "count": 6}.....]}
```

Resources



What do I do now?

- [API Documentation](#) (OAS)
- Get started with examples:
 - [Umbrella](#)
 - [Secure Access](#)
- Start your IDE's and implement **Best Practices** in terms of Authentication:
 - [Umbrella](#)
 - [Secure Access](#)
- [Track your Usage](#)
- [DevNet Sandbox for SIG](#)
- [Self-paced course](#) on the Umbrella Learning Hub
- [Cisco Developer Learning Labs Center](#)

Keynote Deep Dives

Wednesday
10:30am – 11:30am



Experiences Amplified:
How AI Can Fuel
Better Employee
and Customer
Experiences

Level 1
Room 106



Smart, Secure,
Seamless:
Transforming
Experiences with
Next-Generation
Networking

Level 2
Room 204



Harness a Bold
New Era:
Transform Data
Centre and
Service Provider
Connectivity

Level 2
Room 203



Securing User to
Application and
Everything in
Between

Level 2
Melbourne Room 2



Unlocking
Digital Resilience
through Unified
Observability

The HUB
Centre Stage

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Thank you

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