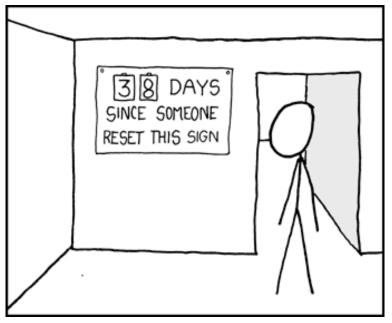


Security Metrics

for

The modern CISO

Counting on the truth



https://xkcd.com/363/



Metrics are the only way to systematically improve security



Metrics hold accountable people to account



Metrics show where to invest



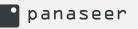
Metrics extinguish politics



Metrics allow us to demonstrate control



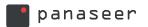
What's needed



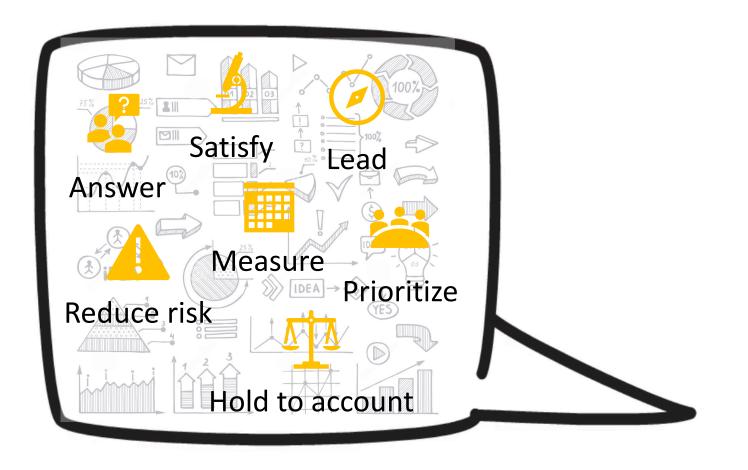
Metrics require truth



Metrics require automation



Everybody is talking about metrics



The Board

Auditors

Regulators

Compliance

The Business

Technology

Customers

Ourselves



What do we need?

Point in time Continuous

Manual Automated

Untrusted Baseline truth

Siloed Business-relevant

Disparate data Unified information



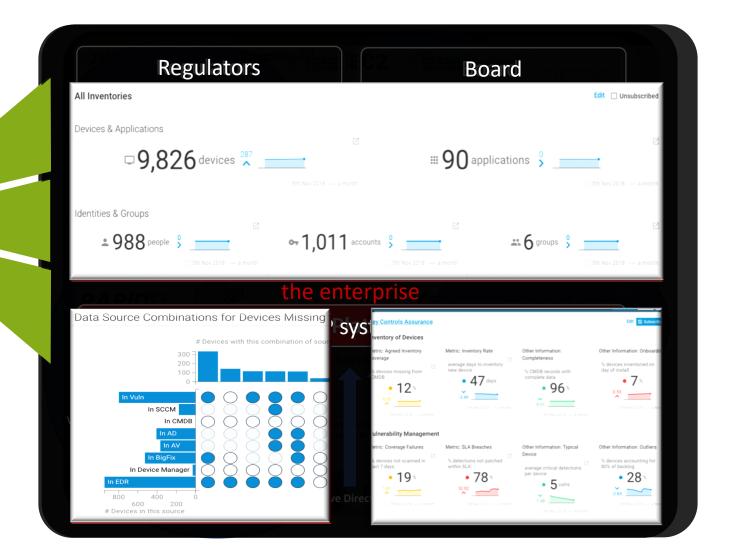
What assets are we defending?

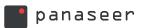
Where are our controls deployed?

Are our controls performing within policy?

The truth is out there

Different perspectives on the same information





what do customers say?

The value delivered was:

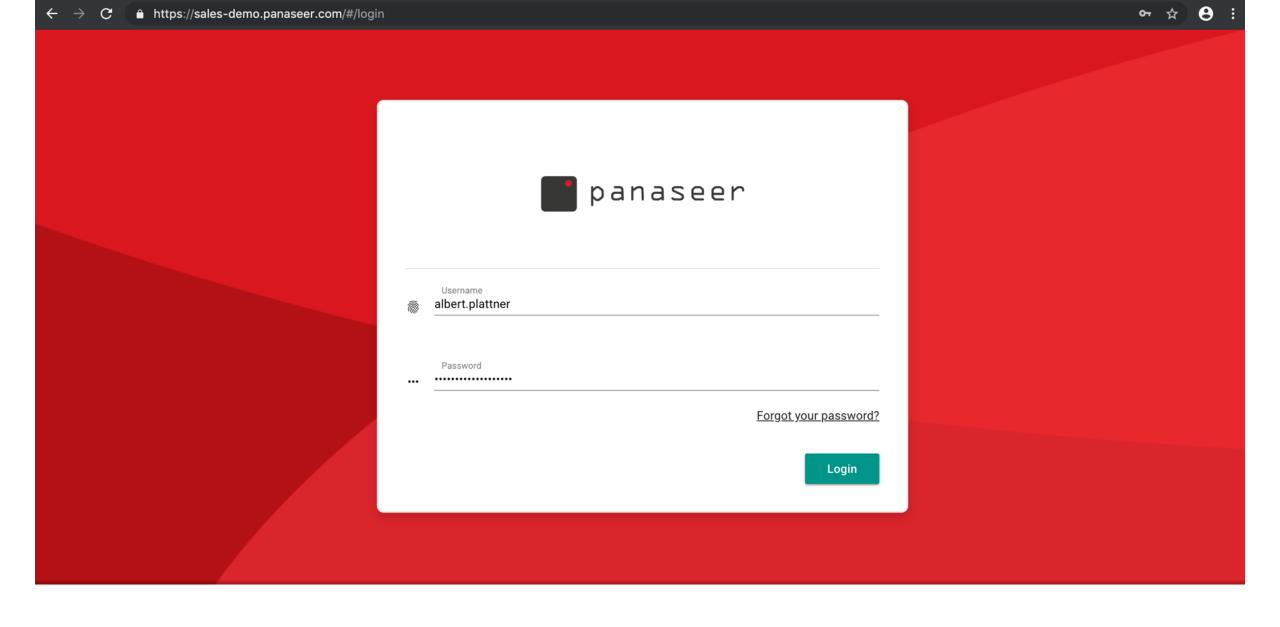
- No more challenging of data by stakeholders
- Much more productive relationships versus toxic ones
- Backlog of vulnerabilities reduced by 60% in 4 months
- Immediately identified 29% of assets not in CMDB
- Higher quality of risk management information to board
- We can sweat the control assets we have to get much more value from the data available from them.

We needed strong data, not opinions

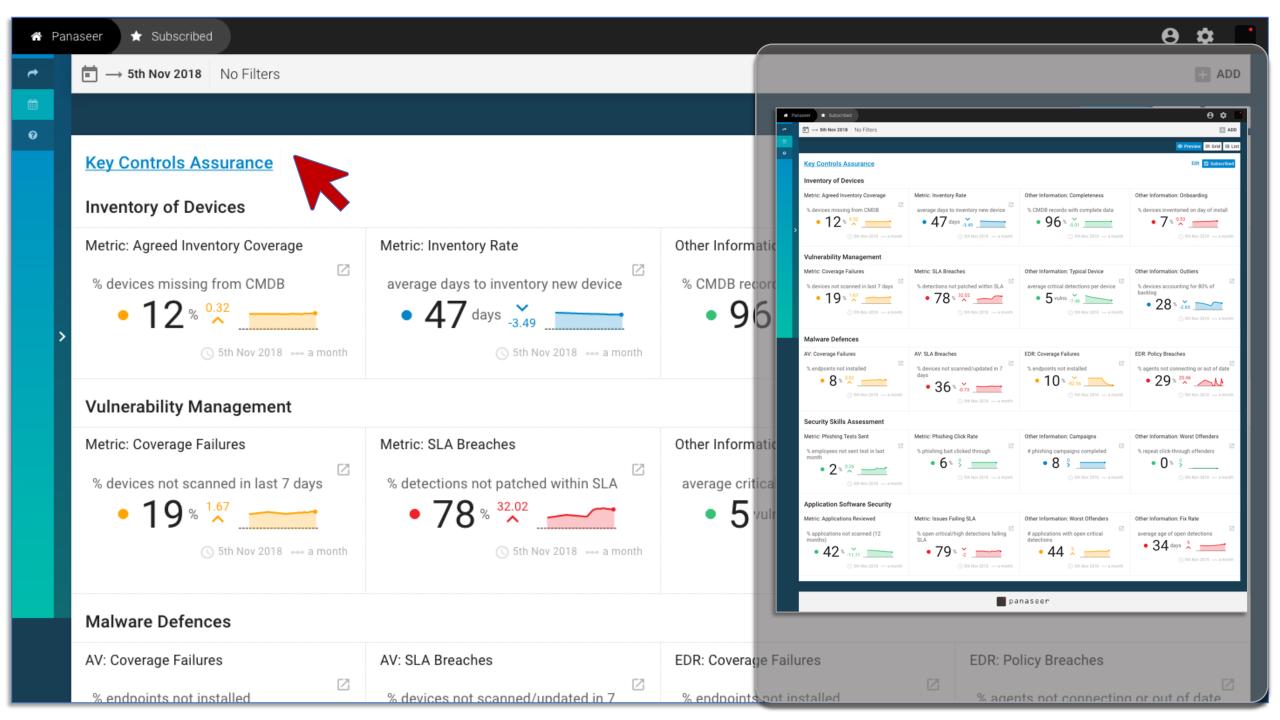
The ability to drill down into the data allowed us to quickly fix a device build in a particular business that was creating new detections by introducing old vulnerabilities onto the environment

Panaseer allowed us to see across 3 different IT estates with a single pane of glass for the first time

We were able to run a global campaign to track devices with end-of-life applications and measure progress across teams







Data Connector Catalogue

The Data Connector Catalogue shows our collection of data source system integrations.

Browse your organisation's active and available Data Connectors or talk to us about your specific data needs

Search for a Data Connector

™ More filters **№** Request Data Connector support

Application Scanner

VERACOIDE

Application Security

Veracode

Last Active: Never

Registered: 5 months ago

Contrast Security

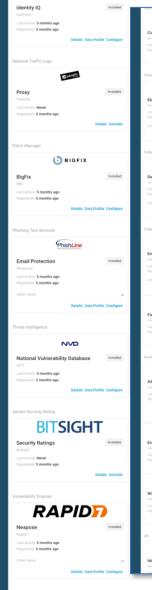
Contrast

Last Active: Never

Registered: 5 months ago

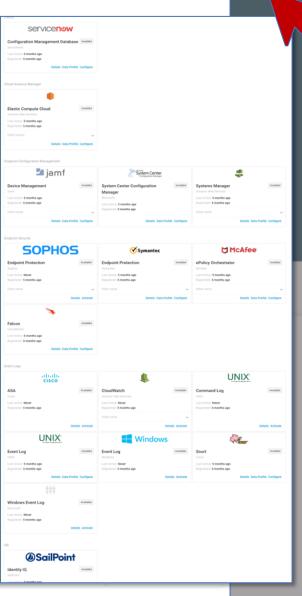
Details Activate

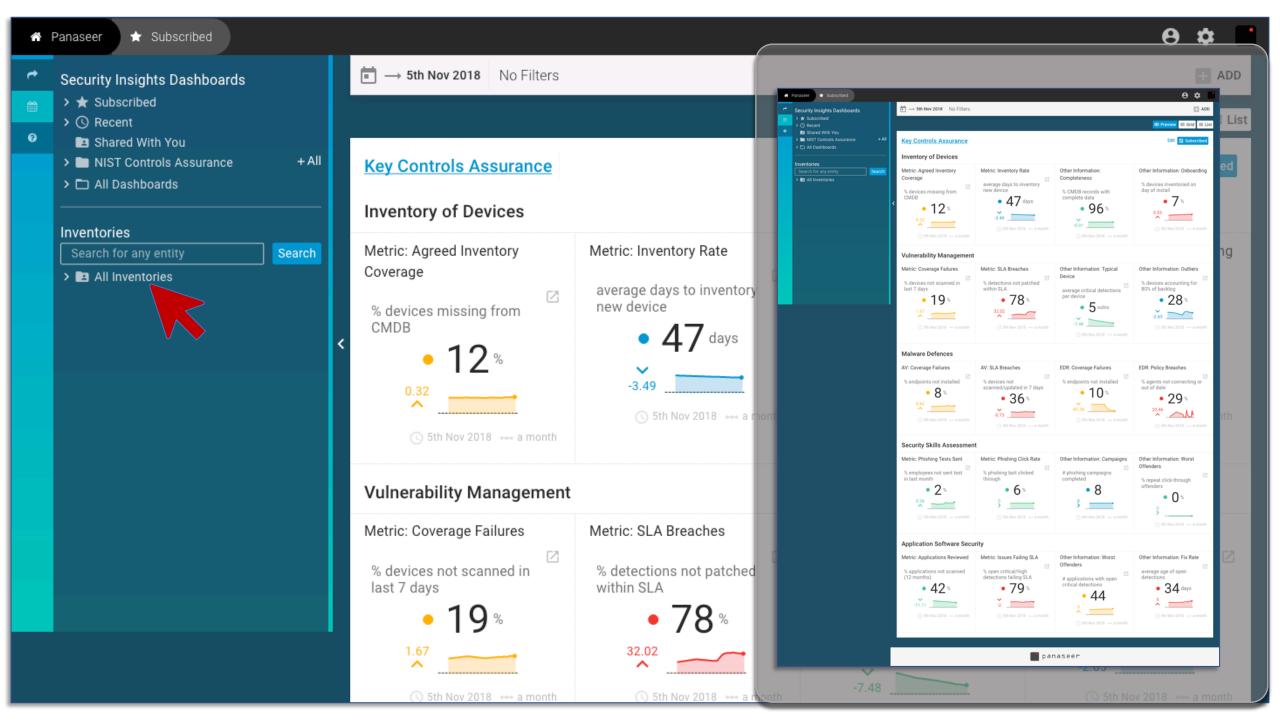
Available

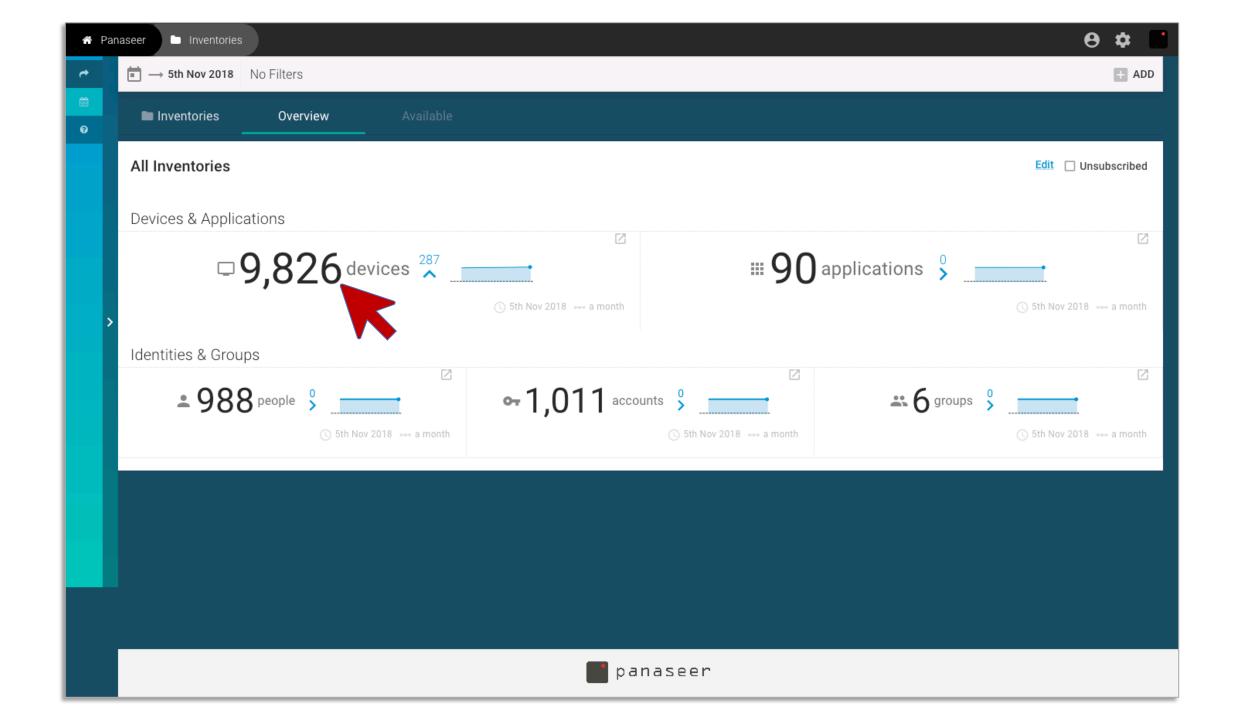


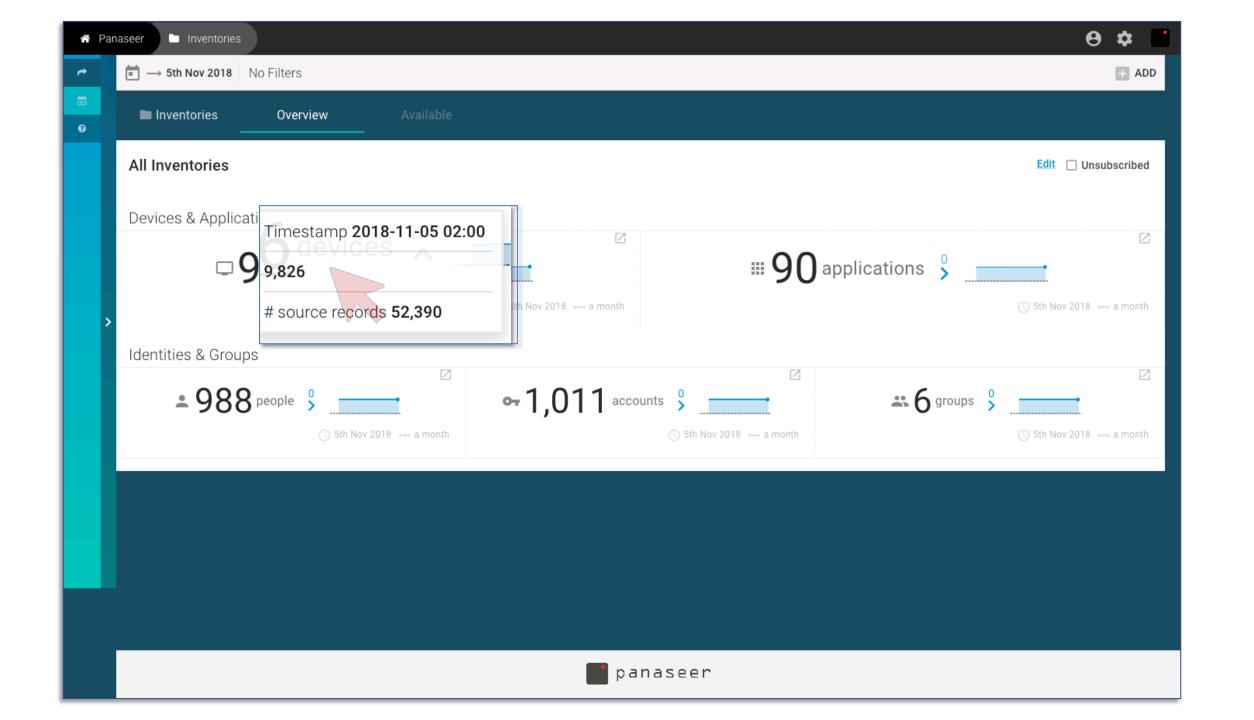
panaseer

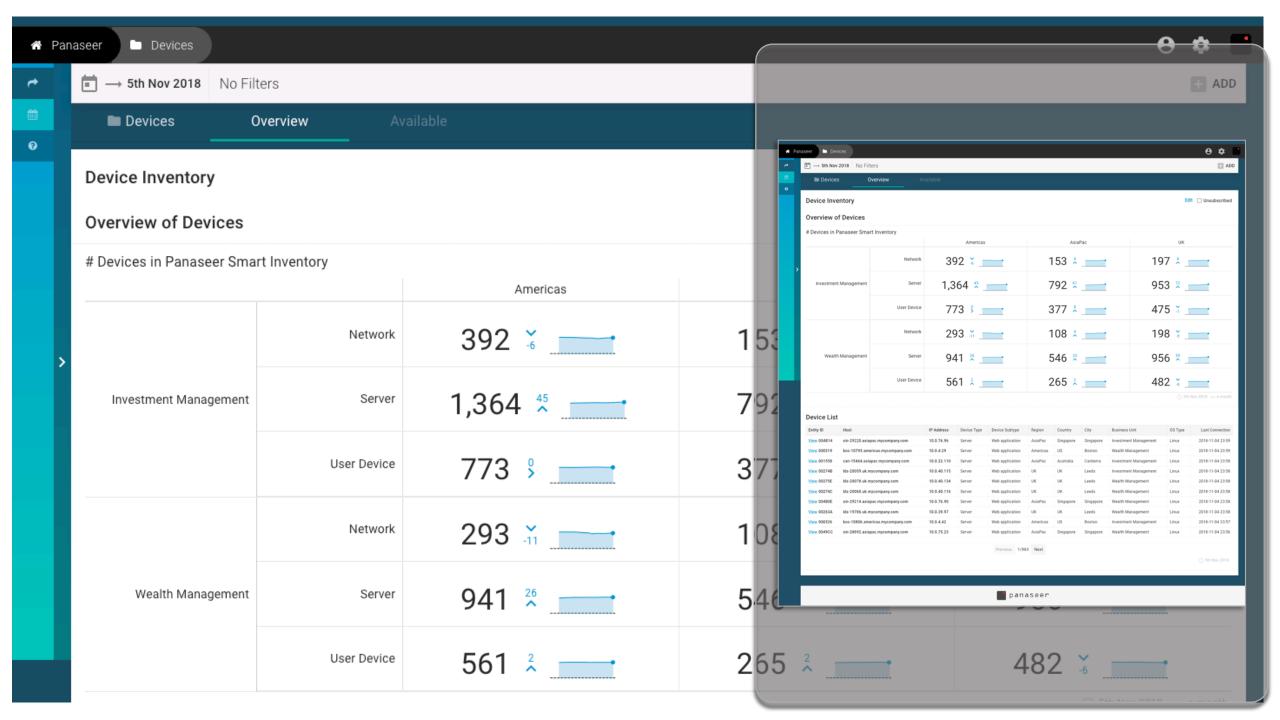
@SailPoint

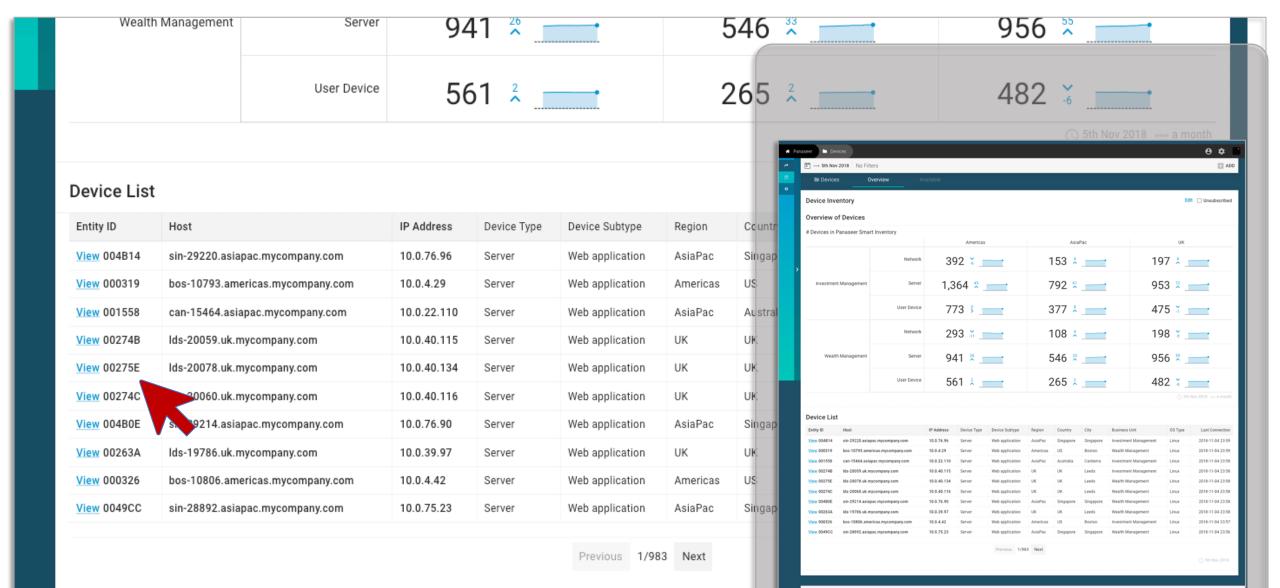












panaseer

panaseer

0

< Back to "Devices" Folder



Edit

Device Identifiers

Serial Number List ASST28899U

Host List FTW-18899

DNS List ftw-18899.americas.mycompany.com

MAC Address List ab:cd:ef:63:bc:64

IP Address List 10.0.35.230

Netbios List FTW-18899

Device Context

Device Type User Device

Device Subtype Laptop

os Windows 7 Enterprise Edition

Network Context

Environment Type Production

Network Location Internal

Domain AMERICAS.MYCOMPANY.COM

Distinguished CN=FTW-18899,OU=Investment

Name Management,DC=Americas,DC=MyCompany,DI

Data Source Coverage

Active Directory 2018-10-31 17:30

McAfee Foundstone 2018-10-31 03:51

SCCM 2018-11-03 06:55

ServiceNow 2018-11-03 06:55

2018-11-04 23:52 Symantec

(5th Nov 2018

Business Context

Criticality Moderate

Region Americas

US Country

Business Unit Investment Management

Division

Functional Role Unknown

Fidela Fridaye Owner

Frazer Leadbeatter Manager

Fidela Fridaye Assignee

Vulnerabilities

Number of Detections



5th Nov 2018 ← a month

Hosted Applications

Number of Hosted Applications



() Applications

5th Nov 2018

Endpoint Protection

Last AV Scan 2018-10-21 17:01 Last AV Update 2018-11-04 06:48

(L) 5th Nov 2018



Person Viewer











/ Edit

Person Identifiers

Employee ID 351

Display Name Fidela Fridaye

First Name Fidela

Last Name Fridaye

fidela.fridaye@mycompany.com Email

Person Context

Job Title Developer III

Employment Type Contractor

Employment Start 2018-09-07 01:28

Date

Employment End

Date

Business Context

Functional Title Developer III

Ellswerth Ablott Manager (Line

Manager)

Manager Lyndsie Klimsch

(Department Head)

Business Unit Investment Management

Department Product

Division Product

Region Americas

US Country

Owned and Managed Devices

Owned Devices 22

Assigned Devices

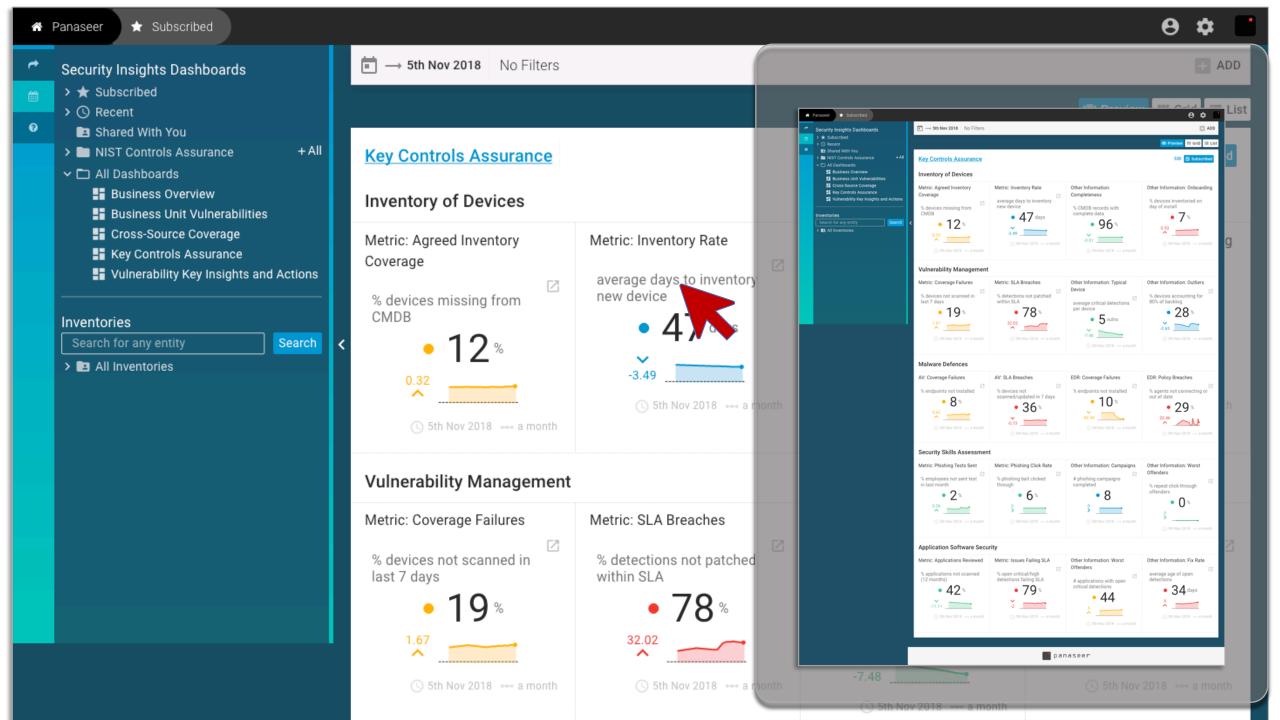
Sth Nov 2018

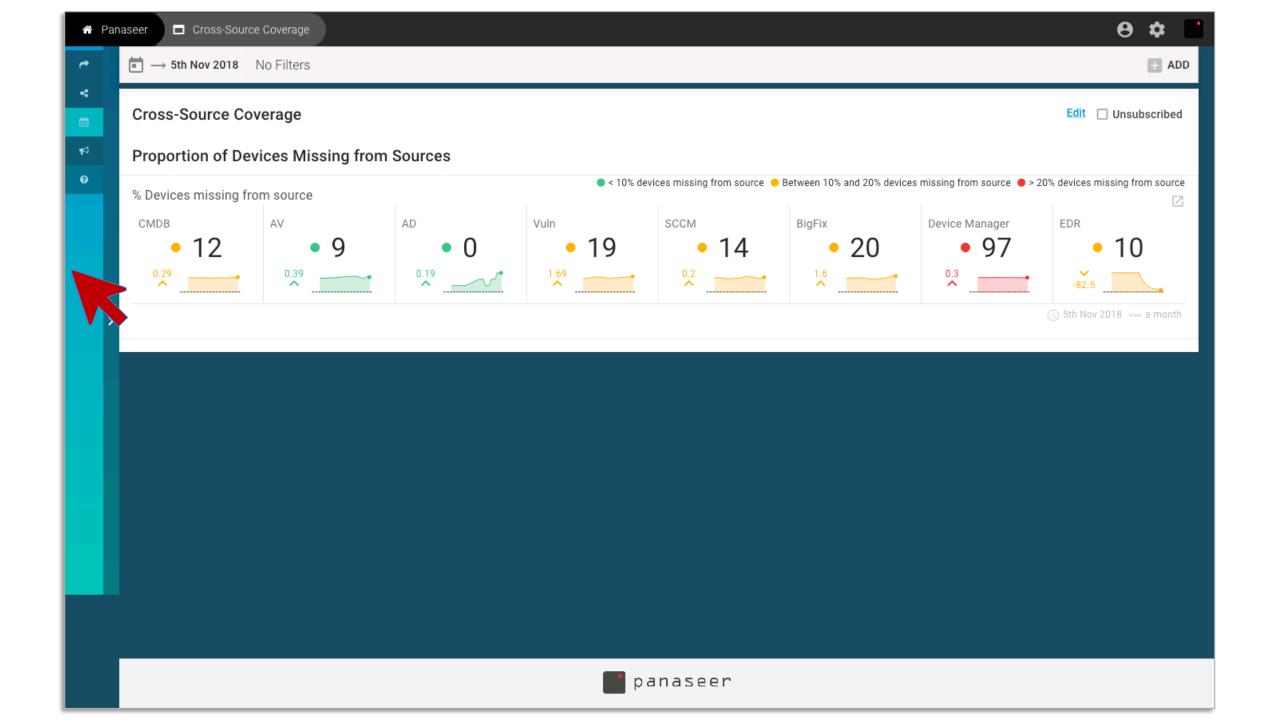
22

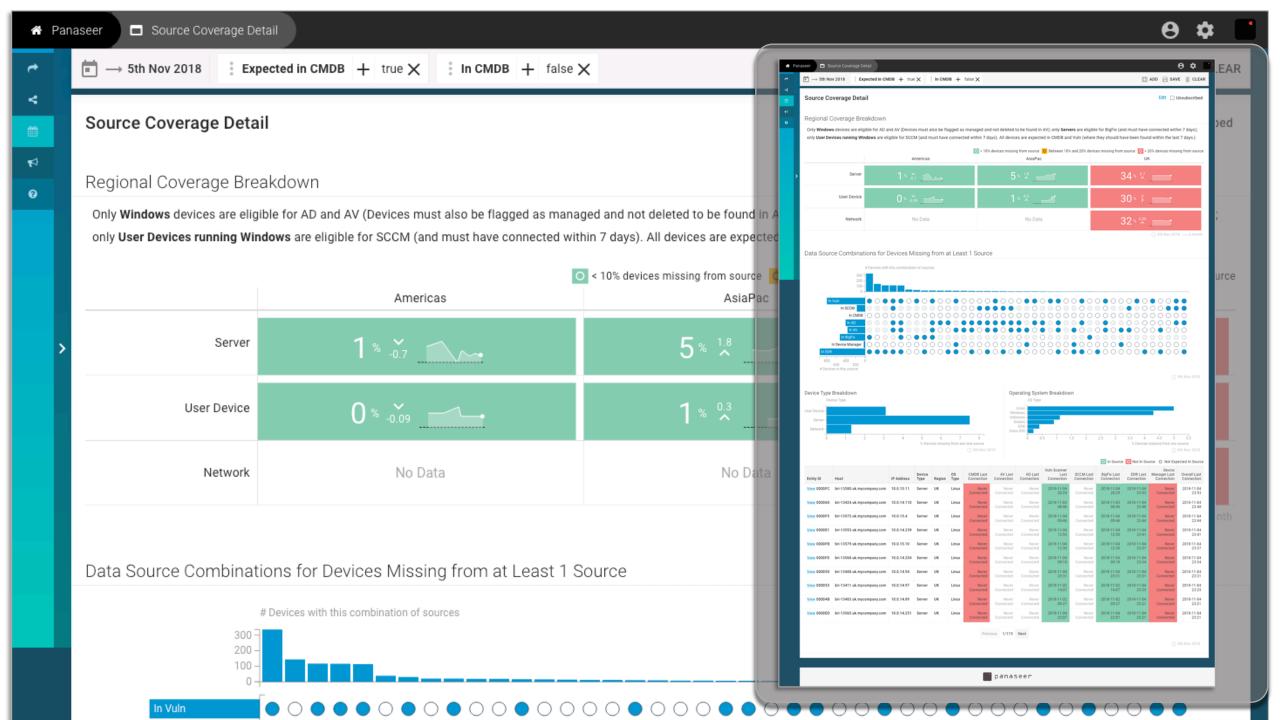
Owned and Managed Applications

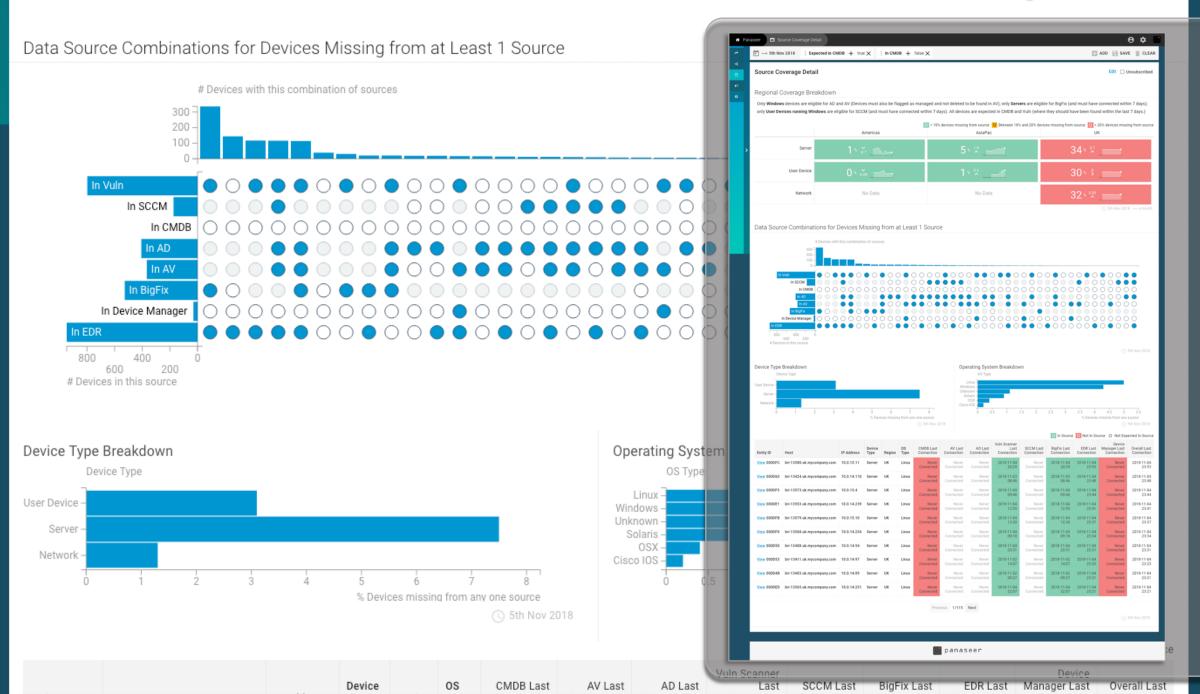
Owned Accounts

Owned Accounts



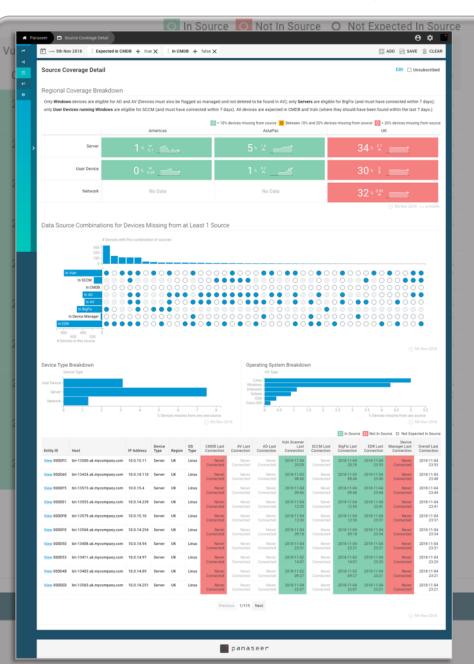


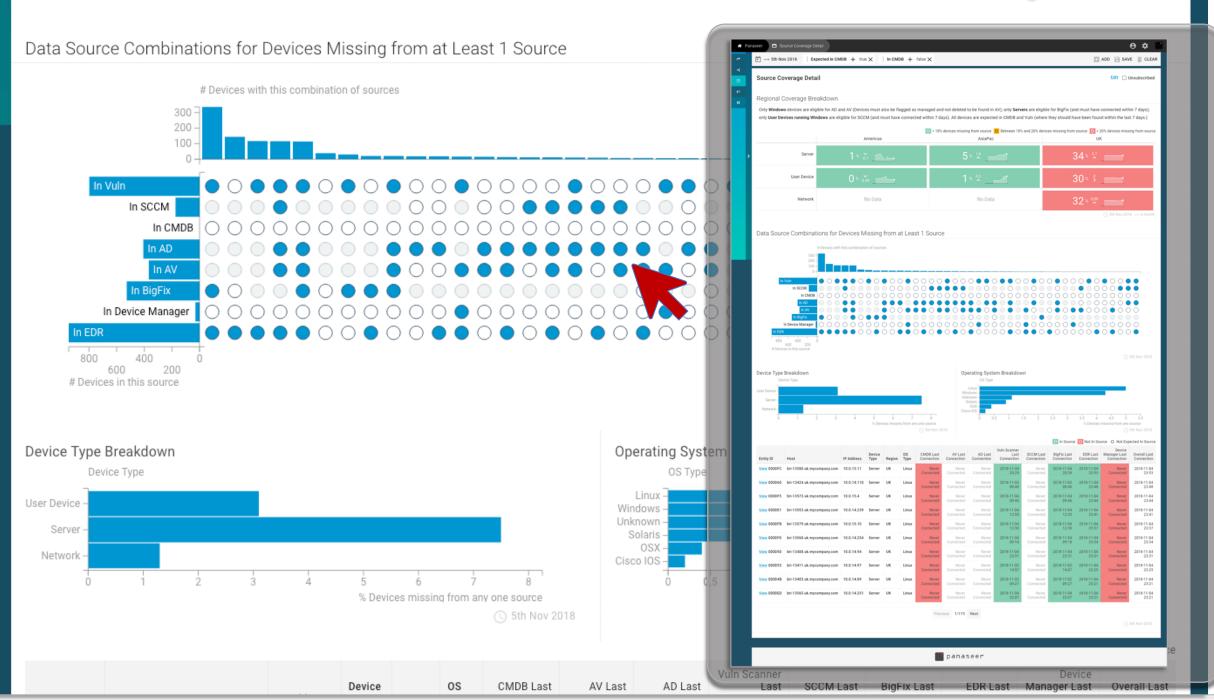


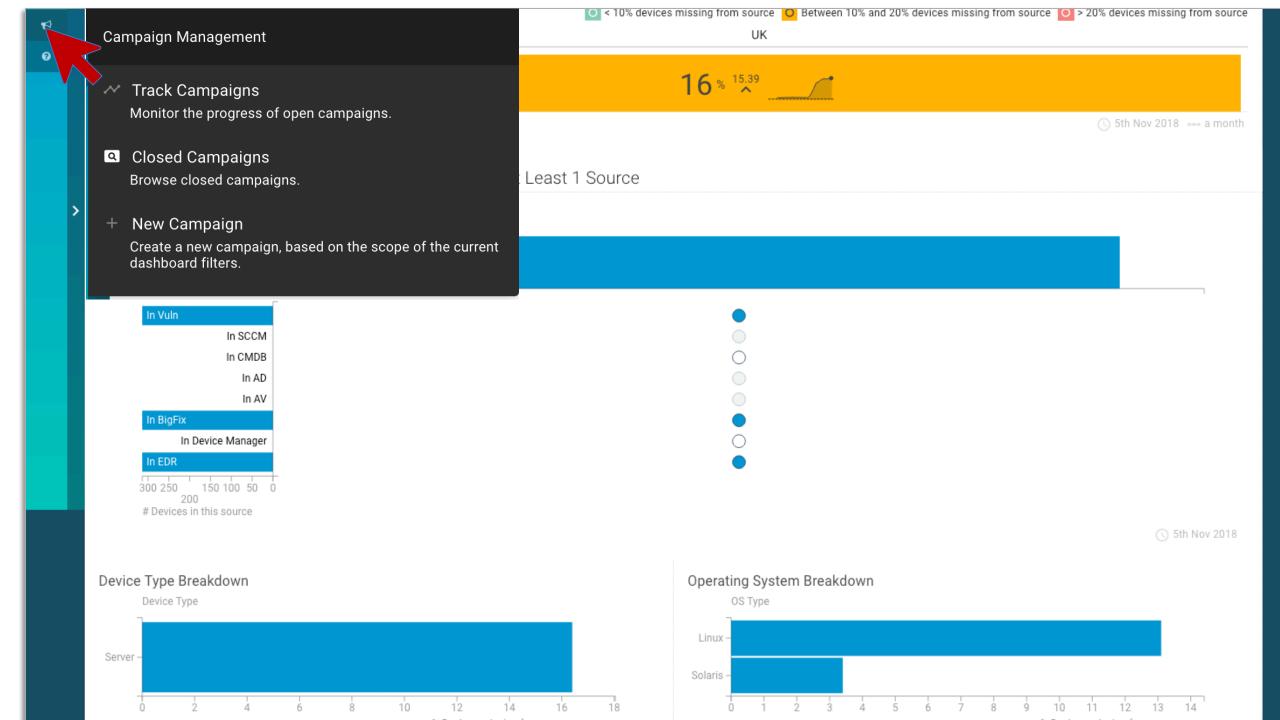


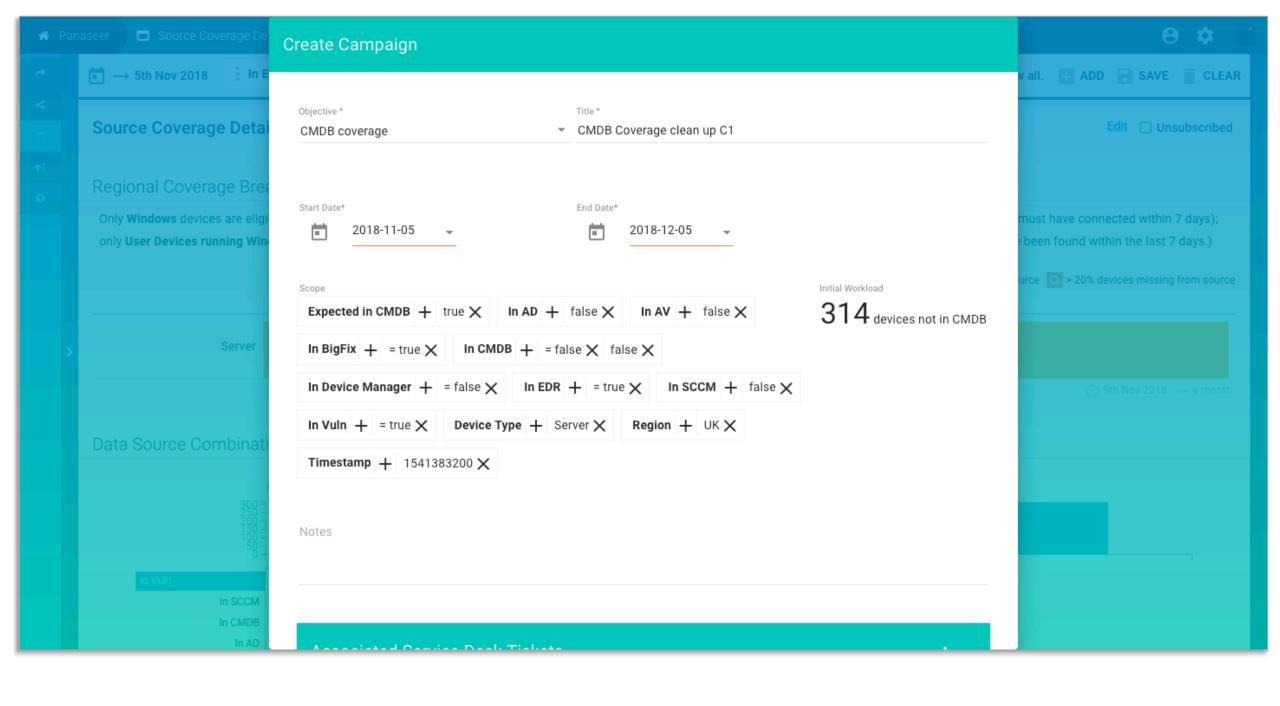
| Entity ID | Host | IP Address | Device Type | Region | OS Type | CMDB Last Connection | AV Last Connection | AD Last Connection |
|--------------------|----------------------------|-------------|----------------|--------|------------|-------------------------|-----------------------|-----------------------|
| View 000DFC | bri-13580.uk.mycompany.com | 10.0.15.11 | Server | UK | Linux | Never Connected | Never Connected | Never Connected |
| <u>View</u> 000D60 | bri-13424.uk.mycompany.com | 10.0.14.110 | Server | UK | Linux | Never Connected | Never Connected | Never Connected |
| View 000DF5 | bri-13573.uk.mycompany.com | 10.0.15.4 | Server | UK | Linux | Never Connected | Never Connected | Never Connected |
| View 000DE1 | bri-13553.uk.mycompany.com | 10.0.14.239 | Server | UK | Linux | Never Connected | Never Connected | Never Connected |
| View 000DFB | bri-13579.uk.mycompany.com | 10.0.15.10 | Server | UK | Linux | Never Connected | Never Connected | Never Connected |
| View 000DF0 | bri-13568.uk.mycompany.com | 10.0.14.254 | Server | UK | Linux | Never Connected | Never Connected | Never Connected |
| <u>View</u> 000D50 | bri-13408.uk.mycompany.com | 10.0.14.94 | Server | UK | Linux | Never Connected | Never Connected | Never Connected |
| <u>View</u> 000D53 | bri-13411.uk.mycompany.com | 10.0.14.97 | Server | UK | Linux | Never Connected | Never Connected | Never Connected |
| View 000D4B | bri-13403.uk.mycompany.com | 10.0.14.89 | Server | UK | Linux | Never Connected | Never Connected | Never Connected |
| View 000DED | bri-13565.uk.mycompany.com | 10.0.14.251 | Server | UK | Linux | Never Connected | Never Connected | Never Connected |

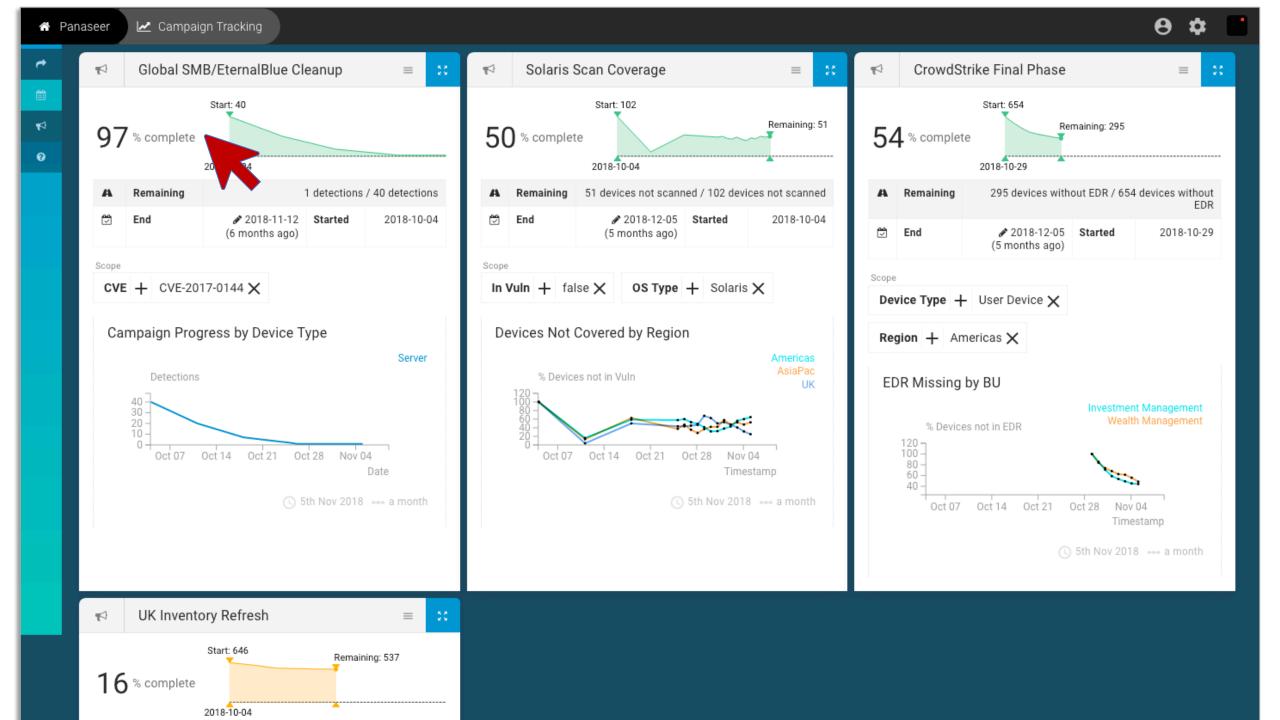
Previous 1/115 Next

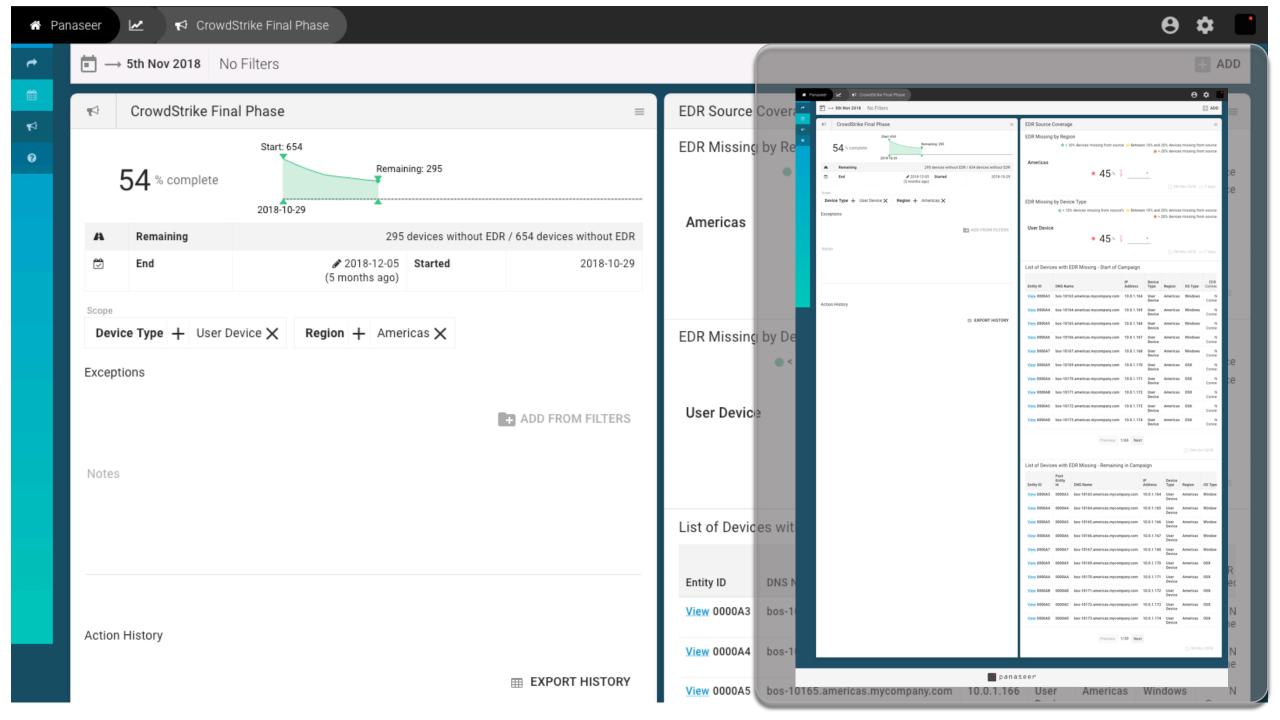


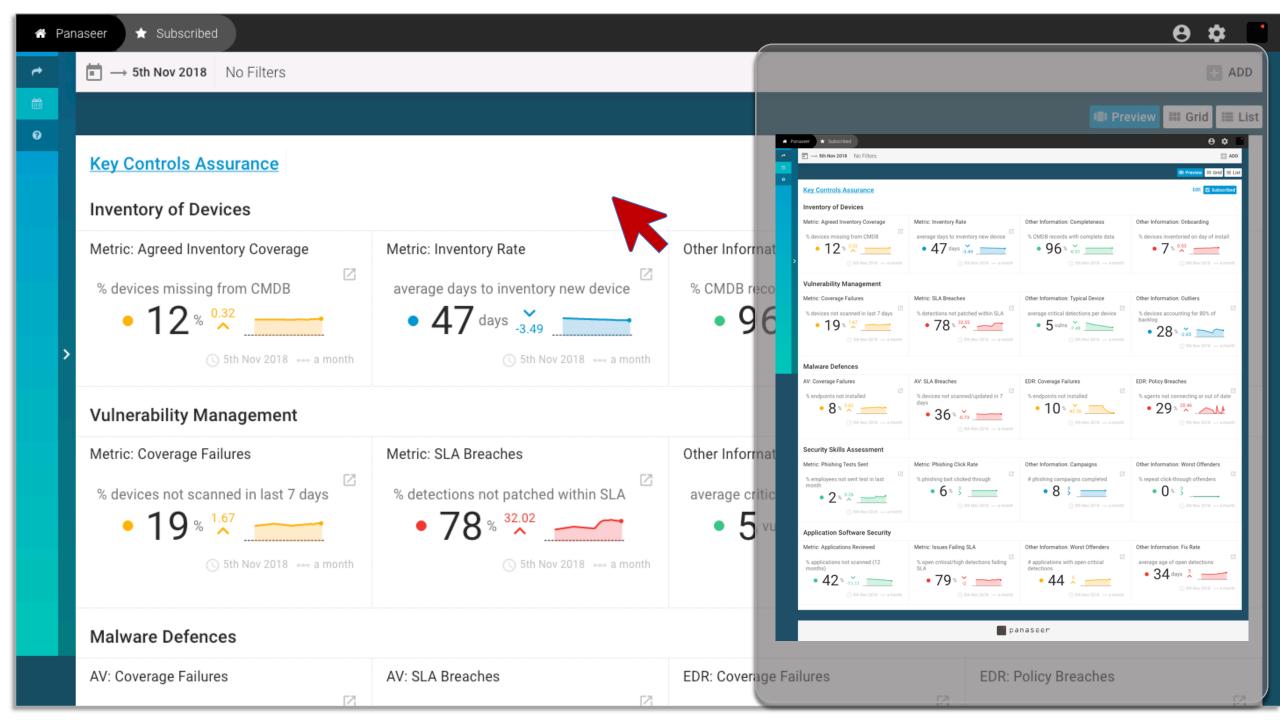


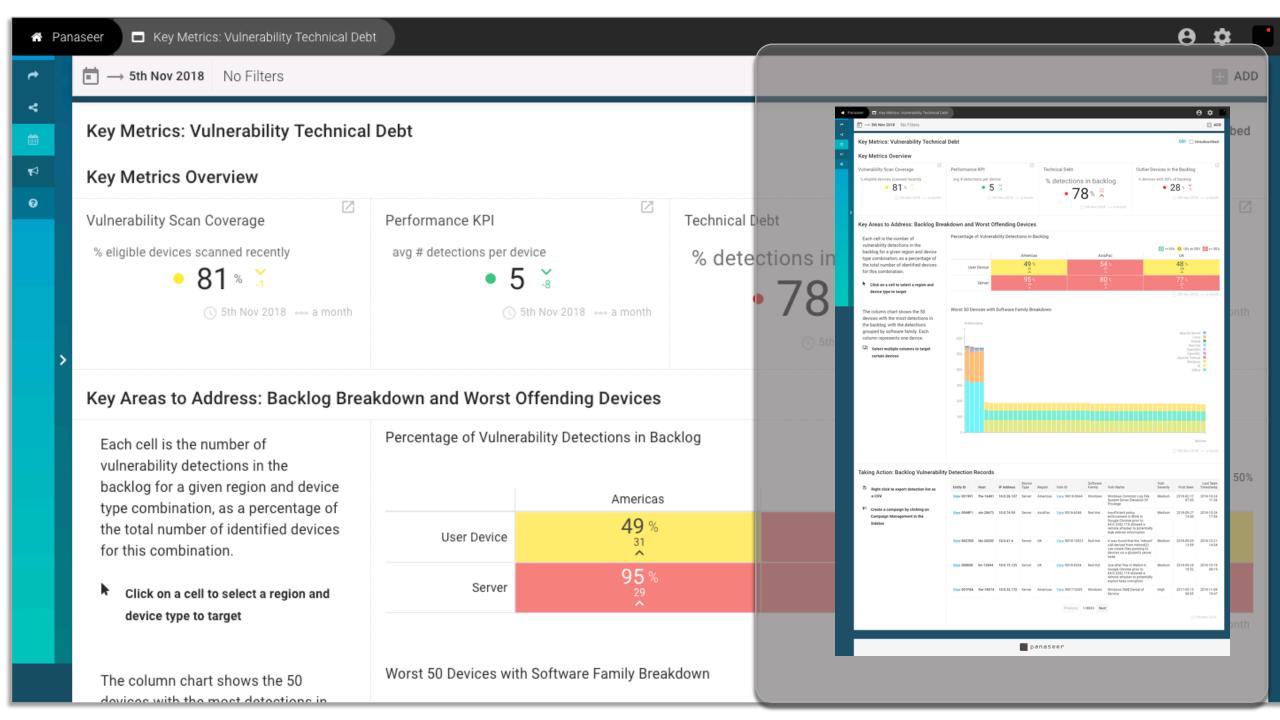












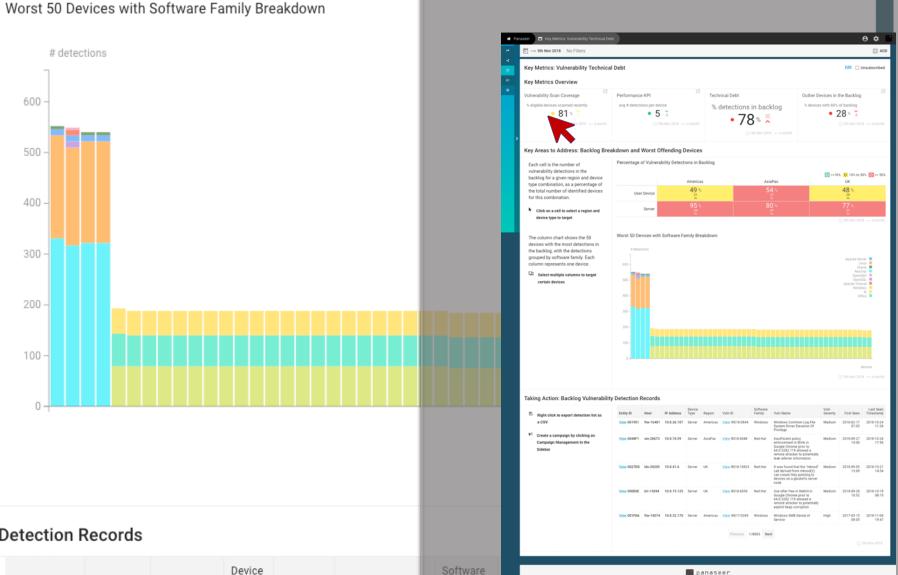
2018-02-17

Medium

2018-10-24

The column chart shows the 50 devices with the most detections in the backlog, with the detections grouped by software family. Each column represents one device.

Select multiple columns to target certain devices



Family

Windows

Windows Common Log File

System Driver Elevation Of

Taking Action: Backlog Vulnerability Detection Records

Entity ID

View 001951

Host

ftw-16481

IP Address

10.0.26.107

Region

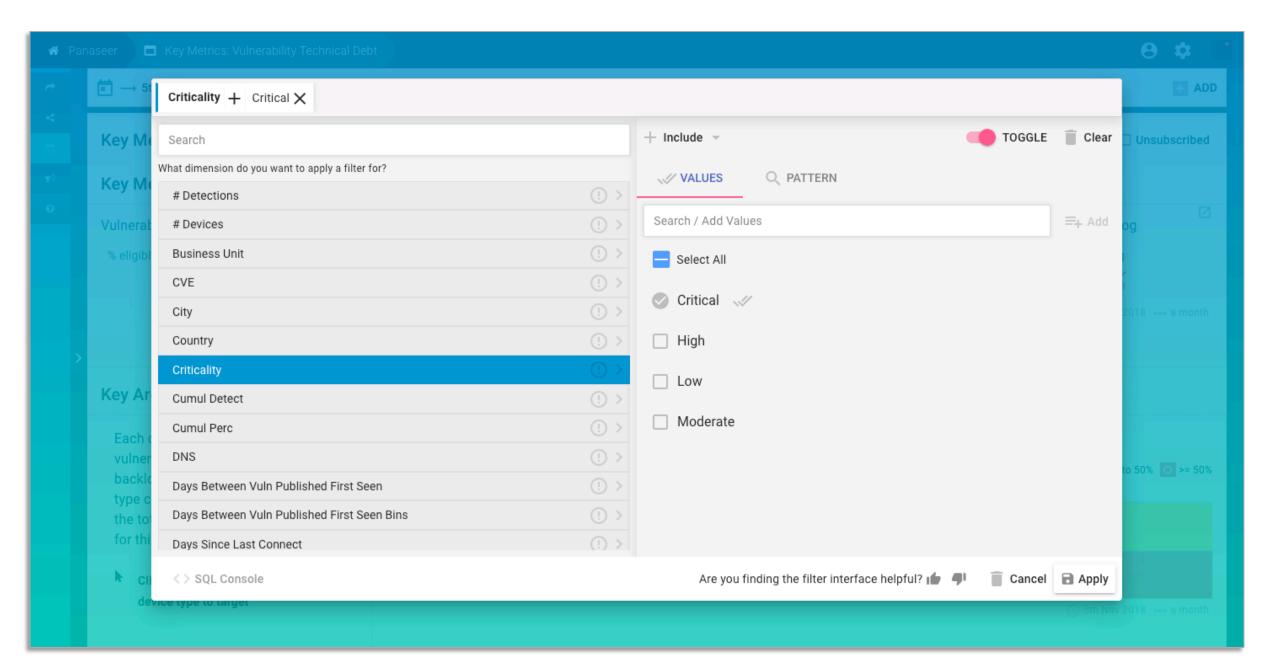
Americas

Type

Vuln ID

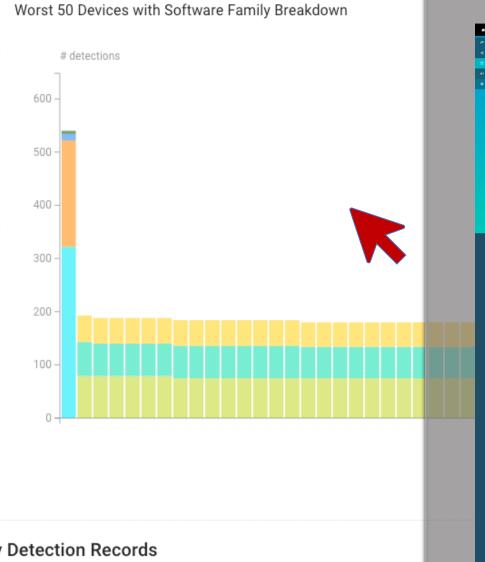
View W018-0844





The column chart shows the 50 devices with the most detections in the backlog, with the detections grouped by software family. Each column represents one device.

Select multiple columns to target certain devices

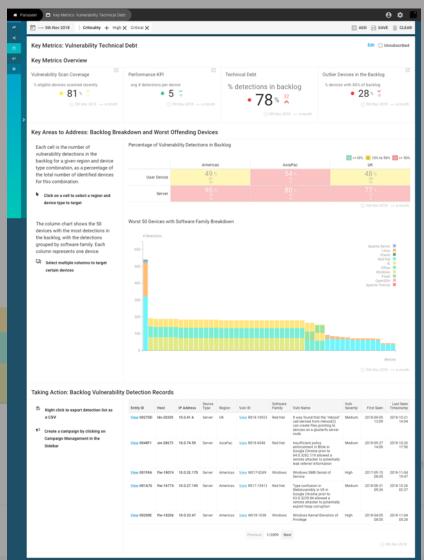


Device

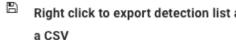
Server

Region

Type



Taking Action: Backlog Vulnerability Detection Records



| st | as | |
|----|----|--|
| | | |

| Entity ID | Host | IP Address |
|-------------|-----------|------------|
| View 0027DD | lds-20205 | 10.0.41.6 |

Vuln ID



naseer Device Viewer





•

« Back to "Key Metrics: Vulnerability Technical Debt" Dashboard



LDS-19599

Serial Number List: ASST29599S

Edit

Device Identifiers

Serial Number List ASST29599S

Host List LDS-19599

DNS List Ids-19599.uk.mycompany.com

MAC Address List ab:cd:ef:63:c3:64

IP Address List 10.0.38.165

Netbios List

Device Context

Device Type Server

Device Subtype Web application

OS RHEL 6.7

Network Context

Environment Type Test

Network Location External

Domain -

Distinguished

Name

Region

Data Source Coverage

BigFix 2018-11-04 13:37

CrowdStrike 2018-11-03 23:06

ServiceNow 2018-10-31 22:27

Tenable SC 2018-11-04 13:37

5th Nov 2018

Business Context

Criticality F

High

UK

Country UK

Business Unit Investment Management

Division -

Functional Role Unknown

Owner Brady Troup

Assignee Brady Troup

Vulnerabilities

Number of Detections

543 - 18 _____

Hosted Applications

Number of Hosted Applications

Applications

Endpoint Protection

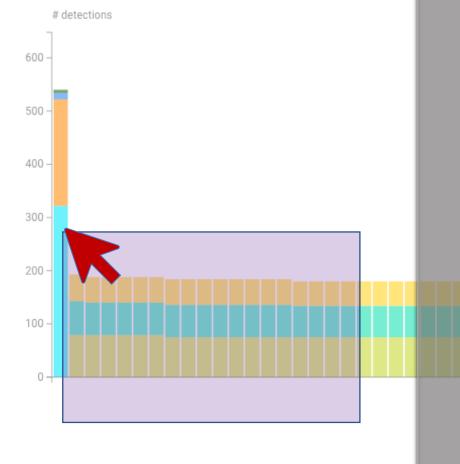


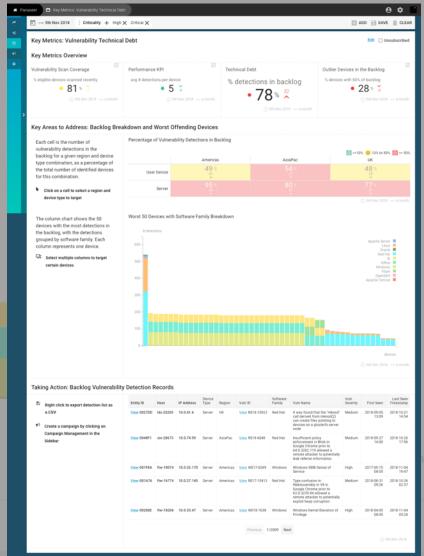
No Dat

The column chart shows the 50 devices with the most detections in the backlog, with the detections grouped by software family. Each column represents one device.

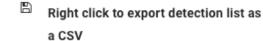
Select multiple columns to target certain devices







Taking Action: Backlog Vulnerability Detection Records

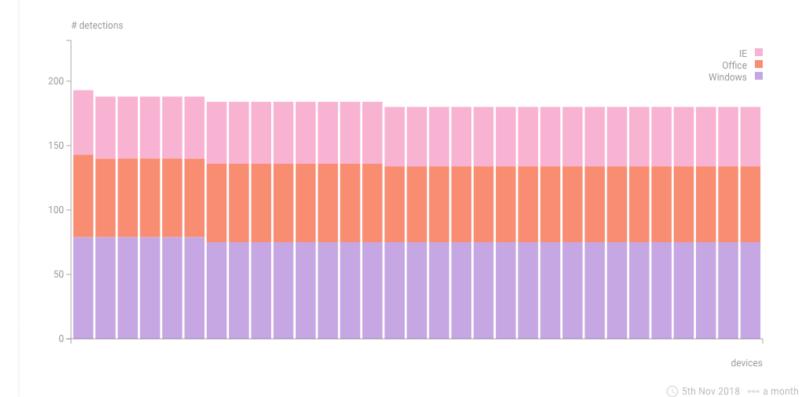


| Entity ID | Host | IP Address | Device Type | Region | Vuln ID |
|-------------|-----------|------------|----------------|--------|----------------|
| View 0027DD | lds-20205 | 10.0.41.6 | Server | UK | View R018-109: |

The column chart shows the 50 devices with the most detections in the backlog, with the detections grouped by software family. Each column represents one device.

Select multiple columns to target certain devices



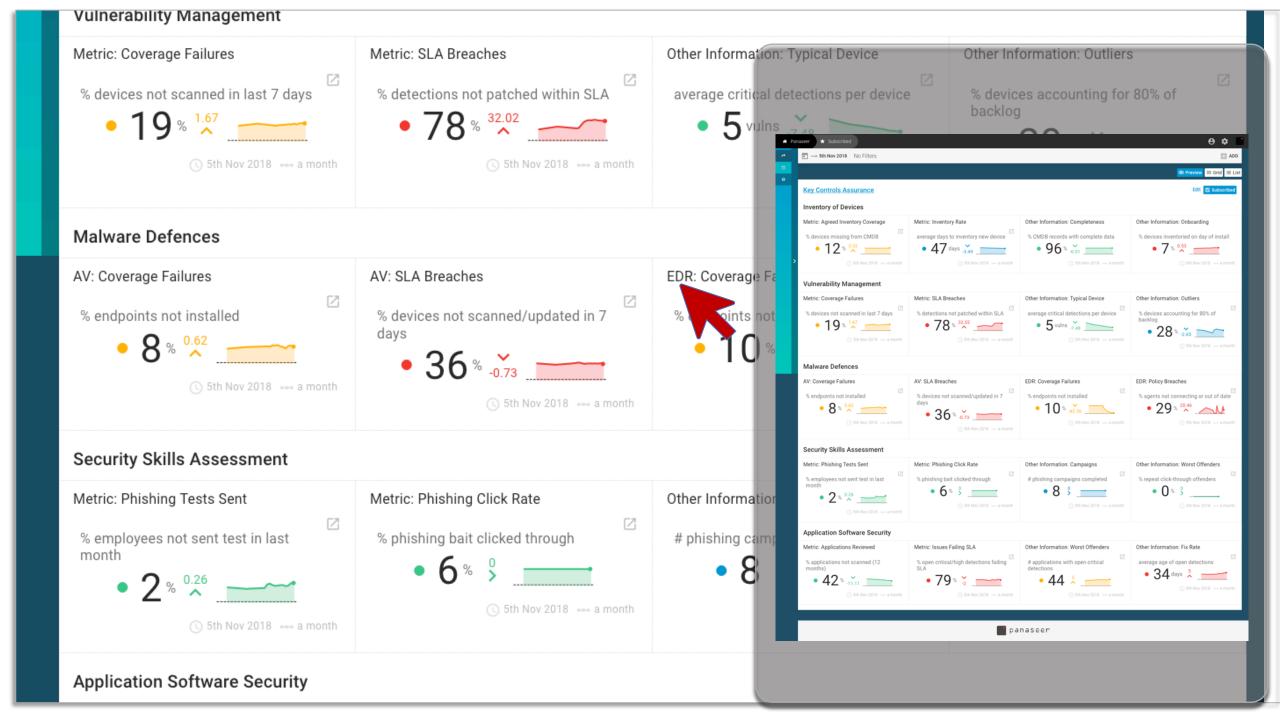


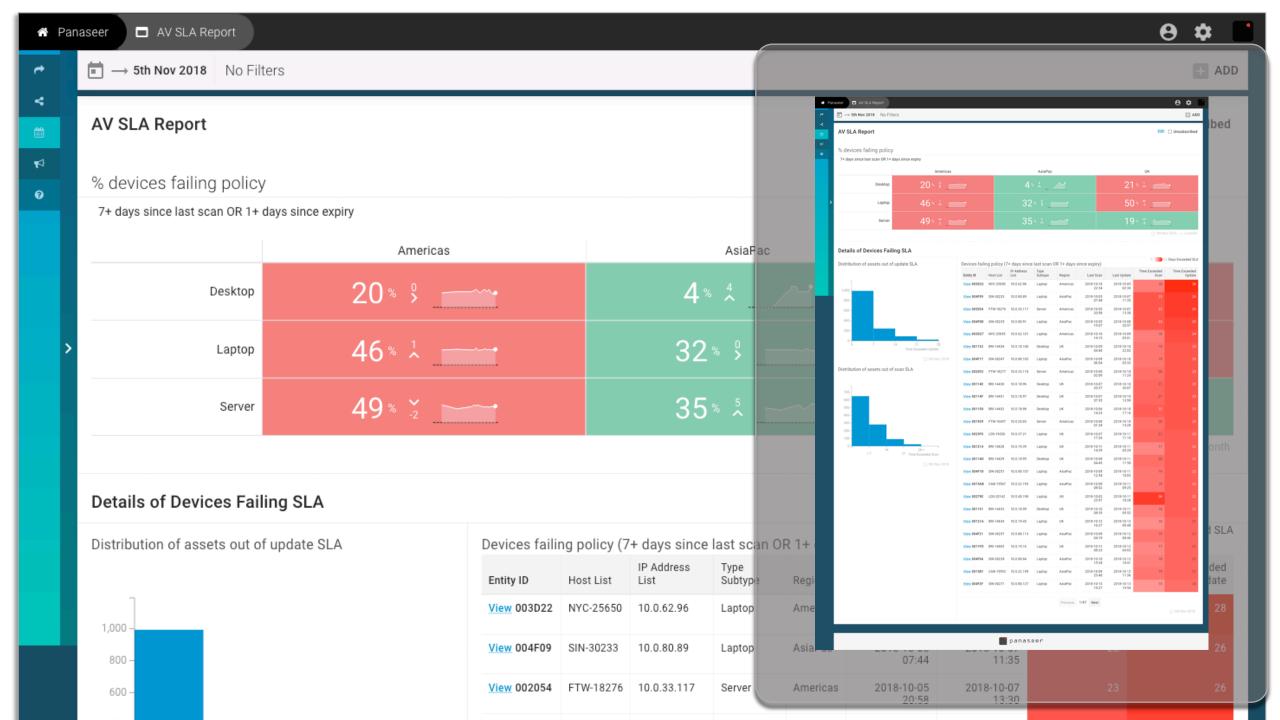
Taking Action: Backlog Vulnerability Detection Records

| Right click to export detection list as |
|---|
| a CSV |

Create a campaign by clicking on Campaign Management in the Sidebar

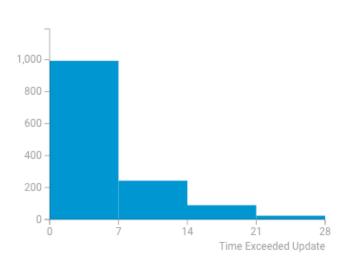
| Enti | ity ID | Host | IP Address | Device Type | Region | Vuln ID | Software Family | Vuln Name | Vuln Severity | First Seen | Last Seen Timestamp |
|------|-----------------|-----------|-------------|----------------|----------|-----------------------|--------------------|--|------------------|---------------------|------------------------|
| Viev | w 001F8A | ftw-18074 | 10.0.32.170 | Server | Americas | <u>View</u> W017-0269 | Windows | Windows SMB Denial of Service | High | 2017-05-15 08:05 | 2018-11-04 19:47 |
| Viev | <u>w</u> 002116 | ftw-18470 | 10.0.34.56 | Server | Americas | <u>View</u> W017-0298 | Windows | Windows COM Session Elevation of Privilege | Medium | 2018-05-20 01:16 | 2018-10-25 14:16 |
| Viev | w 00200E | ftw-18206 | 10.0.33.47 | Server | Americas | <u>View</u> W018-1038 | Windows | Windows Kernel | High | 2018-04-05 | 2018-11-04 |





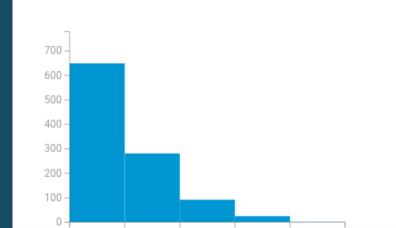
Details of Devices Failing SLA

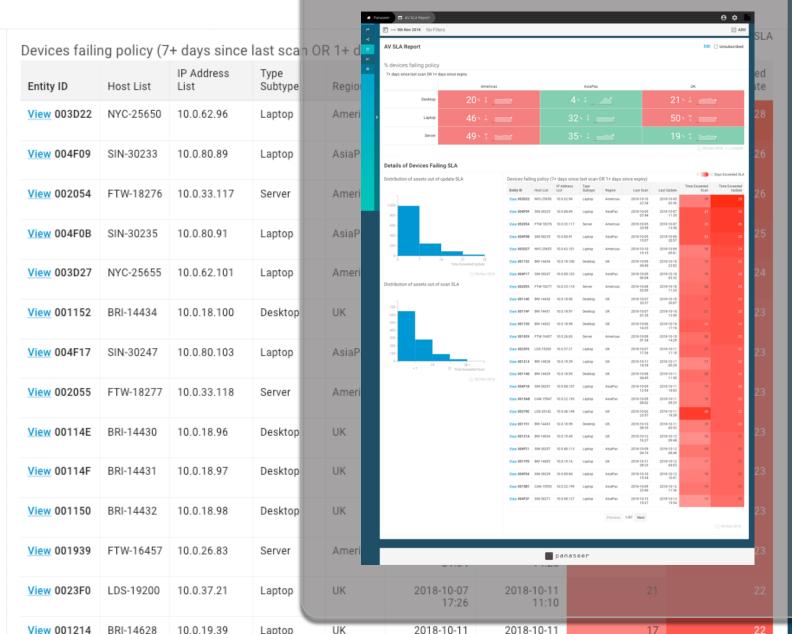
Distribution of assets out of update SLA

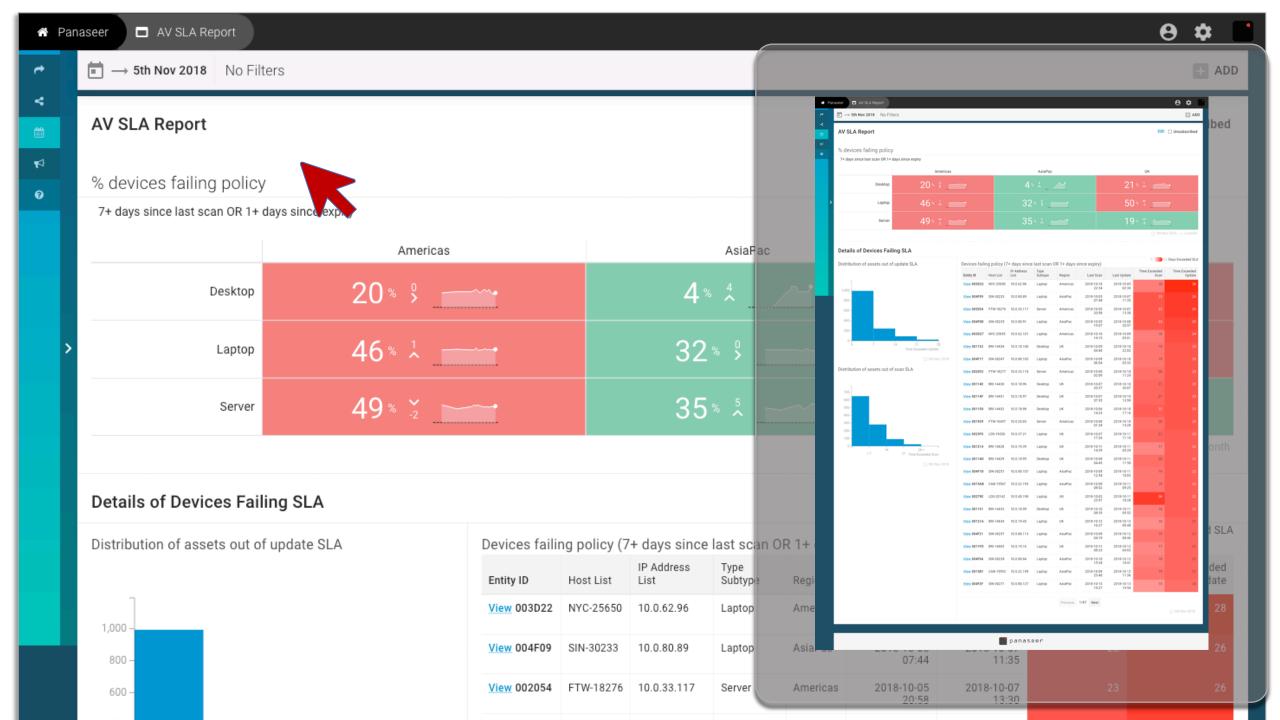


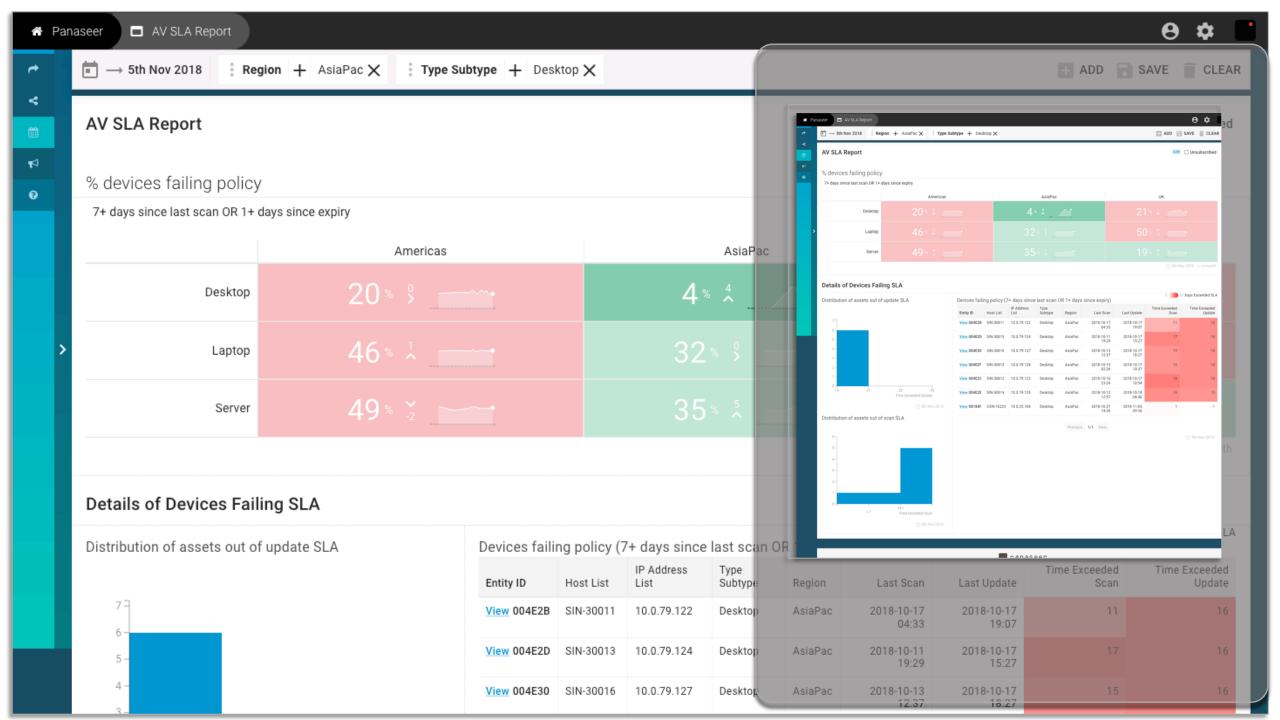
(5th Nov 2018

Distribution of assets out of scan SLA



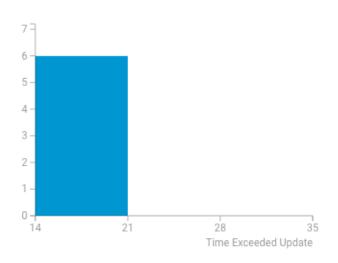






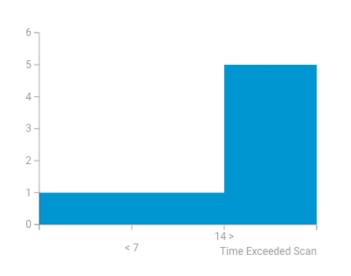
Details of Devices Failing SLA

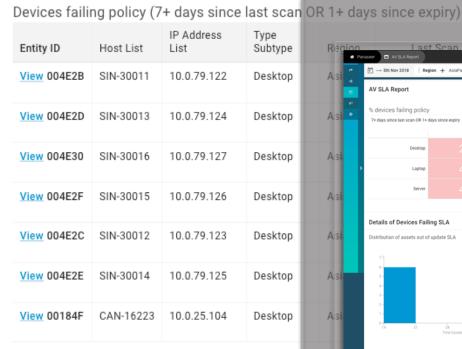
Distribution of assets out of update SLA

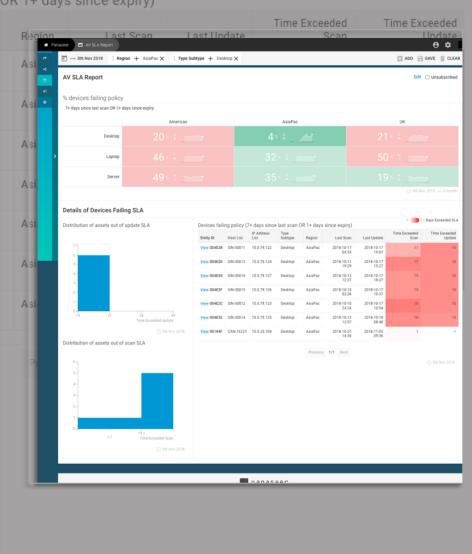


(5th Nov 2018

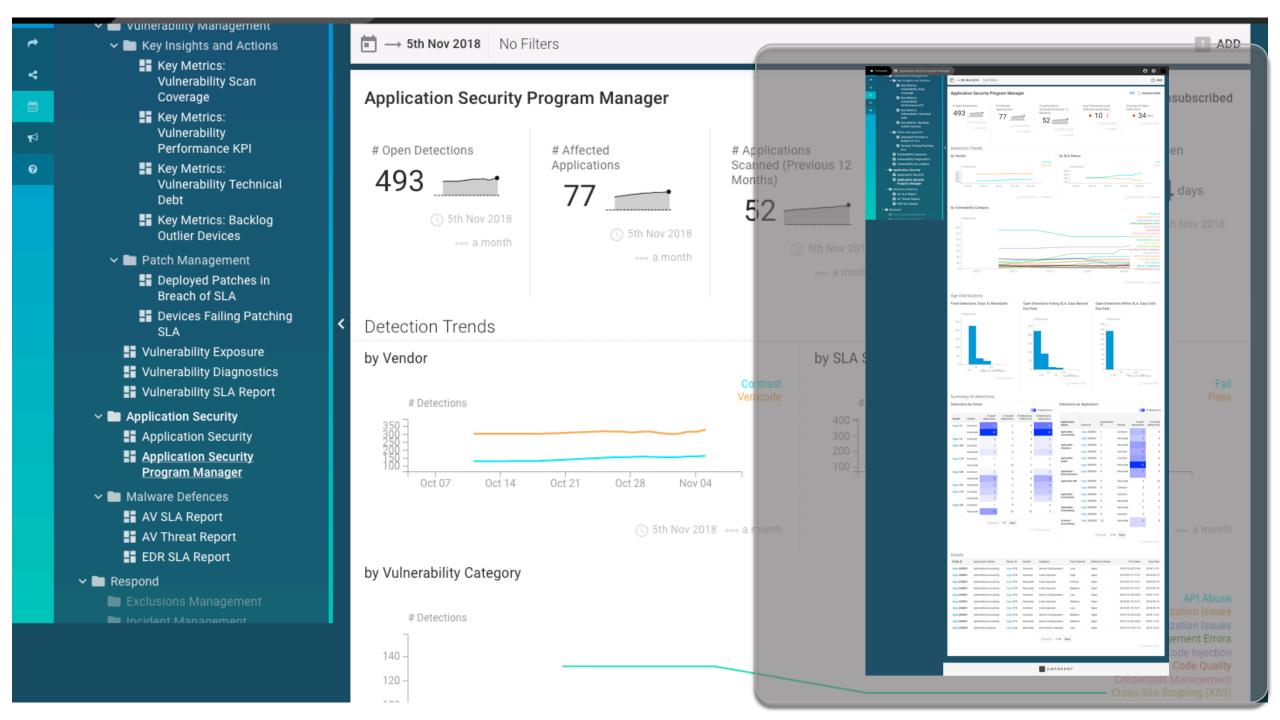
Distribution of assets out of scan SLA







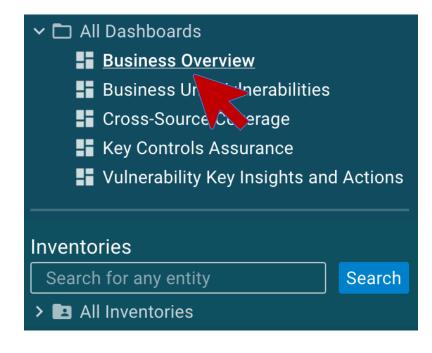
Days Exceeded SLA

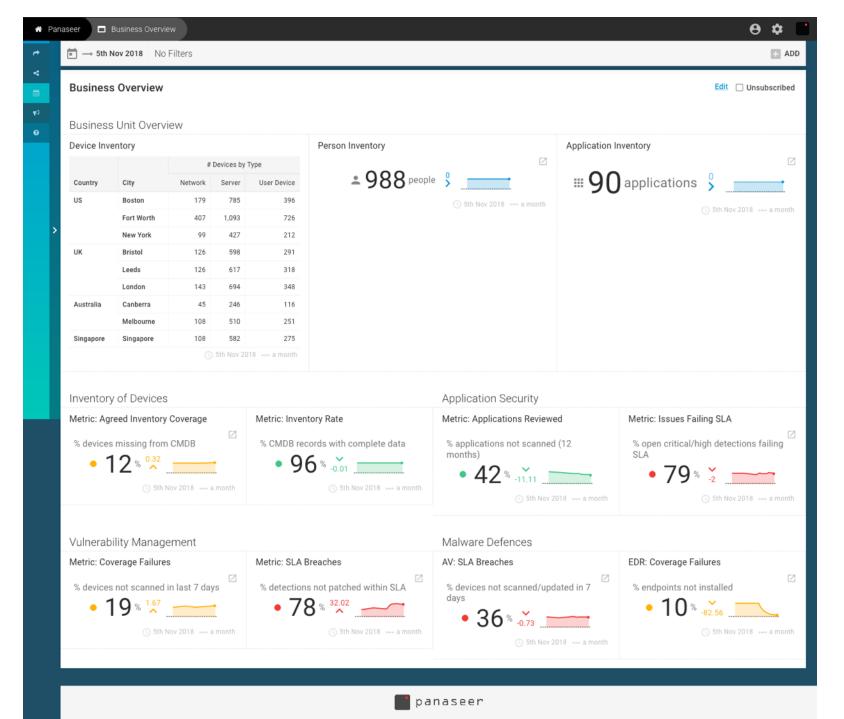


Security Insights Dashboards > **★** Subscribed > (Recent ■ Shared With You ✓ ■ NIST Controls Assurance ✓ ■ Identify Asset Management ✓ ■ Device Inventory **B** Device Inventory Rate Software Inventory ✓ ■ Data Source Coverage ✓ ■ CISO **CISO Data Source** Coverage ■ Source Coverage Detail ✓ ■ Program Manager Source Coverage Detail ✓ ■ Protect Configuration Management ▼ ■ Privileged Access Management ✓ ■ Administrative Privilege and Permissions PAM: Linux/Unix Administrative Privileges **PAM:** Windows Administrative Privileges

✓ ■ Authentication Events and Infringements PAM: Linux/Unix Infringement Report PAM: Windows Infringement Report ✓ ■ Access Management Service Accounts ■ No Logon in Required **Timeframe** --- No Password Reset in Required Timeframe Average Active Time of **Leaver Accounts** ■ Active Leaver Accounts Privileged Access Perimeter Logging and ▼ ■ Security Skills Training ➤ Phishing Training Clicked URL **Clicked URL Again Test Coverage Active Campaigns Emails** Sent ✓ ■ Data Protection Data Loss Prevention

| Detect |
|--|
| Vulnerability Management |
| Key Insights and Actions |
| Key Metrics: Vulnerability Scan Coverage |
| Key Metrics: Vulnerability Performance KPI |
| Key Metrics: Vulnerability Technical Debt |
| Key Metrics: Backlog Outlier Devices |
| 🗸 🖿 Patch Management |
| Deployed Patches in Breach of SLA |
| Devices Failing Patching SLA |
| ■■ Vulnerability Exposure |
| II Vulnerability Diagnostics |
| ■■ Vulnerability SLA Report |
| ➤ ■ Application Security |
| 4 Application Security |
| 4 Application Security |
| Program Manager |
| ✓ ■ Malware Defences |
| AV SLA Report |
| AV Threat Report |
| EDR SLA Report |







Continuous Controls Monitoring

