AWS Amazon Inspector Amazon Linux2

Amazon Connect SOC AWS Server Migration Service

AWS ( ) VMware

Google Amazon AI Google

Ethereum On Azure

4K

2

OpenStack Queens

EasyStack

OpenStack

2017

360

EDR

Fortinet 2018 NSS

CheckPoint Check Point 0312

Kubernetes 1.10

SmartX Rancher Labs

Face Flashing 90%

2020 Google 72

1% Windows 10 Linux

Memcached PoC

Hansa Linux

ACRN

20 G20

IETF TLS 1.3 TLS

HTTPS

3 6

KnowBe4 IT CyberArk Software

Palo Alto Networks 3

Evident.io

Virsec Luminate Security Solebit

2400 1400 1100 3

2018

..... *i*

..... *i*

+

2.1

3. 99CLOUD 13

3.1 OpenStack Kolla PTL

3.2 OpenStack Queens TOP5

3.3

..... 14

1. 14

1.1 2017 -

1.2

1.3

1.4

2. 18

3. 19

3.1

3.2

3.3

2. 72 27

3. Memcached DDoS PoC 28

4. Hansa 28

5. 90% 2020 28

6. Linux ACRN 29

7. G20 29

8. 20 29

9. IETF TLS 1.3 30

10. Windows 10 Linux 30

.....30

1. 30

1.1 KnowBe4 Popcorn Training

1.2 CyberArk Software Vaultive

1.3 Palo Alto Networks Evident.io

2. 31

2.1 MedStack

2.2

2.3

2.4

2.5

2.6

+

1. AWS

1.1 AWS Server Migration Service AWS ( )

3 1 AWS Server Migration Service (SMS) AWS

AWS ( ) AWS Server Migration Service (SMS)

AWS AWS ( )

1.2 Amazon Connect SOC

3 5 Amazon Connect SOC ( ) SOC

AWS AWS AWS

SOC

AWS SOC AWS

1.3 Amazon Inspector Amazon Linux 2

3 13 Amazon Inspector (CVE) Amazon Linux

2

Amazon EC2 Amazon Inspector Inspector

Amazon Inspector AWS Amazon EC2

Inspector EC2

Inspector

Amazon Inspector ( ) (

) ( ) ( ) ( ) ( )

( ) ( ) ( ) ( )

1.4 Lambda@Edge S3

3 20 Lambda@Edge

Amazon S3 Amazon

CloudFront / S3

Lambda@Edge / CloudFront

S3 Amazon CloudFront

Access-Control-Request-Headers Access-Control-Request-Method

S3 CloudFront

CloudFront-Viewer-Country CloudFront-Is-*-Viewer Lambda@Edge

2. VMware

2.1 VMware

3 1 VMware MWC IoT

Axis Communications Wipro Limited VMware

VMware VMware vSAN HCI VMware vSphere VMware Pulse IoT Center

3. GOOGLE

3.1 AI AI

3 1 Ashwin Ram

Google Cloud

Ram Alexa Prize

Alexa 20

Ram

3.2

3 22

4. Azure

4.1

3 5 Azure

Azure

Azure Stack Azure

Government

Azure - Tom Keane 2018

4.2 Ethereum on Azure

3 21 Ethereum on Azure

- Azure VM Scale Sets (Azure VMSS) Azure Managed Disks

  Azure VMSS

-

-

  CPU

4.3 Azure

3 25 Nivaura Azure

5.

5.1

3 9

5.2 **AliOS MCU**

3 15

AliOS

AliOS

AliOS ,

MaxCompute TB PB

Alex Li

2020 1000

ACP 300

100

5.4 IoT 5

o(T)]TJET EMC /P /MCID630>BDC BT/F1 10.56 Tf1 0 0 1 137.42 415.13 Tm[2CB414CA087D1C5F1189923684113

6.

6.1 VR 4K

3 19

4K 4K

4K

4K 4K

4K 4K 4K

1000

4K

4K

4K

6.2

3 26

eBroker

O2O

6.3

3 27

AI

6.4

3 28

CDN

Smule APP Sing!

CDN Sing! K APP

Sing!

23 42

Cyborg

OpenStack Nova GPU(vGPU)

GPU

Queens GPU(vGPU)

vGPU OpenStack vGPU FPGA

DPDK Queens Cyborg

;Cyborg NFV ETSI NFV

+ 2018 3

3. 99CLOUD

3.1 OpenStack Kolla PTL

Jeffrey Zhang OpenStack Kolla PTL(Project Team Lead) CTO Tacker PTL OpenStack

TOP10 Kolla Tacker Packaging-Rpm Freezer Sahara Solum Telemetry Watcher Horizon Cloudkitty

TOP5 Commits TOP6 stackalytics.com Completed Blueprints Queens BP 17 5 Ocata 5 Completed Blueprints OpenStack OpenStack

Queens Commits , 794 6 Ocata Pike OpenStack Commits Upstream First

3.3

3 12

105

1.

1.1 2017

22.79 3.58 4.52 18.22% 168.75% 70.41% 3.21 29.52%

" ",

I3 (Independence) (Interconnect) (Intelligence),

1996

/UTM /

(IDS/IPS)

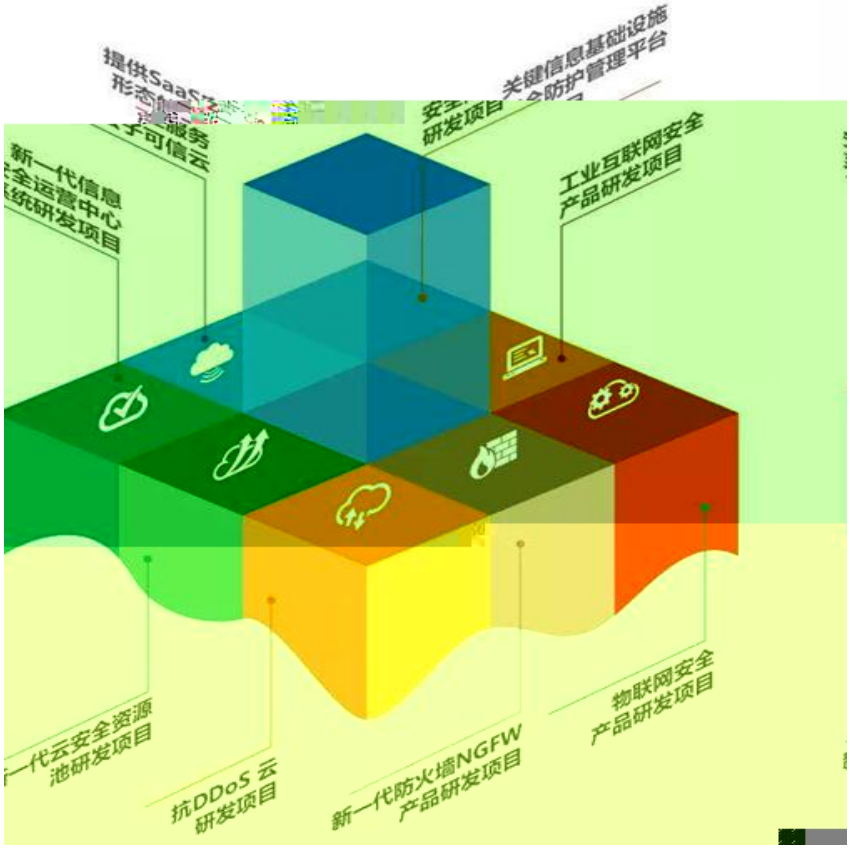
(UTM) (SOC)

(FW) Web

/ /

Vetrix

/



/

80%

60%

90%

(ADLab)

VenusEye VF

Vetrix

IT100

863

1.2

60% 500

50 10%

1.3

2018 3 20

“ ”

1.4

3 23

“ ”

“ ”

40

SDSec

“ ”

“ ”

2.

3.

3.1

3 22

“ ”

“

” “

”

3.2

“ + ” “ - ”

“ ”

APT

75% 80%

69% IT

“

”

3.3 QingCloud

QingCloud qingcloud.com

Deep Security

QingCloud AppCenter

QingCloud

QingCloud QingCloud

DDoS SSL WAF

QingCloud SDN

100%

Deep Security QingCloud

AppCenter

Deep Security QingCloud QingCloud AppCenter

QingCloud

360

QingCloud AppCenter

IT

4.

5. 360

5.1 360

3 29 360

360 360

360

3 5000

5.2 360

360

“ ”

360

5.3 360

3 ( ) 360

360

360

360

+ 2018 3

8. Fortinet

8.1 Fortinet 2018

Fortinet FortiGuard 2018

AI

HPC CPU

HIVWNETS SWARMBOTS

Fortinet

(Hivenets)

PII

AI

IP

IP

8.2 **Fortinet NSS**

Fortinet FortiGate IPS 3000d FortiGate IPS 7060e

NSS Fortinet FortiGate

FortiGate

IPv4 IPv6

9. Checkpoint

9.1 **Check Point 0312**

RottenSys 500 Android

RottenSys

RottenSys UI

Sofacy APT Flash Player

DealersChoice DealersChoice

Monero PostgreSQL

?

65000

Dofoil Smoke Loader 12 Electroneum

40 Windows MediaGet BitTorrent

Check Point GandCrab

GandCrab AGILE

FakeBank Android

1. Kubernetes 1.10

Kubernetes

kubectl alpha DNS CoreDNS beta

CSI beta

CSI Kubernetes beta

pod

Kubernetes Kubernetes

beta

Kubernetes pod

beta

beta API

alpha

IAM Active Directory

1.9

CoreDNS DNS beta

DNS CoreDNS beta

CoreDNS

Rancher Labs SmartX / SmartX Ecosystem Partnership Program SEPP SmartX

SmartX Rancher Labs Docker KVM

3. Docker Cloud

Docker

Swarms

Docker Docker Swarm

Docker Swarm

1. Face Flashing

Face Flashing

LCD

2. 72

Google Bristlecone

Bristlecone 72 1%

Google

Google Bristlecone

3. Memcached DDoS PoC

Memcached DDoS DDoS 1.7Tbps

Memcached PoC Memcached DDoS

DDoS

1.7 Tbps memcached DDoS PoC

Memcached DDoS memcached DDoS

PoC Python Shodan API

Memcached memcached DDoS

C Memcached

memecache-amp-03-05-2018-rd.list 03-05-2018 memcached

4. Hansa

Hansa

2016 Bitdefender

Hansa

-

2016 10

Hansa

5. 90% 2020

Spiceworks 2020 90%

57% 14% 5

3 2 2

46% 25% 22% IT

6. Linux ACRN

Linux ACRN

Linux ACRN

ACRN

ACRN

VM

7. G20

G20 G20

G20

G20

8. 20

SC Media US DDoS

20

Google Cloud

9. IETF TLS 1.3

IETF TLS 1.3 TLS

IETF

28 28 TLS 1.3

HTTPS -TLS 1.2

TLS 1.3 MD5 SHA-224

ChaCha20 Poly1305 Ed25519 x25519 x448

TLS 1.3 TLS 1.3

TLS False Start 0-RTT

TLS 1.3

10. Windows 10 Linux

Linux Linux Linux

WSL Windows 10 Windows 10 PC Linux

Ubuntu SUSE Kali Linux Debian

Windows OS

Linux WSL Linux

1.

1.1 KnowBe4 Popcorn Training

3 5 KnowBe4 Popcorn Training KNOWBE4

Popcorn Training

1.2 CyberArk Software Vaultive

3 12 CyberArk Software Vaultive CyberArk Software IT

Vaultive

1.3 Palo Alto Networks Evident.io

3 14 Palo Alto Networks 3 Evident.io Palo Alto Networks Nir Zuk 2005

Evident.io

Evident

2.

2.1 MedStack

3 1 MedStack MedStack HIPAA

60%

2.2 Snyk 700 A

3 6 Snyk Boldstart Ventures 4 700 A Snyk

2.3 Bitt 300 B

3 8 Bitt Medici Ventures 300 B Bitt

2.4 Solebit 1100 A

3 14 Solebit ClearSky 2 1100 A Solebit

APT 0Day

2.5 Luminate Security 1400 A

3 14 Luminate Security Aleph U.S. Venture Partners 1400 A

Luminate Security

The Secure Access Cloud

2.6 Virsec 2400 B

3 20 Virsec Amity Ventures 4 2400 B

Virsec 2014