

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

	+	2018	3	
	Virsec		Luminate Security	Solebit
2400	1400	1100	3	

2018

..... *i*

..... *i*

+3

2.1

3. 99CLOUD

3.1 OpenStack Kolla PTL

3.2 OpenStack Queens TOP5

3.3

.....**14**

1.

1.1 2017 -

1.2

1.3

1.4

2.

3.

3.1 “ ”

3.2

3.3

2.	72		
3.	Memcached DDoS	PoC	
4.		Hansa	
5.	90%	2020	
6.	Linux		ACRN
7.	G20		
8.			20
9.	IETF	TLS 1.3	
10.		Windows 10	Linux
			30
1.			
1.1	KnowBe4	Popcorn Training	
1.2	CyberArk Software	Vaultive	
1.3	Palo Alto Networks	Evident.io	
2.			
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 () (

	+	2018	3				
)	(	)	(	)	(	)	(
	(	)	(	)	(	)	(

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)JTJET EMC /P AMCID630BDC BT/F1 10.56 Tf1 0 0 1 137.42 415.13 TmCB414CA087D1C5F11899236841135

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

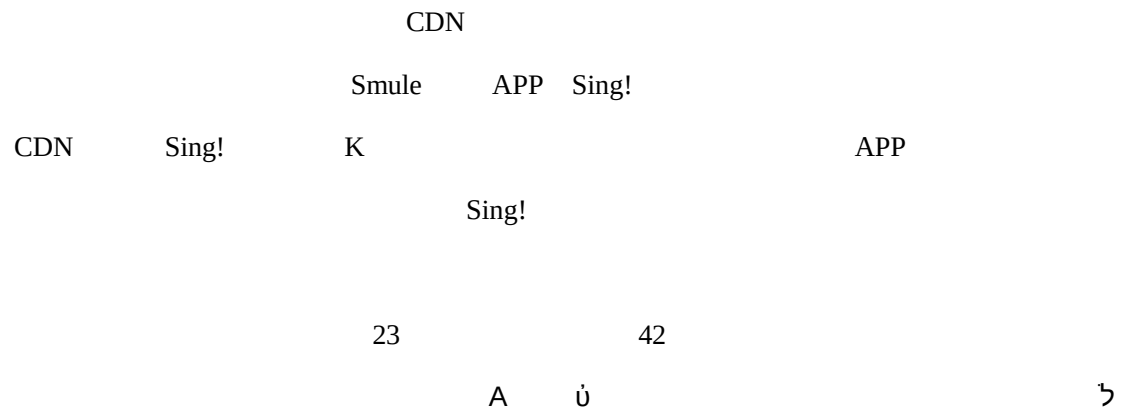
6.3

3 27

AI

6.4

3 28



Cyborg

OpenStack “ ”

Nova

GPU(vGPU)

GPU

Queens

GPU(vGPU)

vGPU

OpenStack

vGPU FPGA

DPDK

Queens

Cyborg

;Cyborg

NFV

ETSI NFV

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)

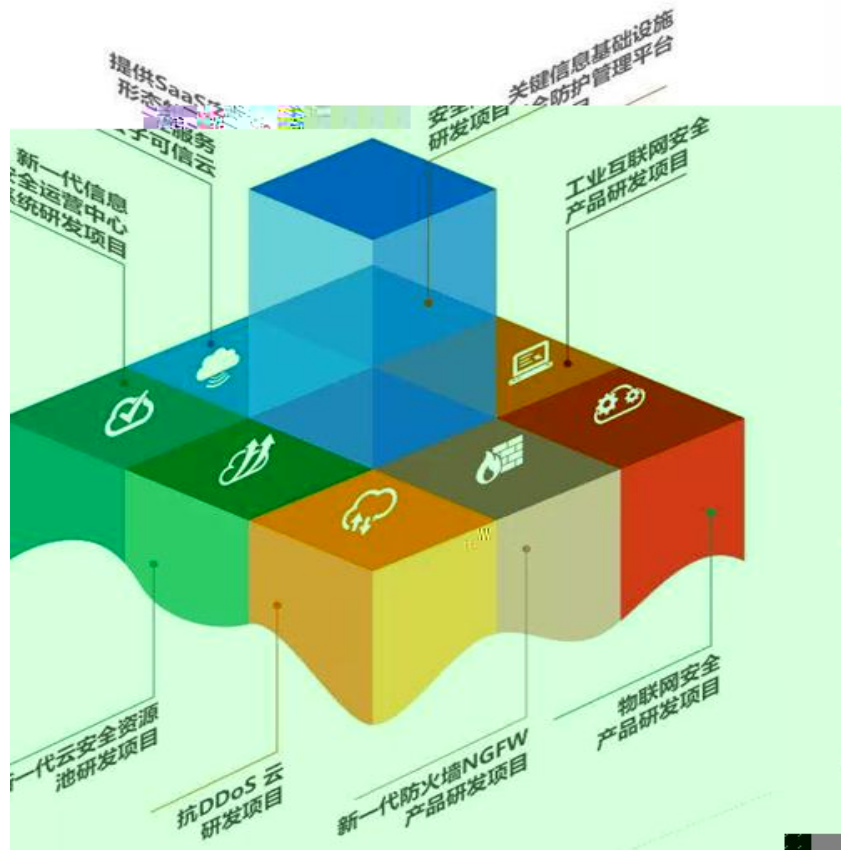
(UTM) (SOC)

(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

8. Fortinet

8.1 Fortinet 2018

Fortinet FortiGuard 2018

AI

HPC

CPU

“ ”

HIVWNETS SWARMBOTS

Fortinet

(Hivenets)

PII

AI

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“

”

“

”

——

“

”

“

”

——

IP

IP

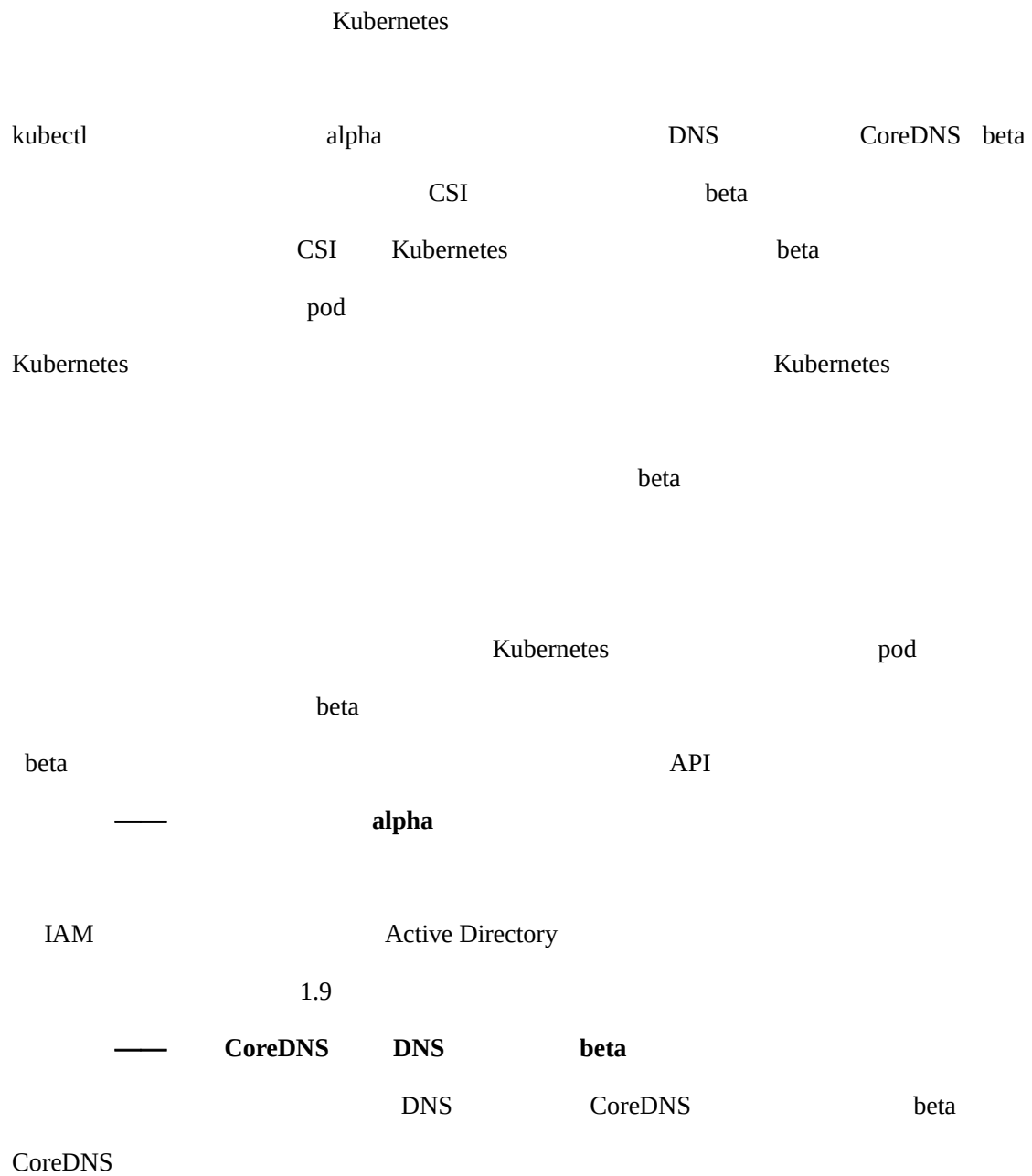
8.2 Fortinet NSS

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
 “ Dofail ” Smoke Loader 12 Electroneum
 40 Windows “ MediaGet ” BitTorrent
 Check Point GandCrab
 GandCrab AGILE
 FakeBank Android



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

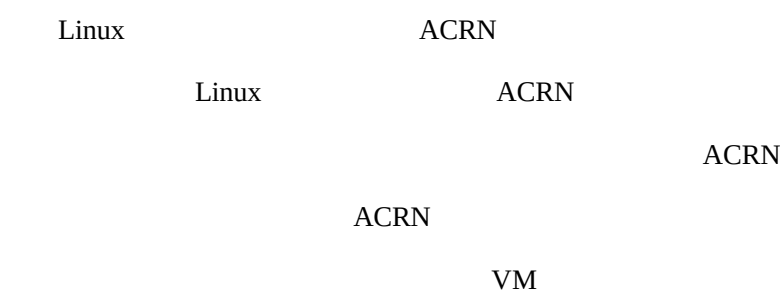
Hansa

5. 90% 2020

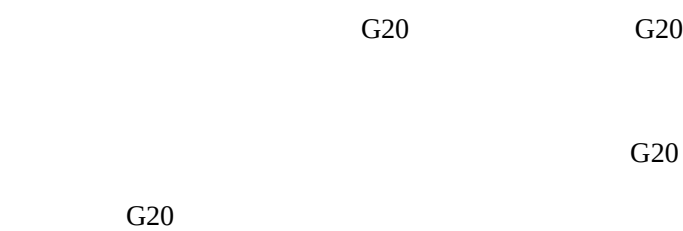
Spiceworks 2020 90%

+	2018	3			
	57%		14%		5
3		2	2		
	46%		25%	22%	IT

6. Linux ACRN



7. G20



8. 20



9. IETF TLS 1.3

IETF 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