

+

2019 3

..... *ii*

..... **1**

 + **3**

..... **3**

1. **AWS** **3**

2. **VMWare** **5**

3. **GOOGLE** **7**

4. **Azure** **8**

5. **12**

6. **13**

7. **14**

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1. **Openstack** **19**

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2. **41**

AWS
Elemental MediaLive
License Manager
Amazon ECS
S3
API
VMware
Google
AI
Data Box Edge 5
6
EasyStack
2019
CDM 3
AiLPHA
Gartner

AWS Elemental MediaPackage
HLS VPC
CPU
Elemental MediaConvert
Amazon EKS
Kubernetes
AWS Direct Connect
500 Mbps
Stadia
Azure Bot
SaaS
OpenStack
PTL
OpenStack
2019
RSA2019
EDR
2019
SIEM
360

	Kubernetes1.14		windows	
	kubectrl		31	Istio1.1
CNCF	Kubernetes	Prometheus	Envoy	CoreDNS
containerd				
	App	9	App	
		Facebook		
	UC	(MITM)		
	W3C	WebAuthn		Web
ISACA	CASB	GDPR		
	Sandboxed API	Axonius		
		1	4	
	Verizon	ProtectWise		
	eSentire	4700		
	CyberX			LogRocket
1800	1100			

+

1. AWS

1.1 AWS Elemental MediaPackage

3 4 AWS Elemental MediaPackage MediaPackage

MediaPackage

MediaPackage

AWS Elemental Media Services

1.2 Elemental MediaLive

HLS VPC

3 5 HLS AWS Elemental MediaLive MediaLive

#EXT-X-KEY

MediaLive

Amazon Virtual Private Cloud (Amazon VPC)

MediaLive

VPC

VPC

VPC

IP

RTP RTMP

AWS Elemental MediaLive

AWS Elemental Media Services

AWS

Elemental Media Services

1.3 Amazon ECS

3 7 Amazon Elastic Container Service (Amazon ECS)

AWS

Sidecar

ECS

1.4 License Manager

CPU

3 8 AWS

AWS License Manager

License Manager

License Manager

CPU

vCPU

vCPU

License Manager

1.5 Elemental MediaConvert

S3

3 13 AWS Elemental MediaConvert

Amazon CloudWatch

Amazon S3

MediaConvert

Amazon CloudWatch

10

10

MediaConvert

Amazon S3

Amazon S3

Amazon

S3 AWS Key Management Service (KMS)

AWS Elemental MediaConvert

MediaConvert

AWS Elemental Media Services

AWS Elemental Media Services

1.6 AWS Direct Connect 500 Mbps

3 19 AWS Direct Connect AWS Direct Connect AWS
AWS Direct Connect 500 Mbps
AWS Direct Connect 1 2 5 10 Gbps
AWS Direct Connect AWS
AWS Direct Connect AWS Direct Connect
AWS Direct Connect AWS Direct
Connect 50 Mbps 500 Mbps 1 2 5 10 Gbps
AWS
AWS Direct Connect AWS

1.7 Amazon EKS Kubernetes API

3 19 Kubernetes API Amazon Elastic
Container Service for Kubernetes (EKS) Kubernetes
KubectL EKS Kubernetes API
Amazon Virtual Private Cloud (VPC) VPC Kubernetes
VPC VPC Kubernetes API
VPC IP API
API API
VPC EKS Kubernetes

2. VMWare

2.1 VMware

3 21 VMware
VMware
Cloud Foundation

VMware AWS

Amazon

VMware

1000

VMware

AWS

VMware

Ajay Patel

VMware Cloud Foundation

Dell EMC VxRail

VMware

VMware

60 IDC

Rick Villars

4

VMware

CloudHealth by VMware VMware

CloudHealth Technologies

VMware

Wavefront

CloudHealth

Joe Kinsella

CloudHealth

VMware

CloudHealth

80

40

API

Cloud Foundation 3.7

VMware Horizon 7

VMware

AWS

Cloud Foundation

13

VMware

4200

Patel

VMware

vCloud Director

9.7

VMware

VMware vCloud Availability 3.0

vCloud Director

3. GOOGLE

3.1 Stadia

3 20 CEO Sundar Pichai GDC Stadia

Phil Harrison YouTube YouTube

Chrome

Stadia Wi-Fi

YouTube Google Assistant

25Mbps 4K 60 fps, 8K 120
AMD GPU 10.7Teraflops Xbox One X PS4 Pro

Project Stream Chrome

Assassin's Creed Odyssey

1 Doom Eternal

Stadia 4K 60 HDR

3.2 Google

3 23

()

2015

(NLP)

Google

Google

Google

4. **Azure**

4.1 **Azure Bot AI**

3 16 Azure Bot

FUSE Lili Cheng

-

Microsoft Bot Framework

Skype

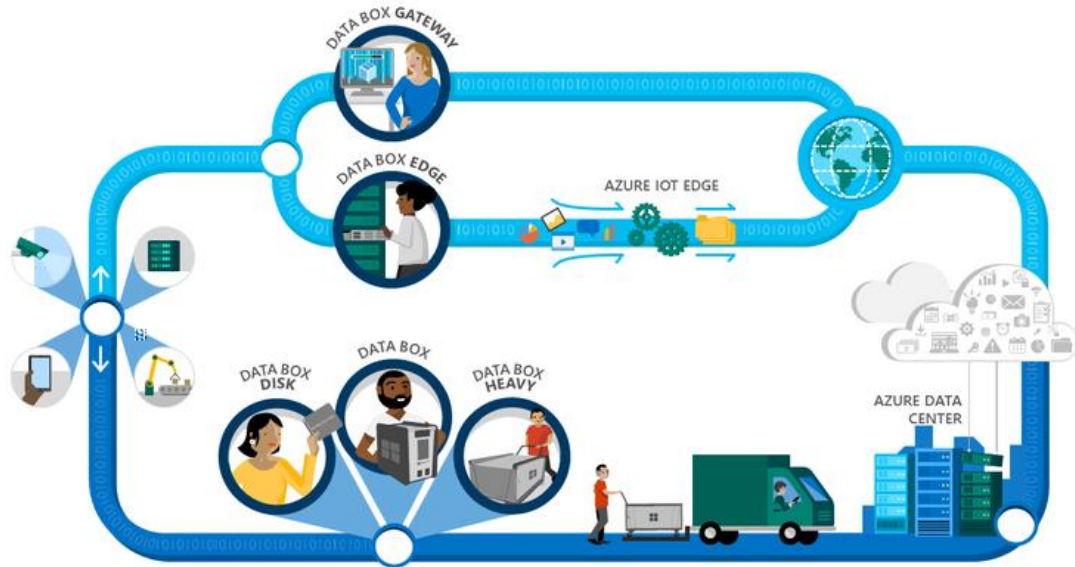
Microsoft Teams Facebook Messenger Kik

Azure Bot

(LUIS) LUIS

4.2 Data Box Edge 5

3 27



Azure 5

5 Data Box

Data Box Edge Azure Data Box Gateway2

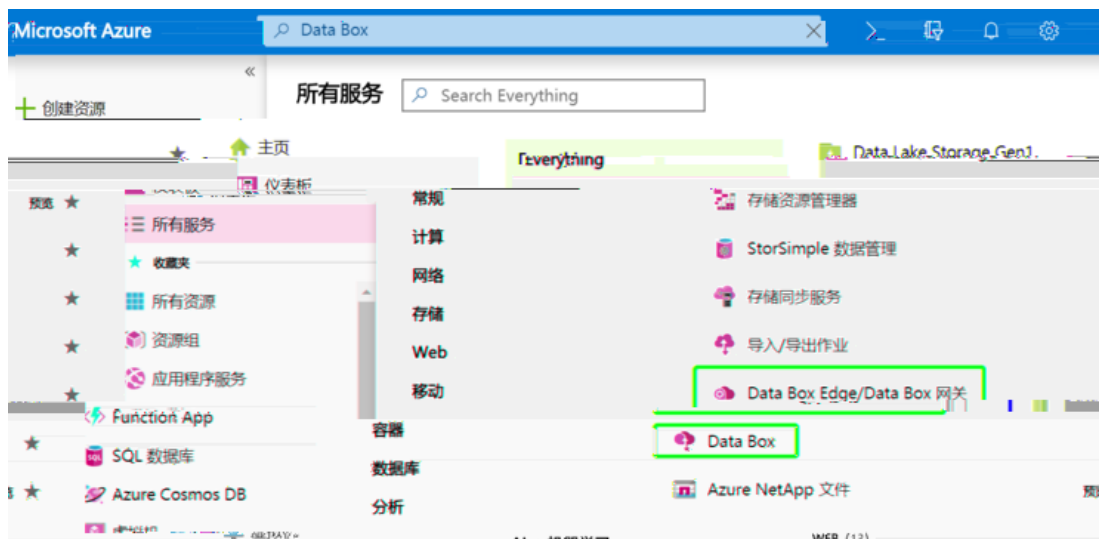
Data Box Data Box Disk Data Box Heavy Preview3

Azure Data Box

Dean Paron

Azure

Azure



Data Box Edge

Data Box Edge

Azure

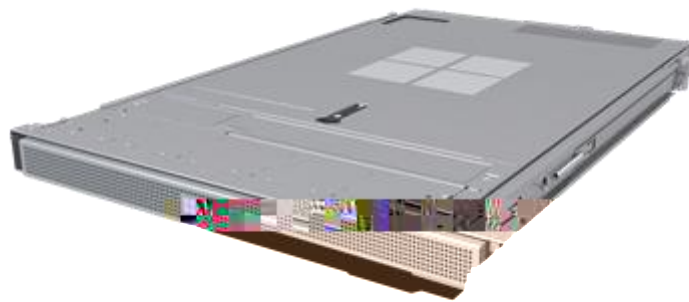
Azure

Data Box Edge

Data Box Edge

IoT Edge

Azure



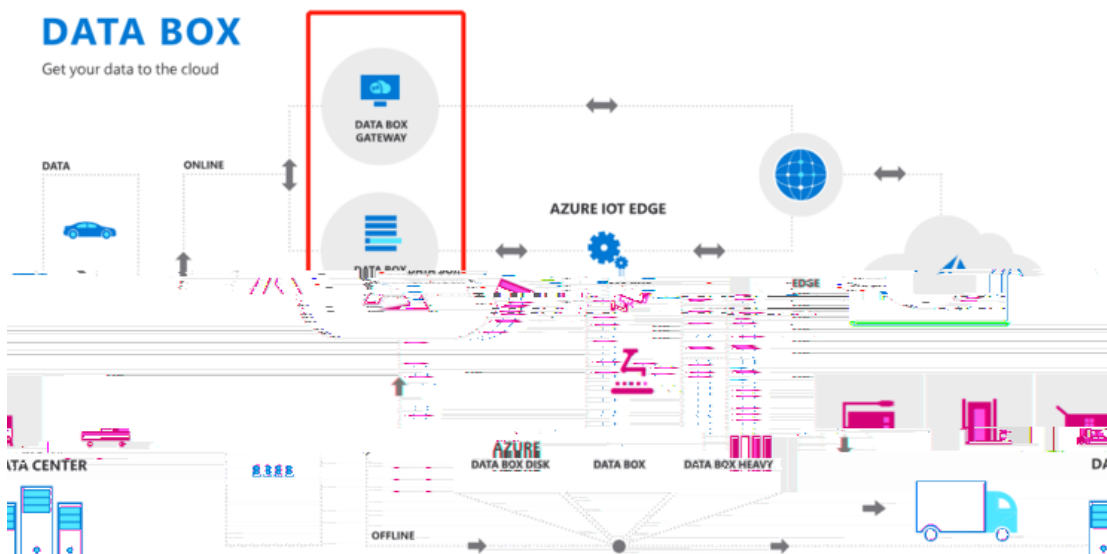
Data Box Edge

Data Box Edge

Data Box Edge

Data Box Edge

Azure



Data Box Edge

Data Box Edge

Azure

Data Box Edge

Arria 10 FPGA **Azure**

FPGA

Azure



SaaS

SaaS

SaaS

SaaS

SaaS

SaaS

SaaS

6.

6.1

3 21

AI

14000

1900

300

7.

7.1



Taurus 3
OBS() 11 9(99.99999999%)

Taurus
0 /

Taurus MySQL 7 ;
Taurus

1/10

Taurus 1 15 /
CPU Taurus

128TB

Taurus DBSS()

Taurus MySQL 8.0 MySQL
Taurus

Gemini

Gemini	Cloud Native		Serverless	
Region	NoSQL			NoSQL
/	MongoDB	Cassandra	DynamoDB	
Gemini			3	Gemini
Serverless				
Gemini			N-1	
				10
	20			
Gemini				2

Gemini

7*24

Gemini

Region

DRS

?

?

?

DRS



DRS

RPO&RTO

DRS

DRS

0

DRS

VPN

VPC

MySQL

SQL Server MongoDB PostgreSQL

7.2

3 27

OBS



AI

AI

;

;IT

;

AI

BMS

OBS

Spark Terasort

AI

AI

AI

CDN

H.265

30% AI

1. Openstack

1.1 OpenStack Train

3	26	OpenStack			OpenStack Train	
		Project Team Leader, PTL			6 OpenStack	
		PTL			PTL	
		OpenStack				
		Core				
		PTL			OpenStack	
					PTL	
			PTL	OpenStack		
		Murano	Solum	PTL	Freezer	PTL
		Senlin	PTL	Zun	PTL	Watcher
		PTL				
		2016			OpenStack	
					P/Q/R	
				PTL	13	11
		OpenStack		PTL		

2. Easystack

2.1 EasyStack OpenStack

3 14 OpenStack TC
EasyStack OpenStack
OpenStack OpenStack

3

1

2

3

1

2018

2)

-- --

2018

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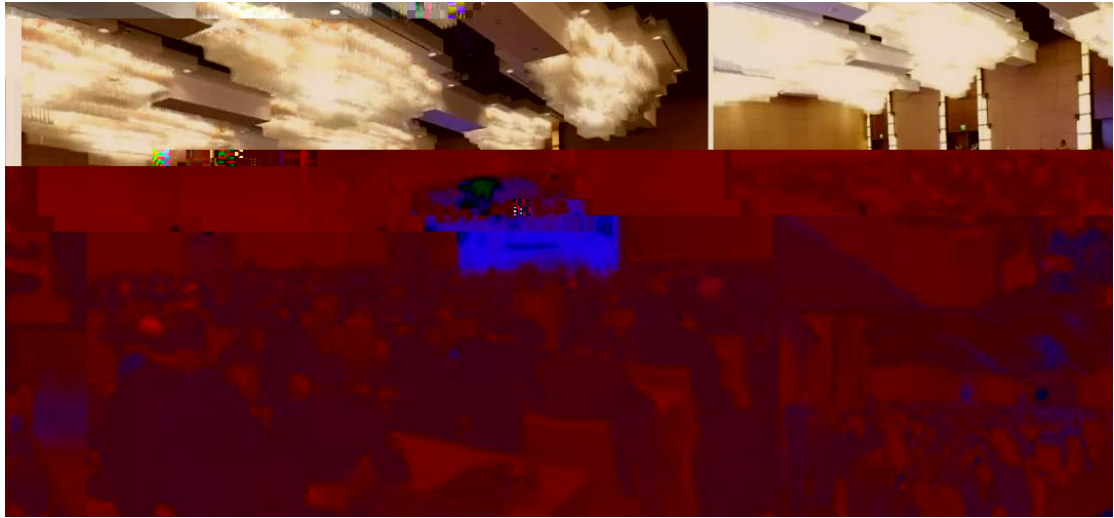
3)

1.2 **2019**

3 21

2019

200



SDWAN NGFW

IT

1.3

IoT-VBox

IoT-VBox

+

2018

IoT-VBox



IoT-VBox

IoT-VBox

API

IoT-VBox

FW VPN WIFI

IoT-VBox

(V-UEBA)





2.

2.1

3 23

Winning World 2019

1200

+

HIS PACS

3.

3.1 2019 CDM 3

3 6 Cyber Defense Magazine

The Most Innovative Data Center Security for 2019 :

X10800

X10800

X10800

1Tbps

1000

4.8

400Gbps

IPS

IPv6

Breakout Cybersecurity Analytics for 2019 :

T

The Next Gen Cloud Protection for 2019 :

4.

RSA2019
RSA 3 4 700
42%

EDR

RSA 100% EDR

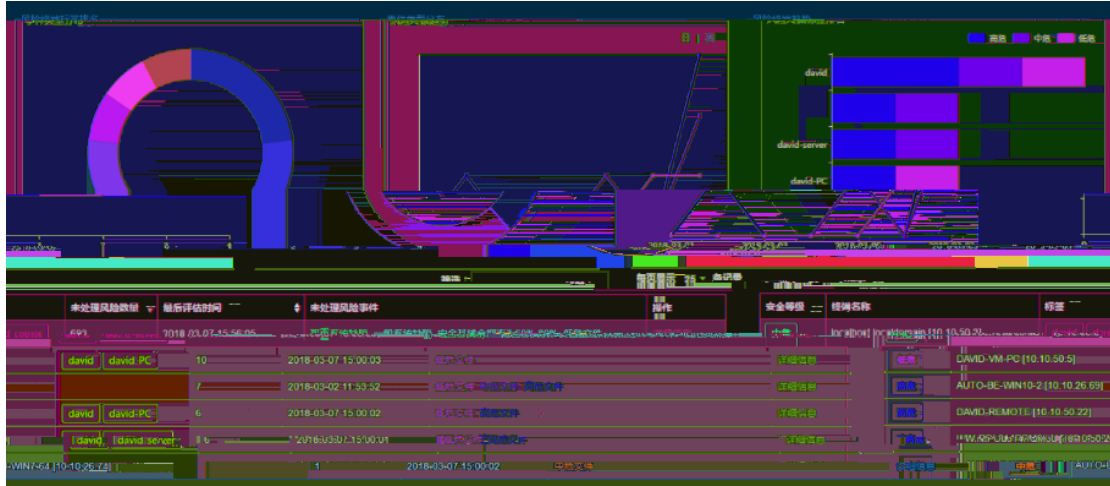
MSSP()

RSAC

MSSP

5.

5.1 EDR



APT

NSFOCUS Endpoint Detection and Response NSFOCUS EDR

(EDR)

Gartner	2020	80%	25%	10%
EDR	EDR			

6.

6.1 AiLPHA 2019 SIEM

AiLPHA

Cyber Defense Magazine

CDM

Breakout Security Information Event Management (SIEM)

InfoSec Award for 2019 2019 SIEM

AiLPHA

AiLPHA

7. 360

7.1 360

360

Gartner

TrustSpace

360

Gartner

TrustSpace

BYOD

IT

360

Gartner

BYOD

COPE

360TrustSpace

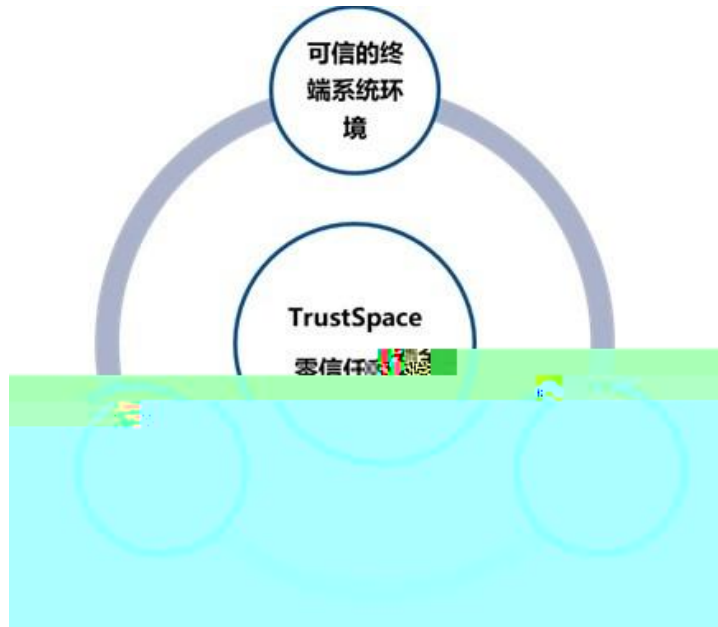
360

IT

TrustSpace

IT

BYOD



8.

8.1

2019 3 12

AV-Comparatives

Google Play 250

30%

Antiy

100%

85%

Test Results

Vendor	%	Vendor	%	Vendor	%
AhnLab		eScan		Alibaba	92.90%
Antiy		Ikarus		Tapi	92.40%
Avast		Quick Heal	99.80%	IntelliAV	91.80%
AVG		REVE		Panda	91.60%
AVIRA		Securion		Dr. Web	90.80%
Bitdefender		VIPRE		Privacy Lab	89.90%
BullGuard		Lookout		Zoner	88.90%
Chili Security		Supermobilesaf	99.60%	APUS	
Emsisoft		SSafe	99.50%	CAP Lab	
ESET	100%	MyMobile	99.40%	Clean Boost+	
ESTSoft		Malwarebytes	99.40%	Fotoable	
F-Secure		CheckPoint	99.10%	Hyper Speed	
G Data		K7	99.00%	IOBit	87.80%
Kaspersky Lab		Qihoo	99.00%	ONE App	
McAfee		Hi Security	98.60%	Phone Clean	
PSafe		NSHC	98.40%	Power Tools	
Sophos		AegisLab	98.30%	Smooth Apps	
STOPzilla		Samsung	97.70%	Super Cleaner	
Symantec		Webroot	97.40%	Super Security	
Tencent		Zemana	97.30%	We Make It Appen	
Total Defense		Hawk App	97.10%		
Trend Micro		TrustGo	96.00%		
Trustwave		DU Apps	94.70%		

2006

AVL SDK

863

9. Fortinet

10. Checkpoint

kubectl :kubectl kubectl
porcelain

set-ns

SSD

PID **beta**
beta Pod PID Pod
Pod PID node allocatable Pod
PID alpha Pod Pod PID

Pod Kubernetes Pod
Pod Pod

Pod Readiness Gates Pod
RBAC clusterrolebindings
API CRD

2. Istio 1.1

<https://istio.io/docs/concepts/performance-and-scalability/>

Kubernetes

Galley Galley YAML
Galley Kubernetes

3. containerd

containerd AWS Cloud Foundry Docker IBM
Rancher Labs

Kubernetes Prometheus Envoy CoreDNS

containerd

2014 containerd Docker Docker
2017 3 containerd

Docker OCI runc

containerd

[2]

containerd

[3]

CII

2018 9

1 CII [4]

containerd

- containerd

Containerd Linux Windows

- containerd

- containerd <https://github.com/containerd/containerd>

1. W3C WebAuthn Web

W3C Web API WebAuthn Web

WebAuthn 2015 11 W3C Fido
W3C Airbnb IBM
Mozilla PayPal Yubico
/ FIDO Android
Windows10 WebAuthn Chrome Mozilla Firefox
Edge WebAuthn 12 Safari
WebAuthn

2. Axonius

3 4 3 5 RSA 2019

Axonius

Axonius

100

Axonius

3. App

App

100 App

App

2019 1 12

App

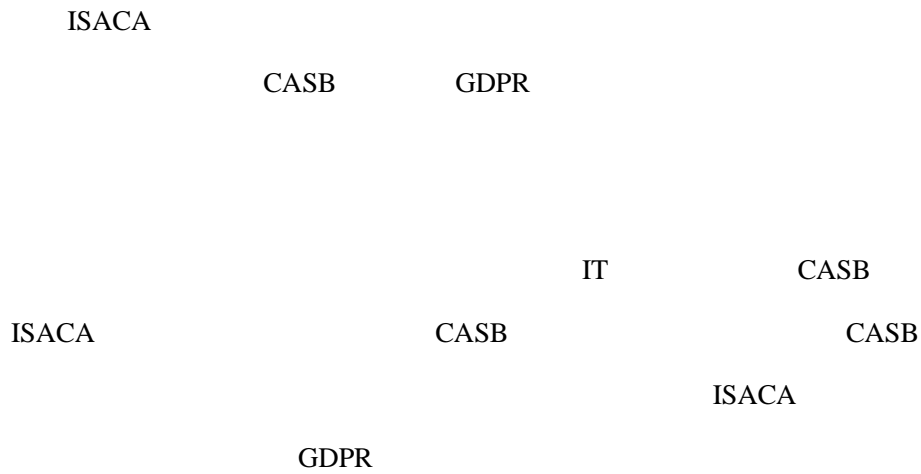
App

4. 9 App

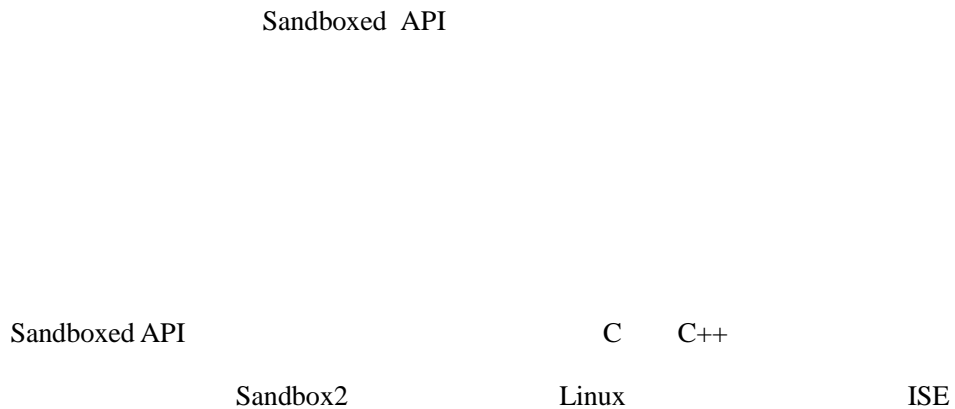
9

1	PhotoLoop	20.4		7.9.0	
2		1.0		2.2.0	
3	Remember Everything-		1.1.0	-	1.0
-			1.0	Cuncaoxin Education	1.0.6
	1.1				

5. ISACA CASB GDPR



6. Sandboxed API



Sandboxed API

7. Facebook

KrebsOnSecurity

Facebook

Facebook

Facebook

Facebook Lite

Facebook

Instagram

Facebook Lite

Facebook

8. UC

(MITM)

UC

UC

HTTP

hook

UC

UC

UC

UC

1.

1.1 Verizon Communications

ProtectWise

3 1 Verizon Communications

ProtectWise

Verizon(VZ)

AT&T

ProtectWise

ProtectWise

2013 4

ProtectWise

ProtectWise Cloud Network DVR

ProtectWise

2.

2.1 eSentire 4700

3 4 eSentire Edison Partners 2 4700
eSentire
eSentire

2.2 LogRocket 1100 A

3 21 LogRocket Battery Ventures Matrix Partners 1100 A
LogRocket bug

2.3 Attivo Networks C

3 21 Attivo Networks Bain Capital 3 C
Attivo Networks

SCADA

2.4 CyberX 1800

3 25 CyberX Flint Capital 5 1800

CyberX