.....21

1.1 CEO 21
1.2 2019 23
1.3 24

2.1 “ ”.....28

3.1 2019 CDM 3 29

5.1 EDR 31

6.1 AiLPHA “2019 SIEM ”.....31

7.1 360 “ ” 32

8.1 33

.....35

.....37

.....40

+ 2019 03

AWS

Kubernetes1.14 windows

kubectl 31 Istio1.1

CNCF Kubernetes Prometheus Envoy CoreDNS

containerd

App 9 App

Facebook

UC (MITM)

W3C

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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

AWSKmc Manag

1.6 **AWS Direct Connect** **500 Mbps**

VMware AWS

Amazon

VMware 1000 VMware AWS

“ ” VMware Ajay Patel

“ ”

VMware Cloud Foundation Dell EMC VxRail

VMware

VMware

60 IDC

VMware vCloud Availability 3.0
vCloud Director

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 10.7Terraflops Xbox One X PS4 Pro

Project Stream Chrome
Assassin ’ s Creed Odyssey
1 Doom Eternal
Stadia 4K 60 HDR

3.2 Google

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“ 2015 ” “

” (NLP)

Google

Google Google

Azure

4.1 Azure Bot AI

3 16 Azure Bot

FUSE Lili Cheng “

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Microsoft Bot Framework Skype

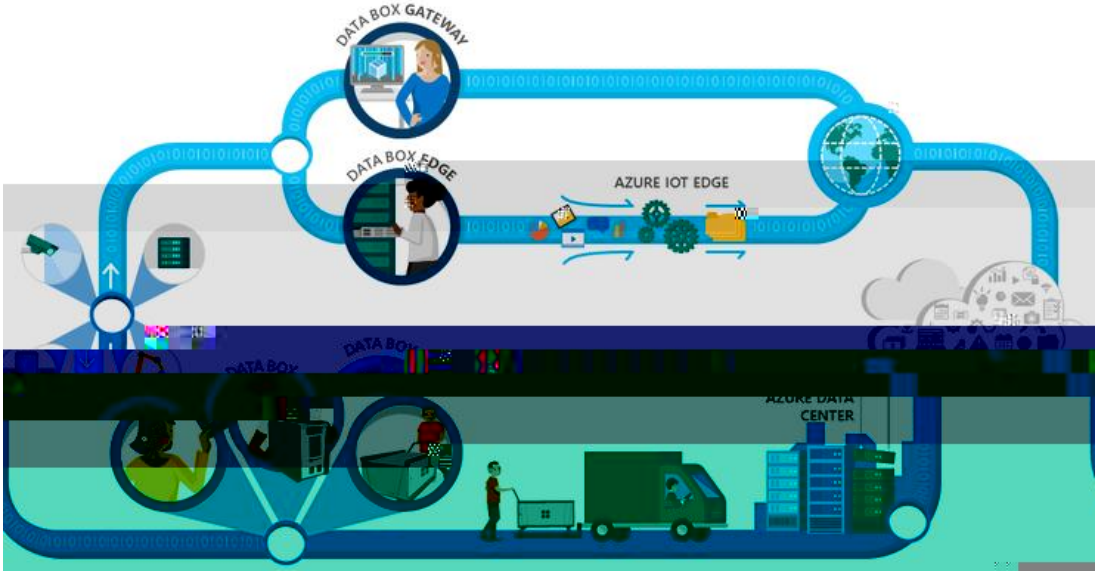
Microsoft Teams Facebook Messenger Kik

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



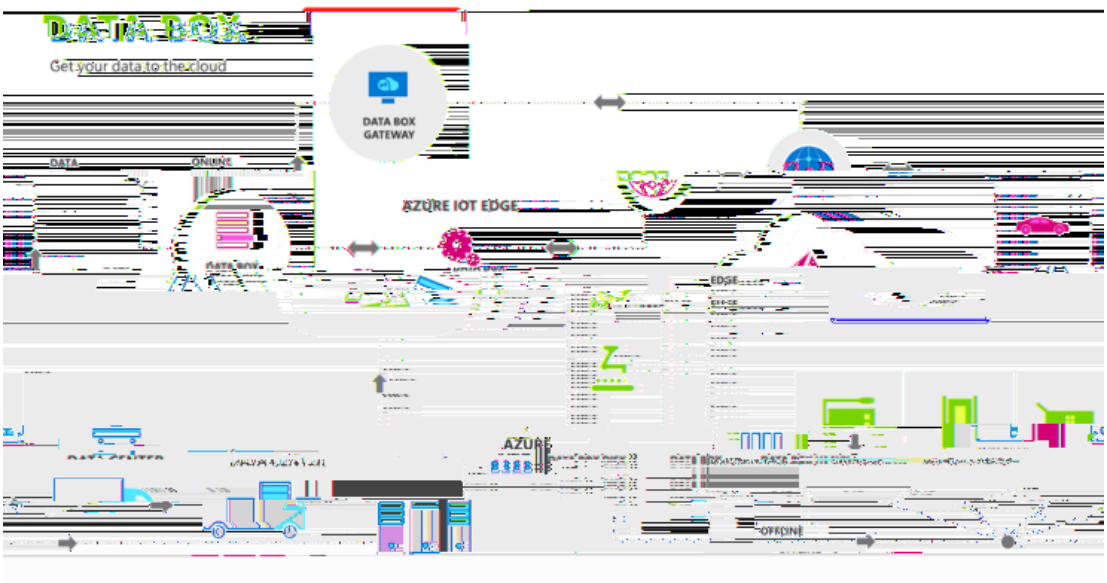
Data Box Edge

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

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SaaS SaaS

“ ” SaaS

SaaS

SaaS SaaS

SaaS

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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

Cem 379.97 Tmni

Gemini 7*24

Gemini Region

DRS

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7.2

3 27

OBS

AI

AI

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BMS OBS

30% AI

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

Easystack

2.1 EasyStack OpenStack

3 14 OpenStack TC

EasyStack OpenStack

OpenStack OpenStack

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SDWAN NGFW IT

1.3

IoT-VBox

IoT-VBox API

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+ 2019 03

HIS PACS

3.1 **2019 CDM 3**

3 6 Cyber Defense Magazine

The Most Innovative Data Center Security for 2019 :

X10800

X10800

X10800

1Tbps 1000

4.2B+

5.1 **EDR**

“ ” APT

NSFOCUS Endpoint Detection and Response NSFOCUS EDR

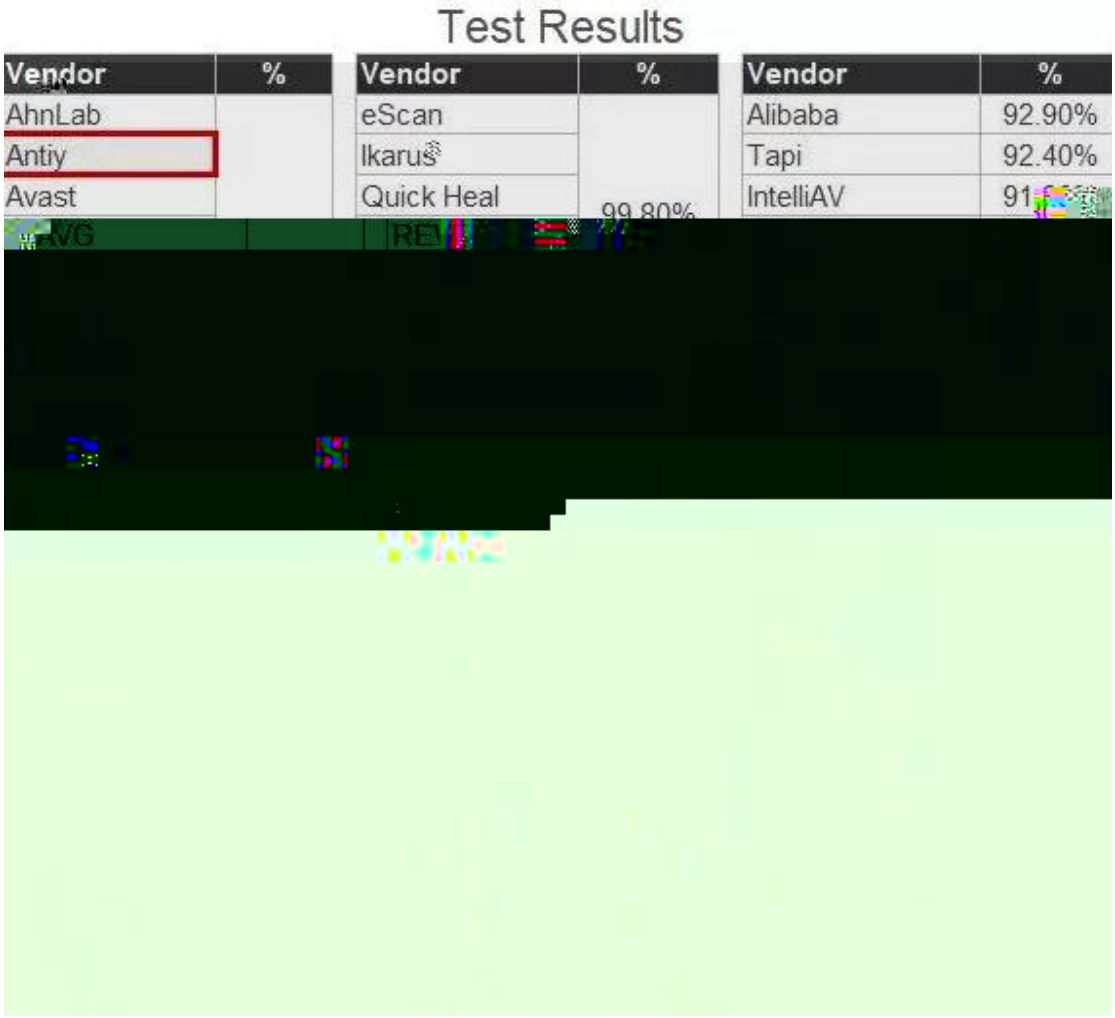
(EDR)

Gartner 2020 80% 25% 10%

AiLPHA

360TrustSpace 360

IT



2006

AVL SDK

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Fortinet

Checkpoint

+ 2019 03

kubectl :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 clusterrolebingdings

API CRD

2. Istio 1.1

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

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

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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

ISACA

CASB GDPR

IT CASB

ISACA CASB CASB

ISACA

GDPR

6. Sandboxed API

Sandboxed API

Sandboxed API C C++

Sandbox2 Linux ISE

“ Sandboxed API

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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