ɾ̇

Ɛ ʌ ɣ ɷ̈ Ɛ ⊢ ɣ ˜ ضر ì Ţ Ḇ ɤ

ɜ̈ ˚ ɕ Ɛ h ˪ ŋ ═ ƀ ˛ ƀ

ɤ ɜ̈ ɨ́ ì Ɛ ⊢ ɣ ˜ ɤ̣ ⊢ ˪ ì Ţ ʋ ˜ Ɛ

ʌ ψ ɤ ʅ ضي

ɤ ˪ ɨ́ ɜ Ɛ ⊢ ˪ ɣ χ ŋ ŋ

ŋ ì Ţ ⊢ ɤ ʊ̈ Ḥ Ɥ ʅ

Ɛ

Ɛ ɢ ʊ̈ ₮

Ɛ ˜

Ɛ ŋ ʌ ɣ ɣ ɾ̇ ŋ ʌ ɣ ˚ ɕ ɣ ţ ɣ Ð ʒ ʅ ψ

˜ ì Ţ ˚ ɕ ˜ ʐ Ḥ Ţ ɣ ⇔

Ɛ ⊢ ˜ ɜ ₮ Ɛ ═ ɐ W ʒ ʹ E

ψ ɣ ŋ ʌ ɣ ʐ ɢ ʋ Ɛ ŋ ˚ ɕ ˜ . W ɣ ŋ

W

ɤ ŋ ɤ ŋ ˋ E ˜ ₮ ʒ ɤ ŋ ˜ ₮

ɲ ǖ №̣ ꝼ ɢ ɲ □ ضي

Ɗ̣ ǖ ɲ ɲ شخ ǖ ج ᵐᵒ غ

ɲ شي Δ ⇔ ɲ `Ɛ̃ شي ˆ ƀ ´

`Ɛ̃ ɲ `Ɛ̃

2017 8 31

ꝏ ɛ ɲ

ᴇ ŋ˜ ρ̇ i
.....iii
ᴇ ρ̇ ᴇ+ ŋ˜ ᴘ 1
ᴇ ᴎ ᴇ˜ 1
ᴇ ŋ˜
1.1 AWS ᴛ ᴜ ᴝ ᴍ ᴠ ˜ ᴝ CNCF
1.2 ᴠ AWS ᴇ ᴇ˜
1.3 ᴇ ᴇ ᴇ ᴇ ᴇ ᴇ ᴇ
1.4 ᴇ ᴇ ᴇ ᴇ ᴇ ᴇ
1.5 ᴠ ᴇ ᴇ ᴇ
ᴇ˜
2.1 ᴓ ᴇ ŋ ᴇ ᴇ
2.2 ᴇ ᴇ ᴇ ᴇ
2.3 ᴇ ᴇ ᴇ ᴇ ᴇ

5.7 Ɛ ǖ “ ”
5.8 Ɛ

ʜ Ɛ˺ 9

˺

1.1 ɢ ǖ

˺

6.1 ŋ غ˝
6.2 ˝ ɛ غ ɛ

Ɲ ŋ ᵃᵒ ج ĭ̆ 18

ŭ̈ Ḡ ᴏ ʒ ▬

ǂ ≠

ᴓ˜

Ţ ᴇ “ ˜ ” ᴉ h ض ŭ̈ “ ƀ˜ ”

ŭ̈ ᵓ ŋ ᵃᵒ ج

ŭ̈ ί ↑ ŭ̈ Ɗρ ض

ꜰ ŭ̈ ᴓ̆ ί ˜ ɢ №

Ɛ́ ŋ Ɦ Ð 21

1. ŋ ̀Ɛ˜ **Respond Software SOC** ˜ . ᵃᵒ ج **1200** ˘Ḥ

2. ŋ ̀Ɛ˜ **Dragos A 1000** ˘Ḥ

3. ᴓ̆ ᴉ ǂ ڤ **SSL** ʒ ⊢

يجـ ρ̇ Ɛ + ŋ̄ ᘐ

Ɛ ᘓ ـيـ

1. AWS Ɛ ŋ̄

1.1 AWS ᘔ ᘕ ᘖ ᘗ ˜ ᘘ CNCF

ᘙ ᘚ ᘛ AWS ᘜ ᘝ ضي ᘞ ᘟ ᘠ ᘡ ᘢ ᘣ ᘤ ᘥ ᘦ ᘧ ᘨ ᘩ غ

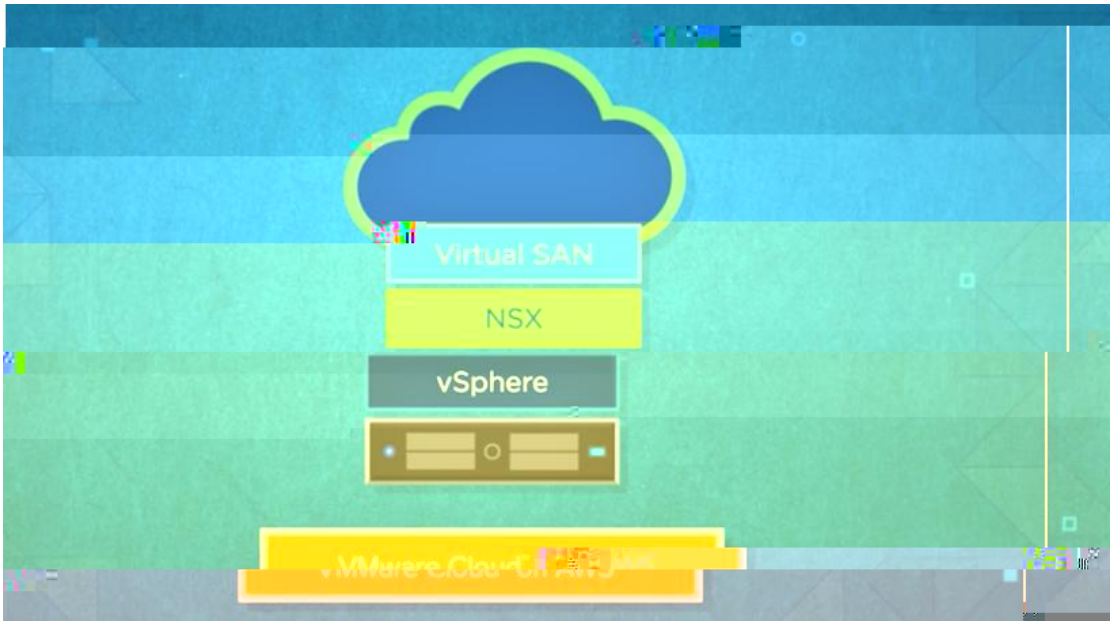
ᘔ ᘕ ᘖ ᘗ ˜ ᘘ CNCF ᘙ ᘜ ᘕ ᘖ № AWS Ɛ ◖

Adrian Cockcroft ᘗ ˜ CNCF ᘚ ᘕ AWS ᘛ Arun Gupta ᘝ

غ ᘞ ᘟ ᘞ

╠ᘙ AWS Azure Ɛ ˜ IBM Bluemix غ Ɛ CNCF ᘕ

ᘖ



ضي ⊢ h AWS يج ضر ٧ ˪ ɢ 2018 h ŋ VMware Cloud on AWS VMware Cloud Foundation ˪ ̈Ḥ ą ɪ ıı VMware ï̀ ì̀ ▯ ≠ AWS ɪ ɔ ´ № IoT ŋ ˗ ⊢

1.4 AWS ⁘ Amazon Macie ⊢ ɔ̃ ɜ̈ ᵐ ج

AWS ⁘ Amazon Macie—— ⊢ ضي ≠ ɔ̃ ɜ̈ ˪ ↑ ɣ ï̃ Amazon S3 Ữ ضي AWS S3 ˜ Ţ Amazon Macie ≠ ˪ ǖ № ≠ ɑ ̣ ʍ Ḥ ɣ ï̃ ƀ Ḥ ٧ Ḥ غج Macie ⊢ ƀ ˗ ˗ h ŋ فج ǖ Amazon Macie ضي ˙ ˛ Ṝ ì̀ AWS Ữ ⊢

1.5 ˇ AWS ⊢ ɔ̃ Ḥ

يج ̀Ẽ ɪ ıı ʒ 180 ʁ ≠ ʁ ɑ ̣ Ḥ ̀Ẽ ⁘ ʁ ≠ ʁ غ يج FBI Ḥ Ţ´ Ɔ O ضر ɨ ₮ № ψ ŋ ˜ غ № ά ˜ ´ Ɔ ˛ غ ʍ Ḥ ŋ ̀Ẽ UpGuard ضي ˜ ì̀ Ḡ ˇ ⊢ AWS ⁘ ǖ ʒ № U Ӈ ʒ ˛ ∞ ˛ Election Systems &Software ̀Ẽ ̀Ẽ ɥ 42 ɑ ˪ غ ⊢

2. GOOGLE Ɛ˗

2.1 Ɋ Ḥ ŋ Titan Ɛ ⊢

Ɋ Titan ɤ Ɛ Ḥ ŋ ʐ Titan

ɥ Titan Ţ ⊢ ƨ غ ⅵ Titan Ð

Ḡ Ð Ǖ K v ˗ Ḫ Titan ƨ Ɋ˗

↑ `Ẽ ضي Ɛ شي M شي `Ẽ Gartner ╟ T

شي 500 ˝Ḥ

2.2 Ɛ ₮ . ⊢

₮ ⊢ Ḃ ƀ ▯ D ≢ ƀ Ɛ D

ɥ ɥ L `E ˝ Ɛ ⊢ L ـد ₮ E ‰ Ḡ ɣ ʊ

33 ⊢ № ɥ ʊ “ ” غ “ ‰ ” Ḥ ≢ ỉ Ţ ˜

D ‰ ↕ ɥ ˢ ƀ E

ʊ ε غ ɲ `Ẽ Cedexis L ɥ ʊ

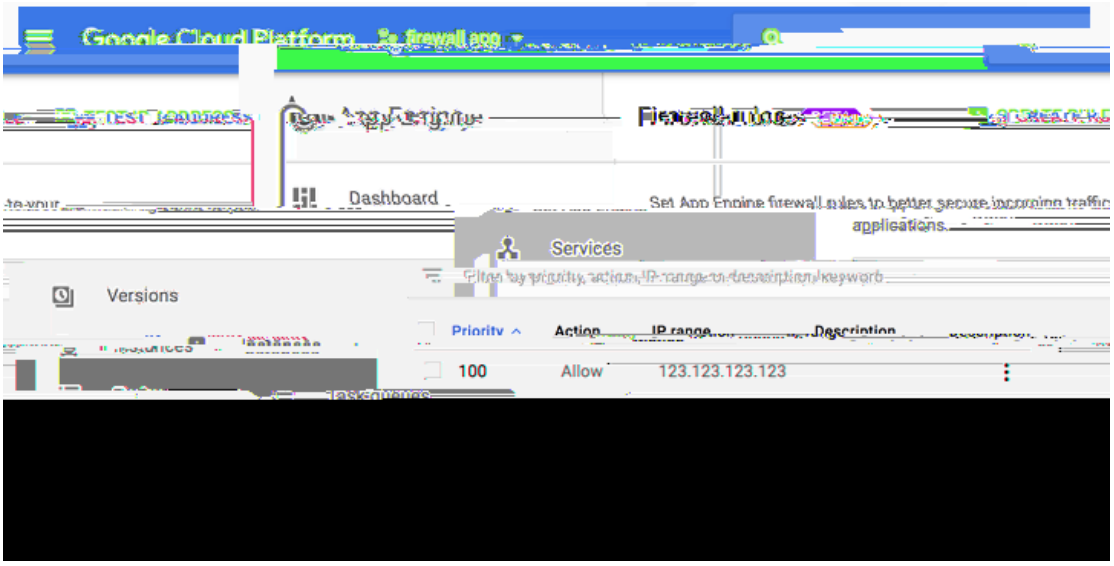
غ ‰ Ḥ ⅵ ≢ ضي HTTP 50 № β غ ‰ ƈ g

ɲ ƈ g ɥ 5,401kbps ‰ ƈ g ɥ 3223kbps

2.3 Google ˆ1 App Engine Ḃ Ǖ L IP

ɥ ʊ Ḃ Ǖ غ 2 ˈI Ṣ ↑ App Engine L Google ₮

ʊ ŋ ʍ



ǖ ıˇ ɣ Ṣ ↑ ppF1 9 5(E)8(ng)10(i)4(ne11102 5 7142 34 9431 0 0 41 11102 5 7442 Tm0 g ǂ 5302 8 5 61F

ƀ ǐ ɪ Azure Ɛ ⊢ ǐ Ţ´ ⊢ DocumentDB ɣ ǐ̋ ǐ ɪ ⁂ ⊢ (ᵖ

4.3 Ḥ ь Ɛ„ ƀ ˜ ▯ ٧ Ţ ٧ „ Ɛ ﺵﻲ

. Ӣ ٧ Ḥ ь Ɛ „ ҽ ӧ ѱ ї̆ „ ƀ ˜ ▯

٧ Ţ ٧ „ Ɛ ﺵﻲ ӧ ϖ Ɛ „ Ɛ й „

ʒ ɨ Ⱶ ʒ ɣ ї̆ Ɛ ﺽ `Ɛ Ɛ Ⱡ ŭ ч ο ʂ

└ g, Ɛ

Ḥ : ⇔ ɢ ﺽ Ţ ېږ ۏ ϖ ٧ Ţ ٧ ĸ ٧

. ɛ ɛ Ɛ Ţ ч ʂ └ “ ŋ ” Ɛ

ϖ Ɛ Ⱶ ˜ ↑ ο ʂ Ɛ ʒ ɨ ӧ ▯ `Ɛ̃

˩ Ɛ ېڵ ٧ Ɛ Ɛ Ɛ ˜ └ ɾ ३ ∫ ŋ β

Ⱶ ٧ Ţ ﺽ ٧ ʂ Ɛ Ⱶ └ ﻱ

4.4 Ɛ ь ´ ˜ h “ ” Ī ¬

ɢ . ﺽ . ﺽ “ ”

ɨ ӧ Ɛ ▯ ´ ˜ h “ ” Ī

¬

4.5 Ɛ ь „ ƀ

. Ր ٧ ь Ӣ Ɛ `Ɛ̃ „ ƀ

Ɛ Ꮒ ʂ ч ٧ └ ь Ⱶ ´ ˜

˽ ˜ ӧ ь´ ʊ ѵ ь ﻱ ʂ ˜ ▯ ҕ

4.6 Ɛ ₣ ѵ ▬

Ɛ ₣ ѵ ═ Ḡ ˜ ɣ ɾ Ⱡ ҩ

№≠ № ӧ ᴰ Ţ Ḡ ŋ ᵝ Ḡ ṗ

ŋ

Ɛ ѵ ═ ⁘ ѵ ۏ ﺽ ṗ

ѡ ٧ ą ṗ Ӣ ∫ ﺽ ð Ӟ ѵ

ꓢ ⁘ ᴰ № ӧ

5. Ɛ˗

5.1 Ɛ ǖ ǖ ⅞ ǖ

Ɛ ǖ №˛ ˆ˥ ǖ ǖ

ǖ ᴇ Ṿ ǖ ǖ ˆ˜ ʳ № ɥ˄ˆ˄ˆ ǖ

غ Ţ ᴏ ʒ ì Ӟ Ѣ □ “ ʊ غ ʳ Ɛ ⊢ ǖ ɤ ˜

Ɛ ⊢ غ ˚˚ ج ʷ ʅ ش Ţ ᴏ ʒ ˜ ↕ ض G

غ ي ʒ ⇔ ”

- Ɛ لج Ạ ˆ Ʒ ⇔ ض
- Ɛ ᴍ ǖ №˛ ᴇ Ṿ ɡ ǖ ˊ ˜
- Ɛ ⇔ ʒ ⇔ ʒ ˋ Ɛ˜ ⇔ ʒ

5.2 Ɛ DevOps ǖ ᴅ

غ

5.7 Ɛ ǖ “ ”

Ɛ ₮ ŋ ŋ Ḡ ᴰ ▯ ɤ ŋ˚˚

ج ᴸ ▯ ɤ ɤ ʐ ɾ ɯ ʃ ɯ

ŋ ث ɯ ṗ ⇔ Ũ ᴰ ą ɣ ɑ

ƀ ▯ ŋ

ɤ ˗ ɤ ᴍ

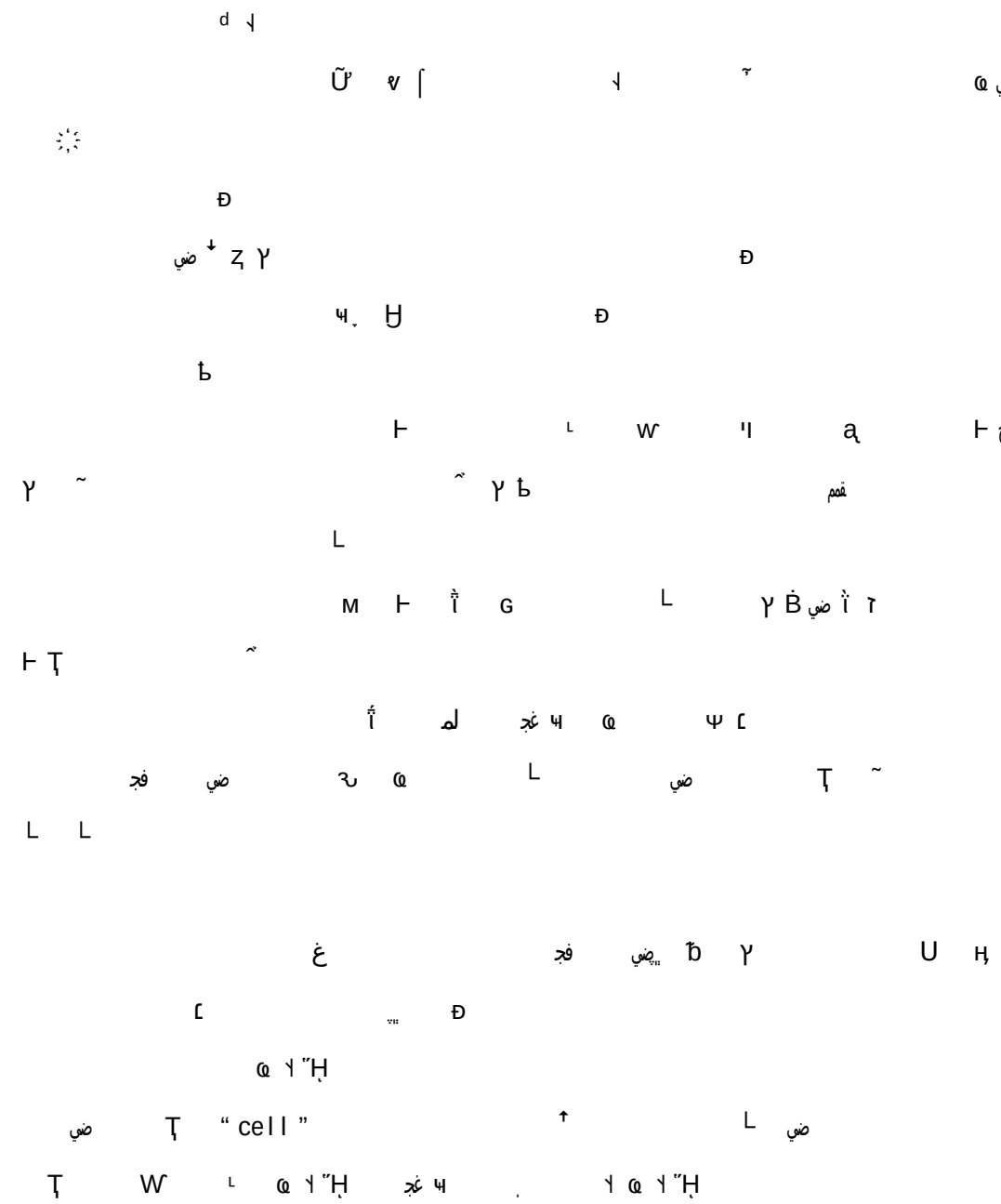
ʷ ˑˑ Ɛ ŋ ŋ ᴸ . ŋ

5.8 Ɛ DDoS

Ɛ ضي ˑˑ ɋ Ƀ

ضي ĭ ɔ ɤ ▯ ˚˚ ₯

ˑˑ ƀ



2. Easystack ˉ

2.1 EasyStack ₮ ŋ ɑ AI ɛ ˜

. ‹ ǖ ̀E˜ ₮ ŋ ɑ ▯ ɛ̇

ˉ ɛ ˜ ɣ ʒ ɔ ʒ

3. ˇ Ḥ

3.1 ˇ Ḥ ˝ ˆ ʐ ǖ

ˇ Ḥ ˝ ˜ ʒ̇ ˜ ˪ ǐ ⊢

ضي ˪ ˝ ʐ ˙ ˇ Ḥ ʒ̈ ضي ʒ ʊ ǖ ʐ

ʒ̇ ˥ ǐ № ʒ ▯ ضي ≢ ˥ ƀ

ˇ Ḥ ⇔ ˆ ʐ ʒ h ǐ r. ŋ ǖ

4.

4.1 ₮ Ɛ ŋ ▬

ضي 6 ŋ IP ظم SReXperts . ˛ ˙ ˙ ˇ ₮

ʊ Ɛ ŋ ▬ ▯ ǐ ضي

˝ ƀ Ɛ ŋ ▬ . . ʌ D ˚ ج . ɥ ʒ̇ ŋ ʐ ʒ

ضي ŋ Ţ ˜ ʊ Nuage ˋE˜ ˇ Nuage VSS ŋ ⊢

˜ ˜ ŋ ʏ ʏ

4.2 ɵW ´E Techworld 2017 Ψ

2017 8 4 ´E Techworld 2017 Ψ ضي ˛ ƽ ɵ

Ψ ʊ ŋ ǖ ɔ ŋ ضر

ʒ ضي Ţ ǐ ƀ ɥ ɔ “

˜ ” ⇔ ▯ Ạ ˙ Ǵ ˜ ضي Ǵ

Ψ Ţ ◖ ˋ ɥ ʃ ʒ̈ غ ⊢ ɥ Ɛ

˜ ˜

5. 360 ɔ ʒ ŋ

oS Ɦ Ð Ɗρ ʏ p № ĩ Ɗρ

ᘓ C ⊢ غج ĩ ⌠ Ħ ǰ ₮ . 1 ɑ ⊣ ǖ

ǖ oS ƊρƗ Ð D

8. Fortinet

8.1 Fortinet FortiGe . ŋ ج AWS VMware Cloud

ŋ ŋ ـيـ Fortinet ĩ ₮ FortiGate ŋ ج AWS VMware Cloud FortiGate ŋ ج ɢ VMware Ɛ h AWS ⁝ ̀E VMware Cloud ŋ □ FortiGate ŋ ج AWS VMware Cloud ŋ ˜ .

8.2 Fortinet ᘓ h Ţ ɔ ʒ غ ŋ ˪ ـيـ Ɛ ŋ˜ . غ №

Fortinet Ӈ h Ţ ɔ ʒ غ ŋ ˪ ـيـ SaaS ˜ FortiCloud ˆ

₮ FortiCloud version 3.2 ˪ ˜ . غ ɯ ɯ

ɑ Ţ SaaS ɔ Fortinet ĩ ɪ ج FortiGate FortiAP FortiSwitch Granular access controls application usage policies sandbox integration □ ⅄ ɑ ج

غ ĩ ɪ № Ð

ضم ᘓ ĩ ŋ˜

1. ᘓ ŋ ̀E˜ NeuVector ₮ ᘓ ᘓ ŋ ˜

ɥ VIC vSphere Integrated Containers ᘓ ɑ ᘓ ضي Ғ vSphere ᘓ ˜ ⁝ ɾ ̈Ḥ ɑ ĩ VMware غ ĩ ɥ ᘓ ˪ ᘓ ˜ ŋ

NeuVector ᘓ ŋ ˜ ˜ ʏ ضي´ VIC ضي ṗ ⅄ ᘓ ˜ ⁝ ضي VIC Ţ NeuVector˜ ʏ ˪ ĩ ᘓ ŋ ɯ ʏ Ḡ ɢ VIC ŋ ´

- ǖ h غ ᘓ ˜ ضر ضي VIC ⁝ ᘓ
- ᘓ ɑ ɥ ʒ ⇔ ŋ
- ɑ 7 غ ᘓ غ

- ضي VIC Docker ʜ ⁘ Docker ̃ ŋ
- ضي VIC Ţ كح
- كح غ ʜ ٱ غ ٱ ٱ ̃
- ʟ ʜ ŋ ̣ غ

2. Aqua

2.1 Manifesto ɑ ʌ قمم

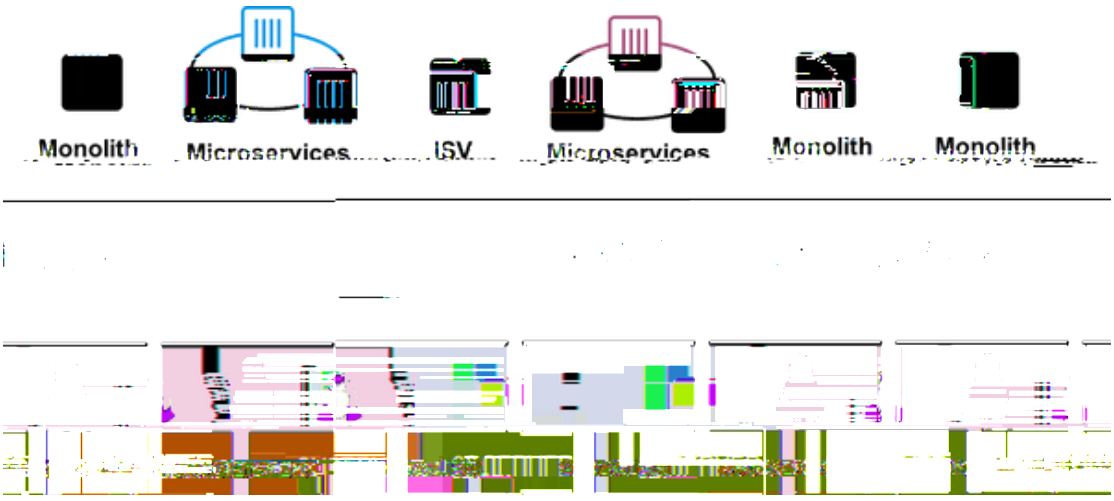
Manifesto ɢ ضي كح ̈E Ũ ̈Ḥ ٱ ̈Ḥ ̃ ɣ Ḡ ̃ Ð Ḥ Ǯ ̃ ɣ ą ˈ Ḥ ⇔ ̄ ̣ ٱ ʜ Kubernetes ɤ ̈Ḥ

2.2 Kubetnetes ٱ

ضي Kubernetes ̃ ▯ ŋ Ǯ ɥ ɔ ʒ ̃ ɥ ̀E ⁞ ŋ ≠ CIS Center for Internet Security ضي ₮ ʊ Kubernetes Benchmark ‰ كح ŋ ʌ ɹ Aqua ɣ CIS ₮ K8s Benchmark ƀ ɥ ₮ ʊ ŋ ٱ Kube-bench

Aqua ̣ Liz Rice ٱ ą Go Ð ↕ ̀l ɢ YAML ٱ Ǯ JSON Ḃ ą ̣ ٱ ɪ ̄ ̣ ٱ ضي ʁ ⊢ U ʊ ɒ ǖ Kubernetes ʃ ̈ Ǯ ψ ʒ ʋ ˎ ᴅ K8s ⁘ ɑ ƀ ŋ ʟ Ð

3. Docker Enterprise Edition ǖ ɔ ʒ EE 17.06



Docker ᴏ ʒ EE 17.06 ´ Ƨ ɢ Windows Linux غ Linux قمم

CaaS ʜ ᴨ ᔭ ˜ ᴏ ʒ ˏ Ţ ᴏ ʒ ´ ɢ

Linux غ Windows ᴅ غ ⊢ ɢ x86 ⊢ كح قمم غ `E ˝ Ɛ Docker

EE ˈ ˏ ⌠ ᔭ ˜ Ţ ˜ ˡ غ ˡ

غ ʏ ĭ ˉ . ᴅ ˡ

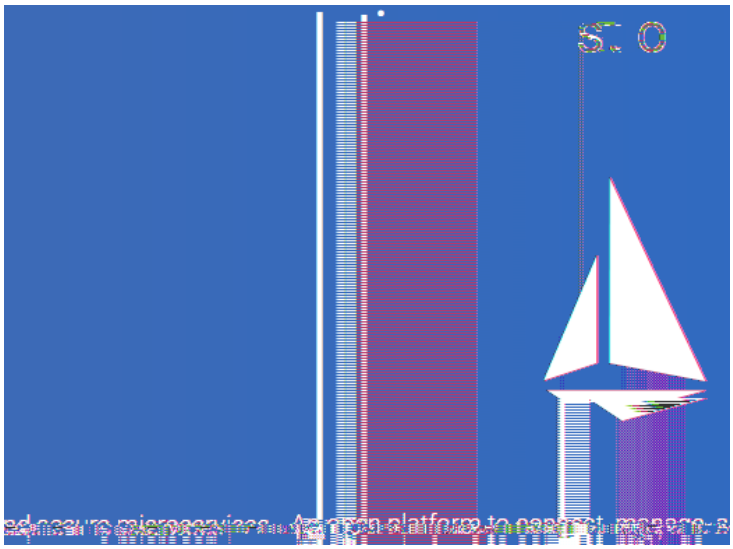
Docker EE ضي ضر غ Ɛ,ʿ;ʿ Windows Linux غ قمم ᑫ ᑫ ═

ᑫ ʜ ʷ ´

- Docker Windows كح ث ˡ ´ يح ˝E overlay networking
- ą overlay networking Windows غ Linux ɾ ˏ

- ضر Windows Linux غ قمم ˏ

4. Istio ⊢ ŋ



Istio ɷ ˜ ˡ ʒ غ Ḡ ⊢ Istio

⊢ ʜ غ ˏ ˈ ƀ ⊢ ᑫ

- HTTP gRPC غ TCP Ḥ ˉ
- ą ɣ ↕ غ ˜ ᶣ ˡ
- ɷ ˜ غ API ˡ ˡ غ
- ˉ غ ṗ غ ₮
- Ţ ⊢ ʜ ĭ ᴍ Ḡ ⊢ ⌠ ⊢ ŋ ᴍ

Istio ╠ Kubernetes ˜ ⅞ضي ƀ ɣ Ɛ Mesos غ ï ɾ ˜

5. CoreOS Tectonic 1.7.1 ضي Azure Kubernetes



Ɛ غ . ḯ ɔ ɔ ʒ IT ƀ Kubernetes

ɥ كح h ʟ ḯ CoreOS غ ‥ ƀ ɔ ʒ Kubernetes

═ CoreOS Tectonic ʃ Azure ˜ ʏ ضي Ɛ ˜ ⁘

Kubernetes ƀ

6. ₮ OpenShift كح ˜ 3.6 ʌ Ɛ Ḡ غ

6.1 ŋ غ‥

- PCI DSS ᵒᵒ ج ↑ ˈ ï̀ Ũ D Ḥ ɴ ɔ ʒ ɔ PCI DSS v ɔ̈ OpenShift كح ˜ ▯ ɔ ɾ ا ضي ═ غج
- Secrets ɤ w غ ˝E O U˜ Ũ Secrets ɤ OpenShift 3.6 ɥ ˜ ɤ ɔ O G Ţ يج ˝E ṗ Ḡ ضي ⁘ Ð Ӟ
- ɴ ƀ ▯ ʏ ḯ غ ʟ U ɴ ضي ʟ ⊢ ▯ ═ ⁘

6.2 ‥ Ɛ غ Ɛ

- ⊢ Ţ : Broker غ ⊢ ↑ ʟ غ ƀ ضي Ţ `E Ɛ ⊢ ɾ ا OpenShift
- OpenShift Ţ : ↑ ⊢ OpenShift

ⵜ ضي OpenShift ⵜ كح ⵜ

●

≠ ˥ ʷ ɣ ʷ ˩U˜ ≠ U˜ ᵝ ɣ WiFi

ɲ ṕ ɔ 60 emoji ɔ γ

ضي ŋ З ˥ ˜ γ ą APP We

Intelligent46(ce)-(60A)

20 ɑ ˍ ˍ Ȍ ᴗ ⁘ ᴓ̈ شخ ᴓ̈ 4000 ɑ Ḥ˘ ᴓ̈

˘ 300kbit ŋ شخ ᴗ 1.1kbps “ ˘ ” ᴗ

Ψ Ƃ ⁘ ɑ . № ᴓ̈ يج ضي 2030 ŋ

Ḥ ⁘ ∩ ضي Ḥ ⁘ Ψ غج ᴗ ضي Ḥ

Й̧ 7 ⌠ κ v ∩ ᴗ ɐ Ḥ Ψ ˘ Ţ يج

⅞ ˜ ɲ ⅞ ʜ Ţ يج ضي ⁘ 2ˍ Ţ يج ˌ 2015 ضي

⁘ ˜ ⌠ ᴝ 1010ˍ

5. Cylance ᴓ̈ ᴗ ŋ˚ ج

Cylance شي ᴓ̈ ᴗ ŋ˚ ج Cylance PROTECT Home

˘ ” Edition “ Ø

7. ESET

ESET Industroyer IDA Pro IDAPython OPC Data Access Havex RAT Win32/Industroyer

1. Respond Software SOC 1200

Respond Software 1200 SOC

№ Ӟ `Ɛ̃ ˏ ƀ ي‌ٮ̣ٮ̣ “ № ” ح Ӟ ƀ □ “

ч № ” ɢ № ـ ضي ~ ˘ ڏ ƀ ч ضي ~ ˘ Ḥ

ӊ U ˆ ɣ ч ǟ ˥ ~ ˘

Ɦ Energy Impact Partners (EIP) غ Allegis Capital □ Ӟ ʃ ʒ DataTribe

DataTribe ضي Dragos 2016 8 Δ ⇔ ʒ ʒ 120 ˝Ḥ ↑

3. ᾤ ˥ ₮ ڤ SSL ʒ ⊢

DigiCert ˥ ᾤ ŋ ʒ ⊢ ᾤ Ɦ ψ ŋ r ═

ضي 2018 Q3 ˥ ᾤ ╠ ψ 9.5 ˝Ḥ

ضي U DigiCert ʒ ⊢ 30% Chrome ح ɾ 10

ƀ ʼP Ḥ к ᾤ SSL й ᾤ ˙ ї SSL ǖ й ʒ ⊢ ₮ ڤ

DigiCert ضي № ʌ غج ╠ ᾤ ي‌ٮ̣ٮ̣ SSL ˪ ي

Comodo غ IdenTrust ӊ U شي м ч 14% ɛ ⁘ 5.5% O ї SSL й

DigiCert شي м ч 2.2% й № ɢ ɛ 0.9% ضي شي O ʹE ƀ DigiCert ضي

IoT ي‌ٮ̣ٮ̣ ƀ SSL й ї ɢ ضي غ ˪ ي ⊢ ح ӊ ɤ

4. `Ɛ̃ Flashpoint 2800 ˝Ḥ C

غ `Ɛ̃ Flashpoint 2800 ˝Ḥ C `Ɛ̃

ї ʒ ⊢ ث O ч “ ʒ ⊢ ” BRI ₣ ɢ ɾ غ ǖ `Ɛ̃ ⁘

ƀ D ˪ ي ضر Ӄ ´ غ ї ї

Flashpoint `Ɛ̃ ч ˪ ˆ ї ضي H ˆ ɣ ї

↑ ɪ ч v ڏ ї ʒ ⊢ ⁘ Ӄ ↑ №

ˆ BRI ⁘ Flashpoint ╠ ʒ ⊢ ї ڤ Ḡ ã ˥

r Geogian Partner ´ Greycroft Partners

Bloomberge Beta Cisco Investments