StorPool Cloud Infra Cafe

Cloud Infra Cafe 3.0: Which use-cases and XaaS services are growing now?

Presented by Mark Coleman
DIRECTOR, DEVELOPER RELATIONS

About Me

- Director, Developer Relations at Packet
- Marketing Chairperson CNCF
- Recovering coder
- Live and work in London

About Packet

Packet empowers developer-driven companies to deploy physical infrastructure at scale. Together, Packet and Equinix are on a mission to **protect**, **connect**, and **power** the digital world with infrastructure that moves at software speed.

About Packet

Founded in 2014 by industry veterans, Packet set out to Build a Better Internet™
by empowering developer-driven companies to deploy physical infrastructure, anywhere.

60k MONTHLY DEPLOYS	**22k** PLATFORM USERS	**140+** TEAM MEMBERS
60 SECOND INSTALLS	**850** CORE ACCOUNTS	**22+** GLOBAL LOCATIONS

Trusted by the Best

Packet currently provides infrastructure to leading SaaS companies and Enterprises.

State of the OpenCloud 2019

Dharmesh Thakker
Dan Nguyen-Huu
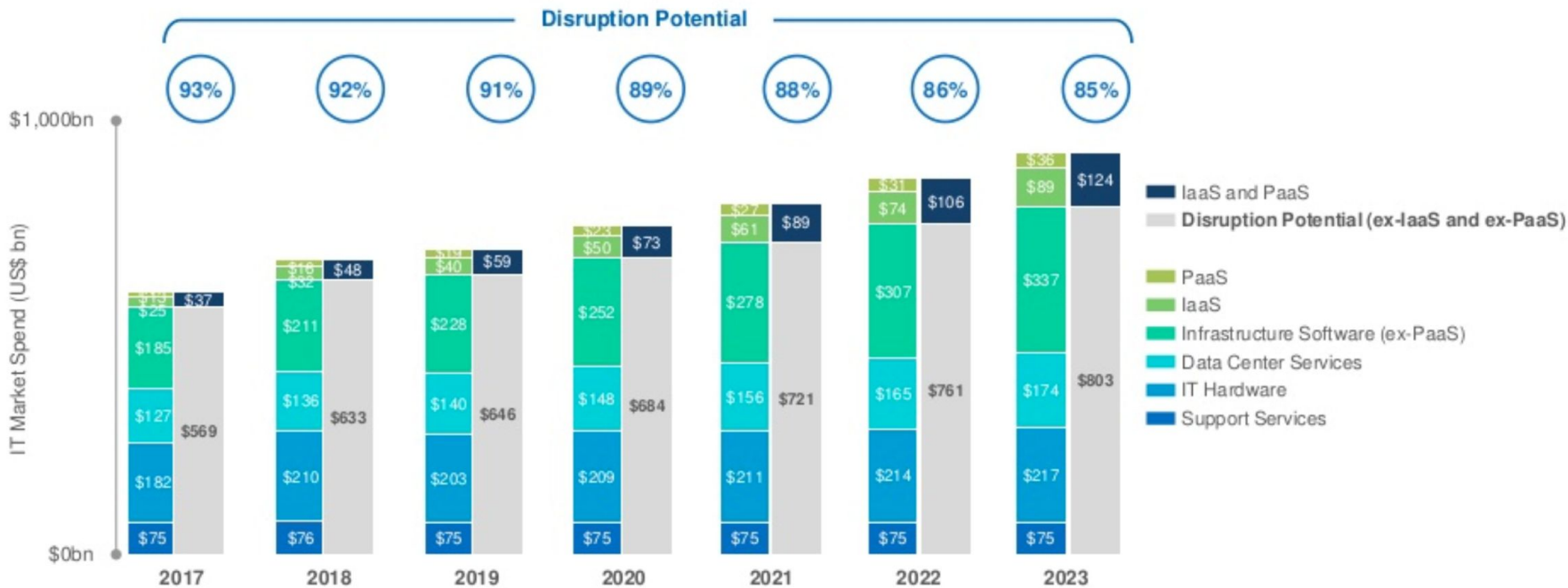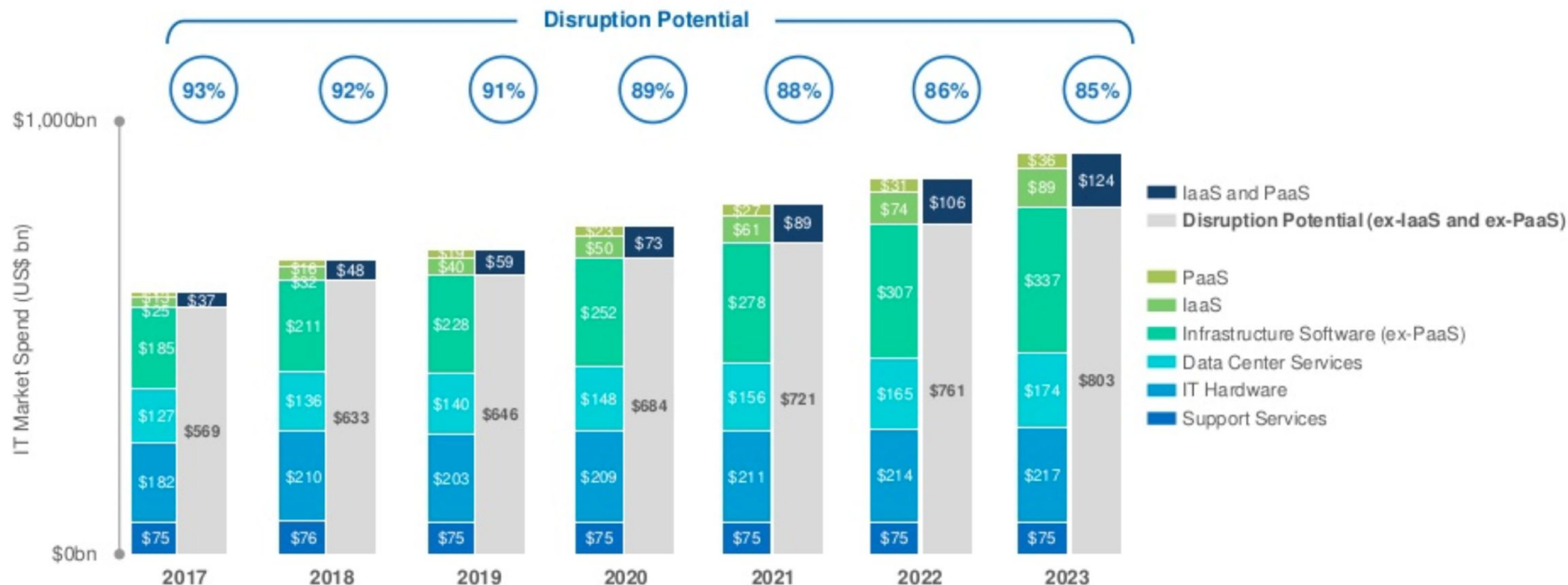Danel Dayan

Battery

Cloud Infrastructure Adoption is Still Nascent and We Are in the Early Innings

Disruption Potential

Cloud penetration is still early at only ~10% of ~$700B in overall infrastructure spend in 2019.

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Cloud Infrastructure Adoption is Still Nascent and We Are in the Early Innings

- **PaaS 2.77x**

Disruption Potential

| Year | 93% | 92% | 91% | 89% | 88% | 86% | 85% |

Legend:
- IaaS and PaaS
- Disruption Potential (ex-IaaS and ex-PaaS)
- PaaS
- IaaS
- Infrastructure Software (ex-PaaS)
- Data Center Services
- IT Hardware
- Support Services

IT Market Spend (US$ bn)

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$1,000bn

IT Market Spend (US$ bn)

	2017	2018	2019	2020	2021	2022	2023
IaaS and PaaS	$37	$48	$59	$73	$89	$106	$124
PaaS		$19		$28	$27	$31	$36
IaaS	$25	$32	$40	$50	$61	$74	$89
Infrastructure Software (ex-PaaS)	$185	$211	$228	$252	$278	$307	$337
Data Center Services	$127	$136	$140	$148	$156	$165	$174
IT Hardware	$182	$210	$203	$209	$211	$214	$217
Support Services	$75	$76	$75	$75	$75	$75	$75
Disruption Potential (ex-IaaS and ex-PaaS)	$569	$633	$646	$684	$721	$761	$803

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Disruption Potential

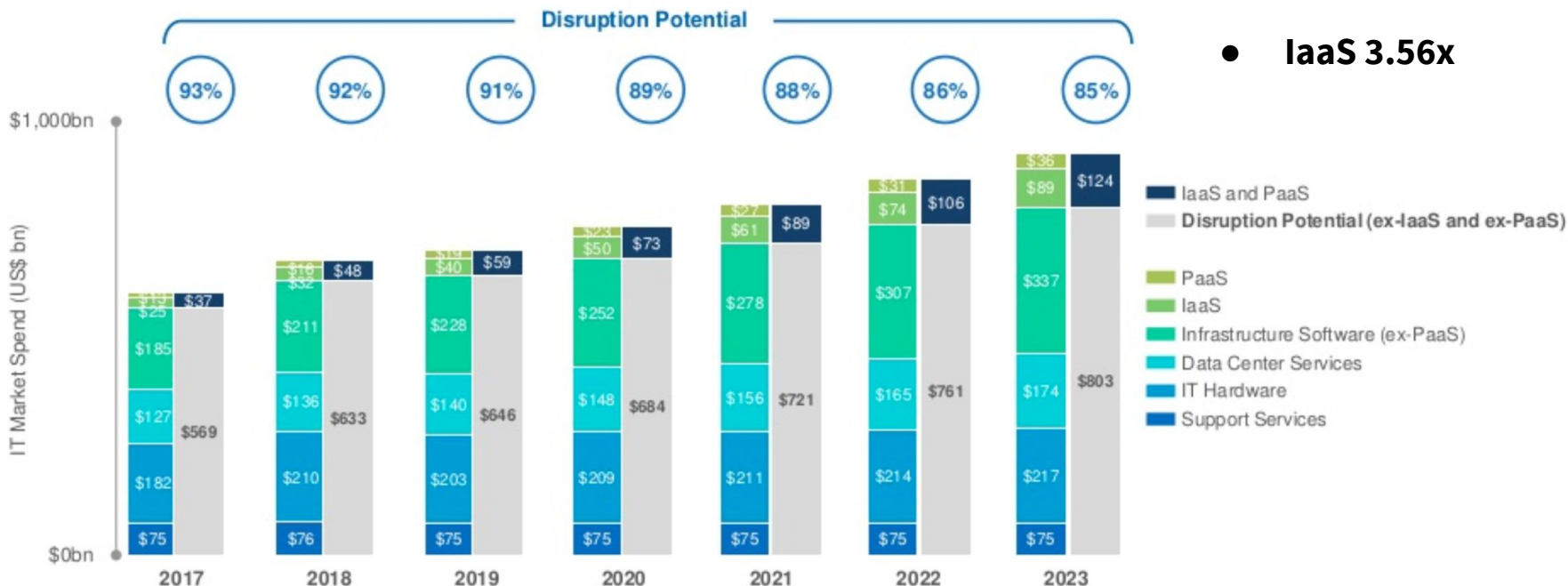- **PaaS 2.77x**
- **IaaS 3.56x**
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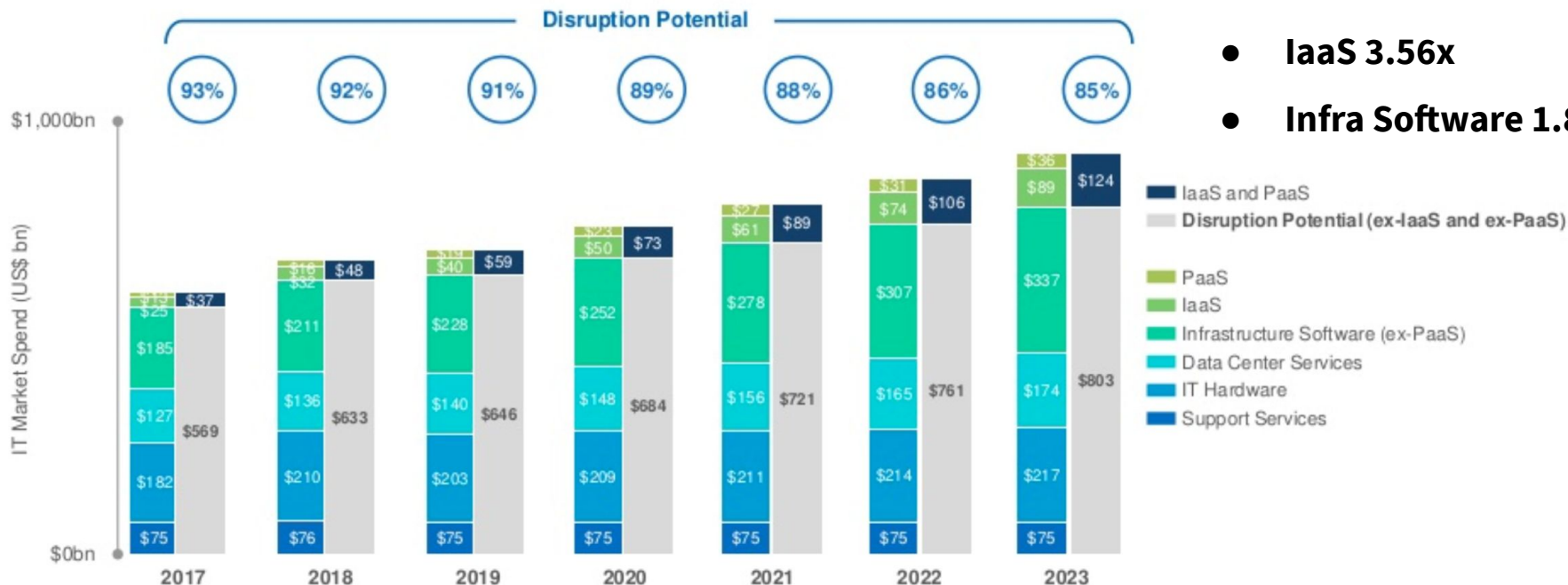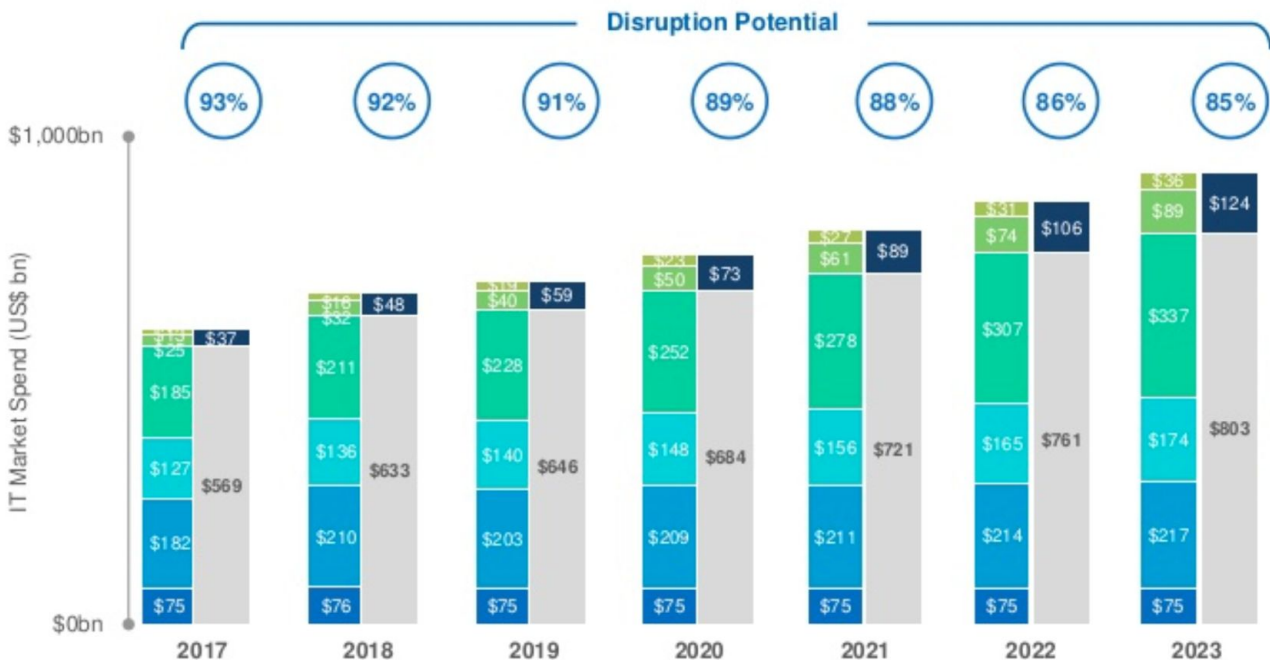# Cloud Infrastructure Adoption is Still Nascent and We Are in the Early Innings

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- **DC Services 1.37x**

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IT Market Spend (US$ bn)

Year	93%/92%/91%...	IaaS and PaaS	Disruption Potential
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2018	92%	$48	$633
2019	91%	$59	$646
2020	89%	$73	$684
2021	88%	$89	$721
2022	86%	$106	$761
2023	85%	$124	$803

2017: $25, $185, $127, $182, $75
2018: $32, $211, $136, $210, $76
2019: $40, $228, $140, $203, $75
2020: $50, $252, $148, $209, $75
2021: $61, $278, $156, $211, $75
2022: $74, $307, $165, $214, $75
2023: $89, $337, $174, $217, $75

PaaS values: $36, $31, $27...

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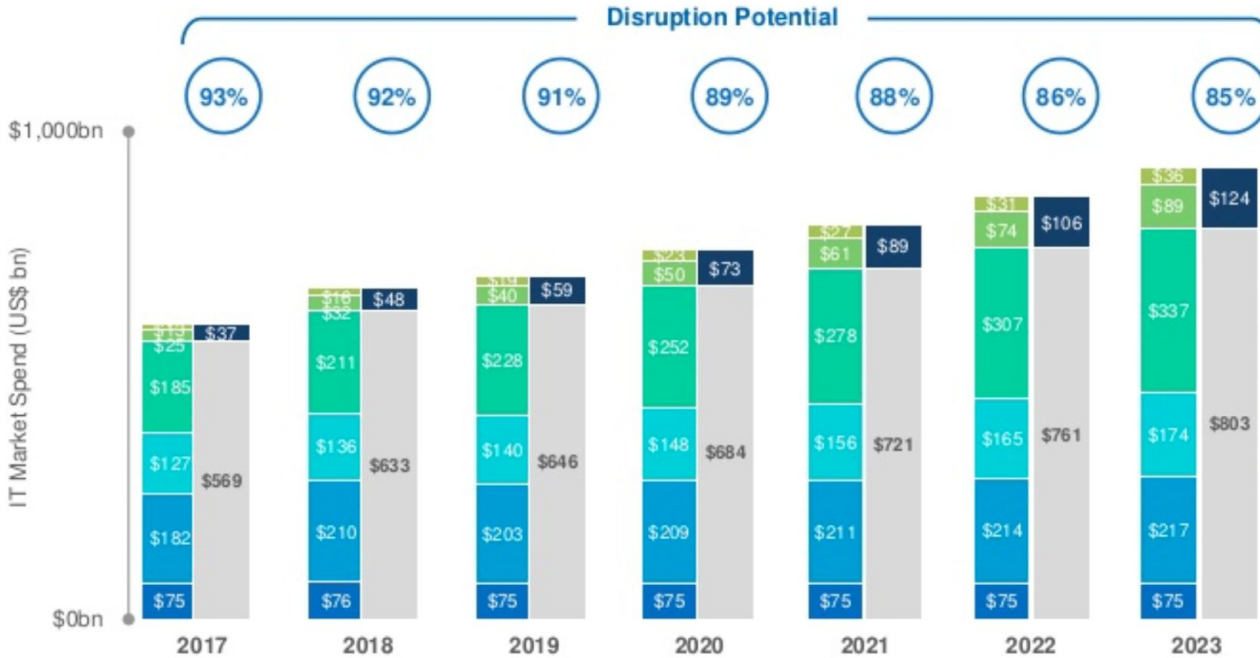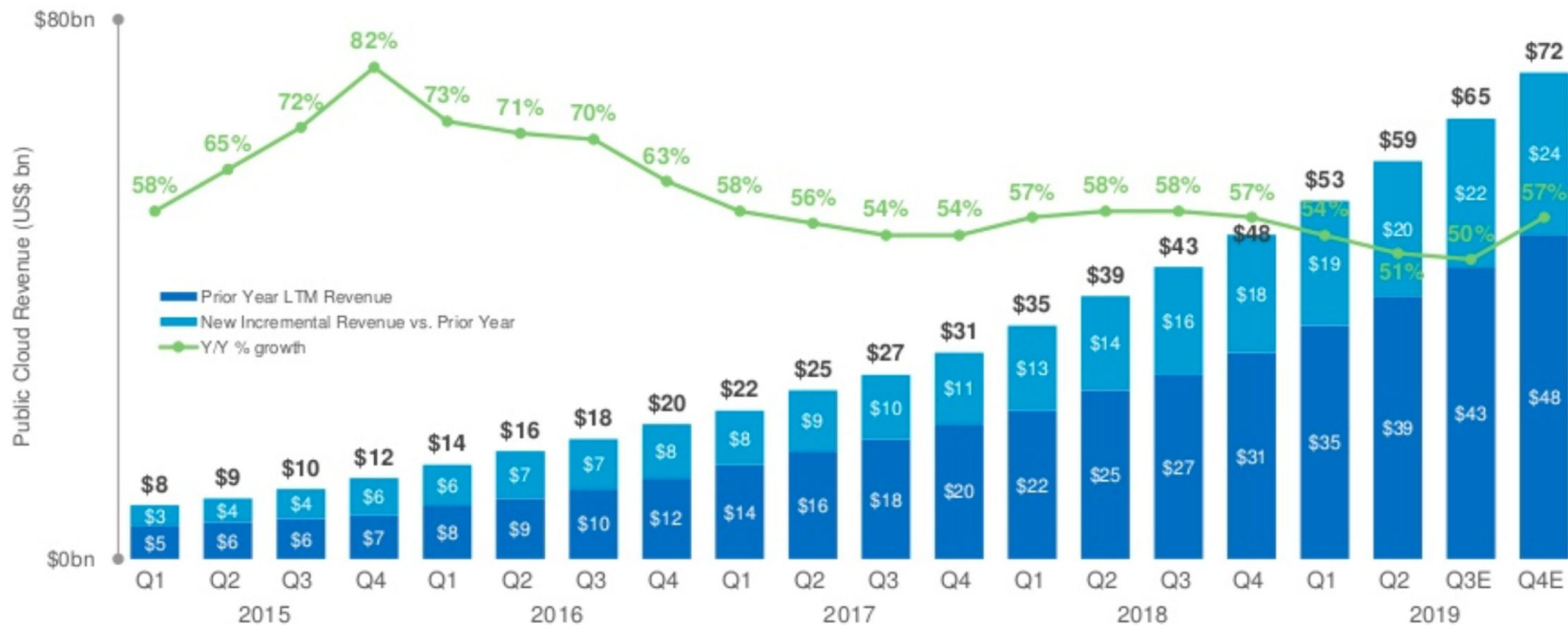# Cloud Infrastructure Adoption is Still Nascent and We Are in the Early Innings

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- **Support 1.0x**

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Source: Gartner Market Databook, Goldman Sachs Global Investment Research.

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Public Cloud Vendors Are Massive and Growing Quickly

Public cloud vendors added ~$20B in LTM revenue and are expected to continue growing at +50% Y/Y.

Source: Company Data, Goldman Sachs Global Investment Research. Cloud vendors include Google Cloud, Alibaba AliCloud, Microsoft Azure, Amazon AWS, Oracle IaaS + PaaS, Salesforce App Cloud, and Rackspace.

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"Horizontalization" of the market

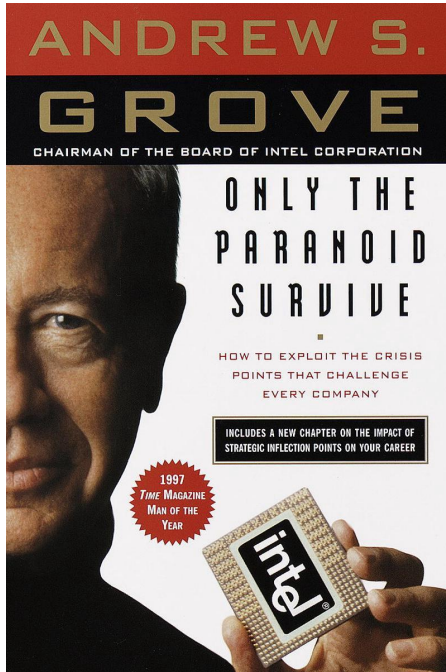*Tech giants are moving to capture workloads on-prem and on other clouds*
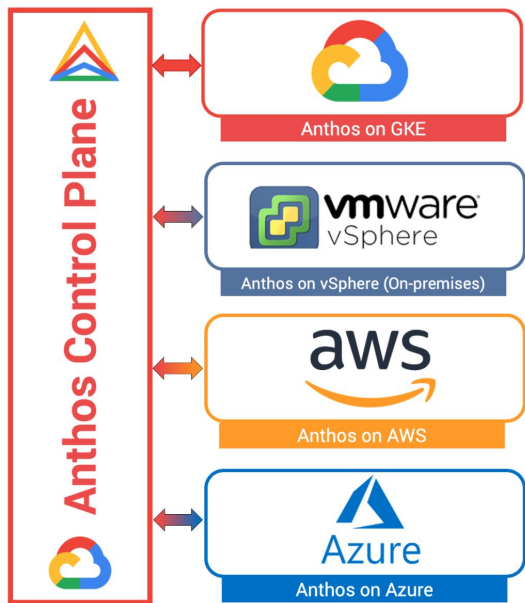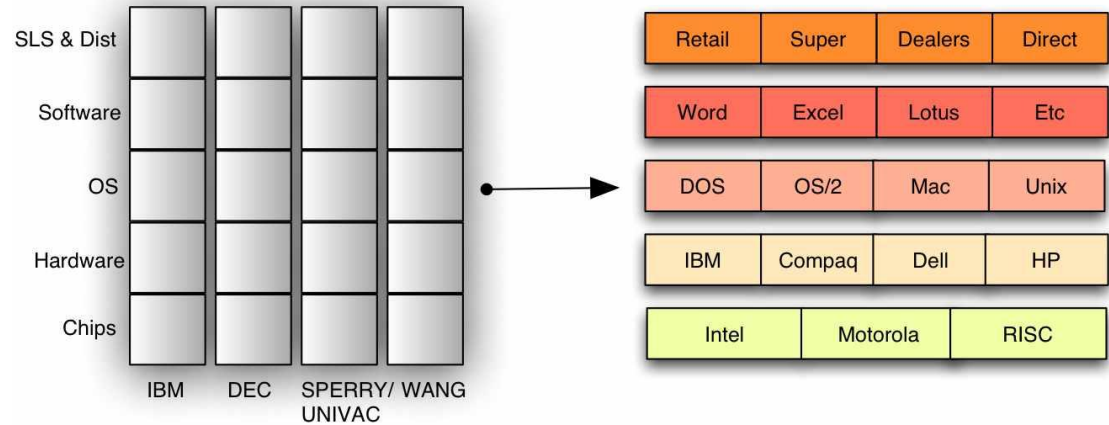

Anthos Deployment Targets   JANAKIRAM MSV

A 10x inflection point?

Vertical to Horizontal Transition in Computer Industry

	IBM	DEC	SPERRY/ UNIVAC	WANG
SLS & Dist				
Software				
OS				
Hardware				
Chips				

Retail	Super	Dealers	Direct
Word	Excel	Lotus	Etc
DOS	OS/2	Mac	Unix
IBM	Compaq	Dell	HP
Intel	Motorola	RISC	

Source: Adapted from Andy Grove (Only the Paranoid Survive), Carliss Y. Baldwin & Kim Clark (Designs and Design Architecture)

One marketplace to rule them all?

{* SOFTWARE *}

Redis has a license to kill: Open-source database maker takes some code proprietary

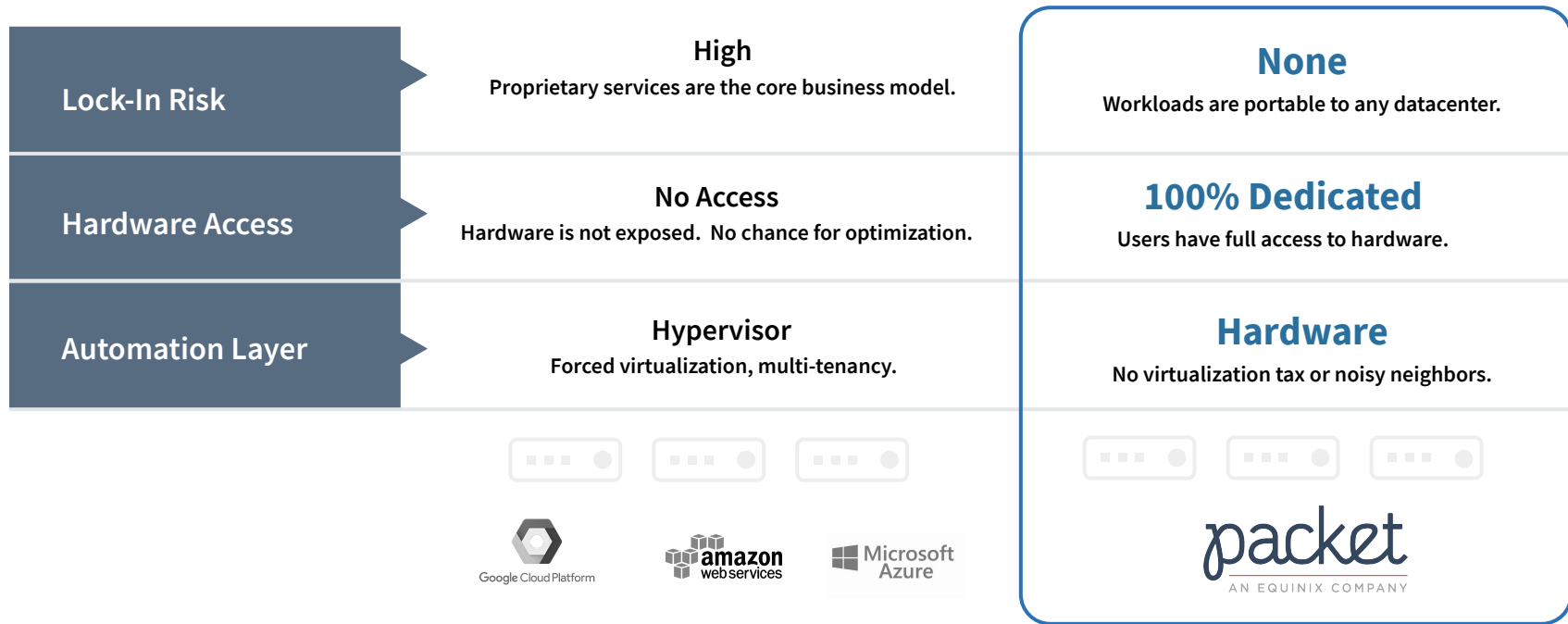It's 'cuz cloud giants use tools without giving anything back

{* DEVOPS *}

Fed up with cloud giants ripping off its database, MongoDB forks new 'open-source license'

Paperwork demands code from internet goliaths

The re-emergence of bare metal

Lock-In Risk	**High** Proprietary services are the core business model.	**None** Workloads are portable to any datacenter.
Hardware Access	**No Access** Hardware is not exposed. No chance for optimization.	**100% Dedicated** Users have full access to hardware.
Automation Layer	**Hypervisor** Forced virtualization, multi-tenancy.	**Hardware** No virtualization tax or noisy neighbors.

Google Cloud Platform

amazon web services

Microsoft Azure

packet
AN EQUINIX COMPANY

Summary

- "Cloud Infrastructure" spend will continue growing, but won't all be on the public clouds

- Kubernetes has created a path to the "horizontalization" of the market

- In horizontal markets the "winner takes all" situations can arise at each layer

- Advisable to keep a close eye one which new horizontal layers are emerging and which players are winning them

- Check out http://tinkerbell.org/

- Email: mark.coleman@packet.com (Contact me to try out Packet)

- Twitter: @mrmrcoleman