Battery VenturesState of the OpenCloud

November 2023



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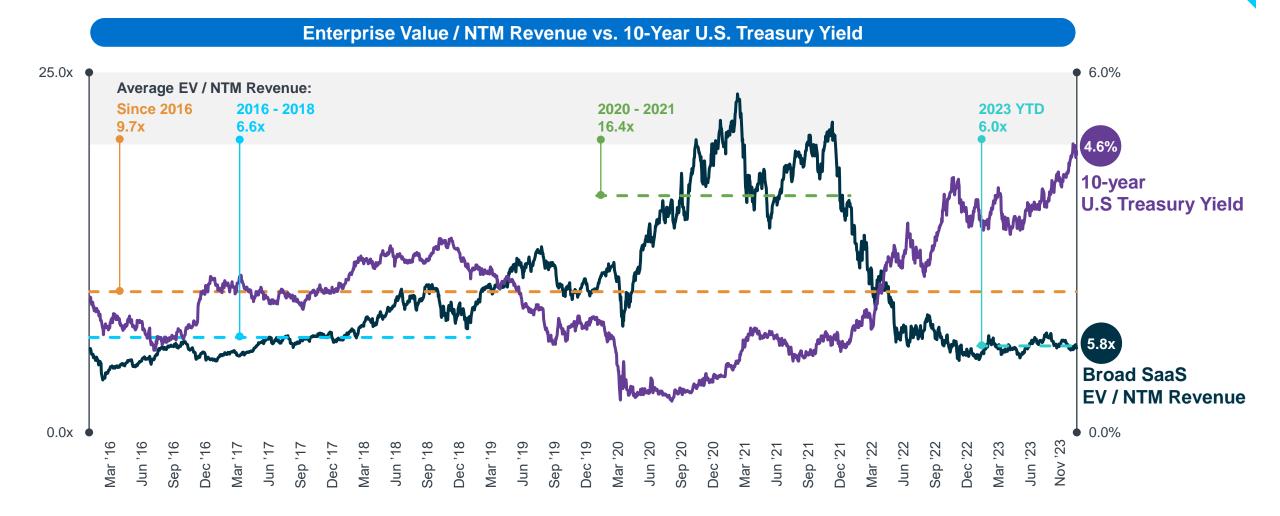


Al is Driving the Next Wave of Cloud Growth

Al is driving the next wave of cloud growth

- 1 Sustained macro pressures are driving a return to fundamentals for software companies
- 2 Companies are balancing growth and profitability as they shift from short-term to long-term gratification
- 3 Al has the potential to upend existing business models and re-define healthy software company metrics
- 4 Cloud providers are investing ahead of the curve as AI fuels the next generation of compute consumption
- 5 While the IPO bar is high, the opportunity remains large, and there's a healthy backlog of private unicorns
- 6 We're in the early innings of cloud and AI adoption with a large disruption opportunity ahead

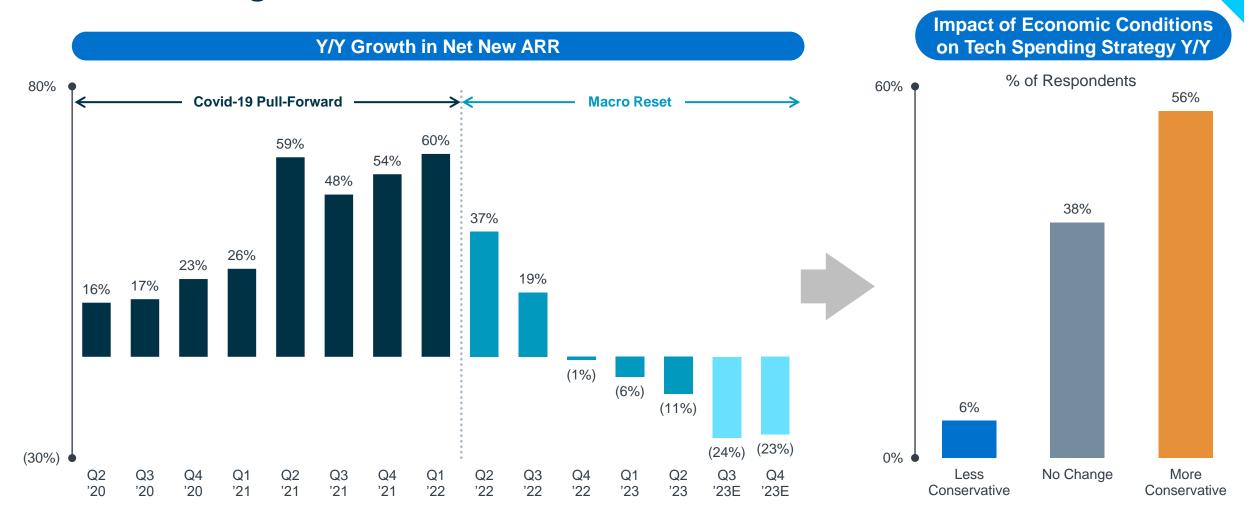
The current economic environment continues to impact valuation multiples



Rising interest rates and a pullback in software spending have continued to drive valuation multiple compression.



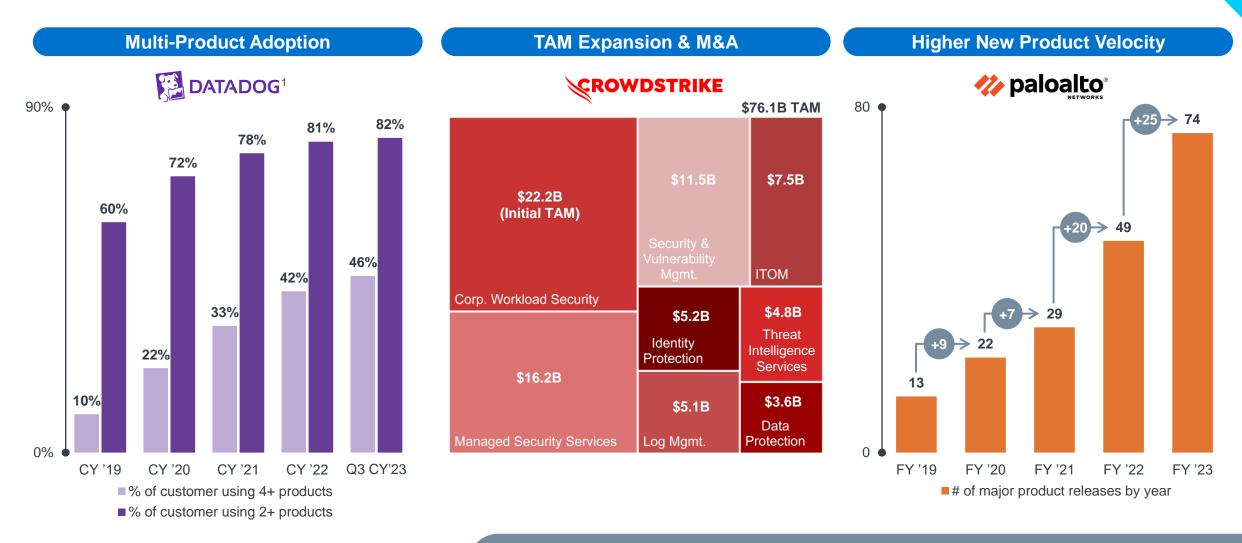
Growth is being reset



Growth accelerated through 2021, but budget compression has resulted in a slowdown in IT spend and a growth reset for software companies.



The market is shifting from best-of-breed to end-to-end platforms

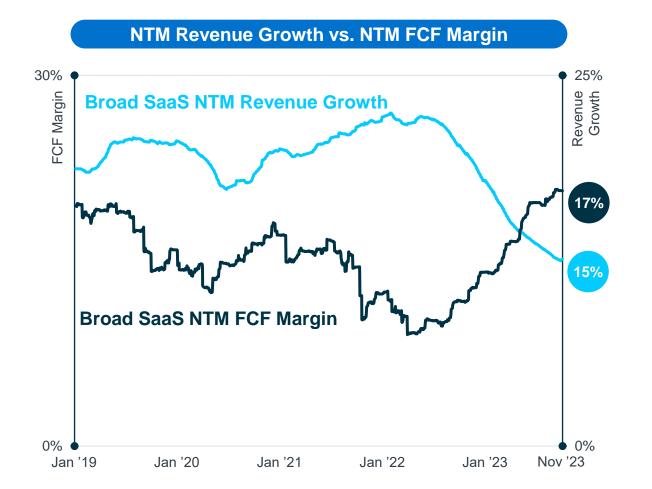


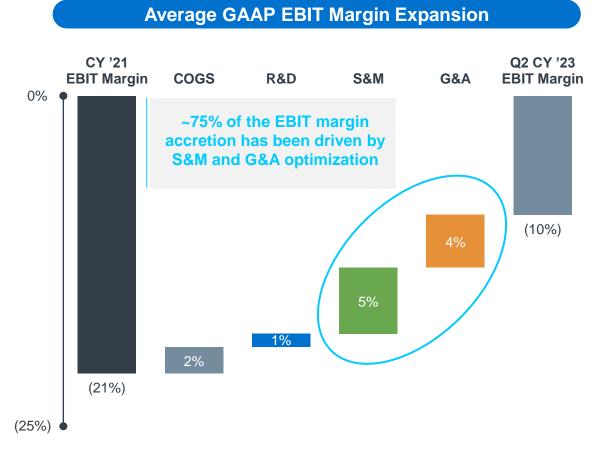
Source: Company presentations and filings

Vendors are consolidating spend by launching new products and expanding into adjacent markets.



Growth uncertainty has shifted the focus to improving profitability

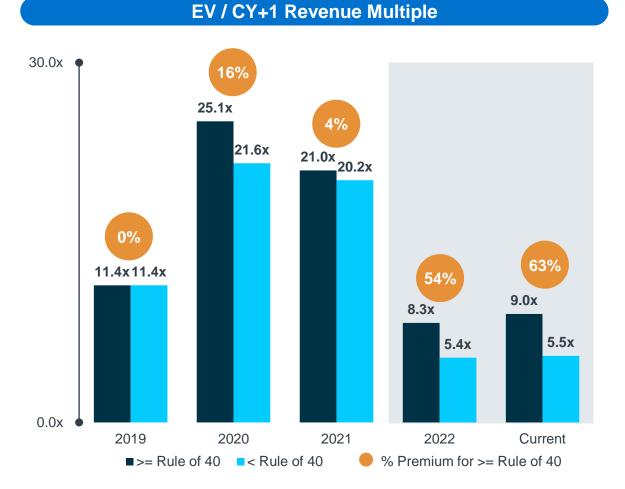




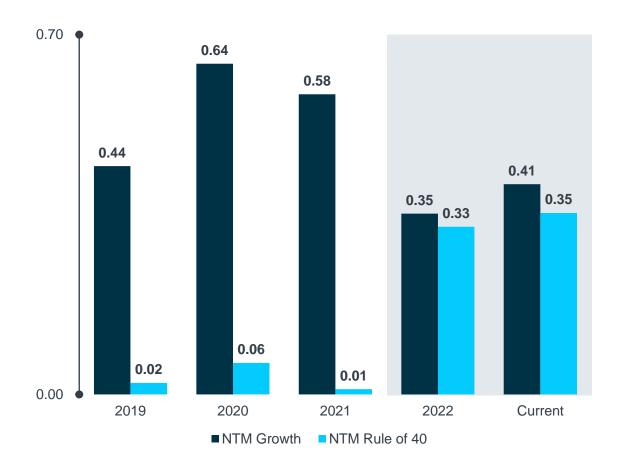
Companies are adjusting their spend profile to match new growth expectations.



The market is rewarding efficiency



CY+1 Revenue Multiple R^2 Values

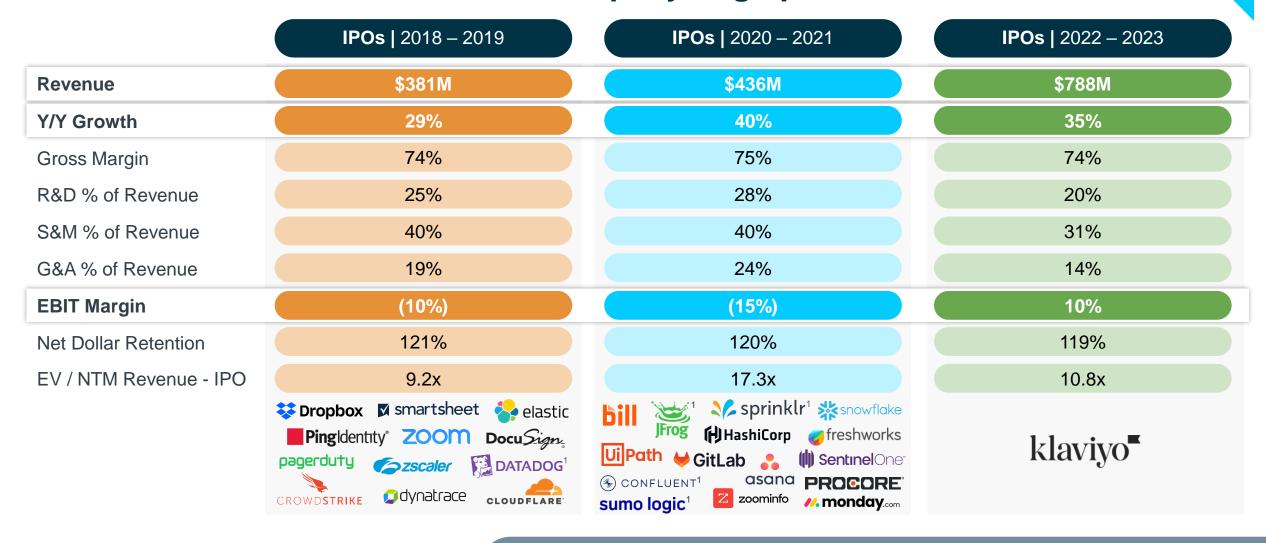


Companies that show a balance of growth and profitability trade at a ~60% premium to those that don't.

Note: Market data as of 11/7/23

Source: CapIQ

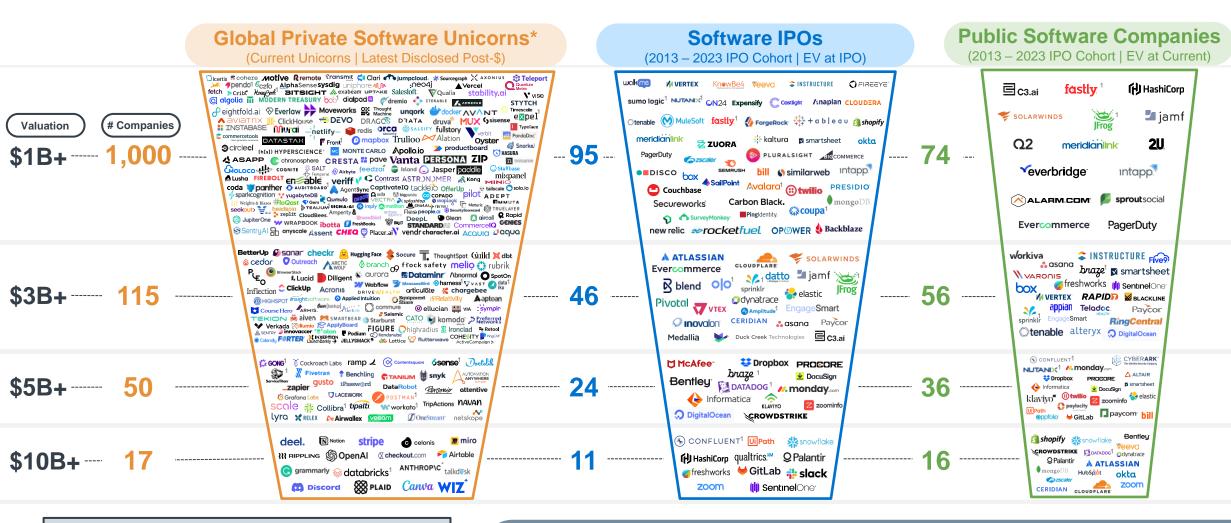
You must be a healthier software company to go public



Software IPOs are now larger while showing growth durability of 30%+ and greater profitability.



Unicorns aren't out of the woods yet as the market shifts from valuation to scale



Legend

- # of companies represents aggregate # in each bucket (i.e., # of companies in the \$10B+ category are also included in the \$1B+ bucket).
- · Logos shown reflect where those companies are valued today.

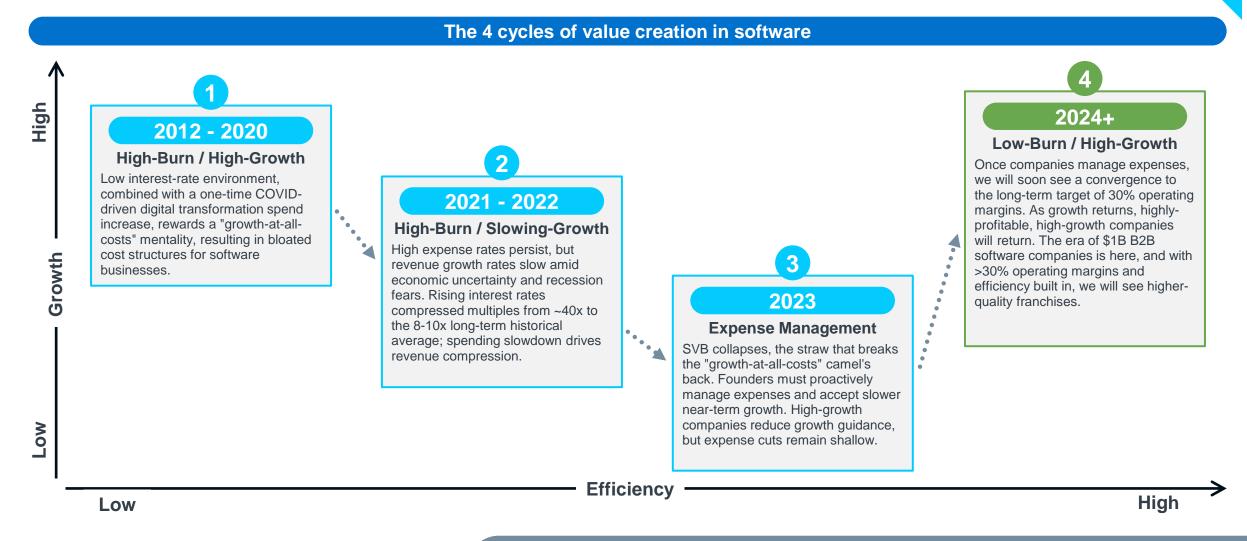
\$1B is the new \$100M when it comes to ARR. Despite a high bar to go public, 10 years of software company IPOs have paved the way for private unicorns.

Source: Pitchbook, CapIQ as of 11/07/23.

Note: Private Software Unicorns are based upon their latest known financing valuation and excludes companies that are HQ in China and companies that have been labelled as Cryptocurrency/Blockchain companies by Pitchbook. This category also excludes companies that have been through M&A, Buyout/LBO, Joint Venture, Reverse Merger or Bankruptcy: Admin/Reorg as their latest financing deal type. ¹ Denotes a past or current Battery company. For a full list of all Battery investments, please visit: https://www.battery.com/list-of-all-companies/. Operating metrics reflected are non-GAAP. *Anthropic valuation not disclosed but based on an article from *The Information* dated 10/4/23.

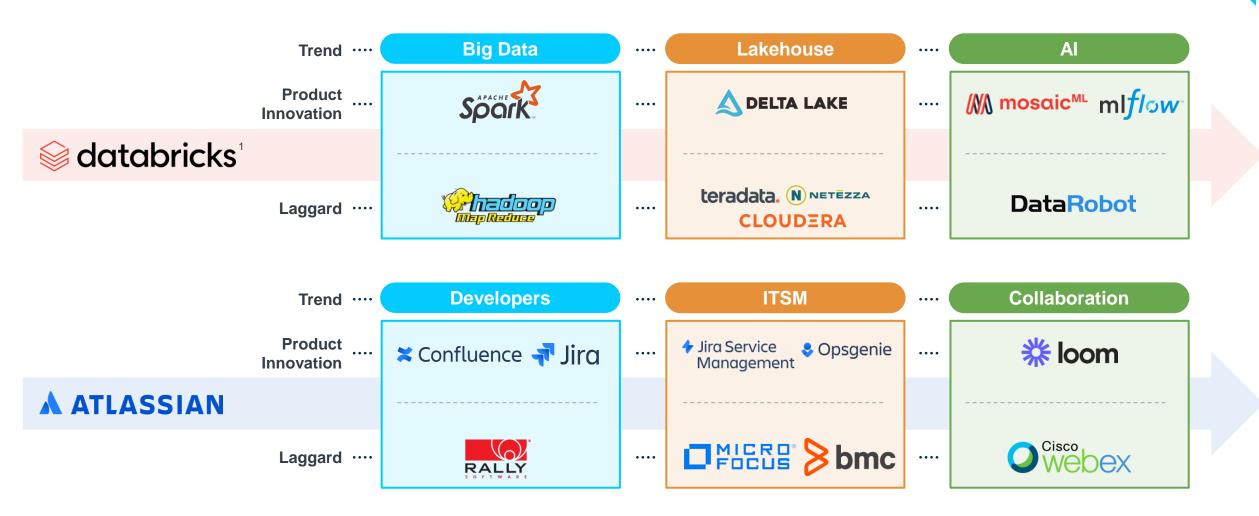


Short-term pain will result in long-term success



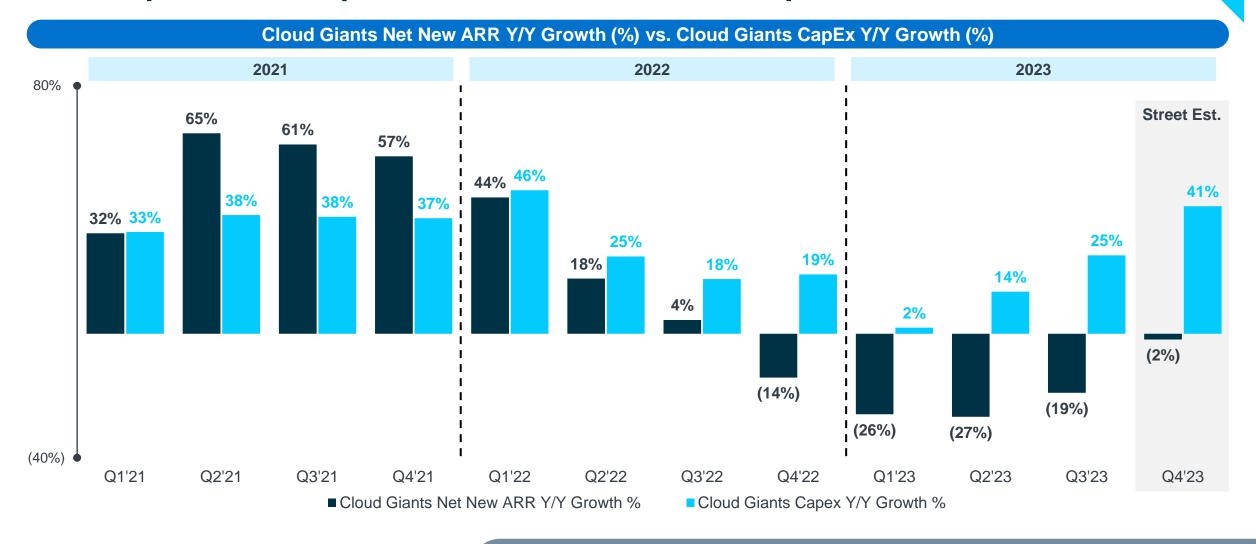
The return to fundamentals creates long-term healthy companies.

Product market fit is not one and done



Companies must continue to innovate and consistently re-prove product market fit or risk disruption.

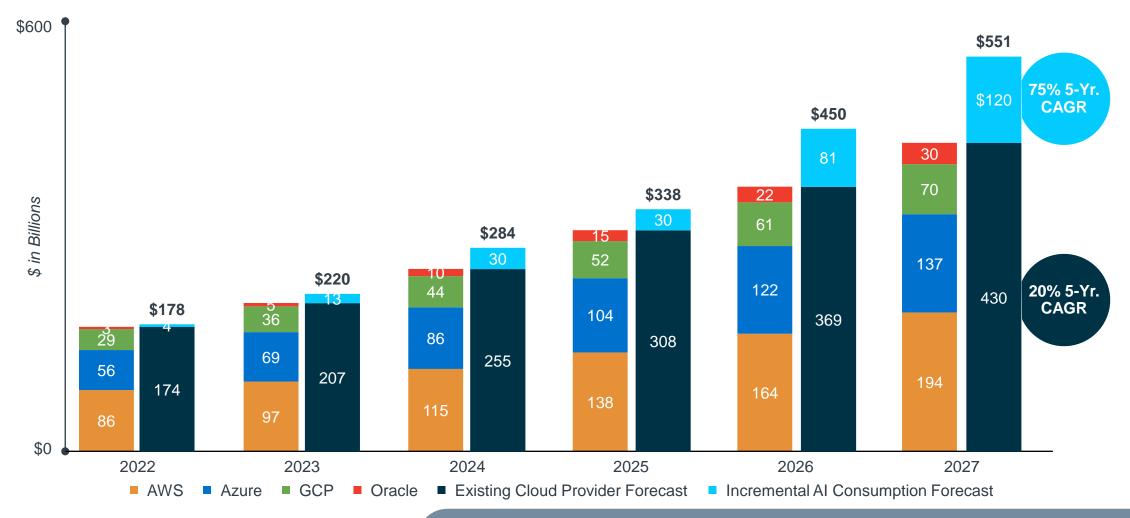
Cloud optimizations persist as cloud vendors ramp Al investments



Cloud providers are investing ahead of the curve as the demand for Al accelerates.



Al will fuel the next era of cloud consumption



Cloud adoption is rapidly expanding with AI, and the stakes have never been higher. There is \$100B+ of incremental revenue that is up for grabs by 2027.



Battery

Operational Best Practices



1

Metrics that matter: The early-stage and growth-stage playbook

	Startup: \$1-5M ARR	Scaleup: \$5-15M ARR	Scaling: \$15-30M ARR
ARR Growth	3.0x+	3.0x	2.0x
New Logo Growth	3.0x+	2.5-3.0x	1.5-2.0x
GDR / NDR %	90%+ 110%+	90%+ 120%	90%+ 130%
Gross Margin %	>60%	>70%	>75%
S&M as a % of Revenue	130% \$1.6M / Qtr.	100% \$4M / Qtr.	80% \$7M / Qtr.
R&D as a % of Revenue	100% \$1.3M / Qtr.	80% \$3M / Qtr.	60% \$5M / Qtr.
G&A as a % of Revenue	50% \$0.6M / Qtr.	40% \$2M / Qtr.	30% \$3M / Qtr.
Magic Number (Net New)	0.6-0.7x	0.7-0.8x	0.8-1.0x
Burn Ratio (Net Burn / Net New ARR)	2.0-3.0x	2.0-2.5x	1.0-2.0x

Growth is not enough. Companies must also track logo velocity, OpEx efficiency and the path to profitability from the earliest phases of a company's life.



2

Business models are shifting to consumption & outcome-based pricing

Low

On-Premises (Pre 2010s)



On-Premises:
Buying the right to software

Perpetual Software License

- Predictable software costs, low vendor dependency and perpetual ownership.
- Low alignment between customer and vendor. Customer is responsible for installation and mgmt. along with finding value.

Customer – Vendor Alignment

Cloud-Native (2010s – 2020s)



Cloud-Native:

Subscribing to the right software

Subscription Software License

- Shifts the software installation, delivery and maintenance burden from customer to vendor and offers a more flexible pricing model.
- Upfront commitment each period may result in unused services and still puts the onus of success on the customer.

····· High

Al-Powered (The Future)



Al-Powered:

Paying for the right outcome

Consumption & Outcome-Based Pricing

- Customers only pay for consumption and successful outcomes, resulting in true customer and vendor alignment.
- Forecasting is difficult with variable consumption in each period, and it is easier for customers to accidentally overspend when not tied to pre-defined commitments.

Consumption and outcome-based pricing is key to aligning customers and vendors.



Overemphasize logo velocity to make up for lower ASPs in uncertain economic environments

Ways to Incentivize Logo Velocity



Quota

Quotas based on the number of new logos closed during a specific period (vs. the \$ ARR closed).

Note: it's important to include guardrails around the minimum acceptable annual contract value (ACV) for each customer profile (i.e., enterprise, mid-market, SMB, etc.)

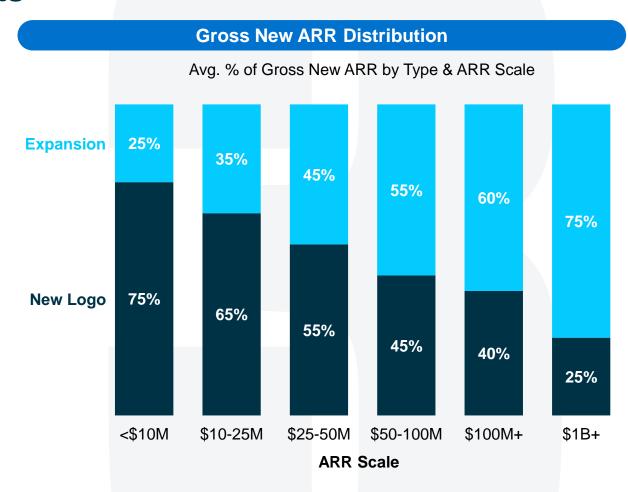
Quota Retirement **Gates**

Sales rep quota is based on the \$ ARR closed, but in order to retire quota, the sales rep must close a minimum number of new logos.



Involves offering extra compensation for logos closed.

This can be delivered on an individual basis (i.e., each rep is paid for every new logo that they close) or a group-wide basis (i.e., the sales team is given a bonus based on an aggregate new logo target).



Expansion cycles are not durable without sufficient new logo volume.



Al is upending the S&M workflow...

Lead Prospecting

Engagement

Close / Forecast

Retain & Expand

Incumbent **Tool Stack**

dun & bradstreet

Linked in



ORACLE



• • • •



Gainsight 1

Incumbent Workflow

• SDR: AE ratio is 1:2

 Expensive marketing program spend to drive topof-funnel leads

\$300K AE OTE

• 9 mo. + ramp time

Erratic attainment

· Guesswork to forecast and estimate pipeline conversion CSM: paying customer ratio is 1:10-25

 CSM hires scale linearly with customer growth

Innovators

MIGHSPOT HubSpot

Apollo.io Zoominfo



GONG¹

Salesloft.









• • • •

Vitallu



Impact

• SDR : AE ratio expands to 1:3 / 1:4

 Marketing program spend is reduced through more targeted leads and greater automation

- 6 mo. ramp time
- Al-driven intelligence and decision-augmentation for predictable attainment
- Training / knowledge transfer
- Data-driven approach drives greater accuracy when forecasting revenue
- · Companies can use leading pipeline signals to course correct in real-time
- CSM: paying customer ratio expands to 1:50+ w/ Al-driven automation
- Personalized approach to deliver better customer experiences

Al is augmenting traditional GTM playbooks by driving higher conversion across the funnel and allowing AEs/strategic sellers to own more of the workflow.



...With the potential to drive material headcount savings

	Status Quo		Future w/ Al Automation	
	Headcount	AE:[x] ratio	Headcount	AE:[x] ratio
AEs	30		30	
SDRs	15	2:1	10	3:1
SEs	20	3:2	10	3:1
CSMs	15	2:1	10	3:1
Marketing	30	1:1	15	2:1
Total	110	~30%	75	
		S&M headcount savings from Al-powered automation		

At 30% to 40% of revenue, sales and marketing is one of the highest cost centers for companies. Al-driven automation has the power to drive meaningful efficiencies.

Building and scaling the right sales team

	Seed	Early-Stage	Mid-Stage	Late-Stage
GTM goal	goal Find product market fit Establish repeatability Scale growth		Scale growth	Maintain growth at scale, and prove efficiency / durability
Mandate	Understand the use case / pain point, ICP, buyer and budget	Build / implement sales playbook and a repeatable sales process	Scale the sales playbook and process	Manage all revenue generating activities
Success metric	Initial customers	Consistent new customer lands	Accelerating new customer lands	Profitable unit economics
Sales leader	CEO / Founder (product knowledge / vision)	Head of Sales (player / coach)	VP of Sales (team builder / manager)	Chief Revenue Officer (strategic, higher-level leadership)
Supporting team	100% founder-led	2+ AEs / SDRs reporting to head of Sales or CEO	Scale headcount to match sales capacity and growth + onboard sales managers to coach reps Manage capacity with while driving specialization focus, territories, etc.	
SDR to AE ratio	N/A	1:3	1:3	1:3
Quota	N/A	Logo-based quota to incentivize velocity	ARR-based quota	ARR-based quota
Sales team coverage	No specialization – 100% coverage	No specialization – 100% coverage	Coverage split by geo, account, product, etc.	Coverage split by geo, account, product, etc.

Sales organizations must evolve alongside company growth.





Measure R&D and align on the right metrics

Key Engineering Performance / Productivity Benchmarks

		ELITE	STRONG	FAIR
	SERVICE UPTIME Measures system, service, solution or infrastructure reliability.	Five 9s	Four 9s	Three 9s
	TOTAL INCIDENTS & INCIDENT SEVERITY Measures frequency (weekly, quarterly, etc.) and severity (i.e., Sev-1, Sev-2, etc.).	< 10 Per month	10 – 30 Per month	30+ Per month
	CYCLE TIME Time from code to 'production'. Shorter cycles correlates to small PR sizes.	< 2 Days	2 – 4 Days	> 4 Days
	PICKUP TIME Measures the time a pull requests waits to be reviewed.	<1 Hours	1-3 Hours	3+ Hours
	REVIEW & DEPLOY TIME Time taken to complete a code review and merge code. Low review time represents a healthy / automated review process.	<1 Hours	1-5 Hours	5+ Hours
<u></u>	DEPLOY FREQUENCY Measures how often code is released. Elite deploy frequency represents a stable and healthy continuous delivery pipeline.	Daily +	> 1 / Week	< 1 / Week
	ACCEPTANCE RATE Measures the percentage of code merged and released to code committed.	> 80%	60%	< 50%

Source: LinearB

Commentary:

Engineering performance and productivity benchmarks are meant to introduce visibility and predictability across development teams, just as operating and S&M performance is measured.

Best practices:

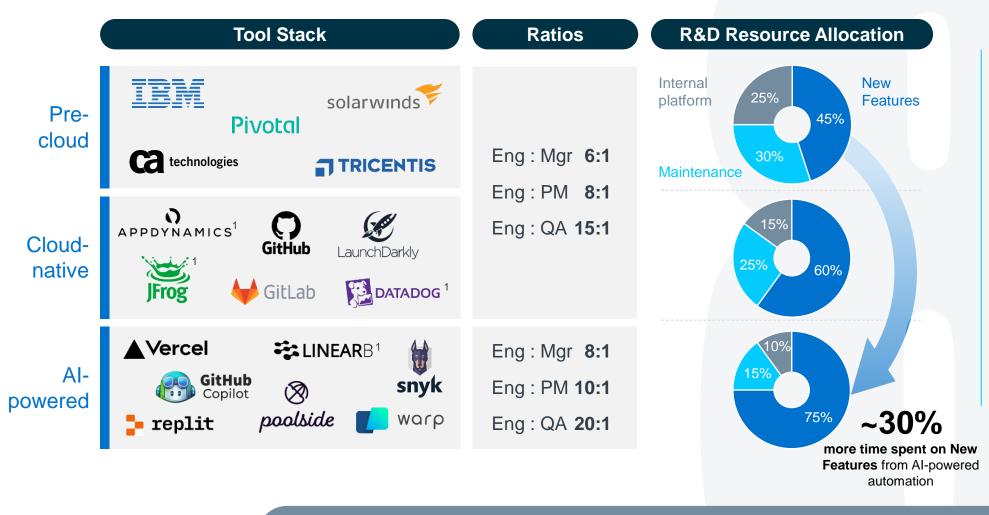
- Organization size matters so adapt metrics accordingly.
- Start with objective metrics such as service uptime, incidents, deploy frequency.
- Build a muscle of reporting and improving on metrics over time.

At 20%+ of revenue, R&D is typically the second largest OpEx line item but is rarely measured. Leverage efficiency metrics to maintain a healthy R&D org.



8

Gen AI is augmenting how R&D resources are spent



Battery's R&D Resource Allocation Framework:

New Features: Engineering time and resources on new products, additional features or sub-features, customer/partner requests and integrations.

Maintenance: Engineering time and resources on improved quality, reliability, stability, security and performance.

Internal Platforms:

Engineering time and resources dedicated to improving productivity, automation, testing, code refactoring, migrations and upgrades.

Engineering teams are a collection of investments in people, time and tools. All is augmenting the R&D resource allocation framework by enabling teams to spend more time on developing new features.

Al is upending the G&A workflow...

Legal

Recruiting & HR

Finance & Accounting

IT

Incumbent **Tool Stack**







ORACLE **/**anaplan

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zendesk

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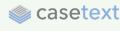
Incumbent Workflow

- Expensive law firm
- Manual / repetitive work
- · Bloated internal team

- Expensive talent agency Manual lead qualification
- Repetitive data capture

- Manual data entry
- Single-player workflow
- Repetitive ad hoc analysis
- Rules-based engine
- Physical IT desk
- Human-powered

Innovators





















servicenow.



Impact ····

- Outcome-based deliverables
- Automated boilerplate tasks
- · Increase efficiency and better customer experience
- Automated candidate sourcing and qualification
- Less reliance on external agencies

- Democratization of analytics
- Greater forecasting accuracy
- Collaborative workflow

- Automated ticket and response
- Higher deflection rates for IT incidents
- Faster time to resolution

"...live experts are more productive, saving 160,000 hours per year with Al-driven features like those in TurboTax Live Full Service, where intelligent document understanding automatically extracts and deciphers uploaded documents, nearly completely eliminating the need for data entry."

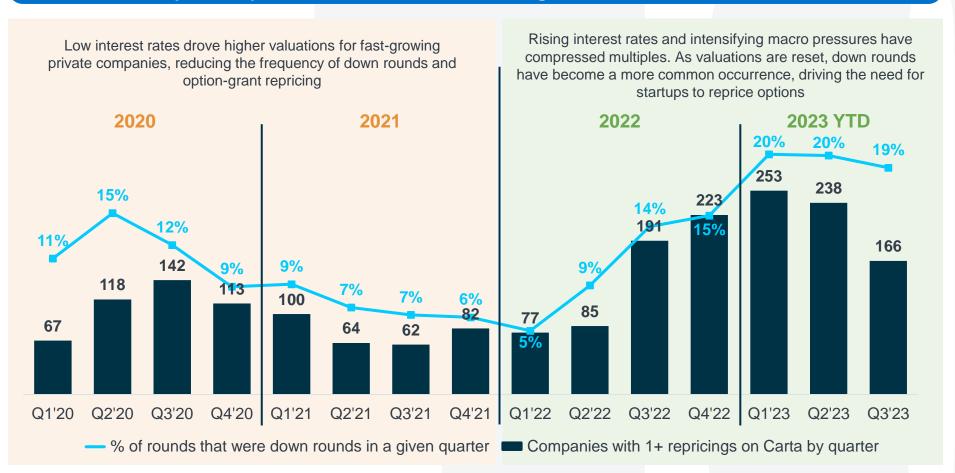
Al is transforming G&A functions from cost centers to value centers.



Source: Company filings

Valuation Resets are Catalyzing Stock Option Repricing

of Repriced Option Grants vs. % of Fundraising Rounds that were Down Rounds



Key Considerations

Who participates

All employees or limited to key employees / execs

Which securities apply Vested vs. unvested

How the options are repriced

Adjusting the strike price or issuing additional shares

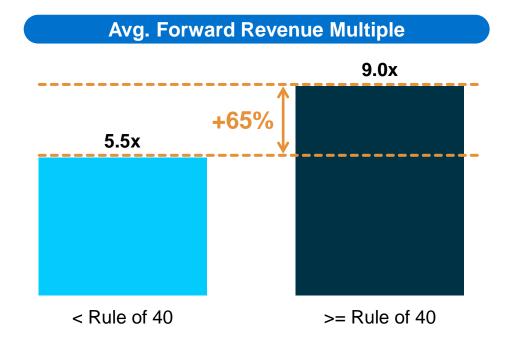
As valuations reset, private companies should not be afraid of repricing existing employee stock options to retain top talent and realign incentives.

Note: Represents an aggregated and anonymized sample of Carta customer data



Wrapping it up – a window into the future

	Companies Today	\$ ∆* (Today vs. Future)	Future Companies w / Al Automation
Revenue Y/Y Growth	\$200M 30%		\$200M 30%
Gross Margin	80%		80%
R&D % of Rev S&M % of Rev G&A % of Rev	25% 35% 15%	(-) ~20% (-) ~30% (-) ~20%	20% 25% 12%
Total OpEx	75%	(-) ~24%	57%
EBIT Margin	5%	(+) ~360%	23%
Rule of 40 Positive	×		~
Enterprise Value	\$1.4B	(+) ~65%	\$2.3B



Assuming a valuation premium for greater than rule of 40 businesses, a ~24% reduction in OpEx spend powered by AI automation can result in a ~65% valuation premium

Market bounce back timing is uncertain, but you can increase value by increasing efficiency. The effect will be amplified when growth returns.

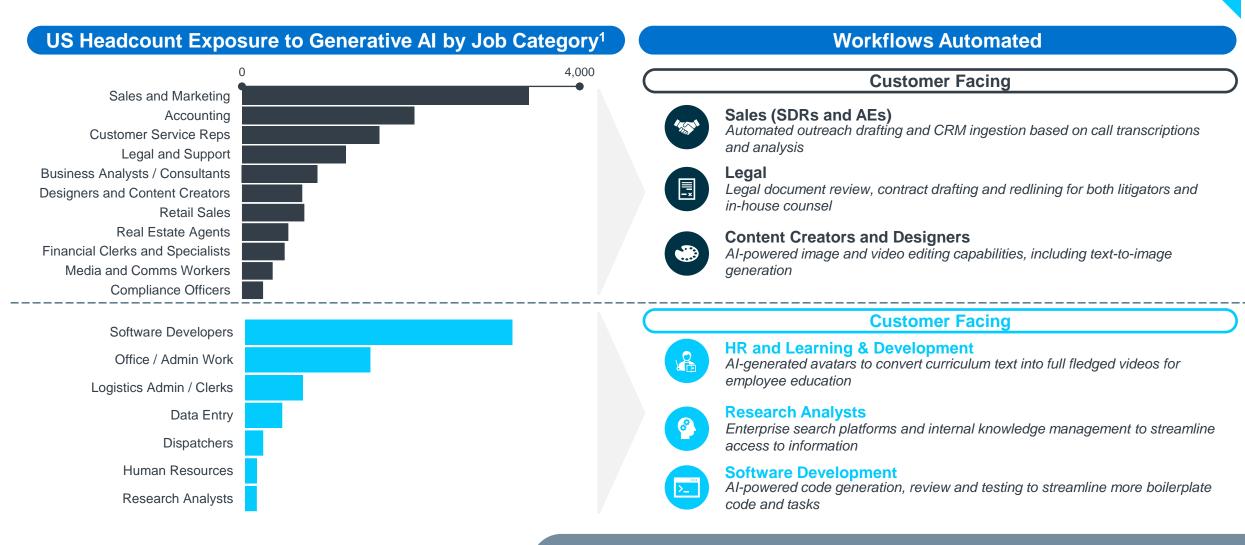


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Themes of Interest



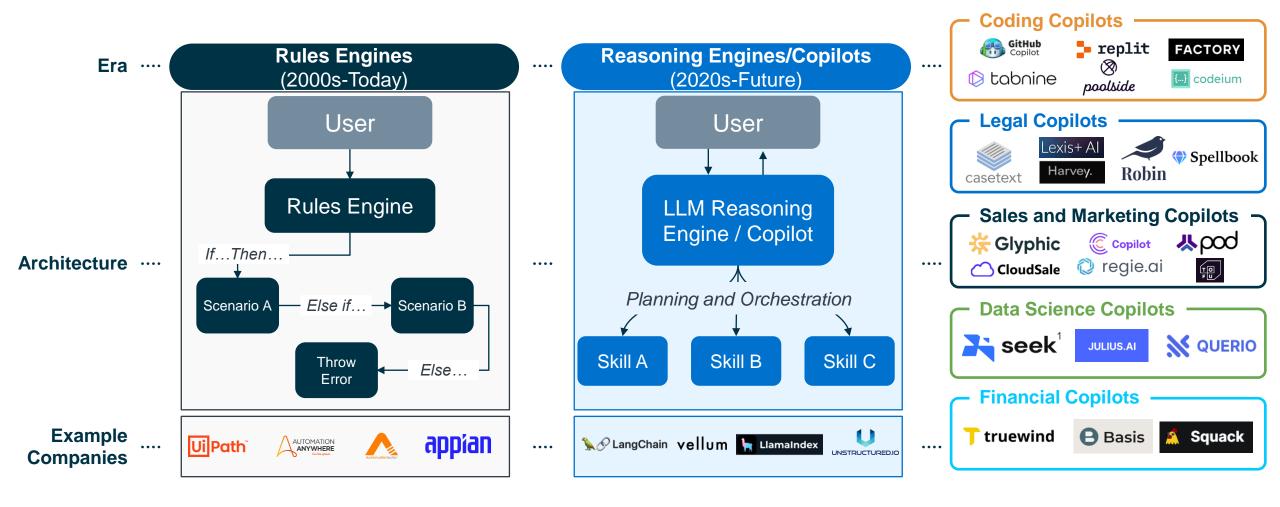
Generative AI is automating repetitive tasks across every function



Generative Al's influence has continued to expand and will influence how businesses think about both their customer and internal-facing workflows.



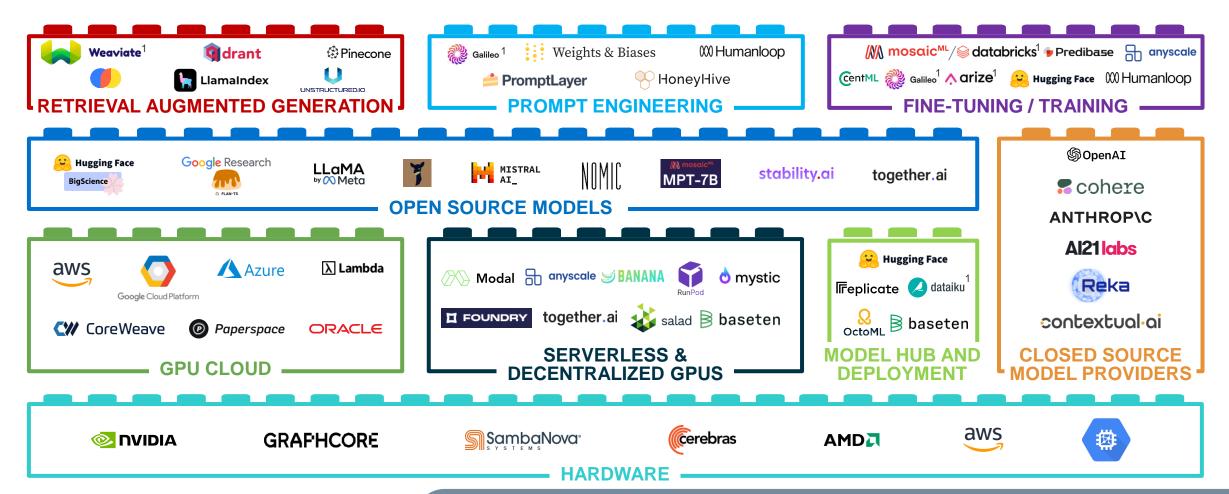
Al Copilots are proliferating across critical market segments



New wave of reasoning engines / copilots powered by LLMs are more flexible than previous rules engines, broadening their scope of work significantly.

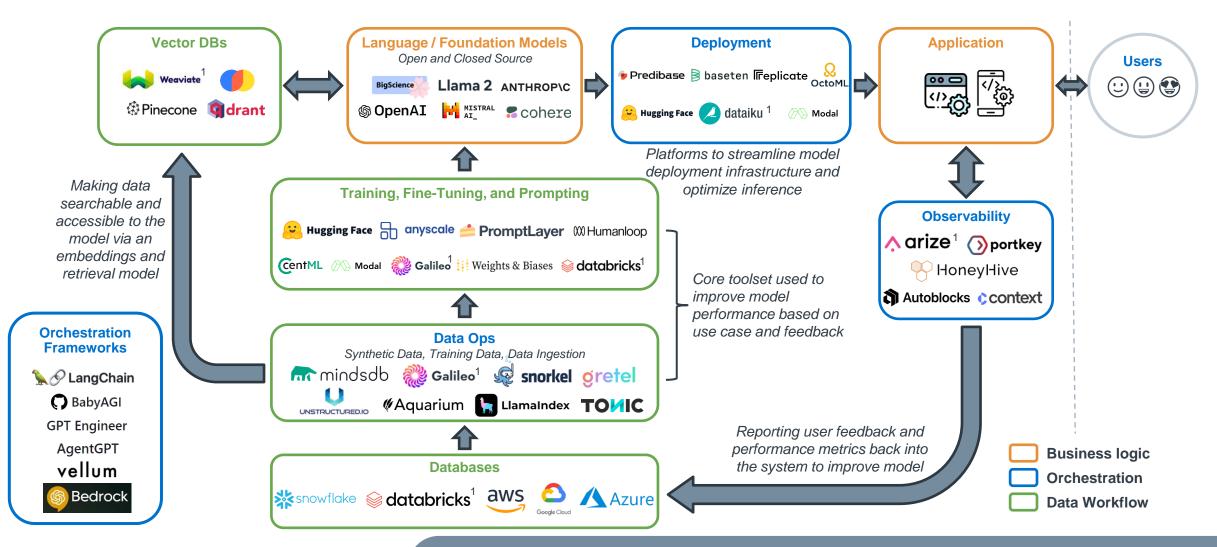


"Choose your own adventure": Every business will need a unique LLM infrastructure stack that fits its needs



Companies must balance the required performance, cost and developer experience when constructing their LLM infrastructure stack.

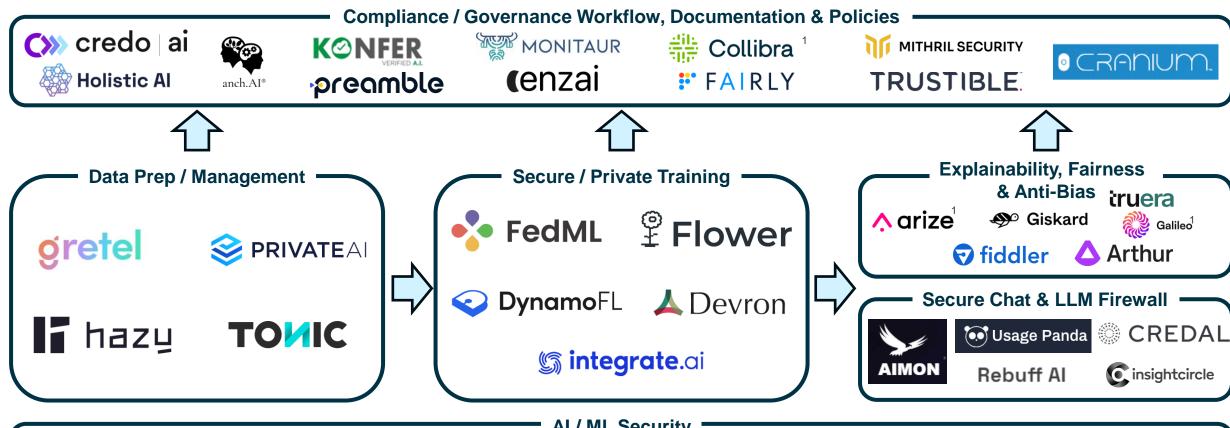
Emerging software architecture for LLM apps shifts focus from code to orchestration



LLMs, the powerful engines under the hood of many Al-native companies, must have the right supporting infrastructure to become complete applications.



Al adoption necessitates new security and compliance tools



TROJ.AI



AI / ML Security



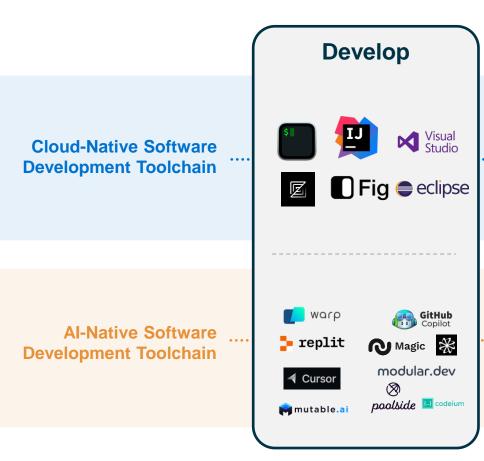


CALYPSOAL

As Al expands the attack surface, companies require guardrails to ensure the safety, compliance and governance of Al.



Al is driving software development efficiency with a new emerging toolchain



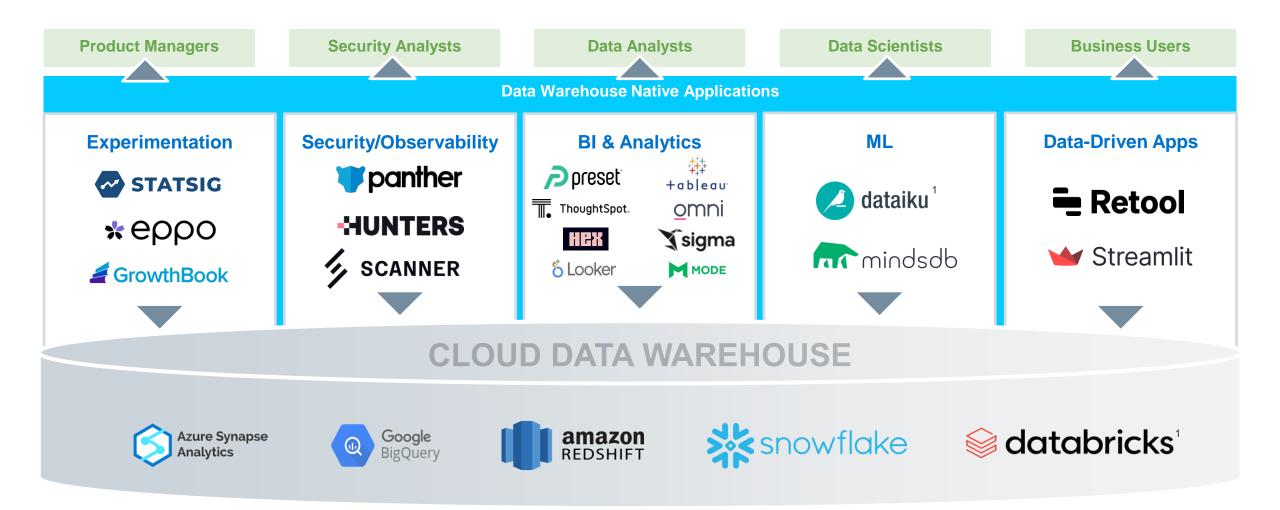






New Al-powered tools are emerging across the software development lifecycle to automate and streamline manual work.

Mission-critical software platforms turbocharged by data lakes



Data-intensive applications are built directly on modern data lakes, bringing customers closer to the data.





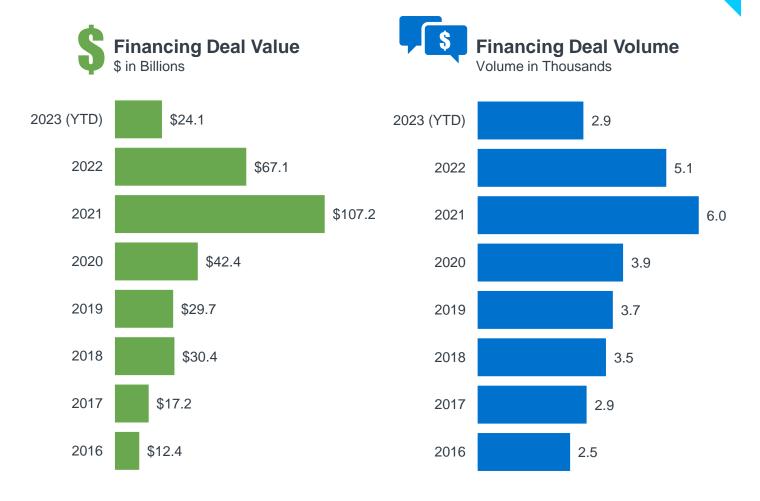
Future of OpenCloud



The emerging set of AI and cloud-native companies is promising



 ⑤ OpenAl	\$85.0	scale	\$7.3
⊗ databricks¹	\$43.5	GONG 1	\$7.3
ANTHROP\C	\$20.0*	1Passw@rd	\$6.8
celonis	\$13.0	Grafana	\$6.0
Airtable Airtable	\$11.7	w workato ¹	\$5.7
WIZ ⁺	\$10.3	, Fivetran	\$5.6
U LACEWORK	\$8.3	POSTMAN ¹	\$5.6
netskope	\$7.5	 CockroachDB	\$5.4
snyk	\$7.4	Collibra Collibra	\$5.3



Al and cloud financings have continued to accelerate and there is a healthy backlog of private company unicorns gearing up for IPO.



November 2023. *Anthropic valuation not disclosed but based on an Information article dated 10/4/23.

Cloud-native companies continue to grow at healthy rates at scale

Aggregate Traction	IPO • \$5.3B	Current	\$44.1B	CY '24E	\$54.0B
		8.3x		1.2x	

		Run-Rate Revenue (\$M)			
		IPO	Current	CY '24E	IPO to CY '24E CAGR
2021	H HashiCorp	329	573	682	28%
2021	₩ GitLab	233	558	713	42%
2021	(II) SentinelOne	150	598	799	61%
2021	CONFLUENT1	308	757	987	39%
2021	Ui Path [®]	832	1,149	1,517	18%
2020	JFrog	146	337	422	28%
2020	** snowflake	533	2,696	3,603	57%
2019	CLOUDFLARE.	270	1,234	1,670	42%
2018	CROWDSTRIKE	384	2,927	3,906	52%

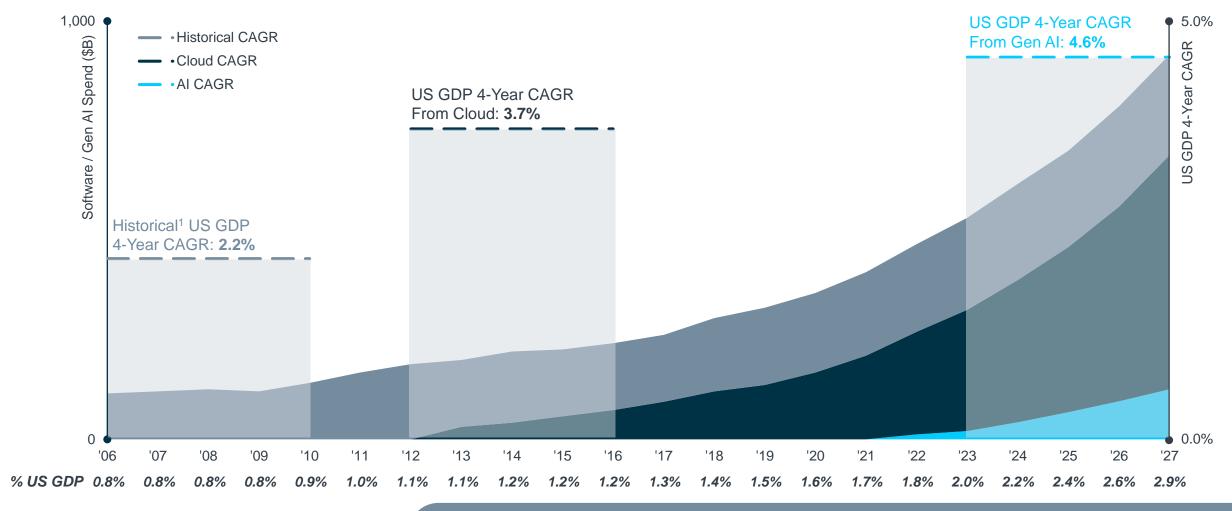
	Run-Rate Revenue (\$M)			
	IPO	Current	CY '24E	IPO to CY '24E CAGR
2019 😜 elastic	227	1,175	1,411	35%
2019 DATADOG ¹	333	2,038	2,529	47%
2018 Zscaler	180	1,820	2,310	46%
2017 mongo DB.	142	1,695	1,959	44%
2017 okta	195	2,224	2,575	40%
2016	237	4,151	4,439	41%
2015 A ATLASSIAN	385	3,756	4,505	31%
2012 paloalto®	263	7,813	8,918	33%
2012 servicenow	190	8,600	10,858	38%

Cloud-native companies have 10x'ed revenue since IPO while maintaining an average growth rate of 40%.



Date of IPO

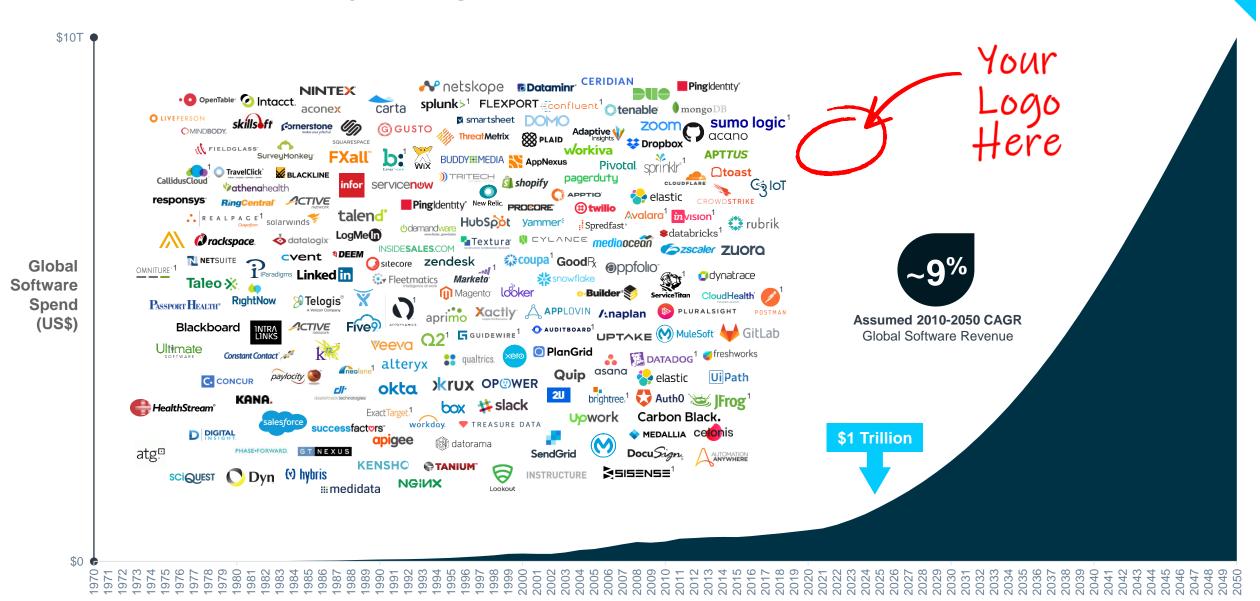
Generative AI is the second wave of software-powered GDP acceleration



Spending on generative Al solutions is expected to reach \$120B+ by 2027, a CAGR of ~73%, spurring a second era of GDP acceleration.



We're still in the early innings for OpenCloud





The Battery team



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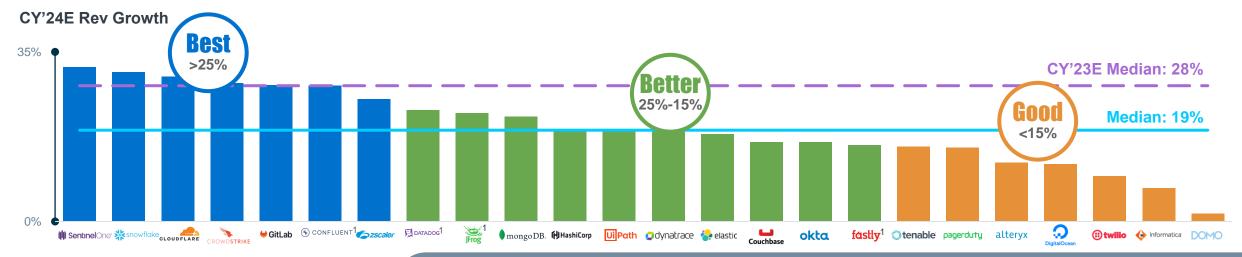


Appendix:
Building a Lasting Public Company:
Focus on KPIs that Matter

EV / revenue / growth levels the playing field

CY'24E EV / Rev / Growth

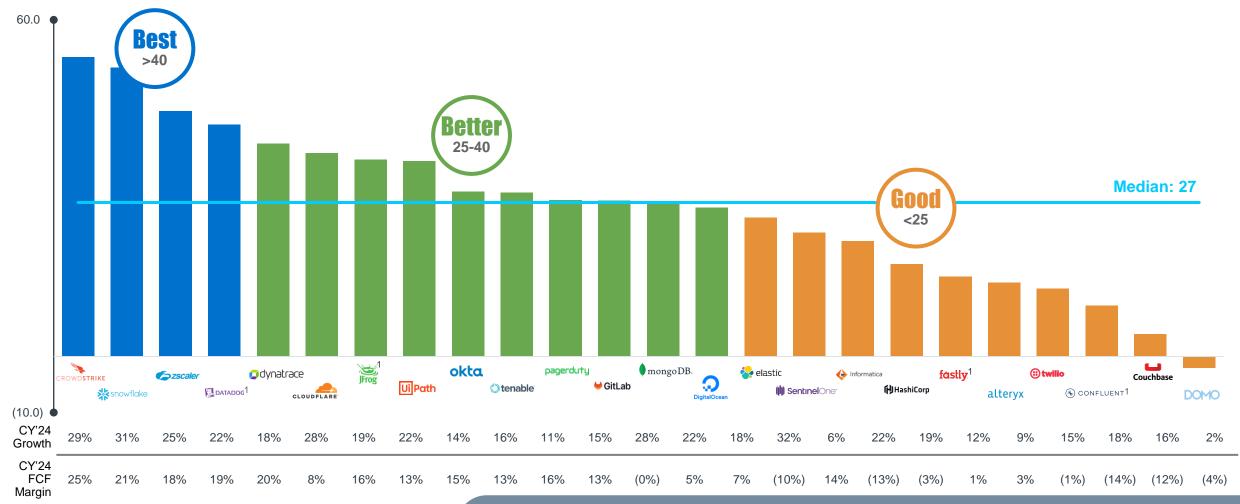




Adjusting the revenue multiple for growth provides insight into the relative value. However, analysts continue to underestimate the growth potential of cloud-infrastructure businesses.



Rule of 40 measures efficiency



As software businesses mature and growth naturally slows, improving profit margins is integral to driving free cashflow generation and sustaining the Rule of 40 over time.



Source: CapIQ. Market data as of 11/7/23 and represents the subset of cloud infrastructure companies that have IPO'd since 2016 and excludes companies that have since been acquired or have more than 10% of revenues as services (e.g., C3 AI, Sumo Logic, Talend), N=24.

Last twelve months revenue growth at IPO



Date of IPO

Cloud-infrastructure markets are large and growing. Companies attached to these mega trends are experiencing the benefits of these tailwinds.



Average magic number over the last twelve months at IPO





Product-led growth and bottoms-up are enabling companies to be more efficient in customer acquisition.

Source: CapIQ, Company Filings. Represents the subset of cloud infrastructure companies that have IPO'd since 2016 and excludes companies that have since been acquired or have more than 10% of revenues as services (e.g., C3 AI, Sumo Logic, Talend), N=24

Note: 1 Denotes a past or current Battery company. For a full list of all Battery investments, please visit: https://www.battery.com/list-of-all-companies/



² Dynatrace excludes amortization / depreciation of acquired assets and restructuring costs. Magic number calculated as ((Q(t) – Q(t-1)) subscription revenue *4)/S&M Q(t-1). ARR used instead of subscription revenue if disclosed.

Dollar-based net retention at IPO



Date of IPO

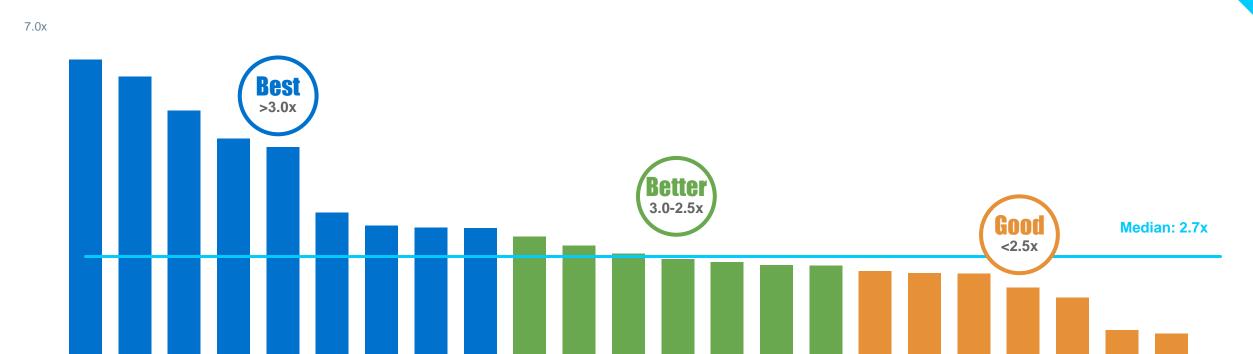
Bottoms-up and transaction-based revenue streams have far more consistency and expansion potential than we all anticipated.

Source: CapIQ, Company Filings. Represents the subset of cloud infrastructure companies that have IPO'd since 2016 and excludes companies that have since been acquired or have more than 10% of revenues as services (e.g., C3 AI, Sumo Logic, Talend), N=24

Note: 1 Denotes a past or current Battery company. For a full list of all Battery investments, please visit: https://www.battery.com/list-of-all-companies/

Dollar-based net retention at IPO is defined on a per company basis, and numbers shown are those disclosed by the company, but generally measure propensity of customer relationships or cohort revenue expansion potential over a 12-month period

LTV:CAC Ratio at IPO



******snowflake

(2020)

(2019

HHashiCorp

2021

alteryx

2017



(2019

CLOUDFLARE

pagerduty

(2019)

CROWDSTRIKE

(2019

(II) SentinelOne

(2021

Source: CapIQ, Company Filings. Represents the subset of cloud infrastructure companies that have IPO'd since 2016 and excludes companies that have since been acquired or have more than 10% of revenues as services (e.g., C3 Al, Sumo Logic, Talend), N=24

Ezscaler

(2018)

tenable

(2018

fastly.1

(2019)

⊕ CONFLUENT1

(2021

mongo DB.

2017

Informatica

(2021

Couchbase

2021

DOMO

(2018

Note: 1 Denotes a past or current Battery company. For a full list of all Battery investments, please visit: https://www.battery.com/list-of-all-companies/

okta

2017



Ui Path

2021

(ii) twilio

2016

2021

0.0x

 \odot

(2021

Matadog 1

(2019

elastic

(2018

2021

² Dynatrace excludes amortization / depreciation of acquired assets and restructuring costs. LTV calculated as GAAP subscription gross margin / (gross churn (est.) + 11% discount rate). CAC calculated as LTM GAAP S&M exp. / (Qo subscription revenue)*4 – (Q-4 subscription revenue)*4). ARR used instead of subscription revenue if disclosed.