Unlocking Durable Growth

How to identify lasting companies in software infrastructure

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Durable Growth

Why is durability so important?

The market expects revenue growth to normalize over time

- "Law of Large Numbers"
- Saturation in a single product category
- Competition takes market share
- Loss of talent or culture of innovation
- Heavy capital requirements (build more factories)

>> Analysts usually assume 5-10% decrease (or more) in annual revenue growth rates as part of valuation models

Historically, this has been a reasonable assumption...

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But some businesses are different

What happens when a company can sustain durable growth?
The power of long-term compounding takes effect

8 Year CAGR of 42.5%

$17.8B

$1.05B
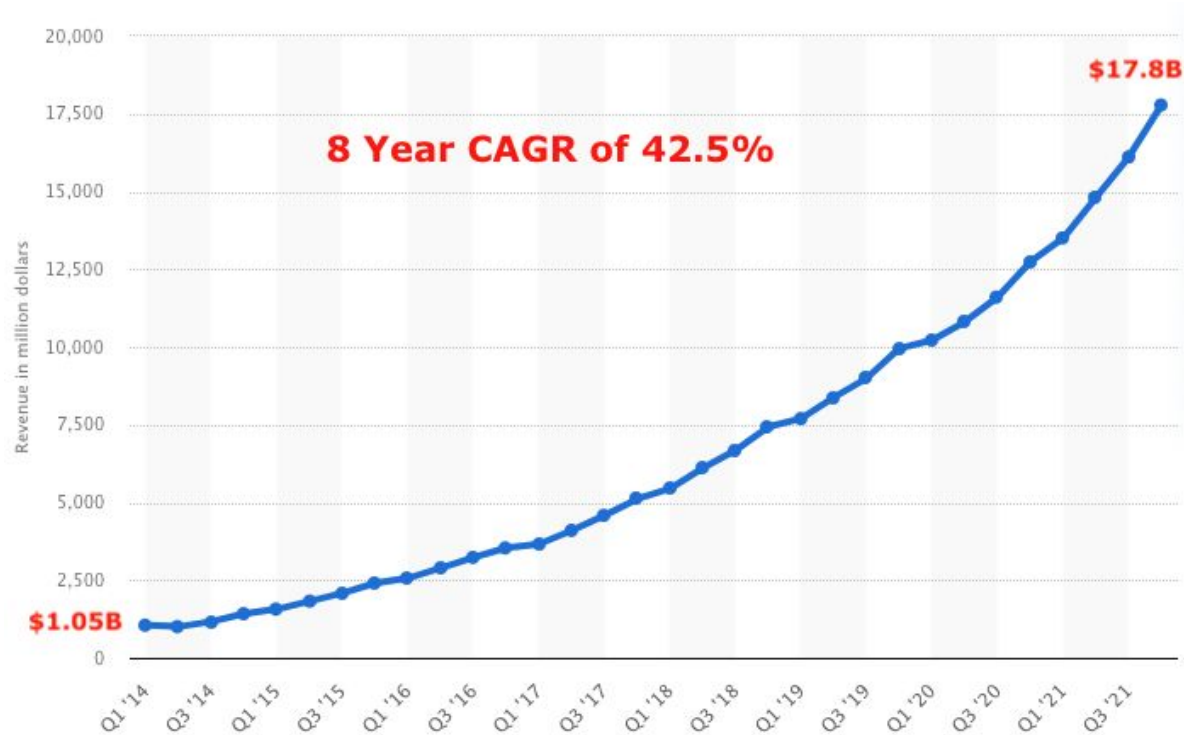
AWS quarterly revenue 2014 - 2021, Statista

Q4 2022 Results

AWS:
- 20.2% y/y growth on $21.4B in revenue
- Growth dropped into mid-teens in January

Azure:
- 37% y/y growth (in CC), down from 42% prior.
- Expect 30-32% in current quarter

GCP:
- Cloud segment (includes GSuite) grew 32.0% on $7.31B in revenue
- GCP growth was higher than Cloud segment overall

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"Optimization" is one-time event, front-loaded for impact

Instance Name	API Name	Product	Avg CPU (%)	Max CPU (%)	Zone Name	Projected Cost	Recommendation	New Projected Cost	Savings
███████████	g4dn.xlarge	Linux/UNIX	0.09	86.23	us-west-2a	$378.72	Create Lights On/Off Policy	$378.72	
███████████	r5a.2xlarge	Linux/UNIX	0.31	2.55	us-west-2d	$325.44	r5a.large	$81.36	$244.08
███████████	t2.medium	Linux/UNIX	0.14	42.88	us-west-2c	$33.41	t3.small	$14.98	$18.43
███████████	t2.micro	Linux/UNIX	0.92	11.36	us-west-2a	$8.35	t3.nano	$3.74	$4.61
███████████	t2.micro	Linux/UNIX	0.82	32.41	us-west-2b	$7.63	t3.nano	$3.74	$3.89
██████████nv	t3.medium	Windows	0.82	42.8	us-west-2b	$43.20	t3.small	$28.22	$14.98
Estimated Monthly Savings									**$285.98**

Savings incurred by right-sizing one micro-service, up to 36%

Other Optimization Techniques:

- Commit to 1 year or 3 year usage contracts   (24% - 41% savings)
- RDS right-sizing and resource reservations (36% - 50% savings)
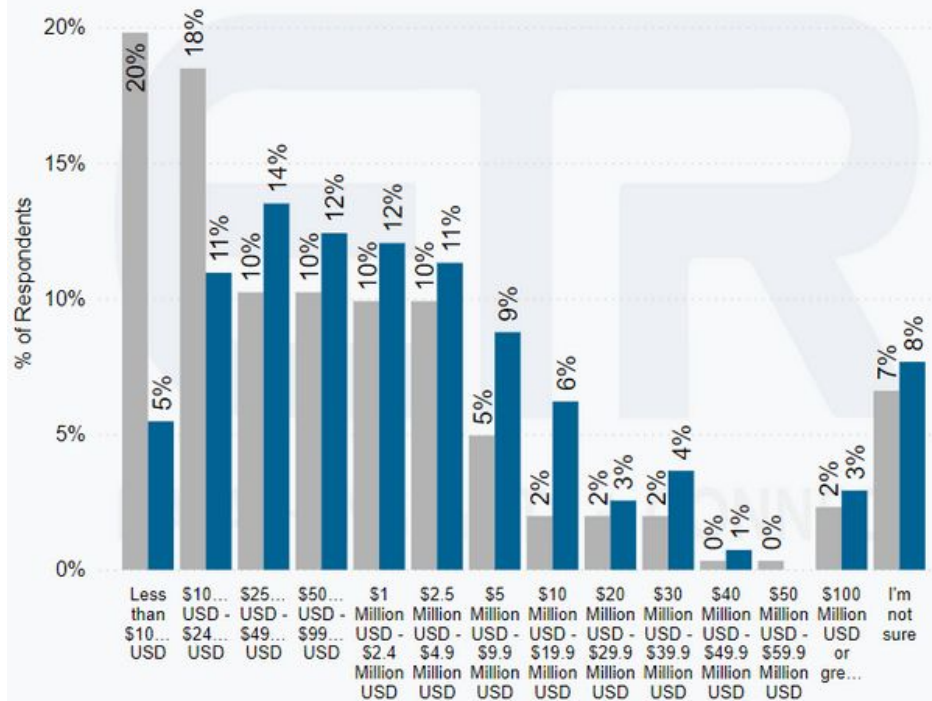- Software upgrade (20% savings)
- Cold storage (Various)

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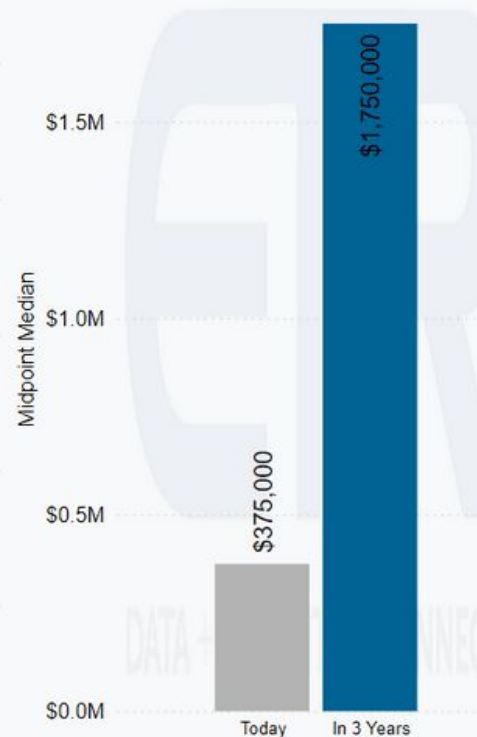
Cloud infrastructure demand drivers are intact

What is or will be your company's total annual spending on IaaS and PaaS Cloud for the following time frame(s)?

ETR Cloud Infrastructure Survey, January 2023

- Overall Cloud spend expected to increase by a **67% CAGR over next 3 years!**
- Median annual spend on IaaS/PaaS is currently $375k - expected to increase to $1.75M in 3 years.
- For large organizations, spend is currently $750k, but is expected to increase to $3.75M over that same time period.
- Workloads on cloud should increase from 34% of total to 58% over 3 years.

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AI could kick off a new demand cycle

"

AI is just going to be a core part of a workload in Azure versus just AI alone. If you have an application that's using a bunch of inference, it's also going to have a bunch of storage, and it's going to have a bunch of other compute beyond GPU inferencing. I think over time, every app is going to be an AI app.

—— **Microsoft CEO, Q4 Earnings Call**

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Data volumes are increasing rapidly - where will it go?

Applied Materials Investor Meeting - April 2021

Source: https://investors.appliedmaterials.com/events/event-details/investor-meeting
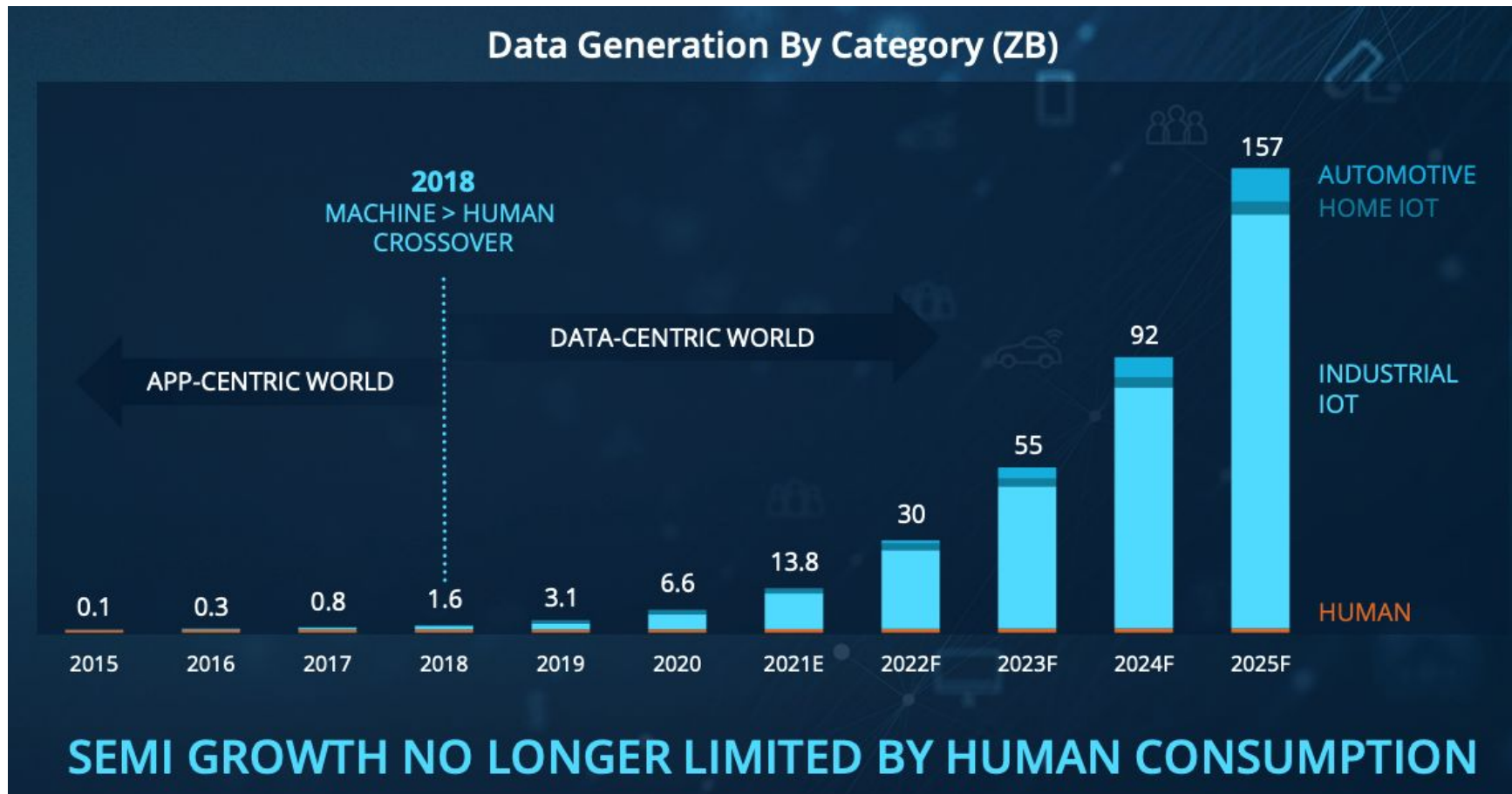
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With strong tailwinds, which companies can sustain high growth?

" The key to investing is not assessing how much an industry is going to affect society, or how much it will grow, **but rather determining the competitive advantage of any given company and, above all, the durability of that advantage.**

—— **WARREN BUFFETT**

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Maintain competitive advantage by having a moat

01 **Architectural Advantage**
Build a product or deliver a service in a fundamentally new way that lowers cost and is difficult to duplicate.

02 **Product Development Velocity**
Launch new product offerings and enter adjacent product categories faster than competitors.

03 **Customer Flywheel**
Lower sales effort through efficient customer acquisition and expansion motion. "Land and Expand"

04 **Network Effects**
Create incremental value for each new customer through participation in the network.

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Cloudflare - Superior architecture drives down costs

> **What is powerful is because we have done the hard work on the networking and software side to make it so that any server,** anywhere can handle any request, that means that as we continue to expand our network out that we're able to directly interconnect with the various ISPs and networks around the world and drive our cost down for things like bandwidth, co-location and other variable costs that are part of our business.

CLOUDFLARE Q1 FY 2022 EARNINGS CALL

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Cloudflare - Architecture of massive parallelization

This is your Availability Zone

● Cloudflare city

- Cloudflare runs 275+ global data centers over a high bandwidth network
- Every server in every data center delivers the same set of services
- Own and operate their data centers and network interconnects, allowing them to deliver more services at a lower cost

>> *Incremental product offerings like R2 and Stream can be supported with little additional investment*

Cloudflare's disruptive architecture allows them to deliver superior performance for services that benefit from high parallelization

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Cloudflare - Product development expands addressable market
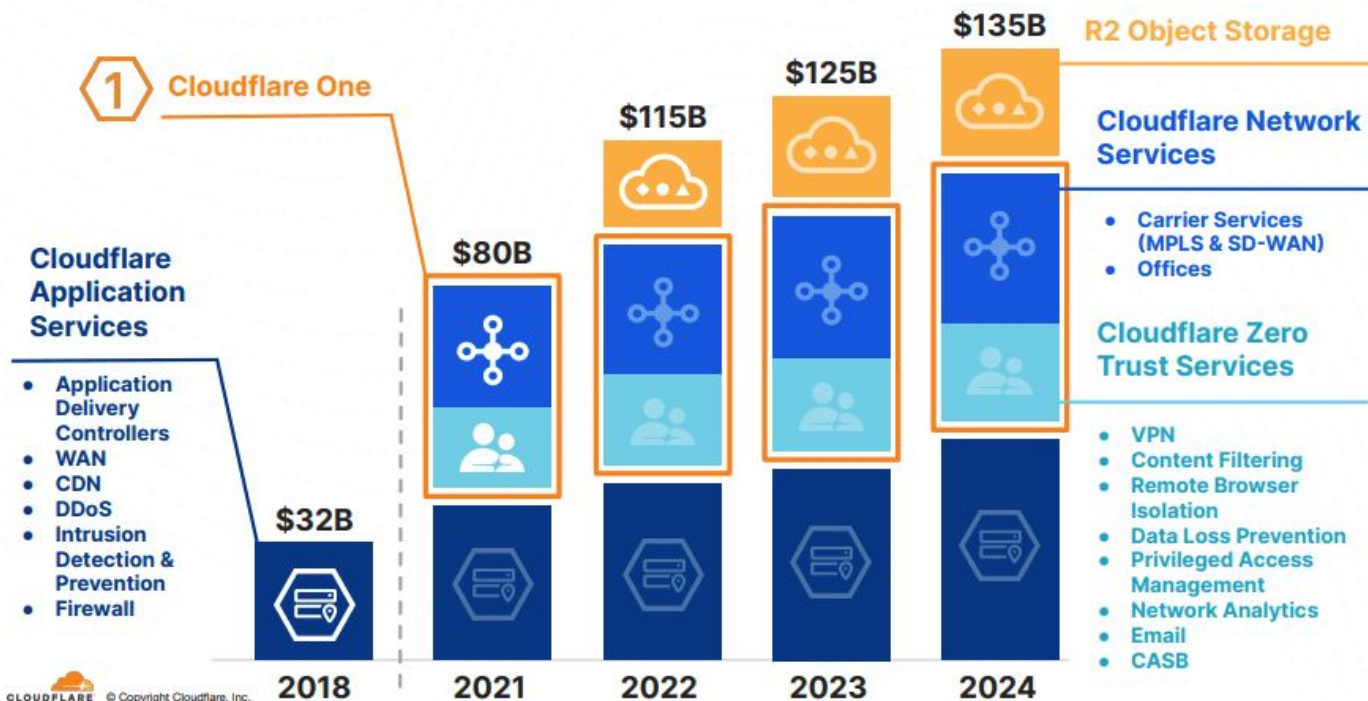
Applying architecture advantage to disrupt new markets in waves

- **Wave 1**: Application services
- **Wave 2**: Zero Trust network security
- **Wave 3**: Development platform (Workers, R2)
- **Wave 4**: Last mile connectivity
- **Wave 5, 6, 7..** TBD

"Stacking S-Curves" to keep expanding their TAM

Cloudflare Investor Presentation, Q4 2022

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Cloudflare - Extreme product delivery cadence

"

What's exciting is that the pace at which the Internet is getting better is accelerating. And, in turn, the pace at which we are able to launch innovative new products is accelerating along with it.

———— **CLOUDFLARE 2022 ANNUAL LETTER**

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Cloudflare - Product release velocity is increasing

Cloudflare Product Launches by Year, Virtual Product Briefing, February 2022

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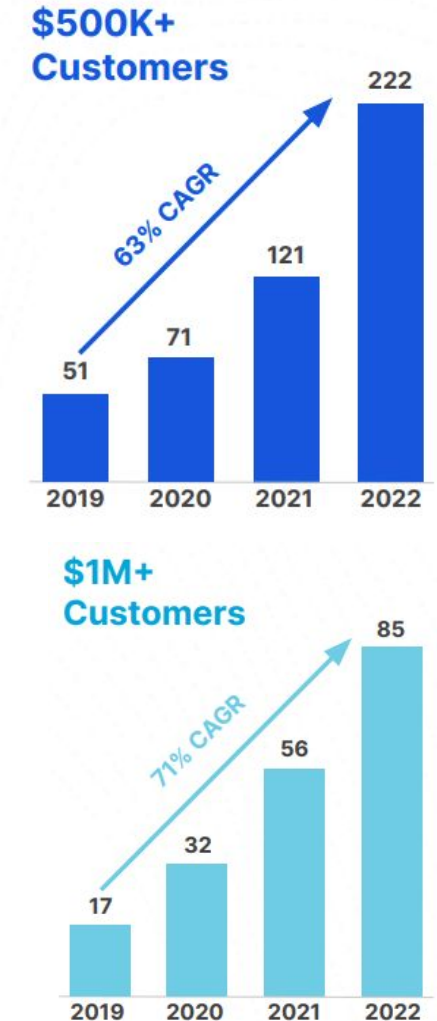
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Cloudflare - Leadership drives product innovation

Leadership sets the tone for product development
An engaged and passionate CEO is critical

- ➔ Maintains focus on delivery timelines

- ➔ Reduces executive inertia and conveyance

- ➔ Attracts top product talent

- ➔ Mission driven

- ➔ A $1B company that responds like a start-up

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Datadog - Efficient customer acquisition and expansion

"

Our customers often significantly increase their usage of the products they initially buy from us and expand their usage to other products we offer on our platform.

————— **DATADOG Q3 2021 10-Q**

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Datadog - Product offering expansion
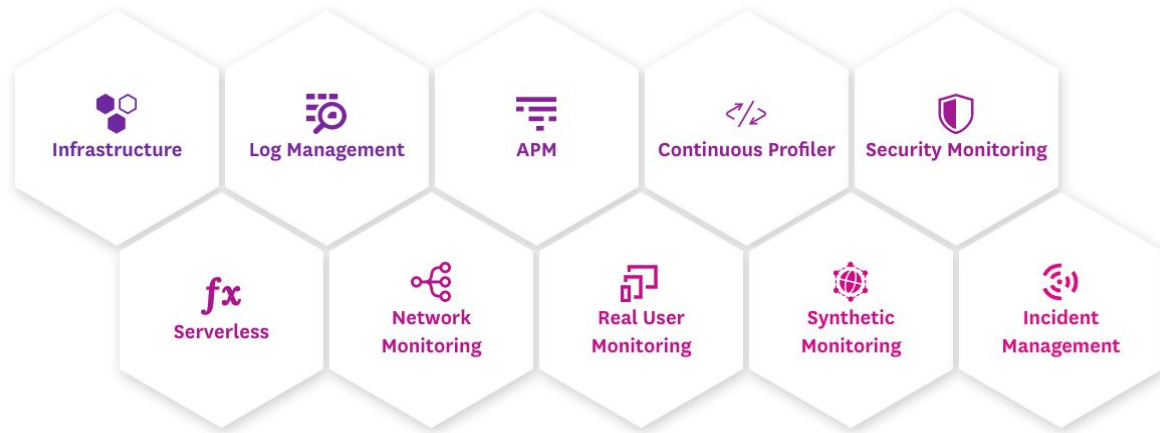
Datadog Product Grid - Jan 2021
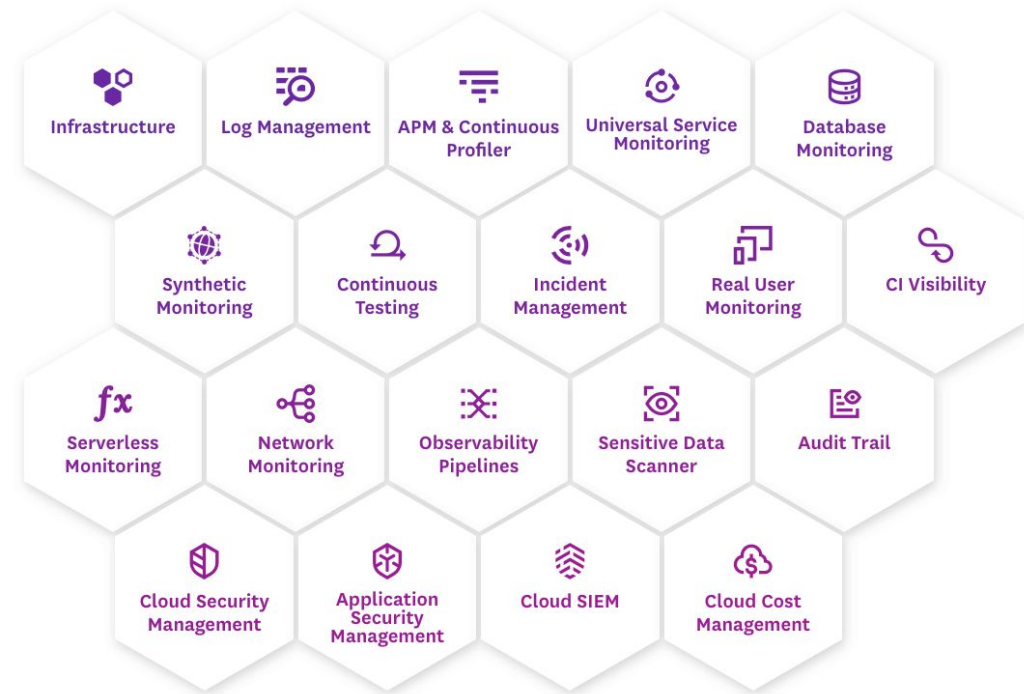
Datadog Product Grid - Jan 2023

Since January 2021, Datadog has almost doubled its monetized product modules

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Datadog - Land and expand ... and expand

Datadog adds new customers, sells them more products and then creates new products to sell them

Add New Customers

Customers Adopt Additional Products and Increase Usage

3 Vectors Combine to Drive ARR Growth

Launch Product Extensions and Enter Adjacent Markets

Datadog's Land and Expand^2 Strategy
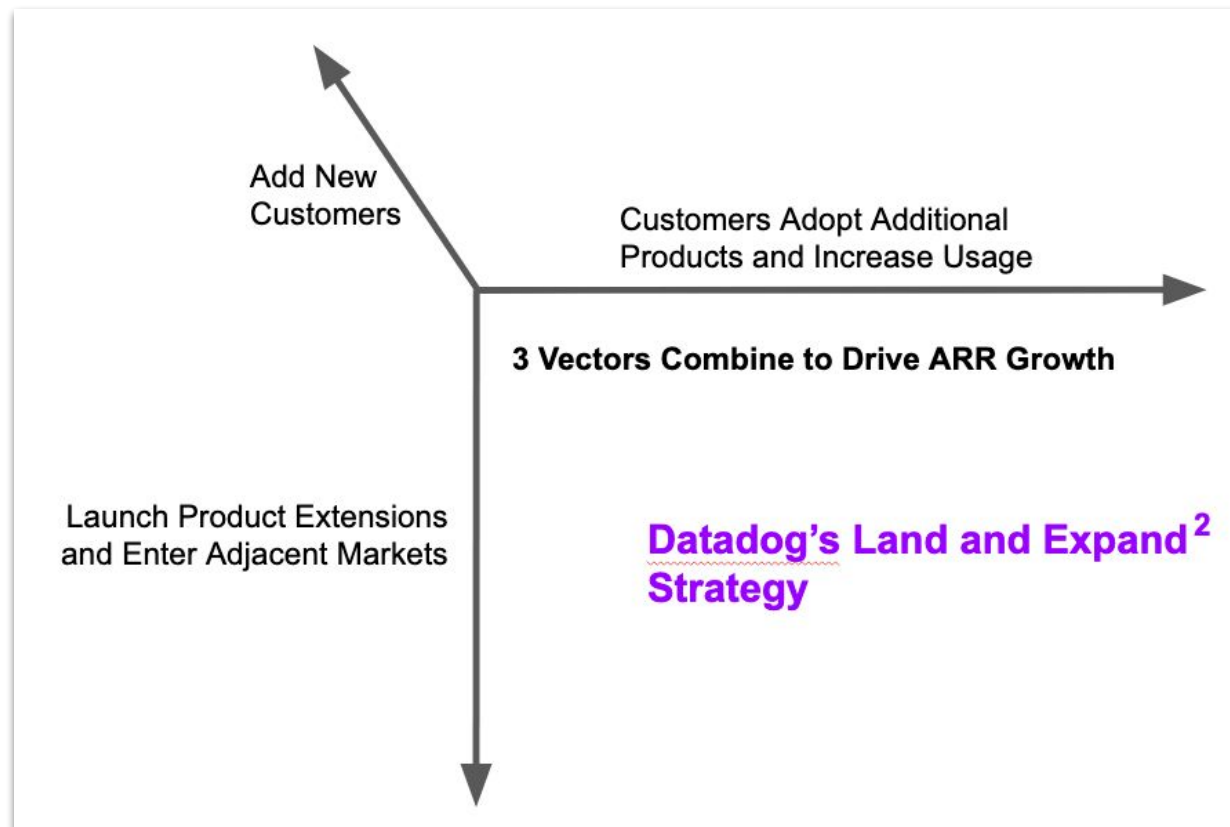
Takes "Land and Expand" to next level

- Land new customers

- Increase their spend each year
  - Growth of their business
  - Adoption of new products

- Expand the product catalog by entering adjacent markets

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Datadog - Customer expansion flywheel

Quarter	Total Customers	2+ Products Percent	4+ Products Percent	6+ Products Percent
Q3 2022	22,200	80%	40%	16%
Q2 2022	21,200	79%	37%	14%
Q1 2022	19,800	81%	35%	12%
Q4 2021	18,800	78%	33%	10%
Q3 2021	17,500	77%	31%	8%
Q2 2021	16,400	75%	28%	6%
Q1 2021	15,200	75%	25%	4%
Q4 2020	14,200	72%	22%	3%
Q3 2020	13,100	71%	20%	
Q2 2020	12,100	68%	15%	
Q1 2020	11,500	63%	12%	
Q4 2019	10,500	58%	10%	
Q3 2019	9,500	50%	7%	
Q2 2019	8,800	40%		
Q1 2019	8,200	32%		

- Datadog currently offers 19 product modules
- Reports percent of customers with 2+, 4+ and now 6+ modules
- Growth of customer module adoption is compounded by total customer count growth (30% y/y)
  - 6+ customer count up 2.5x y/y
  - 4+ customer count nearly doubled y/y

>> Customer spend expansion drives industry leading DBNRR over 130%

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Datadog - Product module expansion and efficient cross-sell

- The ability to rapidly develop new products and enter adjacent markets can be a moat.
  - Competitors quickly fall behind and become limited to a subset of product offerings.
  - With constrained IT budgets, we are seeing themes around vendor consolidation.

- More product modules to sell drives existing customer expansion.
  - Selling more product to existing customers is the most efficient sales motion.
  - Manifests as high net expansion rate (DBNRR over 130% for Datadog).

- Generates more operating profit to invest back into R&D.
  - Can a software company spend more on R&D than Sales and Marketing?

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Moat - Pace of Innovation

Datadog - Growth driven by outsized R&D spend

Ratio of S&M to R&D Spend

GAAP - Most Recent Quarter
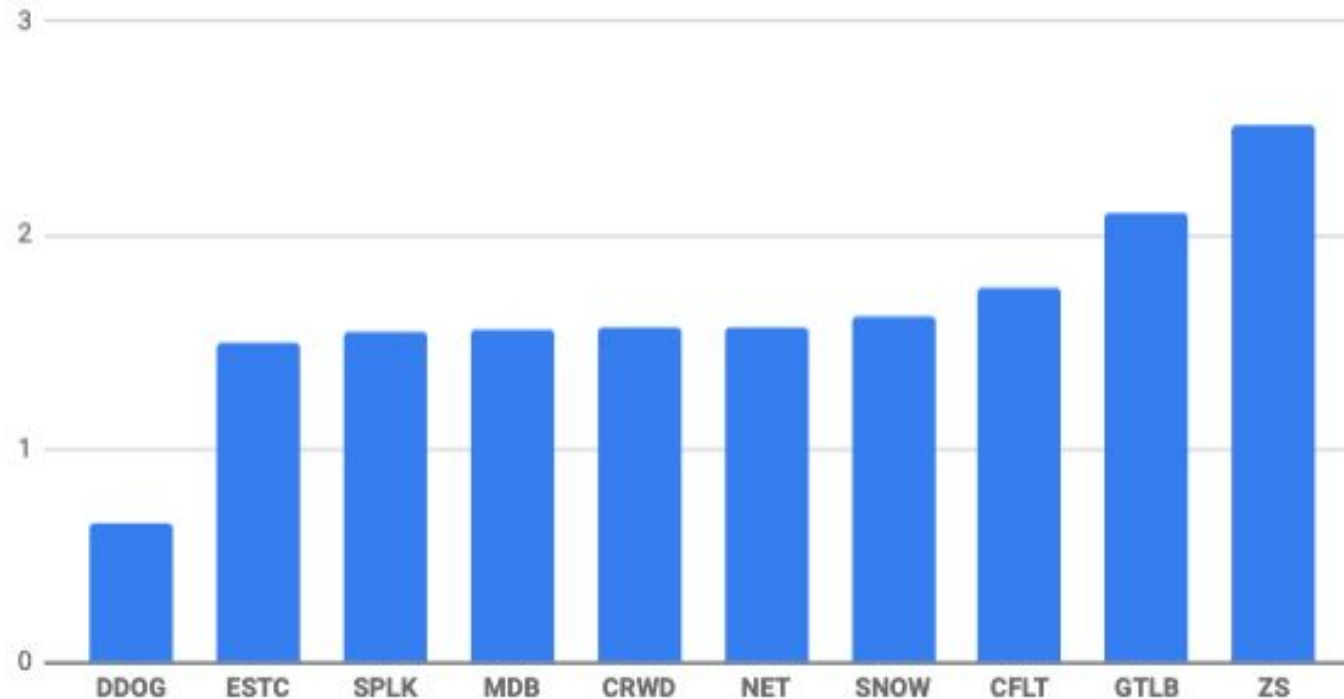
Chart of GAAP S&M Expense Divided by R&D Expense, Most Recent Quarterly Results

- Datadog is the only company in my coverage universe where R&D spend is higher than S&M

- Reflects their frictionless sales expansion model, with best in class DBNRR

- More investment in R&D keeps the innovation flywheel spinning (doubled product set in two years)

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Datadog - Single click activation of new products
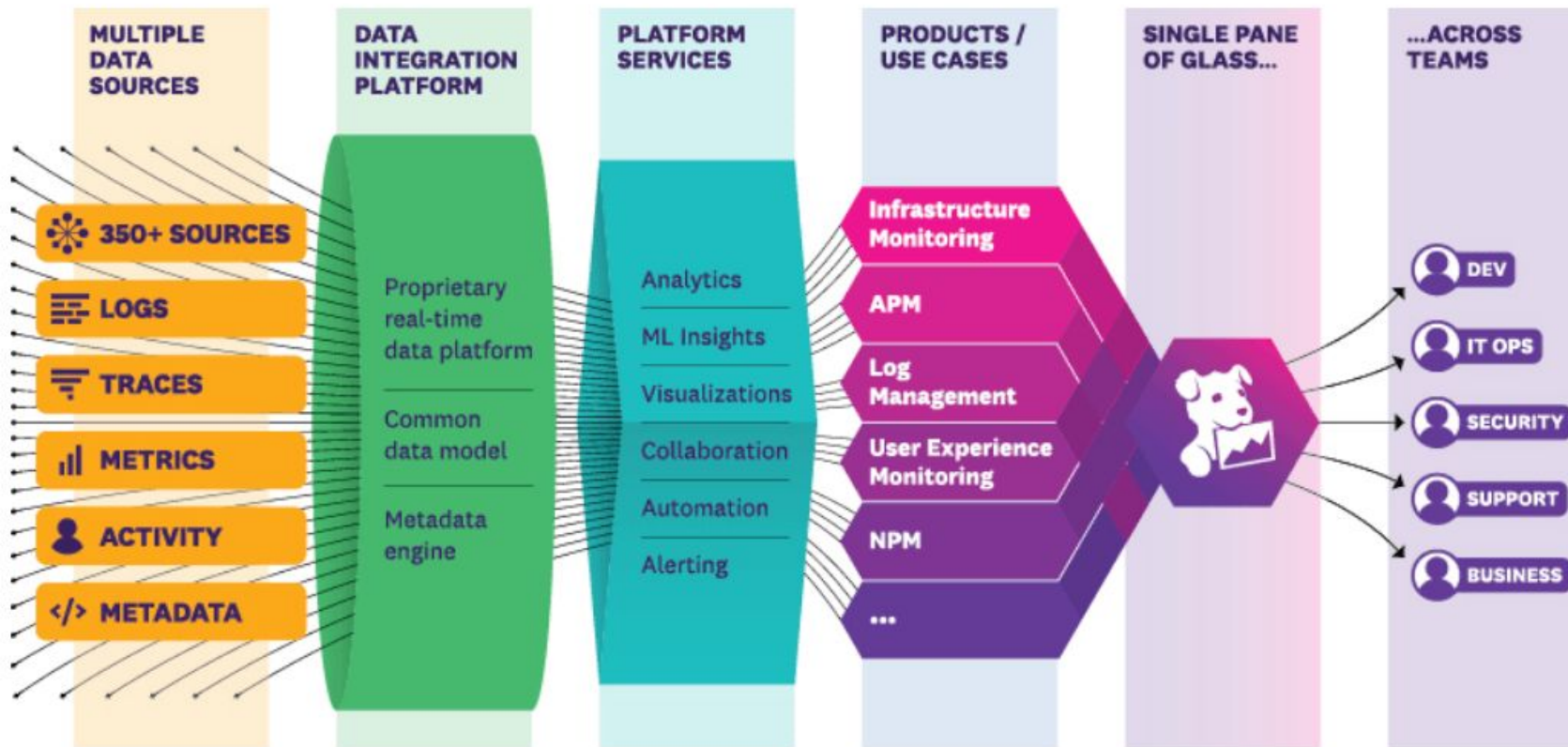
Datadog Data Platform Diagram, S-1 Filing

- All Datadog observability products are delivered from the same platform

- Installation of the Datadog Agent on server infrastructure is the only change required as part of first engagement

- From there, all 19 additional product offerings (plus future ones) can be activated by a button click

Of competitive set, only Datadog spends more on R&D than S&M (and grows faster)

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Datadog - Rapid product improvement in APM

- Datadog launched its APM (Application Performance Monitoring) offering in 2018.
- The product didn't meet the minimum functional requirements for the Gartner evaluation for the first two years.
- Datadog kept adding functionality and rounding out the product.
- Gartner initially added Datadog to the Magic Quadrant for APM in 2020 as a Visionary.
- They were promoted into the Leaders Quadrant in 2021.
- Then the top position in 2022.

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Snowflake - Network effects create competitive advantage

"

Snowflake has really become a de facto platform for financial institutions on how to share data. So that becomes a very, very powerful thing. We feel the network effect from data sharing in certain verticals that are really more advanced, more mature in terms of the adoption of data sharing than some others that are taking more time to get into that.

————— **SNOWFLAKE Q2 FY 2023 EARNINGS CALL**

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Snowflake - Large TAM to store **all data** in one place

CY26 Cloud Data Platform TAM by Workload
($ Billions)

$173 — Data Warehouse, Data Lake, Unistore

$14 — Collaboration, Data Engineering

$248 — Cloud Data Platform

$10 — Cybersecurity

$51 — Data Science & ML, Applications

Snowflake Investor Day, June 2022

Data Cloud

$248B — Cloud Data Platform
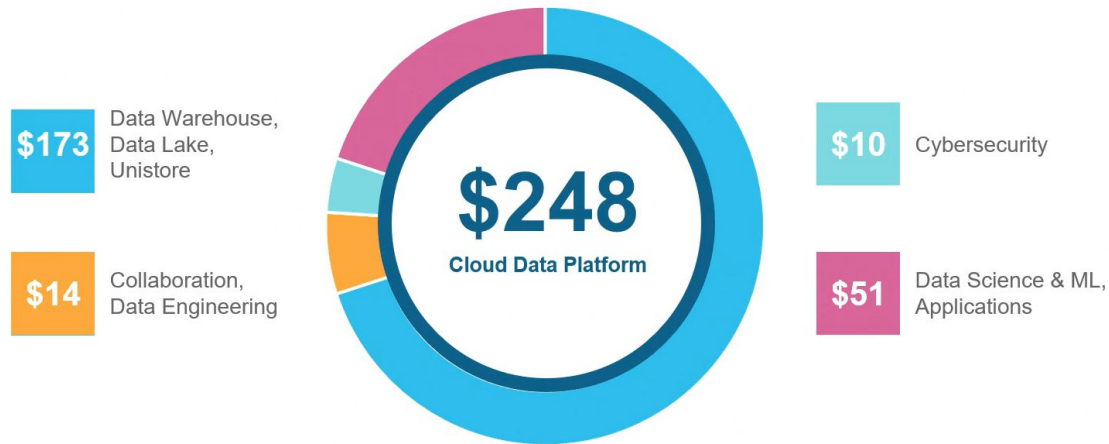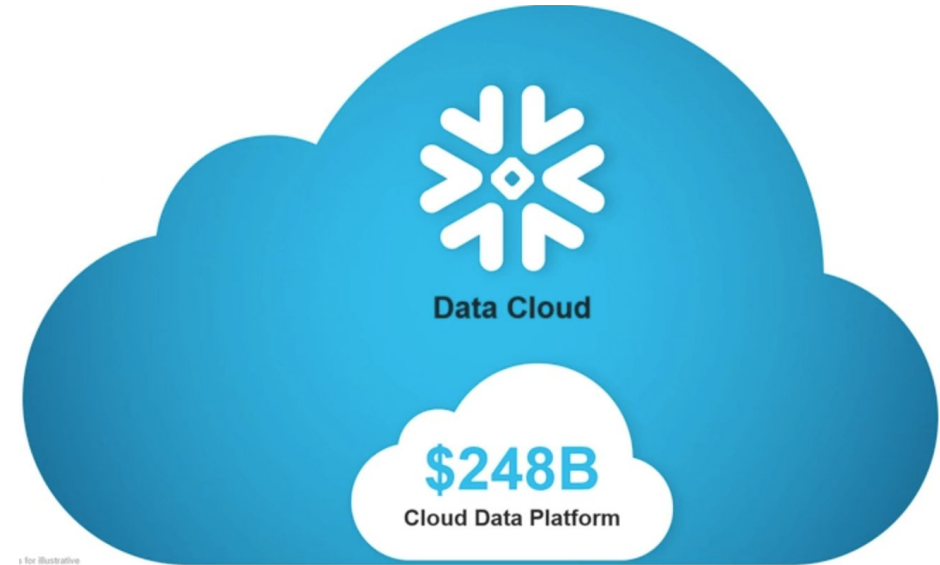
Snowflake Investor Day, June 2022

Snowflake defines their TAM by workload. This keeps expanding as they address more data processing use cases.

They retain an even broader vision for the Data Cloud, which they still don't try to size.

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Snowflake - What are network effects?

- Value of the network increases as more participants join
  - Social networks and dating sites provide an example. There is more incremental value for someone to join a network, if their friends or prospective matches are already members.

- Network value is even higher as switching costs increase
  - If joining the network requires set-up or integration effort, then participants are more likely to stay

- Captive audience makes cross-sell / upsell easier
  - Easier to introduce adjacent product offerings to existing members of the network

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Snowflake - Network effects through data sharing
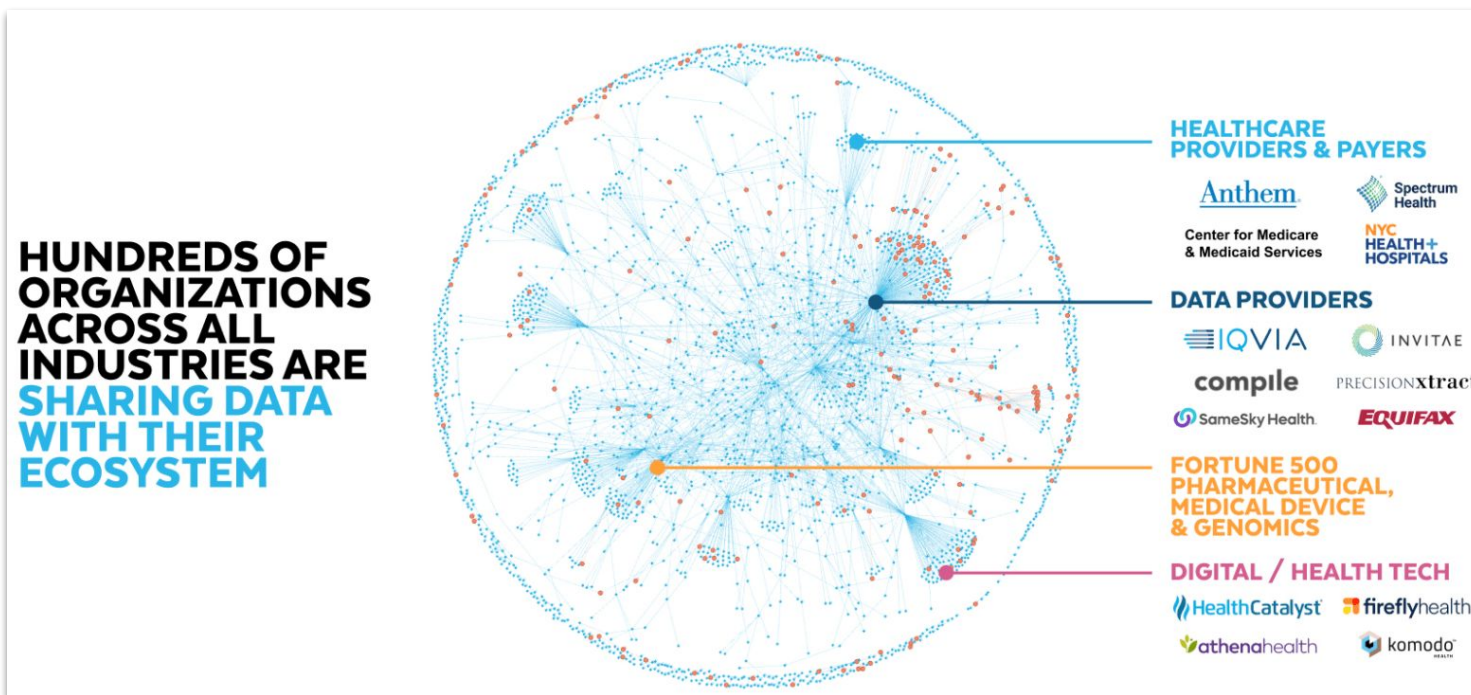
Snowflake Healthcare and Life Sciences Data Cloud, March 2022

- Data sharing eliminates IT overhead of APIs and file exchange
- Clean rooms allow two parties to combine data sets while keeping sensitive data private
- Brings new participants onto the platform who may not be current customers

>> *Snowflake customers suggest the use of Snowflake Data Sharing to their customers and partners*

**In Q3, 22% of all customers had at least one stable edge, up from 17% a year ago.
66% of $1M customers have a stable edge.**

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Snowflake - Marketplace and Powered By programs

Data Cloud Metrics

DATA SHARING

22%

Of Customers[1] Have at ≥1 Stable Edge[1]

MARKETPLACE LISTINGS[1]

1,702

11% Q/Q Growth

POWERED BY SNOWFLAKE

709

Registrants
20% Q/Q Growth
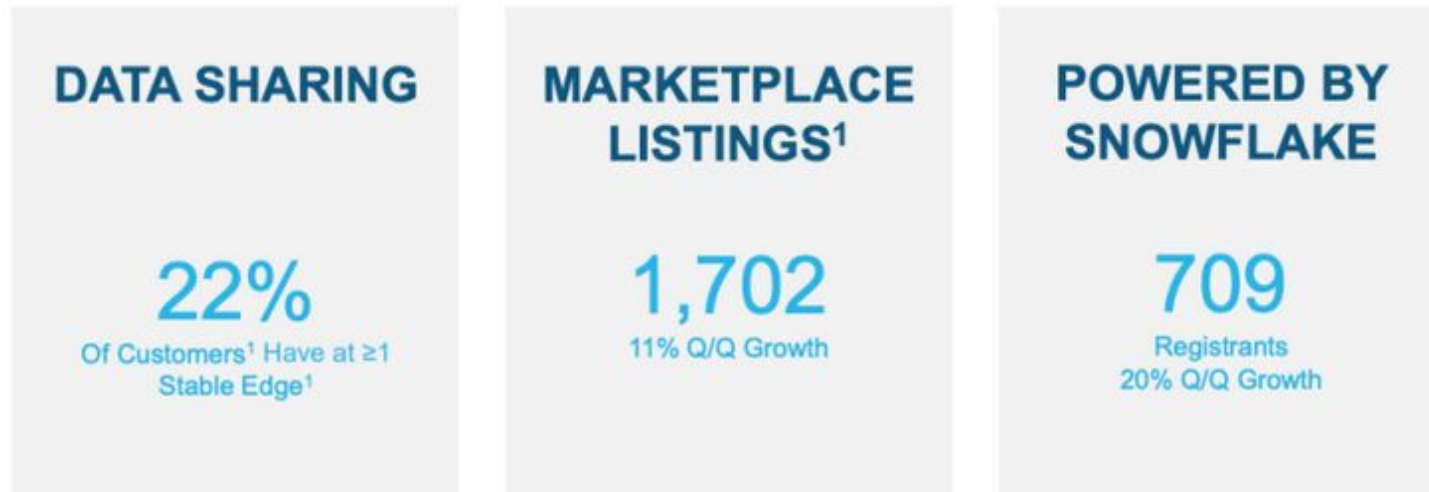
Snowflake Investor Presentation, Q3 FY2023

- In addition to data sharing, customers can subscribe to 3rd party data feeds through the Marketplace
- Keeps all customer data in one place on the Data Cloud
- Powered By partners are creating value-add applications on top of customer data, eliminating the need to manage multiple copies.

9% of $1M+ customers are members of the Powered By program.
4 fastest growing companies from $1M to $100M in ARR in history are built on Snowflake

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Snowflake - Large customer spend is very elastic

Customers Over $1M Product Revenue[1]

Legend:
- Customers >$20M TTM Product Revenue
- Customers >$10M TTM Product Revenue
- Customers >$5M TTM Product Revenue
- Customers >$1M TTM Product Revenue

	FY21	FY22	Q1 FY23
>$20M	1	4	5
>$10M	4	9	10
>$5M	12	30	40
>$1M	79	184	206
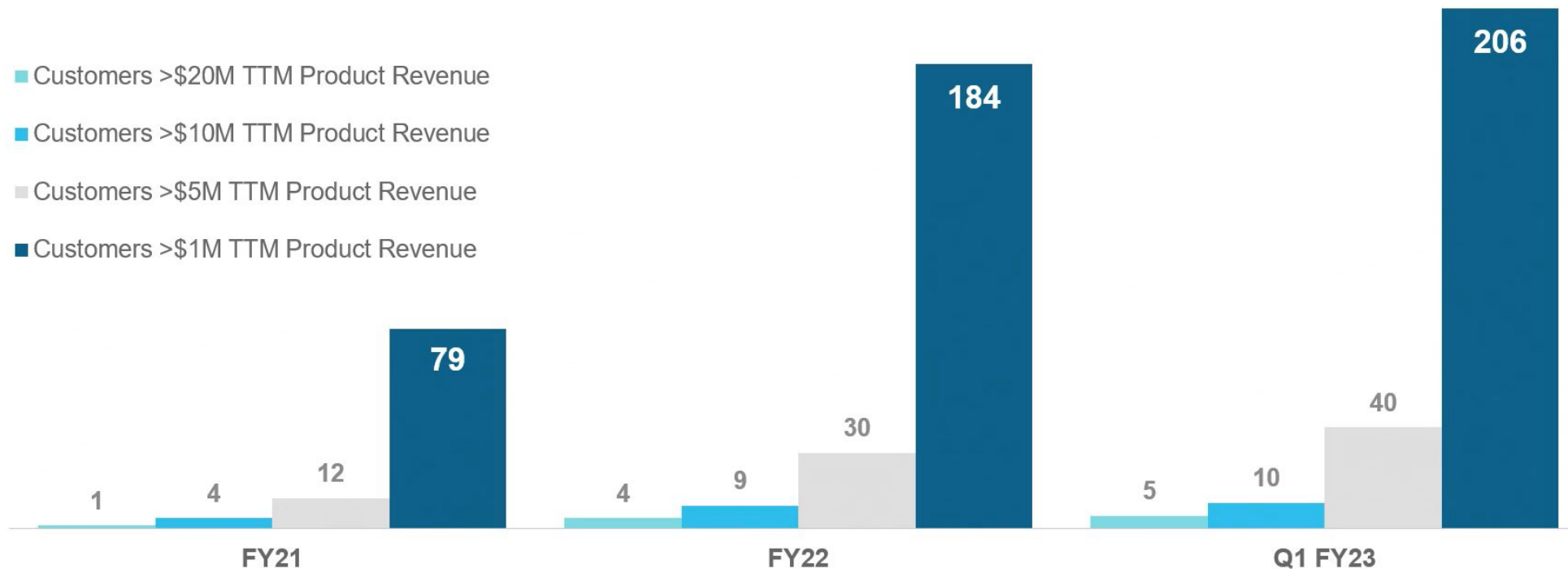
- Customers over $5M, $10M and $20M in TTM product revenue are growing rapidly
- Now reporting multiple customers that passed $100M in annual spend

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Use competitive advantage to find the next $1T company

Rank	Name		Market Cap	Price	Today	Price (30 days)	Country
1	Apple	AAPL	$2.425 T	$153.28	▼ 0.37%		🇺🇸 USA
2	Microsoft	MSFT	$2.030 T	$272.78	▲ 0.54%		🇺🇸 USA
3	Saudi Aramco	2222.SR	$1.931 T	$8.78	▼ 0.15%		🇸🇦 S. Arabia
4	Alphabet (Google)	GOOG	$1.212 T	$94.82	▼ 0.19%		🇺🇸 USA
5	Amazon	AMZN	$1.019 T	$99.45	▼ 0.09%		🇺🇸 USA
6	Berkshire Hathaway	BRK-B	$687.87 B	$311.05	▼ 0.86%		🇺🇸 USA
7	Tesla	TSLA	$660.06 B	$208.61	▲ 7.18%		🇺🇸 USA
8	NVIDIA	NVDA	$571.68 B	$229.41	▲ 5.29%		🇺🇸 USA
9	TSMC	TSM	$508.40 B	$98.04	▲ 2.00%		🇹🇼 Taiwan
^1 10	Visa	V	$483.54 B	$230.06	▲ 0.52%		🇺🇸 USA

Global Companies Ranked by Market Cap, February 2023

Each of these companies have a competitive moat of some sort.

Moat can support powerful compounding effects over a long duration.

Several of these companies have seen the most significant scaling over the last 10 years.

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Unlocking Durable Growth

How to identify lasting companies in software infrastructure

Questions?

Thank You, LBS!