

CyberArk

CyberArk: Multiple growth avenues and favorable CY24/CY25 setup

Reiterate Rating: BUY | PO: 315.00 USD | Price: 259.15 USD

Clear leader in an attractive market; reiterate Buy

We highlight CyberArk as an underappreciated cybersecurity company and raise our estimates and PO from \$300 to \$315. Our bullish thesis remains intact on four main positives for CyberArk: 1) PAM remains a critical security market, potentially more in focus as over 80% of cyberattacks are a result of poor identity security, 2) the company has completed its transition to a subscription based model and expanded its platform outside of core identity, both of which should support continued growth, 3) guidance and mid-term targets are likely conservative, and we expect significant upward revisions to estimates which should prompt the stock to positively re-rate and 4) the stock's valuation vs peers adds to support. The above positives combined with potential for the stock to re-rate should drive outperformance. We reiterate our Buy rating and increase our PO to \$315 still based on 12x CY25E EV/Sales.

Favorable setup into CY24 and beyond

CY24 marks the first year post transition to subscription for CyberArk; over 95% of revenues are recurring, and transition headwinds to growth are expected to wind down by 2Q. Concurrently, the company has expanded outside of traditional PAM into high growth subsegments like cloud security, endpoint manager and secrets manager. Additionally, only 50% of the customer base penetrated in PAM, and penetration for other pillars is below 35%, representing a large opportunity for both cross/upsell. We believe management's guidance for FY24 and targets for CY25 are likely on the conservative side and see multiple paths to upside to the numbers. As a result, we model CY24E/CY25E ARR growth of 30%/25%, 250bps/500bps above consensus.

Supportive valuation, broader identity security TAM

Cybersecurity stocks are driven by two fundamentals: increasing TAM and growth momentum, both of which should benefit CyberArk over the coming quarters. First, CyberArk's expansion outside of core PAM, specifically into cloud privilege security, should help continue to drive momentum in both new and existing customers, while increasing CyberArk's TAM from \$20bn to \$50bn. Second, CyberArk is one of the only cybersecurity stocks set up to reaccelerate growth through CY25 which should warrant both premium valuation versus peers and a re-rate of the stock.

Estimates (Dec) (US\$)	2021A	2022A	2023E	2024E	2025E
EPS	0.16	(0.44)	1.18	1.92	3.48
GAAP EPS	(8.57)	(9.64)	(1.55)	(0.63)	0.60
EPS Change (YoY)	-92.2%	NM	NM	62.7%	81.3%
Consensus EPS (Bloomberg)			0.78	1.75	3.30
DPS	0	0	0	0	0
Valuation (Dec)					
P/E	1,619.7x	NM	219.6x	135.0x	74.5x
GAAP P/E	NM	NM	NM	NM	431.9x
EV / EBITDA*	198.5x	NM	161.3x	87.4x	42.1x
Free Cash Flow Yield*	0.7%	0.4%	0.6%	1.2%	2.5%

* For full definitions of *IQmethod*SM measures, see page 13.

15 March 2024

Equity

Key Changes

(US\$)	Previous	Current
Price Obj.	300.00	315.00

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Stock Data

Price	259.15 USD
Price Objective	315.00 USD
Date Established	15-Mar-2024
Investment Opinion	C-1-9
52-Week Range	120.11 USD - 283.00 USD
Mkt Val (mn) / Shares Out (mn)	8,323 USD / 32.1
Free Float	100.0%
Average Daily Value (mn)	195.84 USD
BofA Ticker / Exchange	CYBR / NAS
Bloomberg / Reuters	CYBR US / CYBR.OQ
ROE (2023E)	7.1%
Net Dbt to Eqty (Dec-2022A)	-95.6%
ESGMeter™	High

ESGMeter is not indicative of a company's future stock price performance and is not an investment recommendation or rating. ESGMeter is independent of BofA Global Research's equity investment rating, volatility risk rating, income rating, and price objective for that company. For full details, refer to "BofA ESGMeter Methodology".

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Timestamp: 15 March 2024 05:00AM EDT

PAM: Privileged Access Management

iQprofileSM CyberArk

iQmethodSM – Bus Performance*

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Return on Capital Employed	1.5%	-0.3%	6.9%	10.1%	13.8%
Return on Equity	0.9%	-2.5%	7.1%	10.7%	16.8%
Operating Margin	3.4%	-3.8%	4.4%	9.6%	15.6%
Free Cash Flow	59	37	51	99	208

iQmethodSM – Quality of Earnings*

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Cash Realization Ratio	10.3x	NM	1.1x	1.1x	1.2x
Asset Replacement Ratio	0.4x	0.6x	0.3x	-3.2x	-3.5x
Tax Rate	2.1%	1.7%	NM	22.0%	22.0%
Net Debt-to-Equity Ratio	-76.6%	-95.6%	-80.6%	-80.2%	-84.4%
Interest Cover	NA	NA	NA	NA	NA

Income Statement Data (Dec)

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Sales	496	592	752	939	1,188
% Change	6.8%	19.3%	27.1%	24.9%	26.5%
Gross Profit	419	487	623	783	989
% Change	4.9%	16.3%	27.8%	25.7%	26.3%
EBITDA	39	(2)	48	88	183
% Change	-64.7%	NM	NM	84.6%	107.6%
Net Interest & Other Income	5	18	54	36	19
Net Income (Adjusted)	7	(18)	52	92	171
% Change	-91.9%	NM	NM	76.6%	86.6%

Free Cash Flow Data (Dec)

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Net Income from Cont Operations (GAAP)	(348)	(389)	(68)	(30)	30
Depreciation & Amortization	22	20	15	(2)	(2)
Change in Working Capital	(57)	(41)	(113)	(61)	(132)
Deferred Taxation Charge	(12)	(16)	(8)	0	0
Other Adjustments, Net	463	475	231	197	318
Capital Expenditure	(9)	(13)	(5)	(5)	(6)
Free Cash Flow	59	37	51	99	208
% Change	-40.7%	-37.0%	37.8%	92.4%	111.1%
Share / Issue Repurchase	0	0	0	0	0
Cost of Dividends Paid	0	0	0	0	0
Change in Debt	0	0	0	0	0

Balance Sheet Data (Dec)

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Cash & Equivalents	557	648	639	738	946
Trade Receivables	NA	NA	NA	NA	NA
Other Current Assets	505	449	572	638	767
Property, Plant & Equipment	20	23	16	23	29
Other Non-Current Assets	611	698	794	795	796
Total Assets	1,693	1,819	2,022	2,193	2,538
Short-Term Debt	0	0	0	0	0
Other Current Liabilities	340	452	1,125	1,148	1,271
Long-Term Debt	0	0	0	0	0
Other Non-Current Liabilities	627	689	105	126	146
Total Liabilities	967	1,141	1,230	1,274	1,418
Total Equity	727	678	792	920	1,120
Total Equity & Liabilities	1,693	1,819	2,022	2,193	2,538

* For full definitions of iQmethodSM measures, see page 13.

Company Sector

Cyber Security

Company Description

CyberArk is a pioneer of a new layer of IT security solutions that protect orgs. from cyber-attackers that have evaded the network perimeter. CyberArk's solutions secure organizations critical assets dubbed privileged accounts, which are the keys to databases, industrial control systems, servers and applications, all which house sensitive data. CyberArk's software is focused on protecting these accounts, which are highly targeted in cyber-attacks to disrupt networks and/or steal sensitive info.

Investment Rationale

We have a positive view for CyberArk as we see revenue growth reacceleration and resilient market tailwinds. Strong margins and relatively high growth also make the valuation attractive, even when considering the execution risks and perpetual licensing model.

Stock Data

Average Daily Volume 755,683

Quarterly Earnings Estimates

	2022	2023
Q1	-0.30A	-0.17A
Q2	-0.27A	0.03A
Q3	-0.06A	0.42A
Q4	0.17A	0.81E

The expanding definition of “Privileged”

Identity is the number one attack vector for cyber criminals, with 80% of data breaches leveraging compromised credentials to gain access to digital assets. Over 94% of all organizations have experienced a breach that stems from poor identity security, with 79% of organizations experiencing a breach in just the last two years, per the Identity Defined Security Alliance. Cyber threats are evolving at a rapid rate, becoming faster and more complex. Criminal breakout time, which is the time it takes for cyber criminals to break into a network and access data, shortened from 9hr42m in 2018 to 1hr38m in 2022, representing a 5x reduction in time to access critical assets and infrastructure.

Historically, enterprises leveraged traditional firewalls to secure the network perimeter and combat cyber-attacks, limiting the attack vector to users and devices within the physical building walls. In today’s digital world, enterprises can no longer rely solely on traditional firewalls to secure the network perimeter, as the perimeter extends far beyond the walls of buildings, across applications, data centers, users and devices. As digital ecosystems become more complex, the number of digital identities grows exponentially. A digital identity is needed for each external connection to the network, whether it be a user, application or device.

Consequently, the definition of Privileged Access Management (PAM) has evolved to address the growing complexity of digital identities. Traditionally, PAM has managed identity security for a select group of IT super users. These users, including network analysts, IT specialists, and database administrators, have access to the most critical infrastructure and digital assets in the network, making them a prime target for cyber criminals. In today’s digitalized environment, every identity, whether human or non-human, requires some level of privileged controls to operate within the network, whether it is to access a SaaS application or make a critical change or update to digital infrastructure. However, granting generalized privileged access to the majority of identities within the network poses significant security risks.

In order to address the evolving role of identity, CyberArk has expanded from securing traditional privileged identities to address the spectrum of identity, provisioning privileged access to users in different parts of the networking at different periods of time depending on role and function. This expansion of CyberArk’s scope is founded on a more holistic approach to identity security, enabling organization to achieve comprehensive visibility and control over each identities access and privileges within the network.

PAM remains attractive market, room for TAM to grow

The Identity & Access Management (IAM) market, which consists of Access Management (AM), Identity Governance & Administration (IGA) and Privilege Access Management (PAM) is forecasted to grow at a 13.1% CAGR through 2026, reaching a TAM of \$27.4bn according to Gartner. Out of the three segments of the IAM market, Access Management is poised to see the strongest acceleration of growth, with a CAGR of 20.5% through 2026. IGA and PAM have expected CAGR of 12.8% and 8.5%, respectively.

Exhibit 1: Gartner Identity Total Addressable Market

Gartner estimates 8.5% 5yr CAGR for PAM

		Year								
Market	Subsegment	2020	2021	2022	2023	2024	2025	2026	5 YR CAGR	
Identity Access Management	Access Management	3,915	4,972	6,223	7,621	9,257	10,927	12,636		
	YoY Growth (%)		27.0%	25.2%	22.5%	21.5%	18.0%	15.6%	20.5%	
	Identity Governance and Administration	3,020	3,451	3,926	4,438	5,004	5,629	6,305		
	YoY Growth (%)		14.3%	13.7%	13.0%	12.8%	12.5%	12.0%	12.8%	
	Privileged Access Management	1,709	1,941	2,156	2,365	2,551	2,737	2,921		
	YoY Growth (%)		13.6%	11.1%	9.7%	7.9%	7.3%	6.7%	8.5%	
	User Authentication	4,048	4,354	4,633	4,900	5,148	5,379	5,580		
	YoY Growth (%)		7.6%	6.4%	5.8%	5.1%	4.5%	3.8%	5.1%	
Total Information Security, (\$mn)		137,131	151,947	168,476	186,579	206,129	225,990	247,838	10.3%	

Source: Gartner

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However, we believe these estimates are conservative, and do not account for market tailwinds like the expanding definition of privileged users, the proliferation of machine identities, and the introduction of new subcategories in PAM such as secrets management, endpoint privilege security, and cloud privileged access.

We estimate the TAM to be between \$33bn - \$40bn by 2027, growing at a CAGR of 25%, driven by growth in the number of privileged identities, the growing importance of PAM and its criticality in the security stack, and Cloud privileged access, which we believe could be 3-4x the size of the core PAM market at maturity. Our estimate is in between Okta's estimate of \$15bn (top-down approach, PAM excluding workforce functionalities, internal estimate of Modern Infrastructure Access spend as a percent of Total Cloud Spend) and CyberArk's \$50bn estimate (bottoms up approach assuming 75,000 potential customers for each line of business), and CyberArk's estimate of \$50bn. We note that CyberArk's expansion into broader Identity Security represents a 150% increase compared 2021's TAM of \$20bn, which primarily consisted of the PAM market. Workforce, Cloud and Secrets Management markets are top contributors to the increase in TAM, as well as the proliferation of non-human privileged identities, which has multiplied from a ratio of 1:9 to 1:45 over the last two years.

Exhibit 2: BofA PAM Total Addressable Market Estimates

We estimate a TAM of \$37bn for PAM and related identity features by 2027.

	2021	2022	2023	2024	2025	2026	2027	2024-2027 CAGR
Identity management	5,720.9	7,269.9	8,800.9	10,442.8	12,304.6	14,357.1	16,569.3	16.6%
Advanced authentication	3,328.5	4,042.9	4,748.1	5,441.9	6,147.0	6,861.5	7,612.4	11.8%
Privileged access management	1,360.6	1,612.8	1,845.4	2,109.3	2,382.8	2,669.9	2,952.5	11.9%
Legacy	105.7	127.1	131.1	131.7	131.5	130.9	130.5	-0.3%
Cloud*	-	250.0	550.0	1,611.2	3,415.8	6,104.8	9,959.8	83.5%
Total	10,515.7	13,302.7	16,075.5	19,736.9	24,381.7	30,124.2	37,224.5	23.6%

Source: IDC, BofA Global Research estimates

*BofA estimate

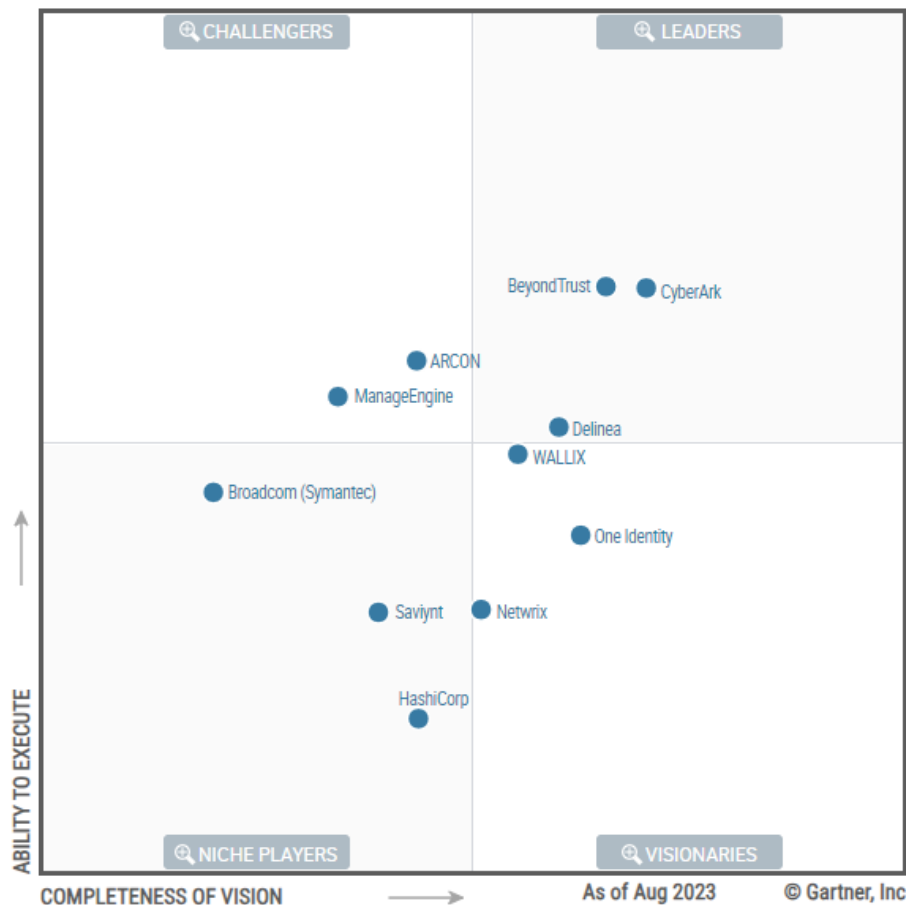
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We also flag that we believe CyberArk's leadership position is intact. CyberArk is trusted by more than 50% of the Fortune 100 to secure the most critical and sensitive accounts within the organizations, underscoring a reputational moat that is built over time. Third-

party vendors such as Gartner have also consistently ranked CyberArk as the market leader for PAM software (see Gartner ranking in Exhibit 4 as of August 2023).

Exhibit 3: PAM Magic Quadrant

CyberArk is ranked as a leader in PAM



Source: Gartner

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While BeyondTrust is ranked a close competitor in Gartner's Magic Quadrant, we seldom hear from channel partners of BeyondTrust being in RFPs alongside CyberArk as BeyondTrust is more prevalent down market in mid-enterprise. Additionally, we flag that BeyondTrust's innovation in cloud has lagged CyberArk, which will be an increasingly important area of growth within the PAM market.

Platform Overview

CyberArk's identity security platform aims to solve the growing complexity of securing the full spectrum of identities by offering a comprehensive suite of products across on-prem, hybrid and multi-cloud environments. The product portfolio consists of six subsegments including Workforce & Customer Access, Endpoint Privilege Management, Privileged Access Management, Secrets Management, Cloud Privilege Security, and Identity Management.

Workforce & Customer Access: CyberArk offers a differentiated approach to workforce and customer access. Traditionally, vendors in the Access Management (AM) space have offered solutions that authenticate and authorize internal users to the network through technology such as Single Sign-on (SSO) and Multi-Factor Authentication (MFA). These products are fairly simple on the back-end and are usually comprised of tokens and certificates that provide identity information to the network. As

a result, the AM market is becoming increasingly commoditized as there are no significant differences between the basic identity offerings across Okta, Ping, Microsoft and others. Management has noted that CyberArk is not actively pursuing the basic access management market, and is not looking to compete on pricing with Okta, Microsoft and others.

Instead, the company is focusing on leveraging its privilege control technology to offer more advanced access management solutions like adaptive MFA/SSO offerings, secure web browser and password management which help prevent lateral user movement through the network. However, management does not view Secure Web Browser as a monetization play, and instead intends for the product to be a gateway for embedded products like secure sessions, adaptive MFA/SSO and password management. We think there is clear industry appetite for secure browser solutions, and the market is in the early innings, both of which are positive signals for CyberArk's product. In our view, the company could capitalize on these industry trends and focus on monetizing the product in addition to emphasizing synergies across the platform.

We view CyberArk's Workforce Access products as differentiated versus the competition, and as workforce identities continue to be compromised by threat actors, organizations will look for solutions that allow for more granular controls for basic users, which should benefit CyberArk. 15% of new logos land with Access Management products, which now accounts for 15% of subscription ARR, signaling healthy early adoption from new customers. Access is only 10% penetrated across the existing base, with plenty of opportunity to upsell, especially as threat actors are beginning to circumvent simple authentication and authorization tools such as SSO/MFA.

Endpoint Privilege Management: CyberArk's Endpoint Privilege Management (EPM) is the company's fastest growing product, contributing to 20% of subscription ARR as of 1Q23. The product implements a least privilege approach to endpoint management by removing local admin rights from endpoints and applies just-in-time (JIT) access for endpoints that need elevated rights and credentials. This reduces the number of endpoints with standing credentials, which are elevated credentials that are never revoked once granted. Endpoints with standing credentials have become a popular attack vector for cybercriminals given their proximity to critical assets. It is important to note that EPM is not a replacement for Extended Threat Detection & Response (EDR) solutions provided by vendors like CrowdStrike and SentinelOne, and is instead complementary as CyberArk's EPM solutions manage the credentialing of endpoints, versus endpoint detection and behavior monitoring. Microsoft recently entered into the EPM market, however we view this positively. According to management, one of the main headwinds to EPM growth has historically been a lack of market awareness and education. Microsoft's entry validated the EPM market with customers, and as a result has been a catalyst for growth. While Microsoft is a formidable competitor, the hyperscaler tends to target customers downstream in SMB and mid-enterprise markets, versus the higher end of the market where CyberArk targets. More recently, EPM has become a landing point for new CyberArk customers, with 15% of new logos initially purchasing EPM, and we flag that the EPM solution still has ample room for growth within the existing customer base with a penetration rate of 22%.

Privileged Access Management: CyberArk's core Privileged Access solution provides credential protection and management, session isolation and monitoring, and threat detection and analytics, which can be deployed on-premises, in the cloud, or via a SaaS delivery mode. CyberArk is the clear leader within the PAM market, with a robust technological moat that is supported more recently by the Privilege Cloud offering. Privilege Cloud already has over 2,000 customers and offers both standing and JIT access to all human and non-human privilege identities. 85% of new customers land with PAM products, which has a penetration rate of 88% throughout the install base. Surprisingly, Management estimates that within PAM customers, only 50% of their privileged accounts are secured through CyberArk, as customers begin their journey securing the most critical accounts and move through an onboarding roadmap over time. Additionally, the proliferation of privilege identities creates continued meaningful

growth opportunities for the PAM product. Industry experts estimate that the ratio of human to non-human identities is 1:45, up from 1:9 in 2021. We expect PAM to continue to be a material contributor of growth for CyberArk, and the TAM should continue to expand at the rate of identity expansion.

Secrets Management: Secrets Management has seen solid traction within the existing customer base, with a penetration rate of 31%. While it only accounts for 10% of subscription ARR, newly announced product innovations should be a catalyst for growth. Secrets Management is embedded in the developer workflow; developers store secrets such as API keys in vaults across the different platforms that they use. Applications then access these secrets during production and runtime. Storing secrets securely is critical for protecting sensitive information and digital assets. However, developers utilize multiple tools throughout the development process, many of which host their own secret storage vaults. As a result, most organizations face significant vault sprawl, with secrets stored in multiple places, duplicated across platforms. Vendors such as HashiCorp offer centralized secure storage vaults, however CyberArk's differentiator is its emphasis on security in addition to maintaining native developer secrets. CyberArk's Secrets Management products offer a centralized secrets vault with granular privilege controls and policies. Initially, Secrets Management integrated just with AWS, however CyberArk announced new integrations to Azure as well as self-hosted environments. Because most organizations utilize over three clouds in their environments, the expansion of integrations should serve as a tailwind for growth across both existing and new customers who leverage a multi-cloud strategy. Additionally, Secrets Management is critical for non-human identities, who access secrets more frequently than developers. As attacks on non-human identities continues to accelerate, organizations should gravitate towards security-first vendors to support application and workload development, creating a tailwind for CyberArk's offerings.

Cloud Privilege Security: The transition to cloud has created a complex security environment, particularly for identity security. For example, each workload that is spun up needs a unique identity, along with the user or machine that is managing it. Entitlements and privileges for these identities can easily be mismanaged due to the sheer volume and velocity at which development in the cloud occurs. CyberArk aims to address these risks with their Cloud Privilege Security identity offerings that focus on zero standing privilege and JIT access. As mentioned above, standing privileges create security vulnerabilities due to their proximity to critical assets and infrastructure. Instead, CyberArk's JIT offerings revoke all credentials, and implement an access request workflow for developers to seamlessly get access to cloud infrastructure only when necessary.

It is important to highlight the differences between CyberArk's Cloud Privilege Security, and general cloud security, also dubbed "CNAPP". CNAPP has become a fast-growing market in a short period of time, driven by the pull forward transition to Cloud as a result of the Covid pandemic. CNAPP solutions address two distinct cloud security issues: 1) it evaluates the structure of cloud workloads to ensure that there are no vulnerabilities within the cloud workload itself. 2) it evaluates the environment that the workload is running in, such as containers and VMs, to ensure there are no risks or potential vulnerabilities. However, CNAPP products fail to address privileges of cloud workloads. For instance, if a workload passes both security checks above, there is currently no tool to monitor its movement throughout the network and its subsequent access to critical infrastructure in the network, creating a large potential lateral attack vector for bad actors. CyberArk's Cloud Privilege Security solves this critical security gap by providing access controls and privilege controls to cloud workloads, ensuring no lateral movement within the network.

We believe Cloud Privilege Security could be the most meaningful driver of future growth due to the critical security risk it solves. Not only does the Cloud Privilege Security solution cater to developers, it also allows workloads and other non-human identities to CyberArk estimates that the opportunity could be 3-4x the scale of the core PAM opportunity as the market matures.

Identity Management: CyberArk does not offer a full Identity & Governance Administration (IGA) suite, however they do offer products complementary to PAM solutions such as lifecycle management, automated flows and compliance and audit support through the form of logs and recorded sessions. Because of its supportive nature, we do not expect Identity Management to account for a material portion of CyberArk's growth going forward, however industry trends like increasing cyber insurance requirements and privacy laws should serve as a tailwind.

Financials

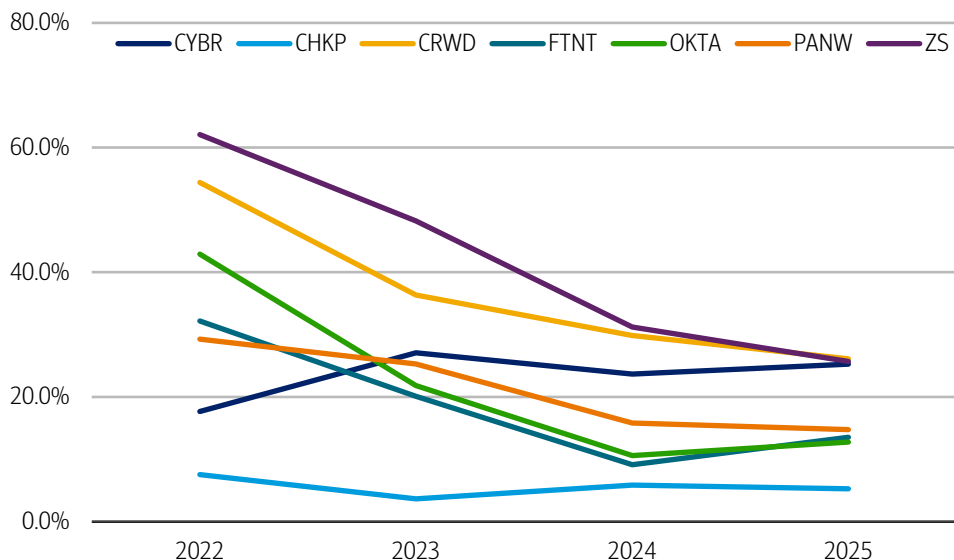
The last two years have marked a period of transition for CyberArk, as the company as transitioned to a subscription-based model. While a net positive given the stability and visibility of a recurring revenue model, the transition created short term revenue headwinds through CY22. However, CyberArk exited CY23 on the other side of the transition. In CY19, 55% of CyberArk's revenues came from software licensing, with roughly 92% of licensing revenue generated from a perpetual licensing model. Roughly 37% of total revenue was derived from recurring Maintenance revenues related to the perpetual licenses and 8% from Professional Services. As of 4Q23, 95% of revenue was recurring, with 75% attributed to SaaS recurring revenue.

CyberArk reaccelerated CY23 revenue growth to 27% YoY versus 19% year prior, driven by continued robust demand for identity security despite macroeconomic pressures. We flag that CyberArk was one of the only public security companies to stave off the effects of macro, as identity security, specifically privileged identity security, continues to be a top priority for Chief Security Officers (CISOs).

The company expects strong underlying trends to continue, guided FY24 revenue growth of 25% and reiterating FY25/FY27 targets of 25%/20+% growth. We believe underlying market trends as well as renewed focus on cross-selling new products to the existing base should support growth, and we estimate that CyberArk will benefit from the highest growth rates among public cybersecurity companies by 2025, growing at 25.6% versus peer average of 16%.

Exhibit 4: Revenue growth of public cybersecurity companies, 2022-2025E

We forecast CyberArk revenue growth of 25% in 2025E, above growth rates of cyber peers



Source: BofA Global Research estimates, company report

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Strong renewal rates, billings growth, platform efficiencies and moderating OpEx should drive improvements in FCF, putting the company in striking distance of “Rule of 50”, an industry standard for business model sustainability, by FY27. We view these targets as achievable, given the company’s leadership in Privilege Access Management, as well as management’s focus on leveraging opportunities to increase margins such as utilizing the channel and emphasizing cross/upsell motions. The company has historically been profitable before the transition to subscription, and while hosting costs and shorter durations would remain headwinds to cash flow, topline growth and operating efficiencies should be able to negate the effects of the headwinds, we believe. We also highlight the sustainability of the business model, as targets suggest both revenue reacceleration as well as margin expansion over the next few years.

Where could upside come from?

In our view, there are a plethora of opportunities that could drive upside to the numbers, as seen by our CY24/CY25 estimates compared to the Street.

Exhibit 5: BofA vs Street vs Guidance Estimates

BofA estimates are above Street estimates and guidance

	FY24 Expectations			FY24 Delta vs BofA		FY25 Expectations			FY25 Delta vs BofA	
	BofA	Consensus	Guidance	Consensus	Guidance	BofA	Consensus	Mgmt Targets	Consensus	Guidance
ARR	\$1,002.2	\$977.9	\$975.5	2.5%	2.7%	\$1,251.8	\$1,193.0	\$1,100.0	4.9%	13.8%
YoY growth (%)	29.5%	26.3%	26.0%	11.9%	13.4%	24.9%	22.0%	12.8%	13.2%	95.2%
Revenue	\$939.1	\$926.5	\$925.0	1.4%	1.5%	\$1,188.3	\$1,135.4	\$1,156.3	4.7%	2.8%
YoY growth (%)	24.9%	23.2%	23.0%	7.2%	8.2%	26.5%	22.5%	25.0%	17.7%	6.2%
Gross margin (%)	83.4%	82.7%	n/a	0.8%	n/a	83.2%	82.7%	81.0%	0.7%	n/a
Operating margin (%)	9.6%	8.7%	8.6%	10.8%	11.4%	15.6%	14.6%	15.0%	6.9%	3.8%
EPS	\$1.92	\$1.75	\$1.73	9.8%	11.1%	\$3.48	\$3.30	n/a	5.5%	n/a
Free cash flow	\$98.6	\$90.9	\$90.0	8.5%	9.6%	\$208.2	\$193.9	\$200.0	7.4%	4.1%
FCF margin (%)	10.5%	9.9%	9.7%	6.3%	8.0%	17.5%	17.0%	17.3%	3.0%	1.3%

Source: BofA Global Research estimates, company report, Bloomberg

BofA GLOBAL RESEARCH

Cloud privilege access could provide meaningful uplift to contracts, plenty of room for future growth

We see the most potential for growth coming from Cloud Privilege Security given the criticality of securing movement and access within the cloud as well as the growth in the number of cloud workloads. CyberArk is the only public identity company offering a solution for non-human privileged cloud security access, and market adoption should occur relatively quickly given the proliferation of cloud-based workloads. CyberArk prices on a per-non-human identity basis that is 30% the cost of a human PAM user. However, management noted that while early, given the number of non-human identities in the cloud, Cloud privilege spend has been 1:1 with human PAM identity spend. We also highlight that CyberArk’s cloud privilege security should grow in tandem with cloud workload growth as the majority of cloud workloads required privilege to complete tasks such as API calls, pulling data from data centers, and interacting with other workloads. While the company views cloud privilege security as more of a 2025 opportunity, we believe market awareness should accelerate as CNAPP and other non-identity cloud security solutions ramp in adoption which could lead to cloud privilege security contributing more materially to growth by 2H24.

Expansion within the existing customer base

Continued success in cross/upsell motions should also drive upside to the numbers for FY24/FY25. In conjunction with the business model transition, CyberArk also underwent a transition from being a point product vendor offering only core PAM products to a broader identity platform. The platform story is beginning to resonate with customers;



while PAM continues to be the initial landing point for over 80% of new logos, over 50% of customers purchase 2+ products at the initial sale, with many customers landing with products from all pillars. At the same time, penetration of non-core PAM products still has plenty of room to grow within the existing base: 31% of customers own Secrets Manager, 22% own Endpoint Privilege Manager, 10% own workforce products and under 1% own cloud and governance products, and CyberArk estimates that the existing opportunity in the install base alone is over \$5bn. Currently, 30% of ARR growth comes from new logos. Of the 70% of ARR growth that comes from expansions, 65% is upsell and only 35% is cross-sell. Management has placed renewed effort on cross-sell for FY24, and in our view underlying demand trends within the identity market, continued prioritization of identity by CISOs, and refreshed channel programs should drive meaningful growth in cross-sell. We also highlight that this is the first year with a more expansive portfolio for customers to choose products from, which should also serve as a tailwind for growth.

Exhibit 6: ARR Growth Breakout

30% of ARR growth comes from new logos while 70% comes from existing customers



Source: CyberArk

BofA GLOBAL RESEARCH

Recent breaches may drive increased PAM spending

Recent high-profile breaches like MGM and Clorox may also drive incremental spending focus on PAM. Specifically, these breaches leveraged compromised credentials to gain access to internal IT systems, bringing MGM and Clorox offline for multiple weeks. These events may further highlight the need for tighter controls on IT admin rights and privileged accounts, and we flag that PAM controls and CyberArk's product suite could have played an important role in defending against and investigating such hacks. Also as evidence, Verizon recently published that 80% of hacks involve compromised credentials, supporting the need for strong PAM controls.

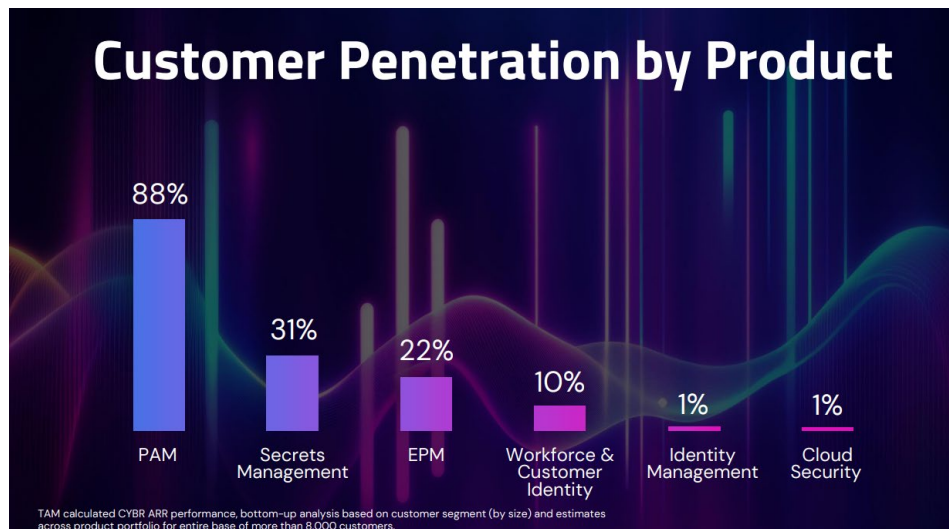
Renewal cohort could pose risk, but more likely to be an opportunity

CY24 marks CyberArk's second year as a SaaS forward company. Because SaaS contract durations average 2-3 years, this means CyberArk will be up against its first cohort of SaaS renewals. While this does pose a risk to the company both on a GRR and NRR basis, we do not see any degradation in CyberArk's competitive moat over the last two years that would prompt a customer to churn. Additionally, the evolving threat environment has and criticality of PAM has driven very healthy demand over the last few years, and CyberArk has not needed to offer any bundling or discounting to customers. We do not believe these positive trends will be shifting in CY25, and are therefore not baking in any degradation to net retention either. We view the upcoming renewal cohort as a positive for CyberArk, as many of these customers have not yet had exposure to the

full identity platform as seen by lower penetration rates of product pillars outside of PAM, which should lead to frictionless cross-sell opportunities upon renewal and could provide additional upside to growth estimates.

Exhibit 7: Customer penetration by product

Cross-sell outside of PAM remains a large opportunity for CyberArk



Source: CyberArk

BofA GLOBAL RESEARCH

Valuation remains supportive, estimate revisions should drive multiple expansion

Lastly, we believe the stock valuation is currently supportive and we see upside to the multiple for the above-mentioned positives. Versus other best of breed cyber peers who trade closer to 12-14x CY25 EV/Sales, CyberArk is trading at a slight discount at 10x. We believe at a minimum CyberArk should trade in-line with best of breed peers like CrowdStrike and Zscaler. This would bring CyberArk's stock to \$315 based on BofA estimates. We also believe that CyberArk's better growth profile, healthy margin improvements, and leadership in the attractive PAM market justify premium valuation to other cyber security vendors like Fortinet and Palo Alto who are experiencing declining growth in crowded markets. Lastly, we flag that CyberArk's FY25 target is likely conservative given strong CY23 outperformance that flowed through to CY24 guidance, and believe significant upwards estimate revisions are likely to occur, which should prompt the stock to re-rate higher.

Price objective basis & risk

CyberArk (CYBR)

Our PO of \$315 is based on roughly 12x 2025E EV/Sales. This is near the middle of SaaS security peers at 10-18x. CyberArk's transition to SaaS is gaining additional momentum, which should support the multiple.

Upside risks to our price objective are difficulties in sizing the market given its newness and low market awareness, stronger conversion of qualified customers that are currently in the pipeline, and higher average deal sizes from rising license attach rates.

Downside risks are FX risk exposure (40% international exposure), difficulties sizing the market, and competition from large, well-established operators.

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I, Tal Liani, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

US - Telecom and Data Networking Equipment Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Akamai	AKAM	AKAM US	Madeline Brooks
	Amdocs	DOX	DOX US	Tal Liani
	Arista Networks	ANET	ANET US	Tal Liani
	Cellebrite	CLBT	CLBT US	Tomer Zilberman
	Check Point Software Technologies	CHKP	CHKP US	Tal Liani
	Ciena	CIEN	CIEN US	Tal Liani
	CrowdStrike Holdings Inc.	CRWD	CRWD US	Tal Liani
	CyberArk	CYBR	CYBR US	Tal Liani
	Fastly	FSLY	FSLY US	Madeline Brooks
	Fortinet	FTNT	FTNT US	Tal Liani
	Gen Digital, Inc.	GEN	GEN US	Jonathan Eisenson
	InterDigital, Inc.	IDCC	IDCC US	Tal Liani
	Motorola Solutions	MSI	MSI US	Tomer Zilberman
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	Qualcomm	QCOM	QCOM US	Tal Liani
	SentinelOne, Inc.	S	S US	Tal Liani
	Zscaler	ZS	ZS US	Tal Liani
NEUTRAL				
	Cisco Systems	CSCO	CSCO US	Tal Liani
	Palo Alto Networks	PANW	PANW US	Tal Liani
UNDERPERFORM				
	Cloudflare	NET	NET US	Madeline Brooks
	CommScope	COMM	COMM US	Tal Liani
	F5 Inc	FFIV	FFIV US	Tal Liani
	SecureWorks	SCWX	SCWX US	Tal Liani

iQmethodSM Measures Definitions

Business Performance

Return On Capital Employed

Return On Equity

Operating Margin

Earnings Growth

Free Cash Flow

Numerator

NOPAT = (EBIT + Interest Income) × (1 – Tax Rate) + Goodwill Amortization

Net Income

Operating Profit

Expected 5 Year CAGR From Latest Actual

Cash Flow From Operations – Total Capex

Denominator

Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill

Amortization

Shareholders' Equity

Sales

N/A

N/A

Quality of Earnings

Cash Realization Ratio

Asset Replacement Ratio

Tax Rate

Net Debt-To-Equity Ratio

Interest Cover

Numerator

Cash Flow From Operations

Capex

Tax Charge

Net Debt = Total Debt – Cash & Equivalents

EBIT

Denominator

Net Income

Depreciation

Pre-Tax Income

Total Equity

Interest Expense

Valuation Toolkit

Price / Earnings Ratio

Price / Book Value

Dividend Yield

Free Cash Flow Yield

Enterprise Value / Sales

Numerator

Current Share Price

Current Share Price

Annualised Declared Cash Dividend

Cash Flow From Operations – Total Capex

EV = Current Share Price × Current Shares + Minority Equity + Net Debt +

Other LT Liabilities

Enterprise Value

Denominator

Diluted Earnings Per Share (Basis As Specified)

Shareholders' Equity / Current Basic Shares

Current Share Price

Market Cap = Current Share Price × Current Basic Shares

Sales

Basic EBIT + Depreciation + Amortization

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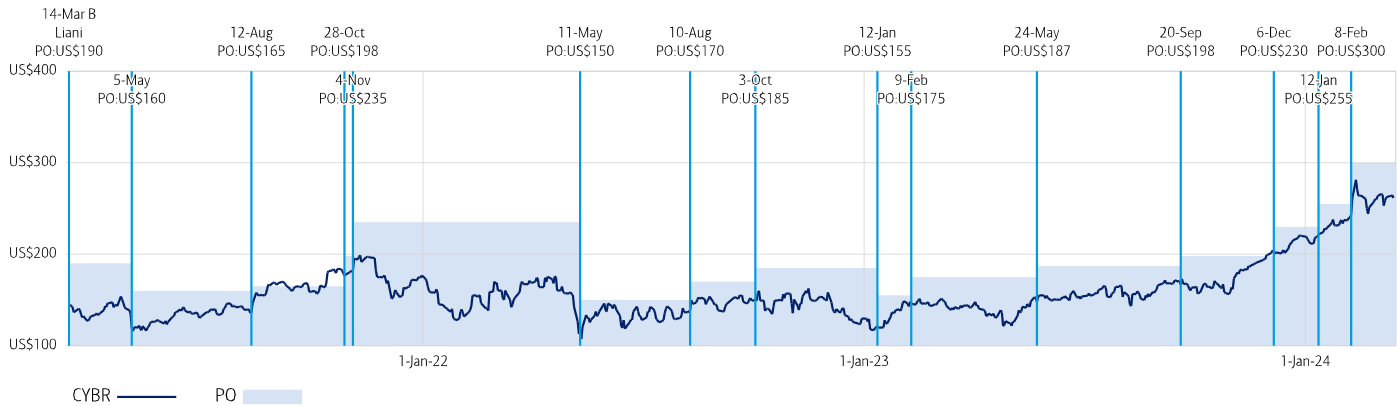
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CyberArk Software (CYBR) Price Chart



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Equity Investment Rating Distribution: Telecommunications Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	57	51.82%	Buy	43	75.44%
Hold	27	24.55%	Hold	17	62.96%
Sell	26	23.64%	Sell	12	46.15%

Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
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Sell	807	22.84%	Sell	383	47.46%

^{R1} Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R2}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R2} Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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