

Reaching for the Clouds

Mountains & Accretions

Berit Schrader | Philipp Burkhardt | Ivan Kamenov
Otmar Simon Hübscher | Moritz Olbrich
University of St. Gallen
St. Gallen, 10th March, 2024

Table of Contents

| | |
|--------------------------------|--------------|
| Executive Summary | p. 4 |
| I. Market Analysis | p. 6 |
| II. Strategic Fit | p. 15 |
| 1. IBM | |
| 2. Equinix | |
| 3. Strategic Fit | |
| III. Financial Analysis | p. 31 |
| 1. Comparables | |
| 2. Discounted Cash Flow | |
| 3. Synergies | |
| IV. Feasibility | p. 49 |
| V. Alternative Solution | p. 55 |
| VI. Conclusion | p. 66 |
| Appendix | |
| Bibliography | |

Table of Abbreviations

| Abbreviation | Explanation |
|--------------|---|
| AFFO | Adjusted Funds From Operations |
| AI | Artificial Intelligence |
| APAC | Asia Pacific |
| Avg | Average |
| bn | Billion |
| C&IP | Consumer & Industrial Products |
| CAGR | Compound Annual Growth Rate |
| Capex | Capital expenditures |
| CEO | Chief Executive Officer |
| CO | Cyrius One |
| DCF | Discounted Cash Flow |
| DB | Digital Bridge |
| E | Estimates |
| e.g. | exempli gratia (for example) |
| E&R | Energy & Resources |
| EBIT | Earnings Before Interest and Taxes |
| EBITDA | Earnings Before Interest, Taxes, Depreciation, and Amortization |
| EPS | Earnings per share |
| EV | Enterprise Value |
| FCFF | Free Cash Flow to the Firm |
| FFO | Funds From Operations |
| FG 500 | Fortune Global 500 |
| FSI | Financial Services Industry |
| FX | Foreign Exchange |
| FY | Fiscal Year |
| Gen AI | Generative Artificial Intelligence |
| HHI | Herfindahl-Hirschman Index |
| IoT | Internet of Things |
| IP | Intellectual-Property |
| iPaaS | Integration Platform-as-a-Service |
| k | thousand |
| KW | Kilowatt |
| LBO | Leveraged Buyout |
| lbs | pounds |
| LSHC | Life Sciences and Health Care |

| Abbreviation | Explanation |
|--------------|---|
| LTM | Last Twelve Months |
| m | million |
| M&A | Mergers & Acquisitions |
| MILSE | Maximum Likelihood Sequence Estimation |
| MRR | Monthly Recurring Revenue |
| MW | Megawatt |
| n.a. | not available |
| NAV | Net Asset Value |
| nm | nanometer |
| n.m. | not meaningful |
| NOI | Net Operating Income |
| NOLs | Net Operating Losses Carryforwards |
| NWC | Net Working Capital |
| NYC | New York City |
| P | Price |
| p.a. | per annum |
| PoP | Point of Presence |
| R&D | Research and Development |
| RE | Real Estate |
| REIT | Real Estate Investment Trust |
| SBC | Stock-Based Compensation |
| SF | San Francisco |
| SG&A | Selling, General & Administrative |
| TAM | Total Addressable Market |
| TMT | Telco, Media and Technology |
| UPREIT | Umbrella Partnership Real Estate Investment Trust |
| US | United States |
| USD | United States Dollar |
| WACC | Weighted Average Cost of Capital |
| Y | Year |
| yrs | years |
| YTD | Year to Date |

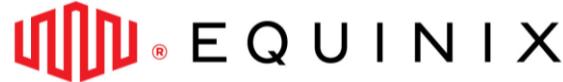
EXECUTIVE SUMMARY



Towards the Future

Executive Summary

IBM should not buy Equinix but acquire leading cybersecurity company Rapid7 to expand its footprint in the digital infrastructure and Cloud sector



- Equinix is a **real estate investment trust** that operates **data centers** focusing on colocation and interconnection
- IBM as a software company has **little strategic fit** with operating the physical data center infrastructure



- At a market valuation of **\$ 95.9bn EV**, Equinix is **overvalued 48% by Net Asset Value** and **64% by DCF**
- Even with **synergies of \$ 12.2bn**, acquiring Equinix at a **15% premium** would still **destroy shareholder value**



- Given the **transaction size of \$ 107.9bn**, a cash deal is **not feasible** as **inordinate debt issuance** is needed
- Due to Equinix' **tax status as a REIT**, a merger is **not advisable**. Post-merger integration is likely challenging

IBM should **NOT ACQUIRE** Equinix



- Rapid7 is a market leader in **cyber security solutions** for digital infrastructure with a focus on **cloud security**
- Great **strategic fit** with IBM's existing cybersecurity solutions due to **complementary cloud security focus**



- Rapid7 is priced fairly at a market valuation of **\$ 3.9bn EV** and there is **19% valuation upside** to IBM after synergies
- **Synergies of \$ 1.2bn** from **cross-selling** and **cost savings** sweeten the deal beyond strategic rationale



- IBM's usual deal sizes have **not exceeded \$ 5bn** and used **cash-on-hand**, which are both **possible for Rapid7**
- IBM and Rapid7 have a **shared culture** of open source support and **post-merger-integration** is likely to succeed

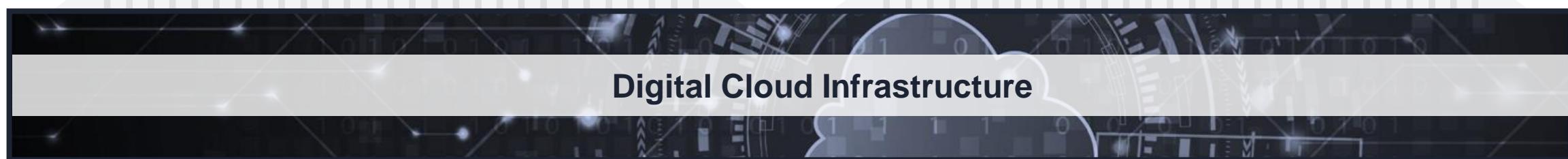
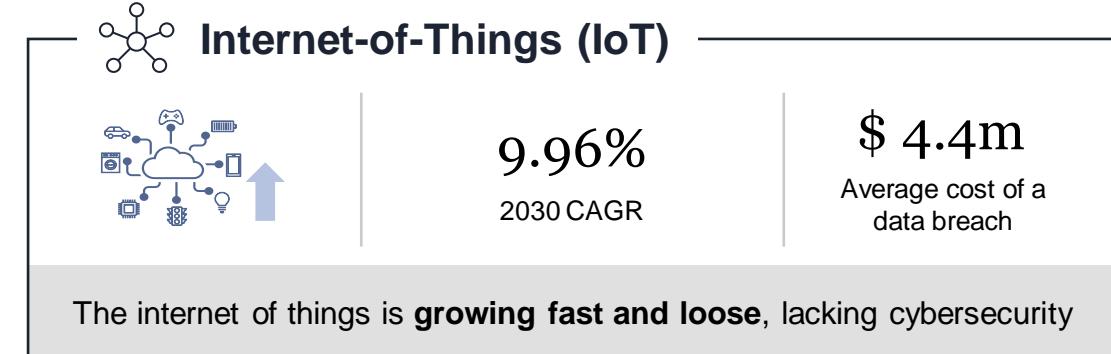
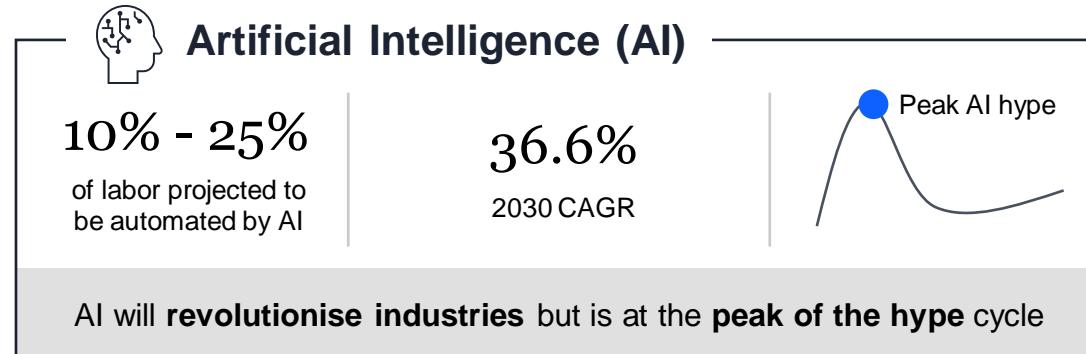
IBM should instead **ACQUIRE** Rapid7

MARKET ANALYSIS

Data is the New Oil

Makeup of the Digital Infrastructure and the Cloud Sector

AI and IoT are built upon Cloud architectures, which need the infrastructure of data centers and cybersecurity solutions



Data Centers

- Data centers are the **physical backbone of the Cloud** and **house the hardware**
- Data center operations include **interconnection** and **colocation**

&

Cybersecurity Solutions

- Cybersecurity** solutions ensure the physical and digital **safety of the Cloud**
- Cybersecurity solutions include **data integrity** and **penetration testing**

Source: Grimond, L., Beyer, M. and Maguire, A., 2023), (Kolesnikov, N., 2023), (Statista, 2024b)

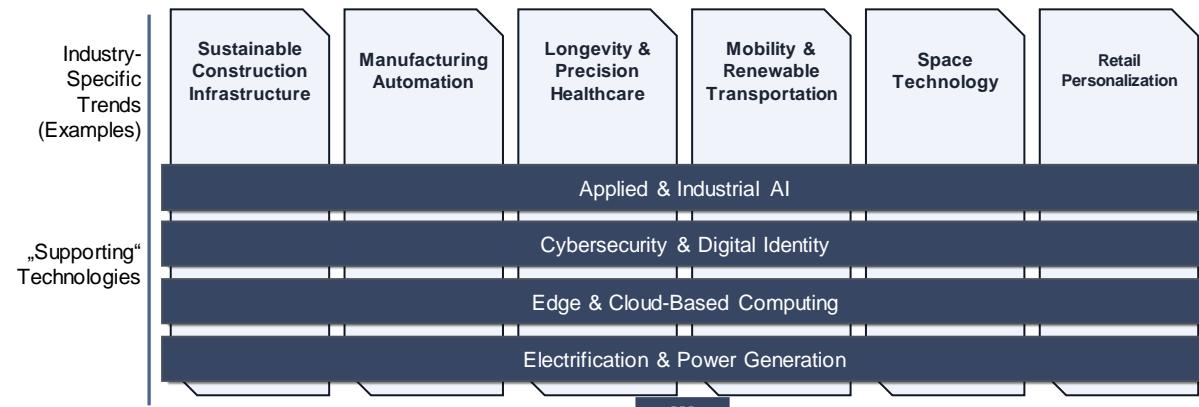
Foundations of the Economy of Tomorrow

Supporting technologies of the digital infrastructure represent significant commercial opportunities

Secular trends shaping the economy of tomorrow

- Cognitive Automation**
Large parts of repetitive, pattern-based intellectual work is automated as AI finds industrial usage, largely boosting productivity and changing tertiary work.
- Advanced Connectivity**
The flow of data between objects and people increases exponentially as industrial and human systems become increasingly interconnected and online.
- Protectionism & Security**
Social tensions and international conflicts will lead to a greater affinity for personal privacy and national security as countries re-shore vital industries and restrict trade.

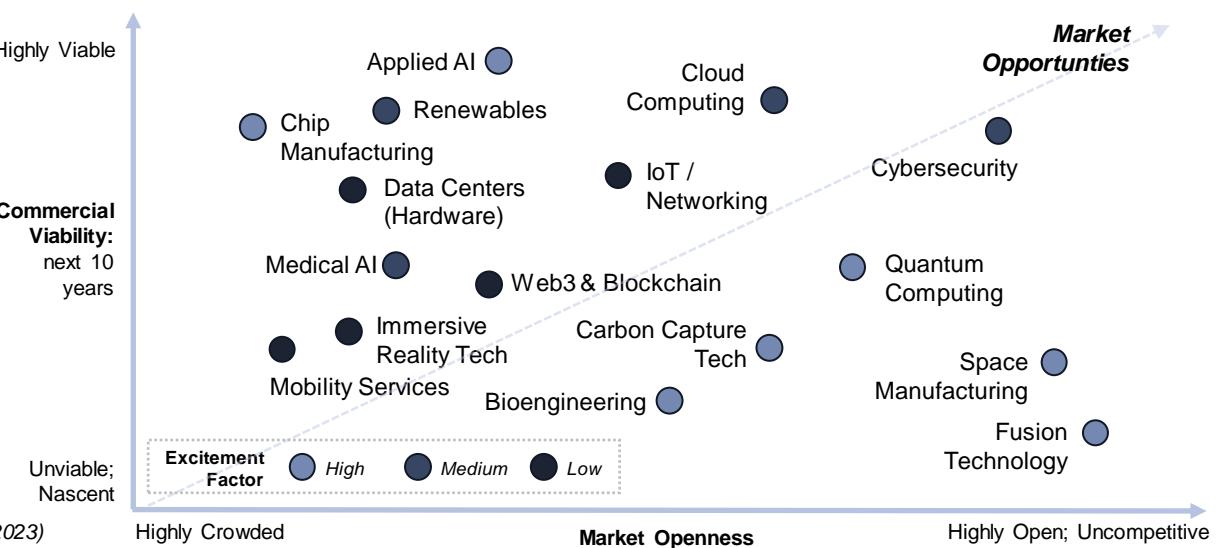
Industry-specific tech will be shaped by industry-agnostic supporting tech



The development and maintenance of “supporting” technologies represents a high-growth opportunity

| Comparing Fundamental Technologies | | 10Y CAGR | T+10 TAM | |
|------------------------------------|----------------------------------|----------|------------|--|
| Software Layer | Applied AI | 25-40% | Very High | Highly Viable |
| | Cloud-Services | 10-20% | High | |
| | IoT / Networking (Software) | 10-25% | High | |
| | Cybersecurity & Digital Identity | 15-30% | High | |
| | Electrification & Power Gen. | 5-15% | Very High | |
| Hardware Layer | Chip Manufacturing | 5-10% | Very High | |
| | Cloud-Infra (Hardware) | 10-15% | High | |
| | IoT / Networking (Hardware) | 5-15% | Med | |
| | Quantum Computing | 5-50% | Low - High | Commercial Viability: next 10 years |
| | Mobility Services | 5-10% | High | Unviable; Nascent |

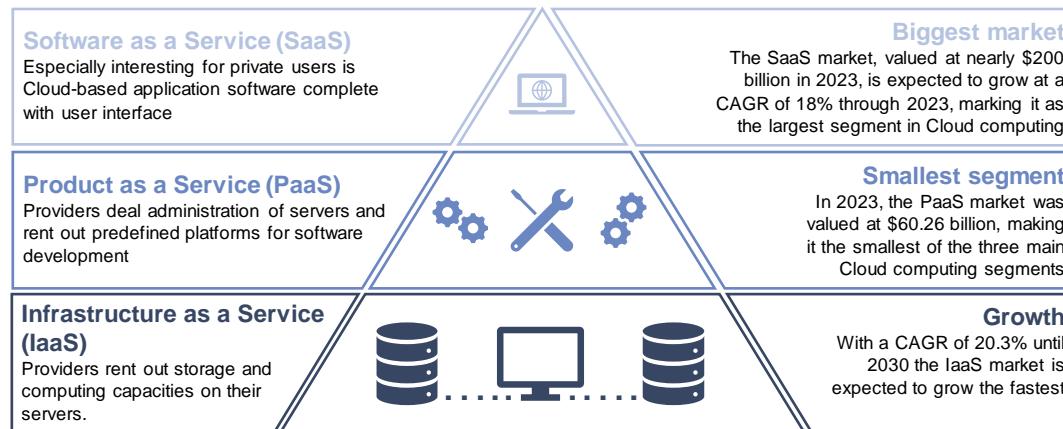
Source: ((Fortune Business Insights, 2023), (Exploding Topics, 2022), (Charles, A., 2023), (Lambert Consulting, 2023))



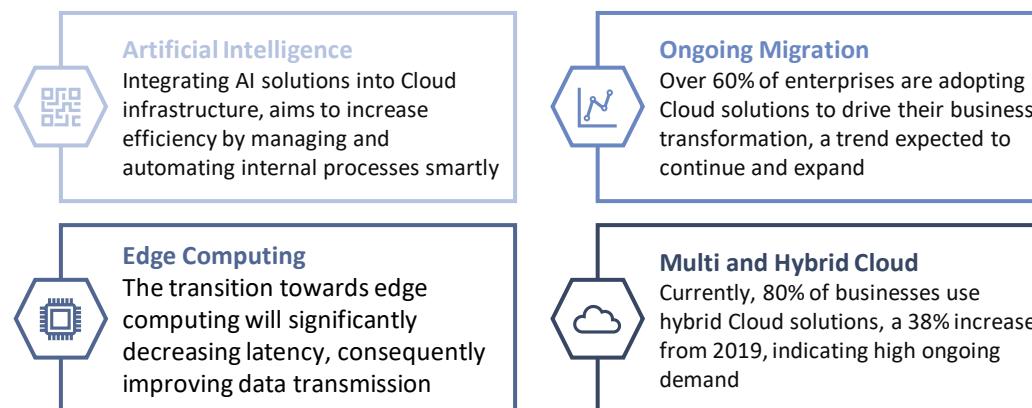
Introduction to the Cloud Market

The market for Cloud applications is fueling the demand for data center support infrastructure

In the tri-layered Cloud composition SaaS is the largest market

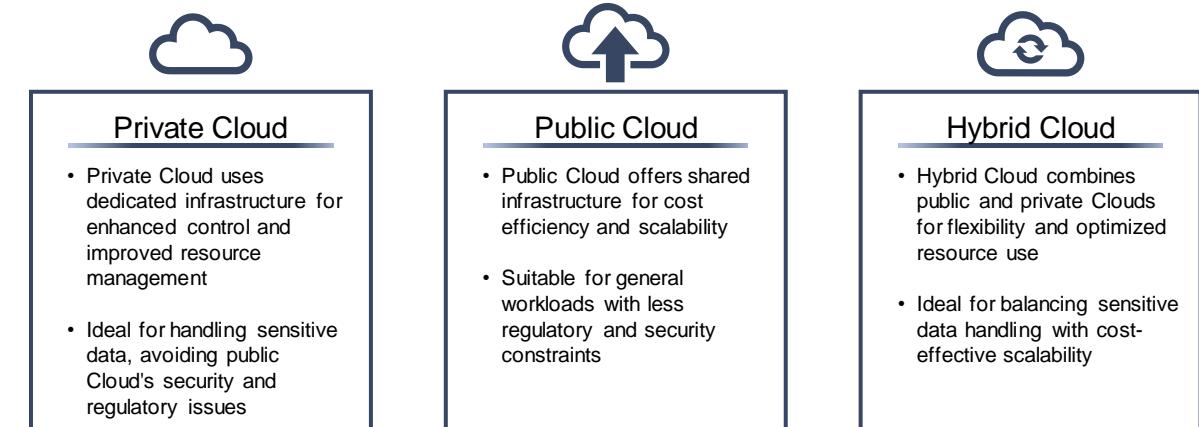


Long-term trends are transforming the Cloud market...



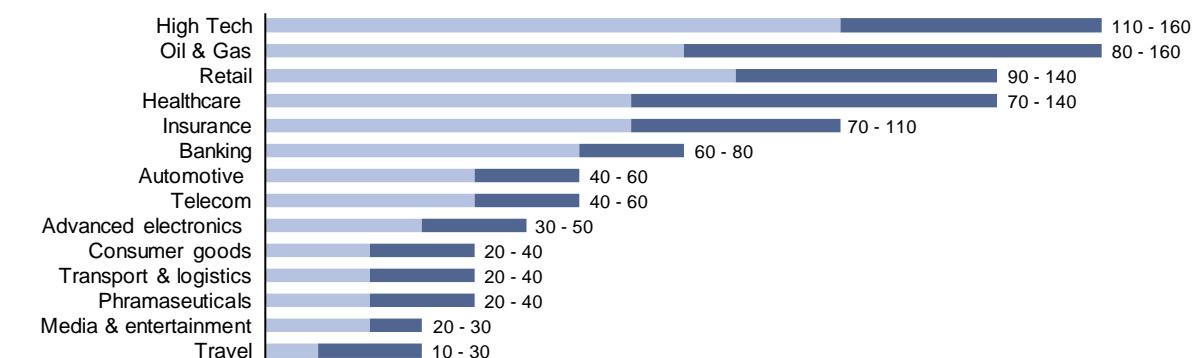
Source: (Grimond, L., Beyer, M. and Maguire, A., 2023), (Kolesnikov, N., 2023), (Statista, 2024b), (The Business Research Company, 2024), (Fortune Business Insights, 2023), (Exploding Topics, 2022), (Charles, A., 2023), (Lambert Consulting, 2023)

There are three main Cloud models: Private, Public, and Hybrid



...positively impacting an array of different industries

Expected 2030 EBITDA run-rate impact (\$ bn)

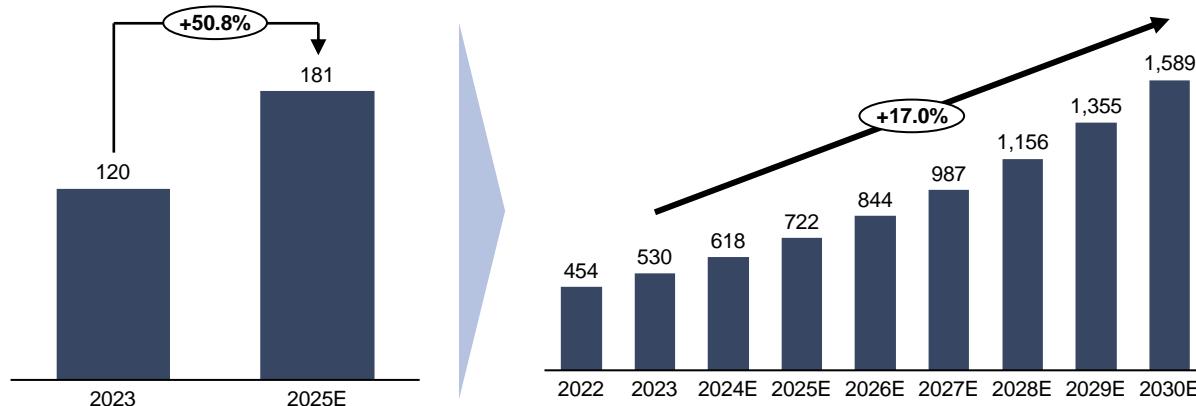


Drivers and risks of Cloud adoption

Cloud computing adoption will increase out of necessity, but there are major risks

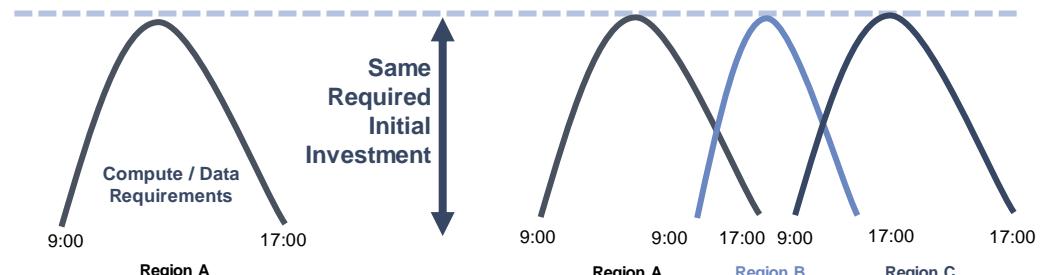
Surging data demand drives significant Cloud market growth

Data Generated (Zettabytes) and Projected Cloud Market Size (\$ bn)



Tailwinds from heavy reliance on distributed systems

- The usage of data and compute resources displays **high daily seasonality** – distributed systems and public Cloud computing allow the **allocation of resources only when they are needed**, slashing costs.



Firms adopt hybrid Clouds from multiple vendors

80%

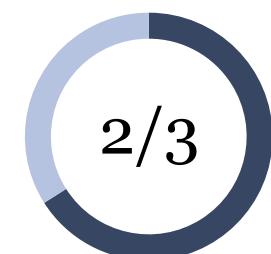


Of companies use a **hybrid Cloud** approach utilizing public and private Clouds

89%



Of Companies use a **Multi-Cloud** approach, utilizing Clouds from more than one provider



Of the Cloud market is controlled by three firms

Wide Incident
Due to market concentration, a single provider's Cloud issues could have widespread, significant impacts

High Vendor Dependence
Market concentration increases customer dependency, reducing bargaining power and risking vendor lock-in with fewer providers

Source: (Grimond, L., Beyer, M. and Maguire, A., 2023), (Statista., (2023a, 2023b)), (MarketsandMarkets, 2023), (Precedence Research, 2023), (Duarte, F., 2023), (Richter, F., 2023), (Thales, 2023)

Cloud provider concentration carries major risks

75%



Of companies say **40% or more** of their Cloud data is **sensitive** (58% in 2022)

39%



Of Companies have experienced **data breaches** in their Cloud environment (35% in 2022)

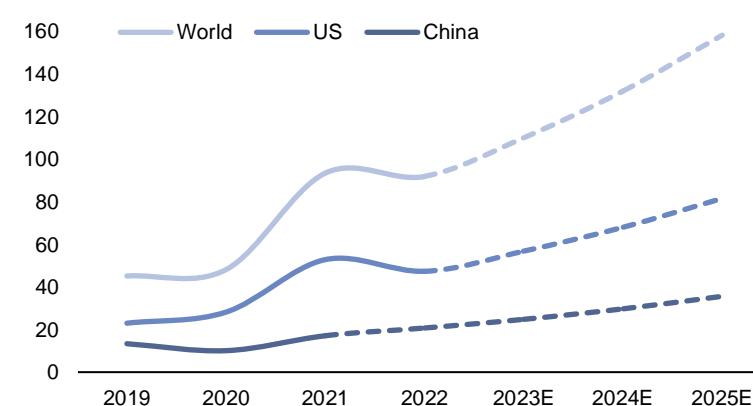
Overview and Potential of Artificial Intelligence



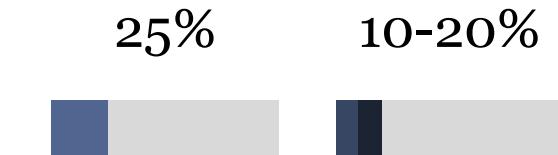
Due to significant interest and diverse applications, AI is poised to revolutionize industries, potentially growing to a nearly \$2 trillion market by 2023

With increasing investments...

Private AI investments in \$ bn



... and huge automation potential...



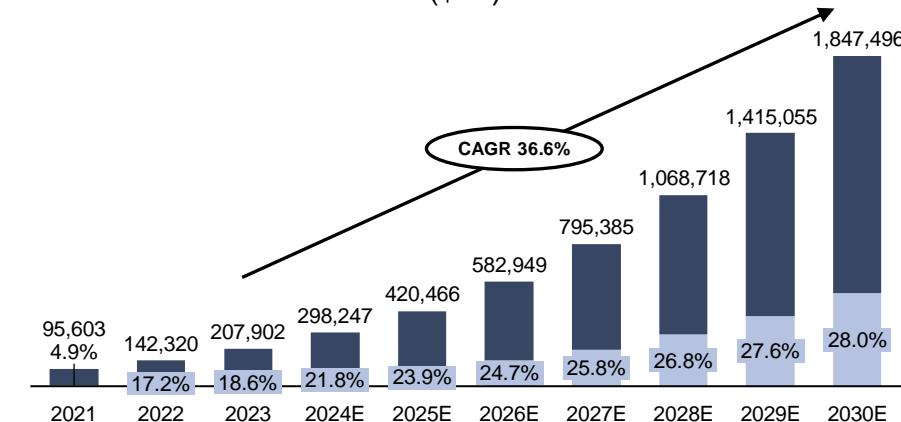
Of advanced economies, labor tasks projected to be automated by AI



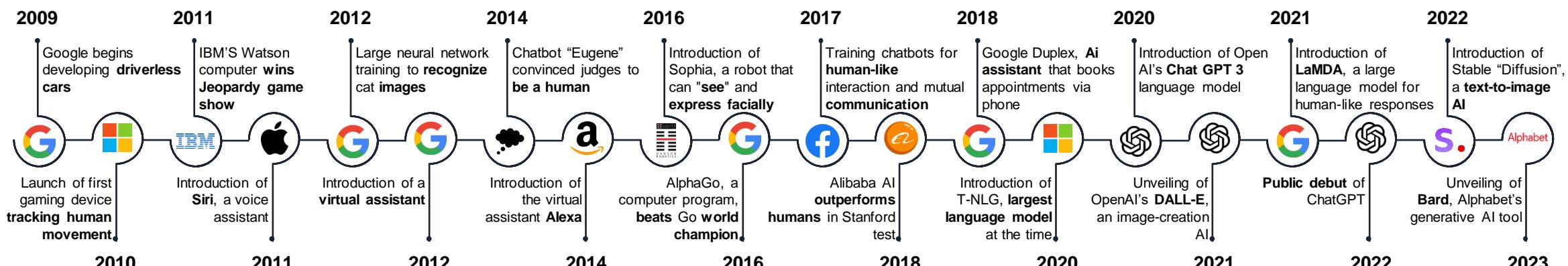
Of emerging economies, labor tasks projected to be automated by AI

...the AI market is bound to grow substantially

Global AI Revenue forecast (\$ m) with Gen AI's share



The AI market has continuously evolved over the past two decades, introducing numerous groundbreaking applications



Source: (Thormundsson, B., 2023), (Statista, (2024a, 2024b, 2024c)), (Nathan, A., Grimberg, J., Rhodes, A., 2023), (Solberg, T.L., 2023), (Goldman Sachs, 2023)

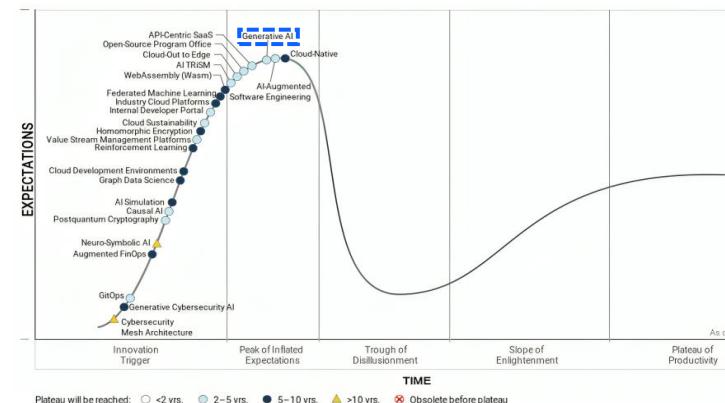
Challenges of Artificial Intelligence



Nevertheless, the AI hype underemphasizes its current flaws and the importance of supporting functions for AI

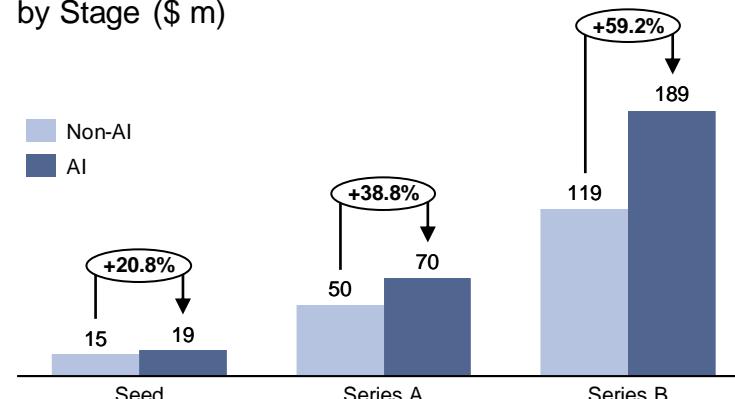
Gen AI is leading the Gartner Hype Cycle

Expectations for emerging technologies



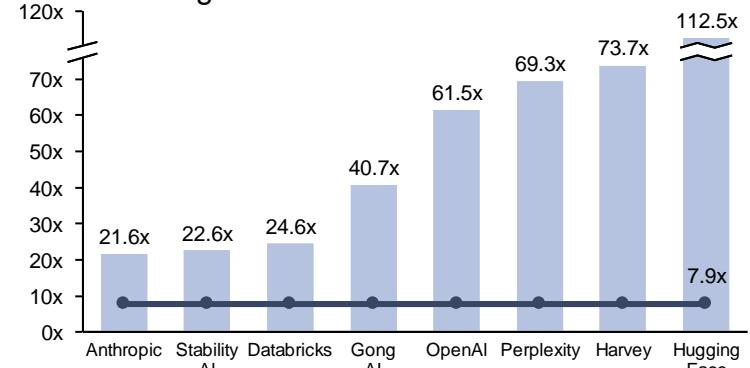
AI startup valuations surged tremendously...

Median Valuations of Global AI and Non-AI Startups by Stage (\$ m)



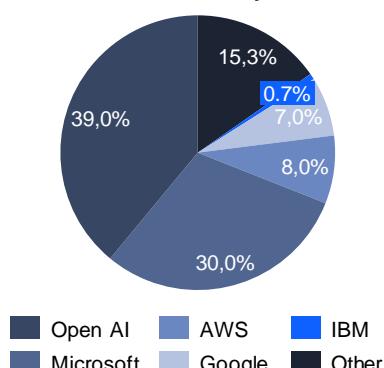
...heavily benefiting the market leaders

Revenue Multiples for Leading AI Startups vs. SaaS Market Average



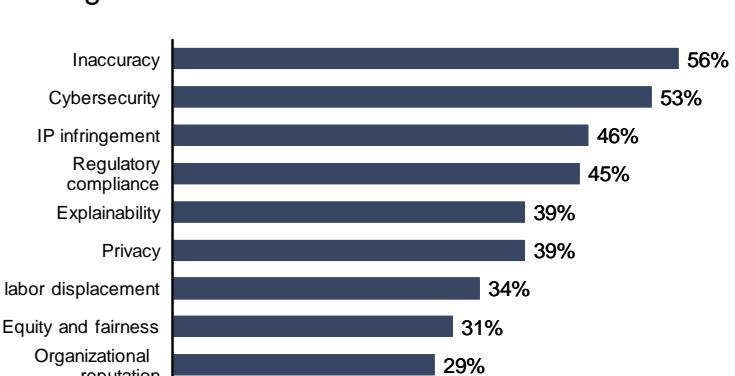
A highly consolidated market

Gen AI market share by vendors 2023



Inaccuracy and cybersecurity are AI's biggest risks

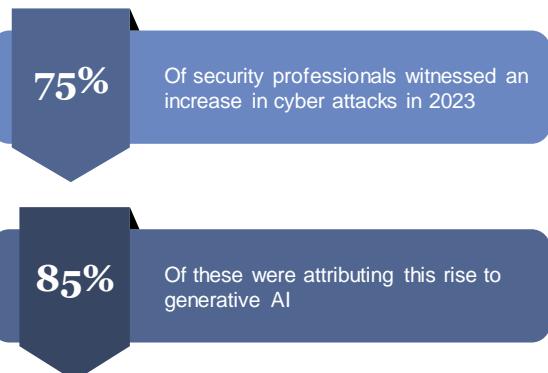
% organizations consider risk relevant



95%

95% accuracy is often reported for AI programs, but true effectiveness is lower since they can't validate data accuracy, typically staying above 80%

Increasing cybersecurity events



Source: (Gartner, 2023), (Statista, 2023a), (Finro Financial Consulting, 2023), (Hao, K., 2019), (Deep instinct, 2023), (Mok, A., 2023), (Gianni, P. and Maria, G., 2024), (Drapkin, A., 2023)

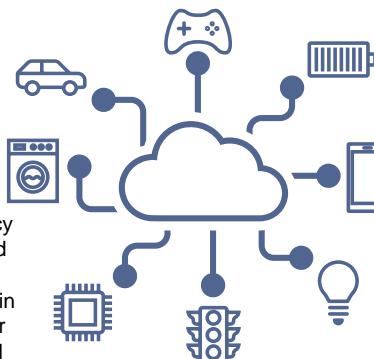
Overview to the Internet of Things

Increased connectivity amongst devices will accelerate Cloud demand

Internet of Things connects interacting devices in one network

Definition

- IoT connects physical objects with embedded sensors, software, and connectivity to collect and exchange data, ranging from household items to industrial tools



Connectivity

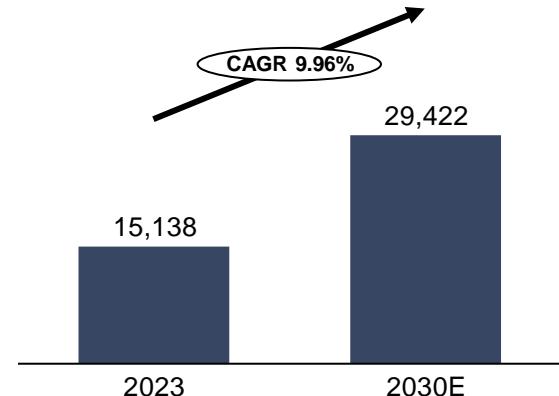
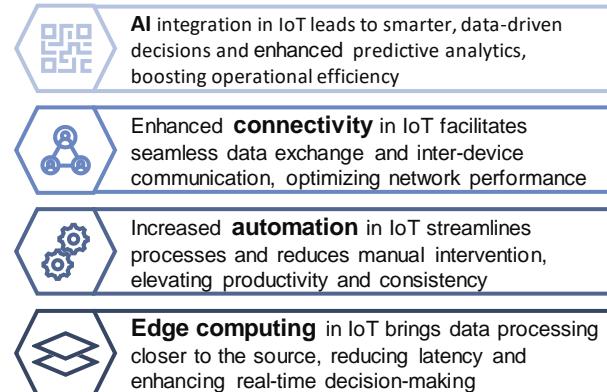
- These devices communicate with each other and the internet, facilitating autonomous data exchange and actions across various environments like homes and cities

Challenges

- Successful IoT implementation involves tackling issues like data security, device interoperability, and complex data management, necessitating strategic planning and robust security

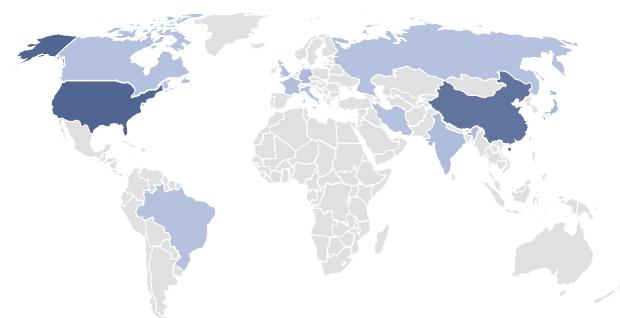
Four key trends indicate a 94.4% surge in IoT-connected devices by 2030

IoT market trends and total number of IoT connected devices in million by 2030



US leads the market, with growth of revenues outpacing devices

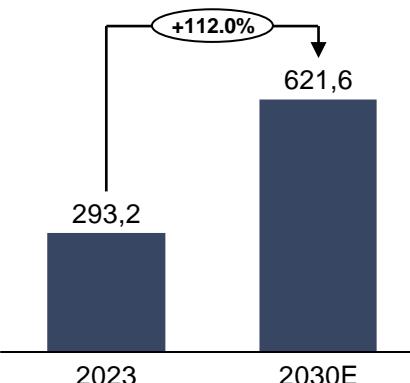
IoT revenue by region and projections through 2030 (\$ bn)



#1 USA #2 China #3 Japan #4 Germany #5 India

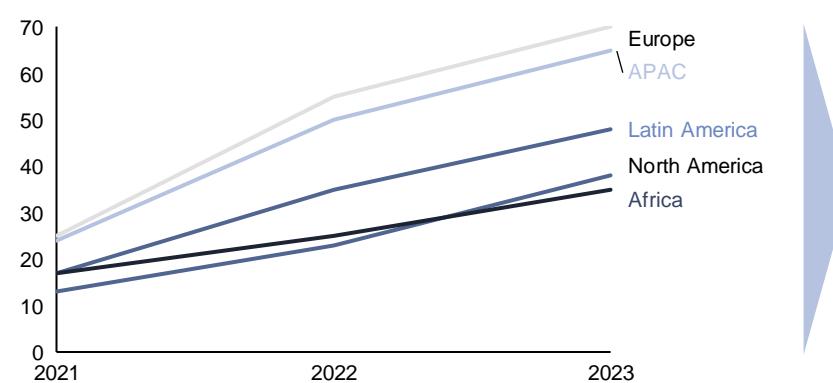
Note: ¹ Not including reputational or future income damage

Source: (IBM, n.d.a), (ComputerWeekly.de, 2024), (Antino, 2024), (Statista, 2023f), (Check Point research, 2023), (Petrosyan, A, 2024)



IoT device cyber attacks rise, averaging \$4.45m costs per breach

Percent of companies with weekly attacks in first two months of the year

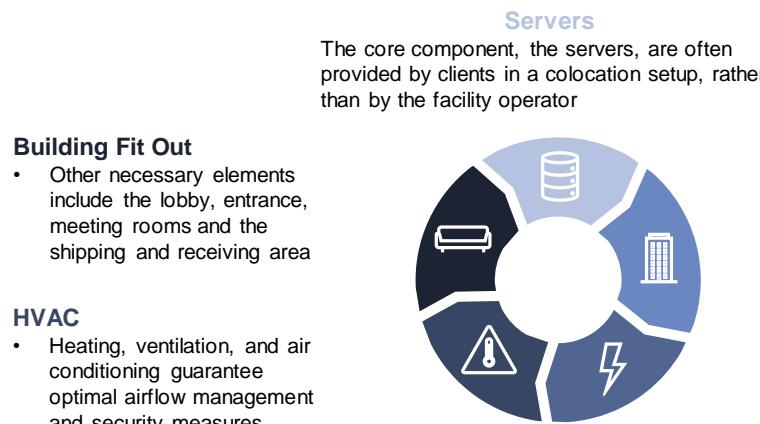


Average cost of a data breach¹

Overview of Colocation and Data Centers

Data centers and colocation play a vital role in enabling Cloud

A data center requires five components for full functionality



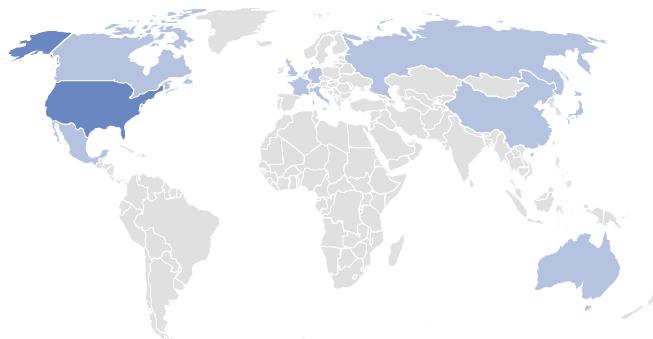
Setting up a single data center can cost up to \$353m

Cost by segment and approximately cost calculation



~ \$353m is required for a fully equipped, mid-sized data center¹

US and Europe lead in data center locations and Equinix the market



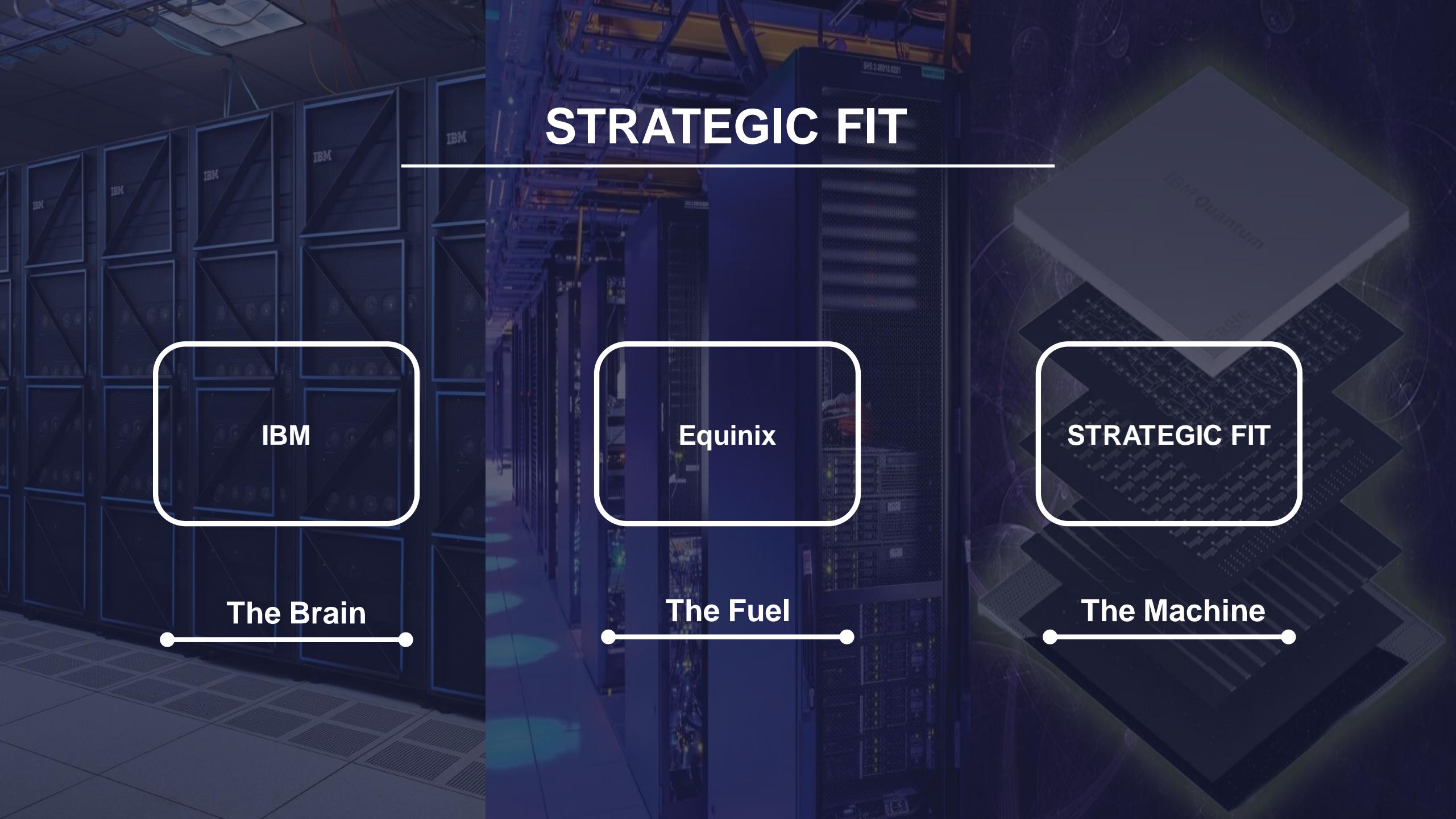
#1 USA #2 Germany #3 United Kingdom #4 China #5 Canada

Note: ¹ Values are derived from average estimates for a medium-sized data center equipped with standard servers; actual costs and allocations may vary on a case-by-case basis

Source: (Statista, 2023c), (Zhang, M., 2022), (Josh Mahan, 2023), (Miinnix, J., 2023), (Vardhman, J., 2024), (Cloudscene, 2023)

Data centers have been popular acquisition targets in the past

| 2020 | 2021 | 2021 | 2022 | 2022 | 2023 |
|--|--|--|---|---|---|
| interexion | QTS | CORESITE | CyrusOne | switch | COMPASS |
| DIGITAL REALITY | Blackstone | AMERICAN TOWER | KKR | DIGITAL REALITY | Brookfield Infrastructure Partners |
| 11% | 6% | | GLOBAL INFRASTRUCTURE PARTNERS | | |
| Digital Realty acquired Interexion to enhance its global network and expand its European footprint | Blackstone acquired QTS to expand its infrastructure portfolio and data center market presence | American Tower acquired CoreSite to enhance its position in the data center industry | KKR & GP acquired CyrusOne to expand their digital infrastructure investments | Digital Realty acquired Switch Inc. to strengthen its data center portfolio and expand its technological and geographic reach | Brookfield acquired Compass Data centers to enhance its technology infrastructure portfolio |



STRATEGIC FIT

IBM

The Brain

Equinix

The Fuel

STRATEGIC FIT

The Machine

STRATEGIC FIT

IBM

The Brain

Equinix

The Fuel

STRATEGIC FIT

The Machine

IBM General Overview



IBM predominantly provides software, infrastructure, and consulting solutions to large enterprises worldwide

A broad portfolio of customized solutions...

Financing

- Supporting clients with the acquisition of IBM's information technology systems, Software and Services



Software

- Open-source hybrid Cloud platforms through Red-Hat as well as data and AI automation and security solutions

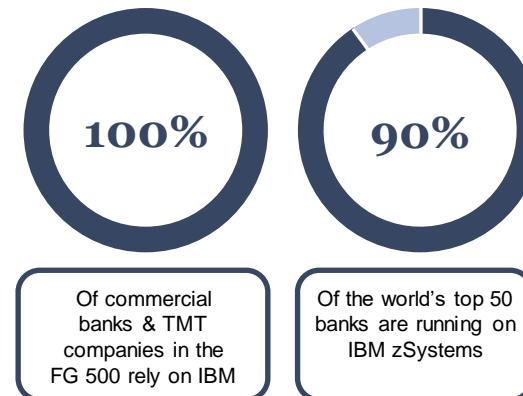
Infrastructure

- Innovative infrastructure platform to enable hybrid Multi-Cloud, AI and open-Source solutions to unfold their full capacity

Consulting

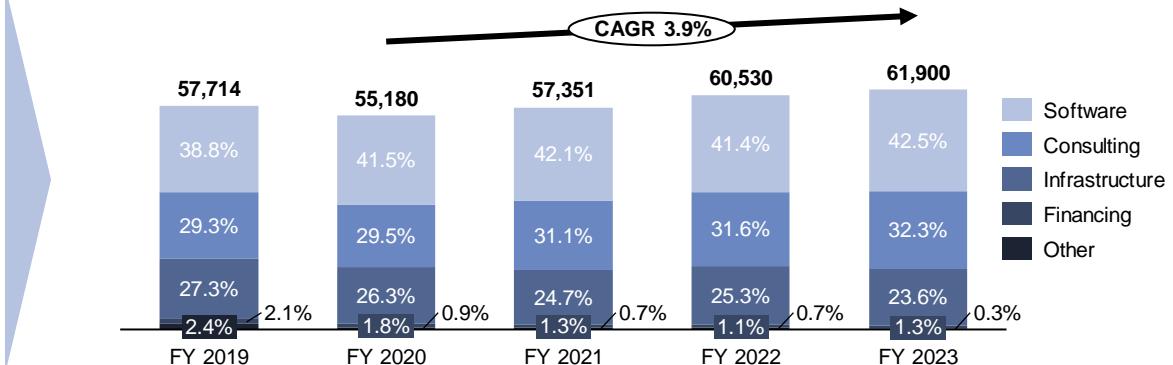
- Guidance for Business Transformation, implementation of new technologies and operationalizing Cloud platforms

IBM solutions are widely adopted due to various partnerships



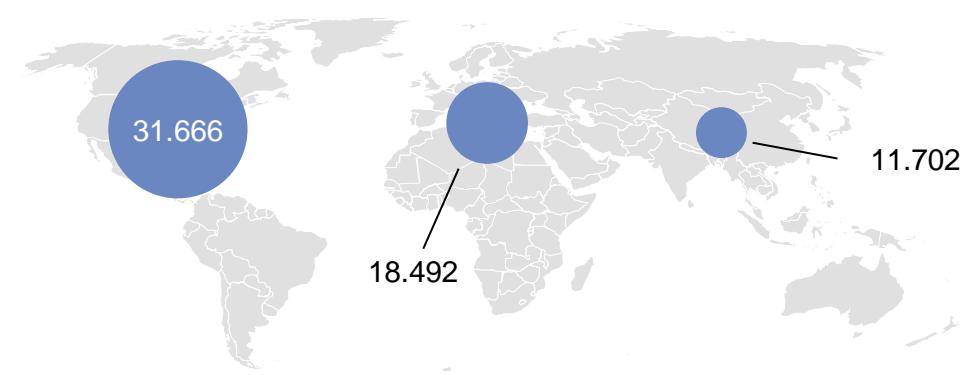
...saw steady growth, with Software as the largest segment...

Revenue of IBM in \$ m 2019 - 2023



...and North America being IBM's core market

Revenue of IBM by region in \$ m in 2023



IBM's Strategic Direction

In the short term, IBM prioritizes Hybrid Cloud and AI initiatives while pursuing opportunities in emerging markets

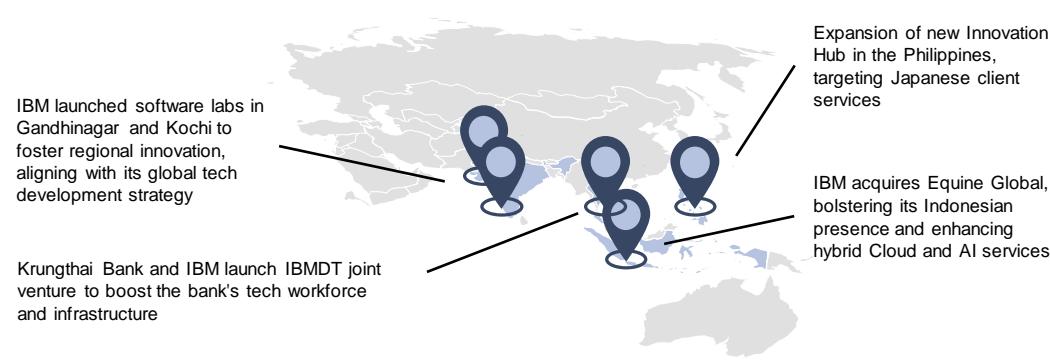


Prioritizing Hybrid Cloud and AI with an eye on future opportunities

- In 2021, IBM spun off **Kyndryl**, its former managed infrastructure services business, to focus on its **Hybrid Cloud and AI business**
- IBM predicts a future with **strong demand for Hybrid Cloud and AI solutions**
- The company is **investing in large language models** to co-create AI applications
- Additionally, IBM leverages its expertise to **consult clients** on the implementation and rollout of these AI applications
- Despite **current limitations in quantum computing**, IBM maintains its research commitment in this field to **uphold market leadership** and **ensure future readiness** for sophisticated quantum technologies

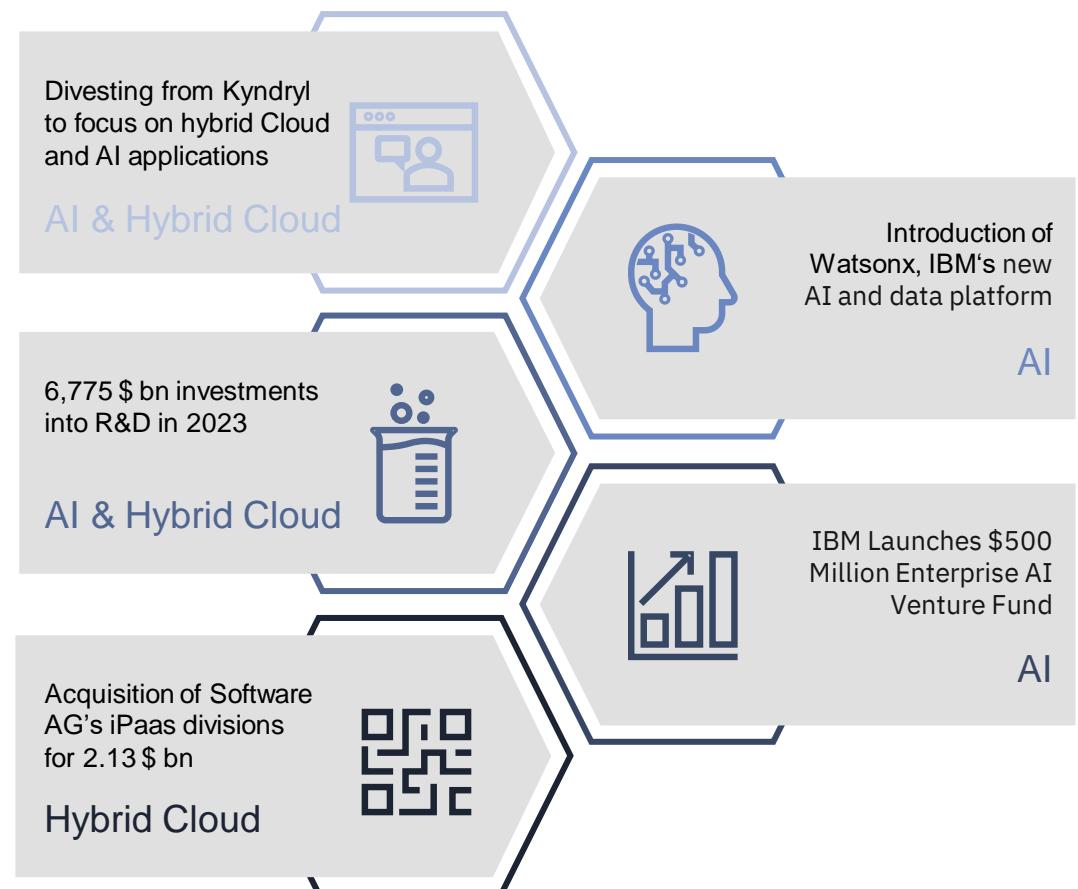
IBM targets new geographical markets beyond established ones

Newly established presence in the past two years



Source: (Thompson, 2015), (IBM Newsroom, (2021, 2023a, 2023b, 2023c, 2023d, 2023e)), (Hindustan Times, 2023), (Consultancy.asia, 2023)

Recent moves shaping IBM's strategic direction

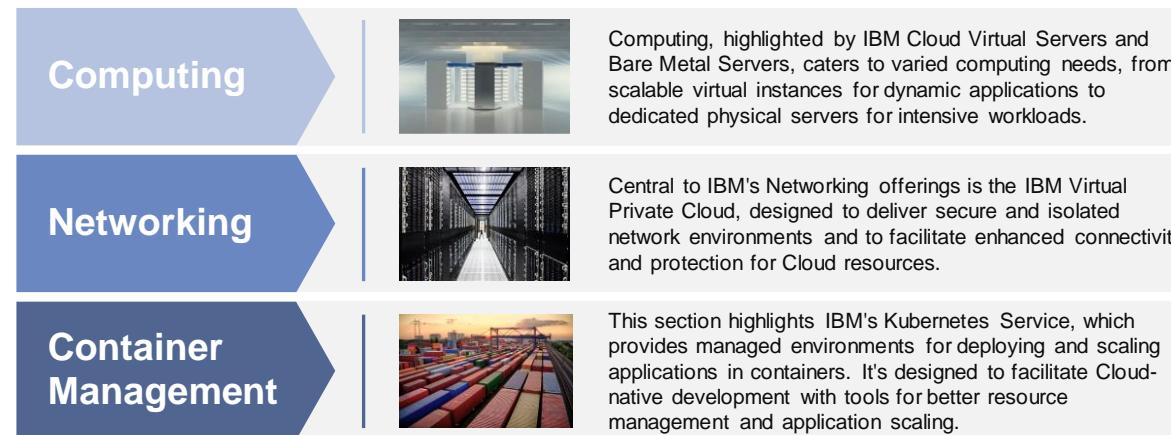


IBM's Infrastructure Segment

IBM lags behind competitors in the Cloud market by number of data centers

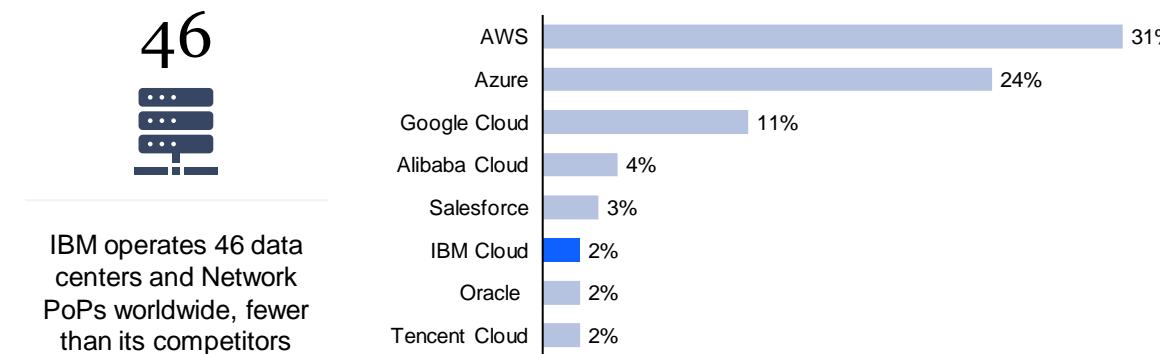


IBM's infrastructure offering is built on three main pillars...



IBM operates only 46 data centers, underperforming its competitors...

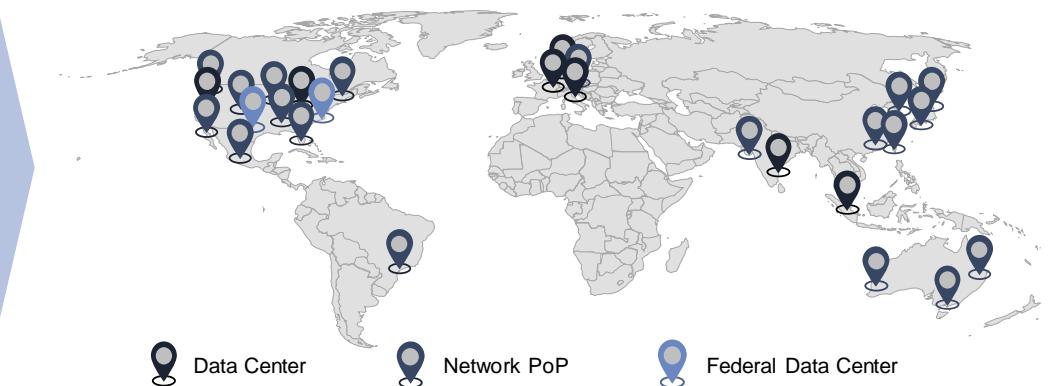
Worldwide market share of Cloud infrastructure providers in Q4 2023



Source: (Krewell, K., 2022), (SES, 2018), (IBM, (2017))

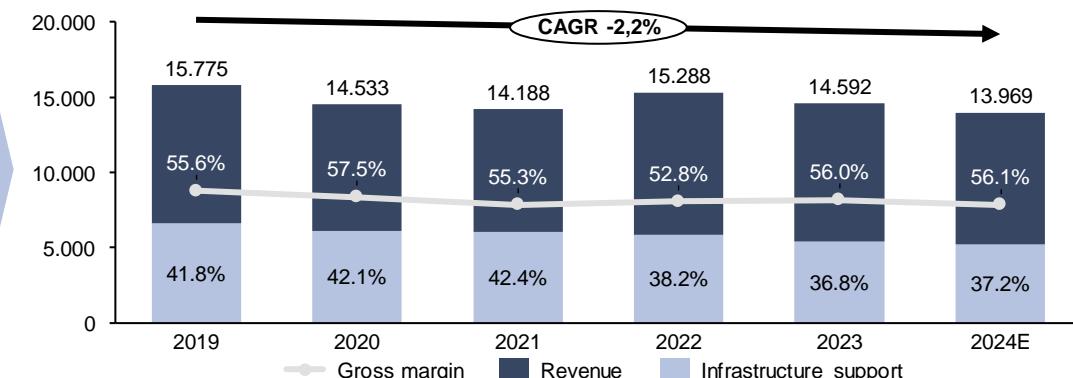
...while key markets include the US, Europe and APAC

Worldwide locations of IBM data centers and network PoPs



...evident in falling revenues from infrastructure solutions

Infrastructure segment revenue overview (\$ m) and gross margin (%)

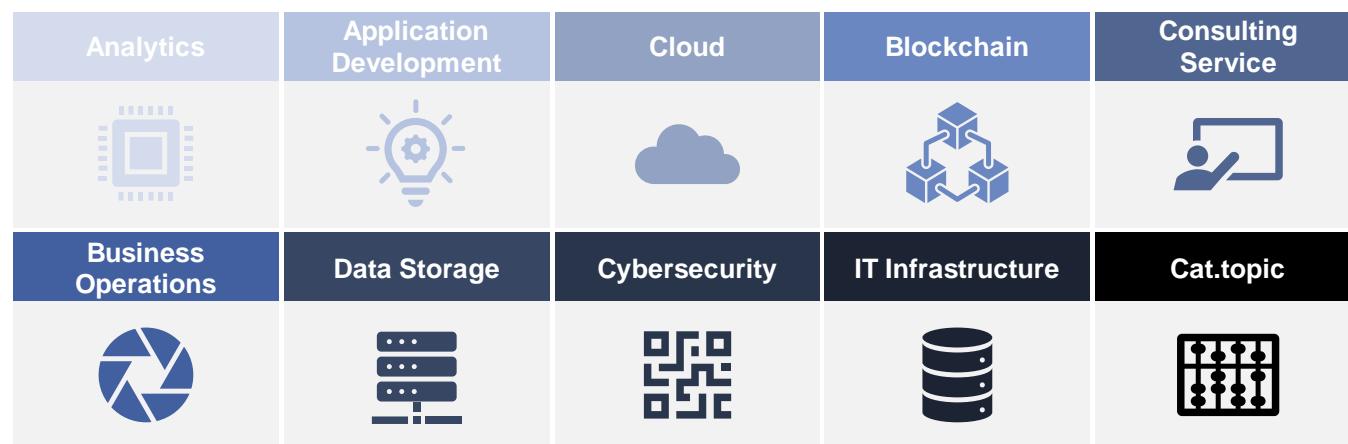


IBM's Software Segment

IBM leads the self-contained software unit market but underperforms in the AI market and is middle-of-the-pack for Cloud software applications

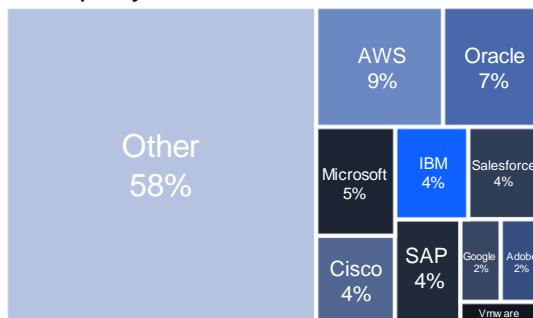


IBM delivers 451 specialized software solutions across ten distinct fields



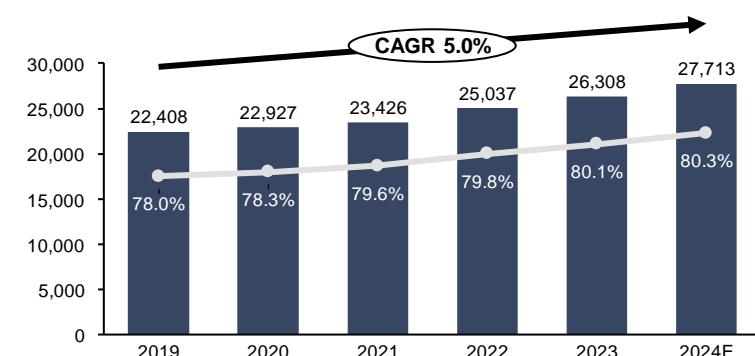
IBM's competition includes:

Enterprise software market share by Company



A stable growing Segment

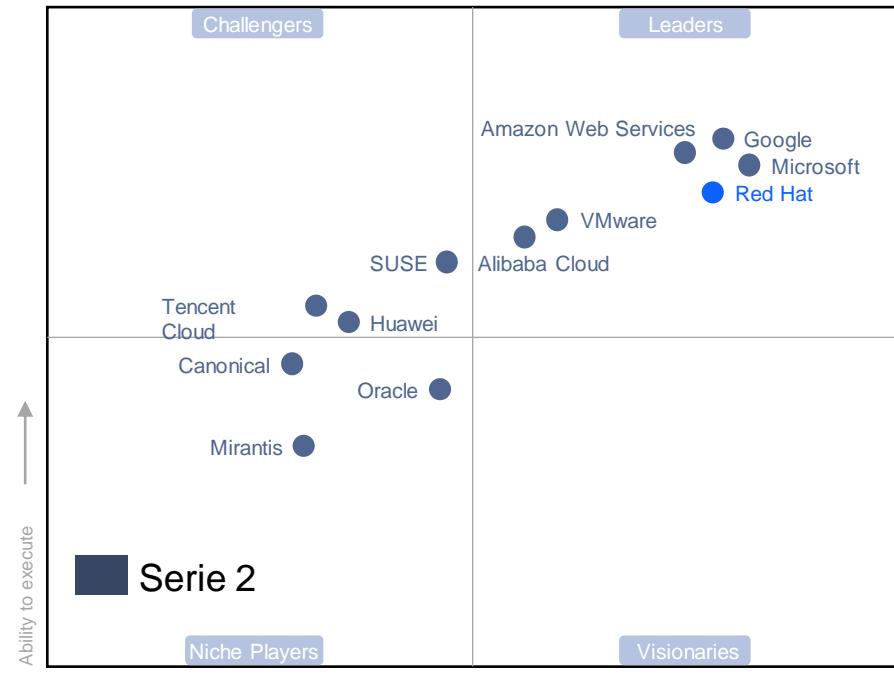
Software segment revenue (\$ m) and gross margin



Source: (IBM, 2020), (Red Hat, 2023), (Gartner 2023) (Statista, 2022)

IBM's Red Hat leads in self-contained software units

Market Leaders in Technology Infrastructure Management



Serie 2

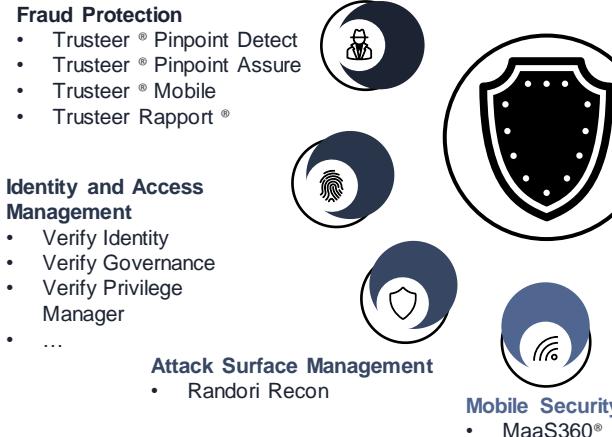
- Red Hat's leadership status strengthens IBM's software and Cloud application capabilities
- Accolades for Red Hat OpenShift in container and DevOps management underscore the effectiveness of IBM's integrated development solutions

IBM's Cybersecurity Solutions

IBM is a global leader in the cybersecurity solutions space but lags behind in data center security

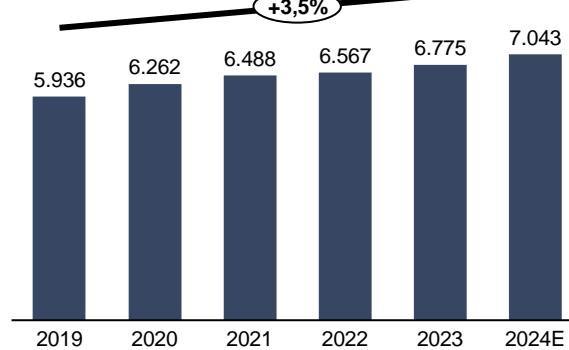


IBM offers a wide array of customizable cybersecurity solution



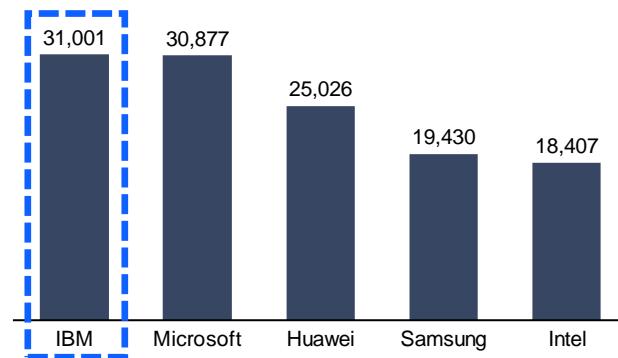
Thanks to high R&D investments...

Annual R&D spending (USDm)



...IBM reaps cybersecurity patents...

Cybersecurity Patents Holders (2002 - 2022)



...and offers world-class solutions

IBM's industry leading cybersecurity solutions have empowered MLSE to achieve significant reductions of:

>80%

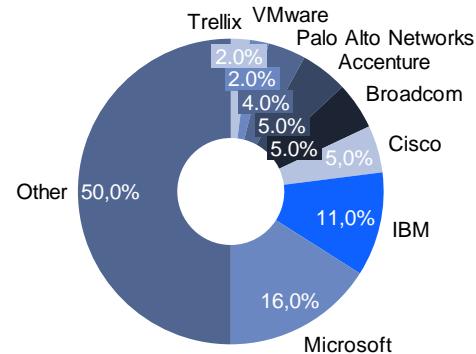
>90%

in time spent **investigating security threats** due to enhanced first-level triage

in overall **security events** generated, thanks to IBM's customized playbooks

...making it the industry leader

Market share cybersecurity solutions



Further opportunities for IBM's cybersecurity portfolio

Network Firewall Solutions

While IBM offers a solid suite of network security solutions in QRadar®, IBM lags behind other providers (e.g. Fortinet, Palo Alto) when it comes to **Intrusion Prevention Systems (IPS)**, **Firewalls** and **network analytics**.⁴

Cloud and Data center Security

IBM has a vast array of Cloud Security features but falls behind when it comes to **tailored solutions for data centers & cloud providers** compared to competitors.

Turnkey Solutions for SMEs

IBM's product portfolio is oriented towards Large-to-Medium Enterprises, often requiring **extensive setup and management resources**. IBM could capture a share of the growing SME market by offering more turnkey and automated solutions.

Source: (Cybersecurity Insiders, 2023), (IBM, (2024b), (GlobalData Plc, 2022), (Gartner, 2022)

STRATEGIC FIT

The Brain

Equinix

The Fuel

STRATEGIC FIT

The Machine

Equinix General Overview



Equinix owns and operates Cloud computing infrastructure, providing compute and storage to some of the largest Cloud players

Equinix is characterized by a unique company structure operating four segments

Data Centers

- Provides fully equipped data center rentals with direct connectivity in Equinix's global network. Billed based on customer usage, generating monthly recurring revenue (MRR)



Digital

- Provide Networking-as-a-Service to avoid the costs of buying and maintaining infrastructure. Fees depend on usage and capacity, ensuring steady MRR

Interconnection

- Connects businesses directly within and between Equinix's data centers across the globe. Billed based on use from a customer and generates MRR

REIT Structure

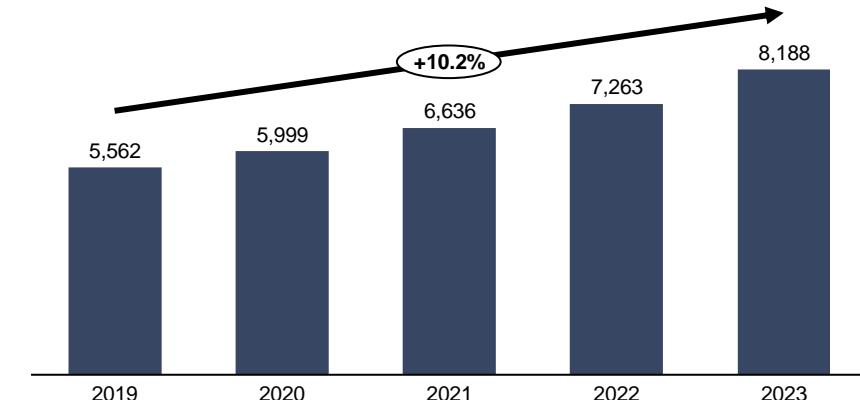
Equinix is organized as a Real Estate Investment Trust, which subjects it to a favorable 13.8% corporate tax rate. However, Equinix must distribute at least 90% of its taxable income in the form of dividends to its shareholders

Colocation

- Professional service bundle for shared IT infrastructure support, eliminating the need for clients to invest in personal infrastructure

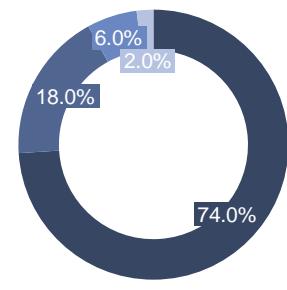
The company saw a steady growth in revenues...

Equinix revenues in \$ m



...with colocation as the biggest driver

Monthly recurring revenue by segment

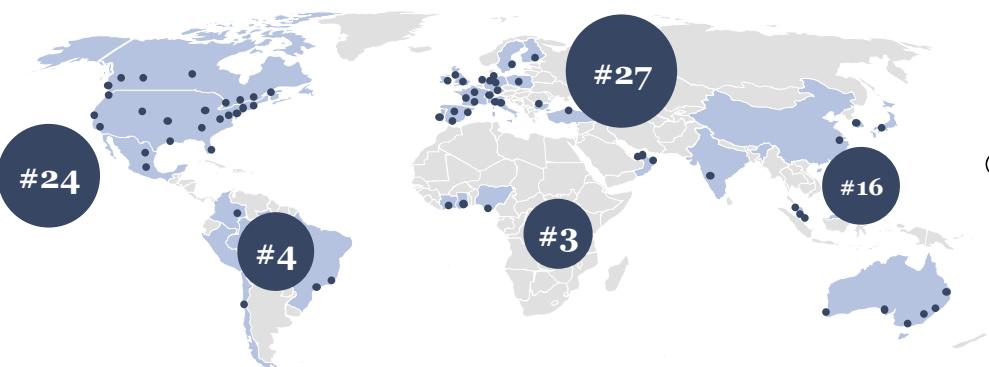


■ Colocation
■ Interconnections
■ Managed Infrastructure
■ Other

Source: 10-K (Equinix Inc, 2023))

Through 70+ data center locations worldwide, Equinix...

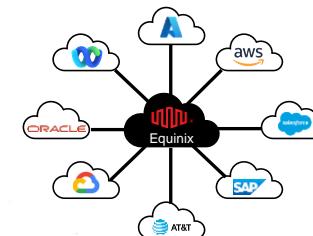
Worldwide locations of Equinix data centers



...serves an elite customer base

Customer Network

Equinix's customer base includes top-tier digital solution providers like Microsoft Azure, Amazon Web Services, SAP and many more all utilizing Equinix's robust data centers for their operations



Strategic direction

Equinix is aiming to retain its leading position in colocation & data centers, whilst expanding capacity in face of future demand



Countering full utilization Equinix invests in new data centers

- Equinix aims **to maintain its leadership and global presence** while delivering superior quality
- This requires sustaining strength in current markets, penetrating new ones, and constantly enhancing quality
- Currently Equinix maintains the fastest server upload speeds, showcasing its commitment to quality and global reach
- However, Equinix is **approaching full server capacity**, with demand anticipated to increase
- To address this, Equinix is **significantly investing in new data centers worldwide**

Equinix stands out with superior global presence and quality

Global Reach

Equinix, with **70+ locations worldwide**, excels in supporting leading Cloud and software companies. Their robust infrastructure, complemented by planned expansions, reinforces their substantial global presence

Upload Speed

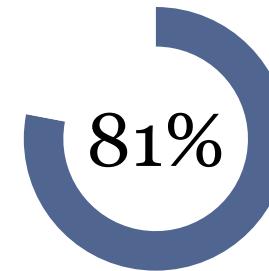
Equinix distinguishes itself by leveraging the unique capabilities of Equinix Fabric and Fast Connect, offering data uploads up to **14 times faster** than conventional internet, with minimal latency of just 75 ms, setting a new standard in the industry

Source: (Panchal, 2022), (Equinix, 2024)

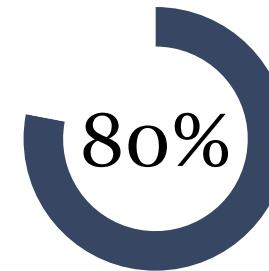
Equinix is slowly reaching maximum utilization of its capacities...



of Equinix's data center capacity in the **Americas** is currently utilized



of Equinix's data center capacity in **EMEA** is currently utilized



of Equinix's data center capacity in **APAC** is currently utilized

...prompting significant global investment in new facilities

| Data center investments in: | Total Capex | Sellable Cabinets |
|-----------------------------|--|-------------------|
| Americas |  \$ 1,435m | 13,025m |
| EMEA |  \$ 805m | 11,175m |
| APAC |  \$ 541m | 10,550m |

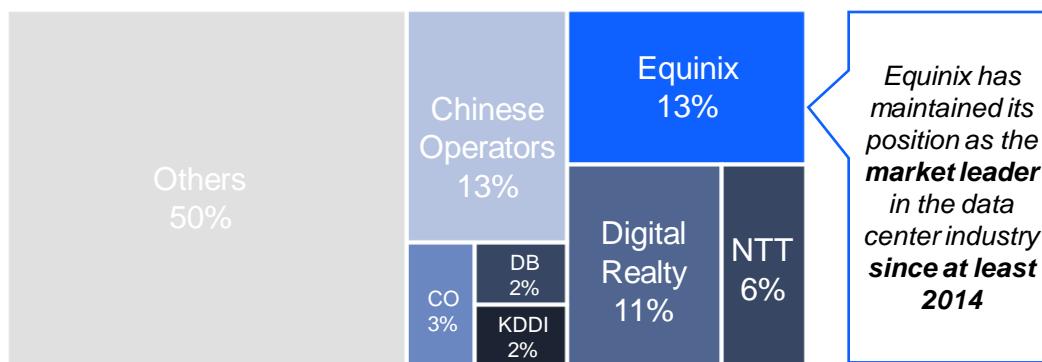
Equinix in the Cloud / colocation market



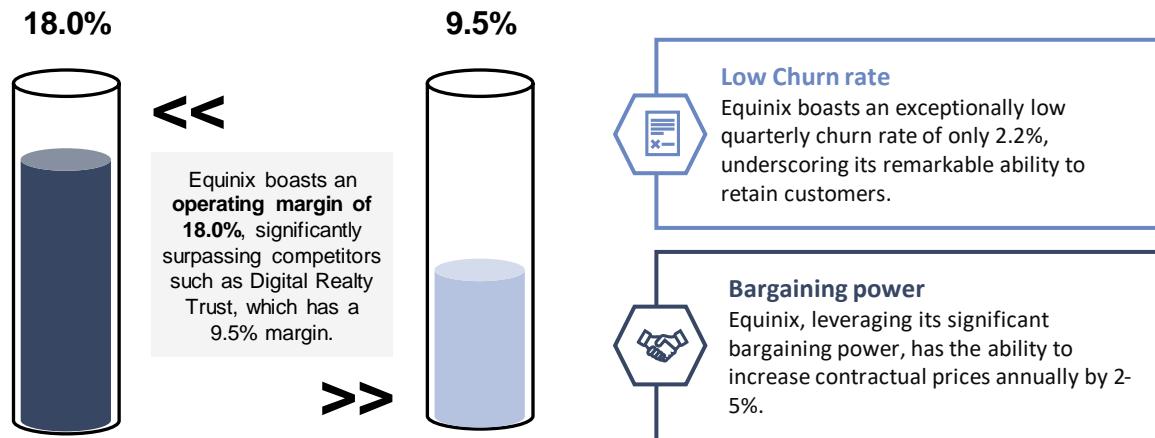
Equinix's leading market position is solidified through high quality-of-service and a 'walled-garden' approach to customer retention

Equinix leads the colocation market with a 13% share

Colocation market share by company



Operational performance stems from strong pricing power



Three main drivers enable Equinix's superior position



Recurring Revenue

With over **90% of total revenues** predicted to be recurring, the company demonstrates resilience in revenue generation, ensuring stable cash flows



Switching Costs

The recurring revenue model is supported by the stickiness of interconnection leases, due to the global reach of the business, contributing to high-margins

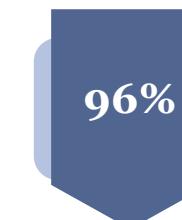


Scaling

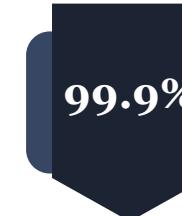
Equinix allows businesses to scale flexibly and globally, due to the unique global reach and scale of servers allowing multinational companies to operate world-wide.

Source: (Stratton, 2022); (Synergy Research Group, 2022); 10-K (Equinix Inc, 2023)

Equinix, with its superior quality, manages 96% of internet traffic



Of all internet traffic flows through Equinix's data centers



Average global uptime for data transmission, positions Equinix ahead of its competition

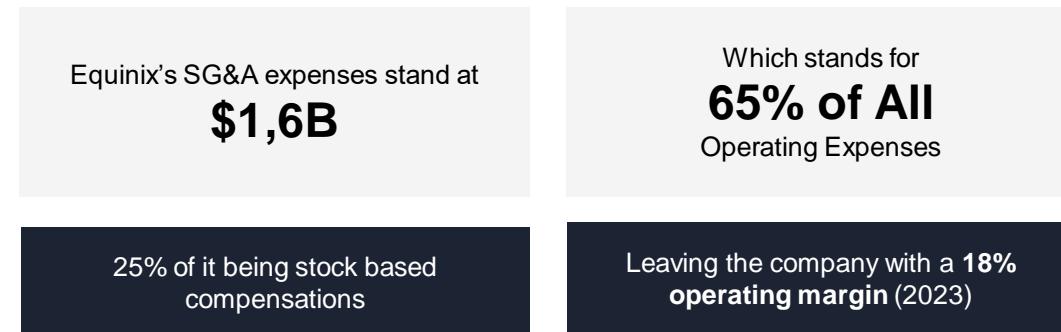


Colocation provider
in the industry
according to Gartner

Equinix Key Challenges

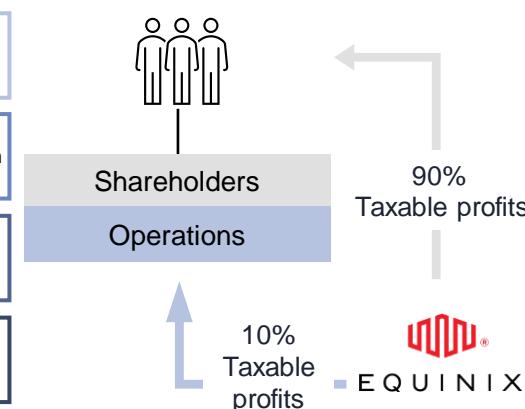
Equinix faces challenges in its high SG&A expense, reduced REIT flexibility, and high reinvestments needs

Equinix's SG&A expenses represent 65% of its operating costs



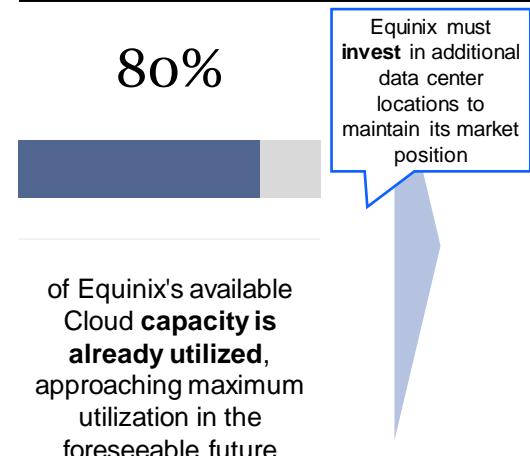
Equinix REIT structure limits its power to act

- Tax Treatment.** REITS are required to distribute 90% of their taxable income to shareholders as dividends, which are double-taxed
- Tax Inefficiency for Shareholders.** The double taxation of profits and dividends can be higher than capital gains tax rates.
- Limited Re-Investment.** Due to a small share of profits ending up as retained earnings, reinvestments are severely curtailed.
- Lack of Control.** REIT investors have little control over investment decisions or the properties in the REIT'S portfolio



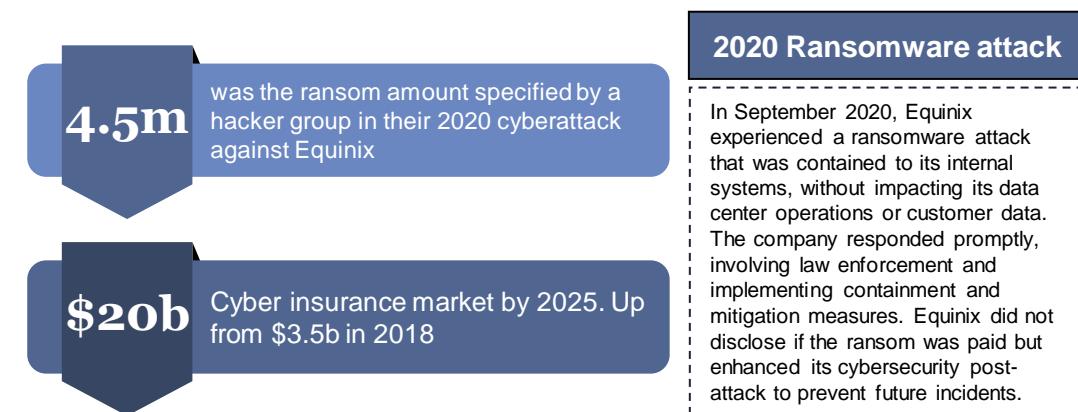
Source: (10-K (Equinix Inc, 2023))

Equinix faces full utilization and needs to invest in new facilities



- **Small Data Center (1-3 MW capacity):** Costs can range from \$10 million to \$25 million.
- **Medium Data Center (5-10 MW capacity):** Costs can escalate to between \$25 million and \$200 million.
- **Large Data Center (10+ MW capacity):** For very large or hyperscale data centers, the initial investment can exceed \$1 billion.

In 2020, Equinix encountered a significant data breach



STRATEGIC FIT

The Brain

The Fuel

The Machine

STRATEGIC FIT

Potential Synergies

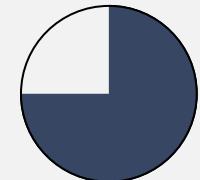


The potential for cross-selling, up-selling, market power capture, and end-to-end capability synergies exist between IBM and Equinix

Cross-Selling



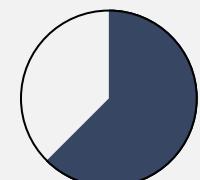
Post-acquisition of Equinix, IBM enhances its cross-selling capabilities, directly targeting Equinix's and IBM's customer base. Further it boosts Cloud infrastructure, facilitating superior service delivery alongside its established software offerings. This strategic integration allows IBM to offer comprehensive Cloud solutions to a wider audience, enriching customer experiences and driving business growth.



Up-Selling



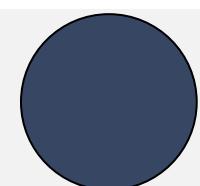
After acquiring Equinix, IBM enhances its upselling potential by tailoring both its software to Equinix's cloud solutions and Equinix's cloud infrastructure to IBM's software, ensuring optimal performance and enabling the sale of enhanced products at higher prices. Further it enables IBM to larger comprehensive packages to current clients. These upscale enhancements affirm IBM's commitment to delivering next-level technological advancements and support.



Market Power



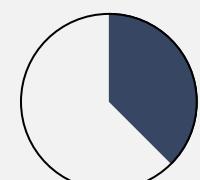
IBM is able to solidify its presence in established markets like the US, Europe, and East Asia, while utilizing Equinix's footprint to enter new territories in South America, the Middle East, and Africa. This strategic move enhances IBM's global reach and market influence. The enhanced brand presence from the merger increases IBM's bargaining power, reinforcing its global dominance.



End-to-End Capabilities



Further IBM transforms into a one-stop shop, offering extensive end-to-end capabilities across the entire value chain. Previously, IBM's infrastructure division was smaller and diminishing; now, with Equinix's resources, IBM can offer comprehensive Cloud services complementary to all clients. This strategic enhancement positions IBM as a complete solution provider, catering to diverse client needs.



Source: (Lindner, 2020), (Little, 2019), (Nelson, 2021), (Macquarie, 2021)

Strategic Fit

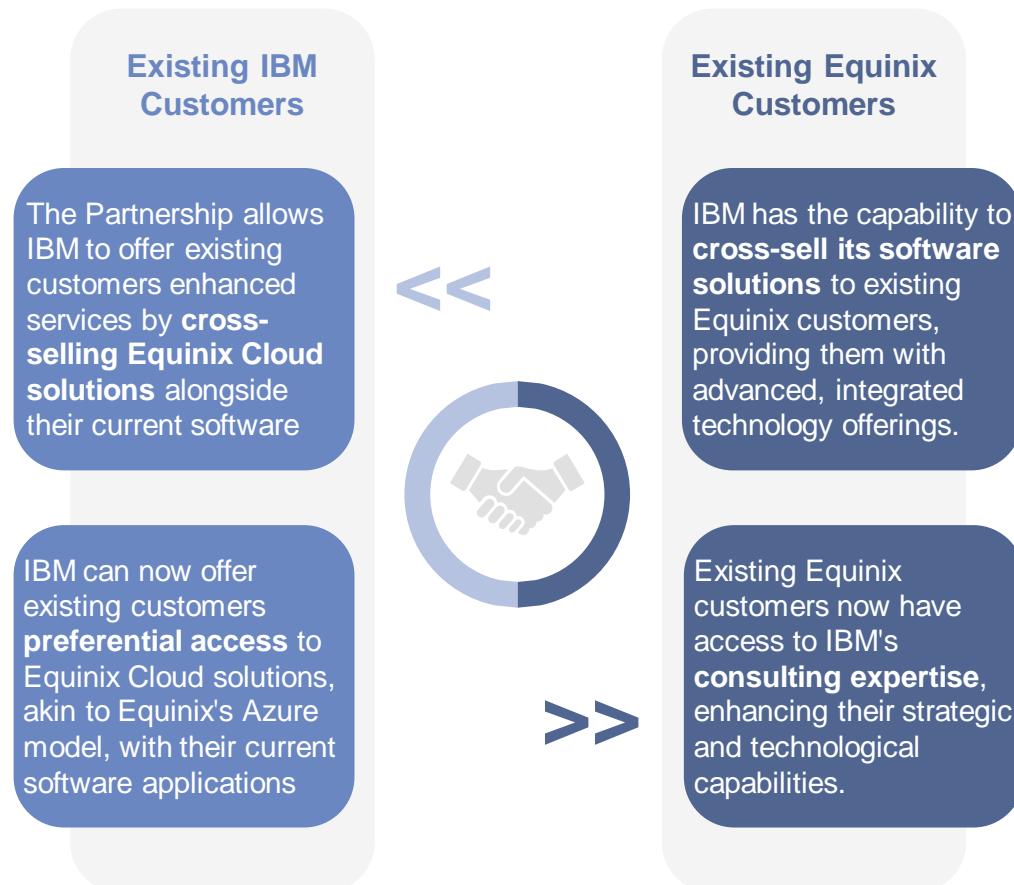
No Strategic Fit

Cross and Up-selling Opportunities



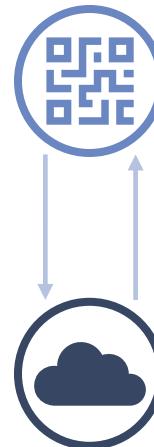
Up-selling a wider product range and Cross-sell comprehensive and improved solutions is a key benefit of vertical integration

Cross-selling to existing customers holds strong potential



Up-selling enhanced products presents considerable potential

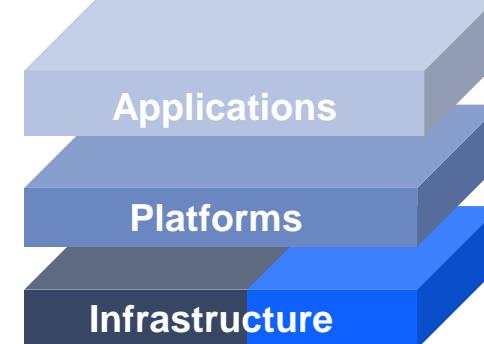
Following the merger, IBM can **adapt its software solutions to run optimally on Equinix's cloud infrastructure**, presenting an opportunity to enhance offerings and upsell improved solutions to clients



IBM Software Solutions

Post-merger, Equinix has the potential to **optimize its cloud infrastructure for IBM software**, thereby improving solution performance and enabling the upselling of superior services to clients

Vertical integration enables up-selling of new solutions



Leveraging Equinix's network, IBM now **upsells comprehensive packages**, combining software and Cloud services, replacing smaller standalone software offers at a higher price point.

Additional Cloud provided by Equinix

Source: 10-K (Equinix Inc, 2023))

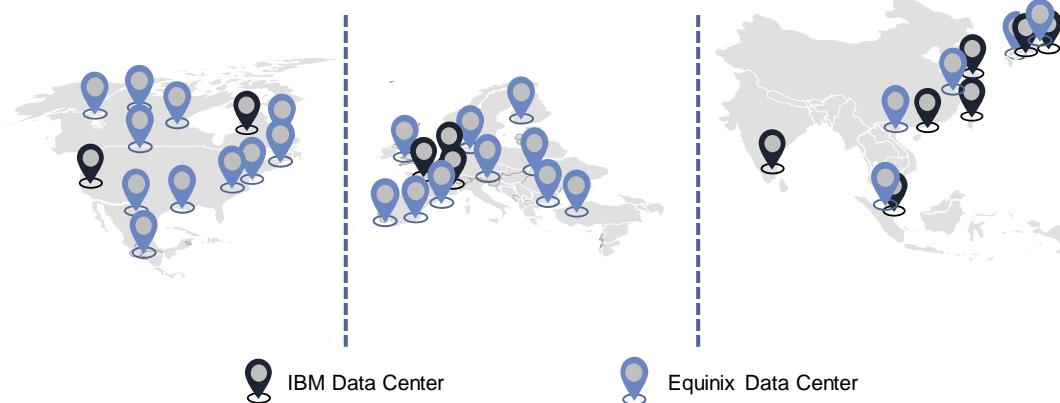
Geographic Expansion and Value Chain Integration



A merger would consolidate core markets, allow IBM Cloud to expand internationally and cover all layers of the Cloud-computing value chain

The merger will increase concentration in IBM's key market...

Combined data center locations of IBM after the merger with Equinix



...while also expanding into new markets

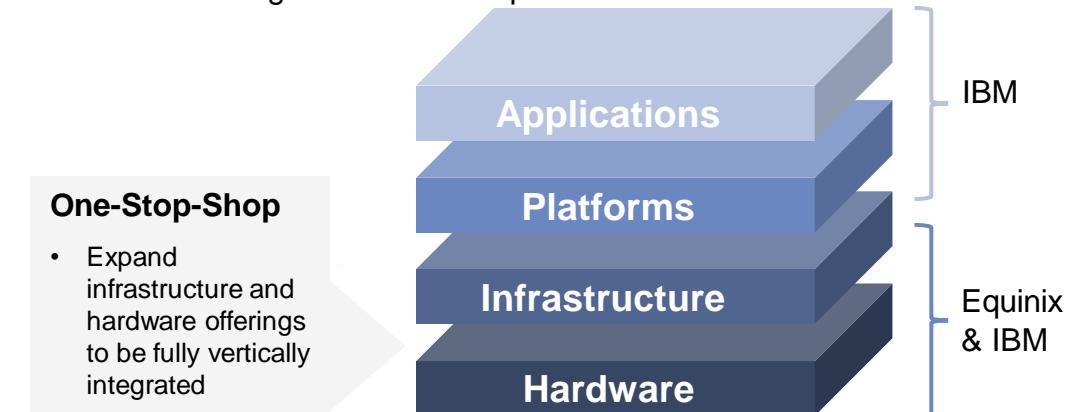
Additional data centers IBM gains from the merger with Equinix



Source: 10-K (Equinix Inc, 2023)

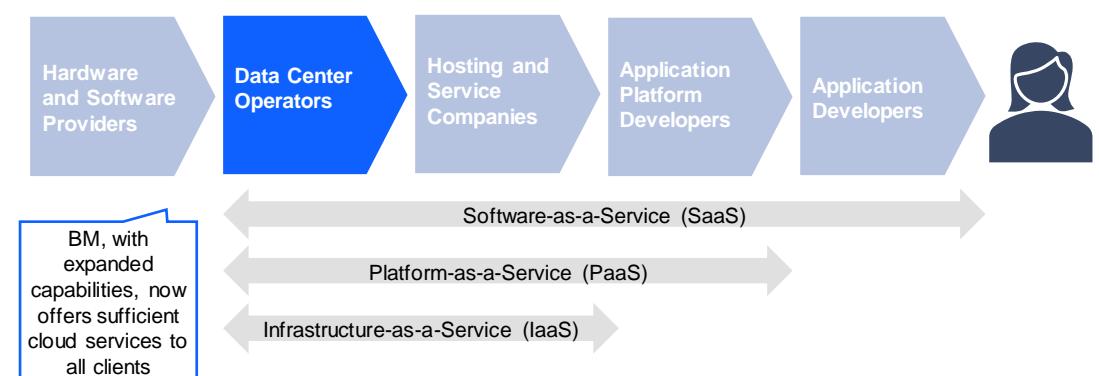
IBM expands its cloud offerings, becoming a true one-stop...

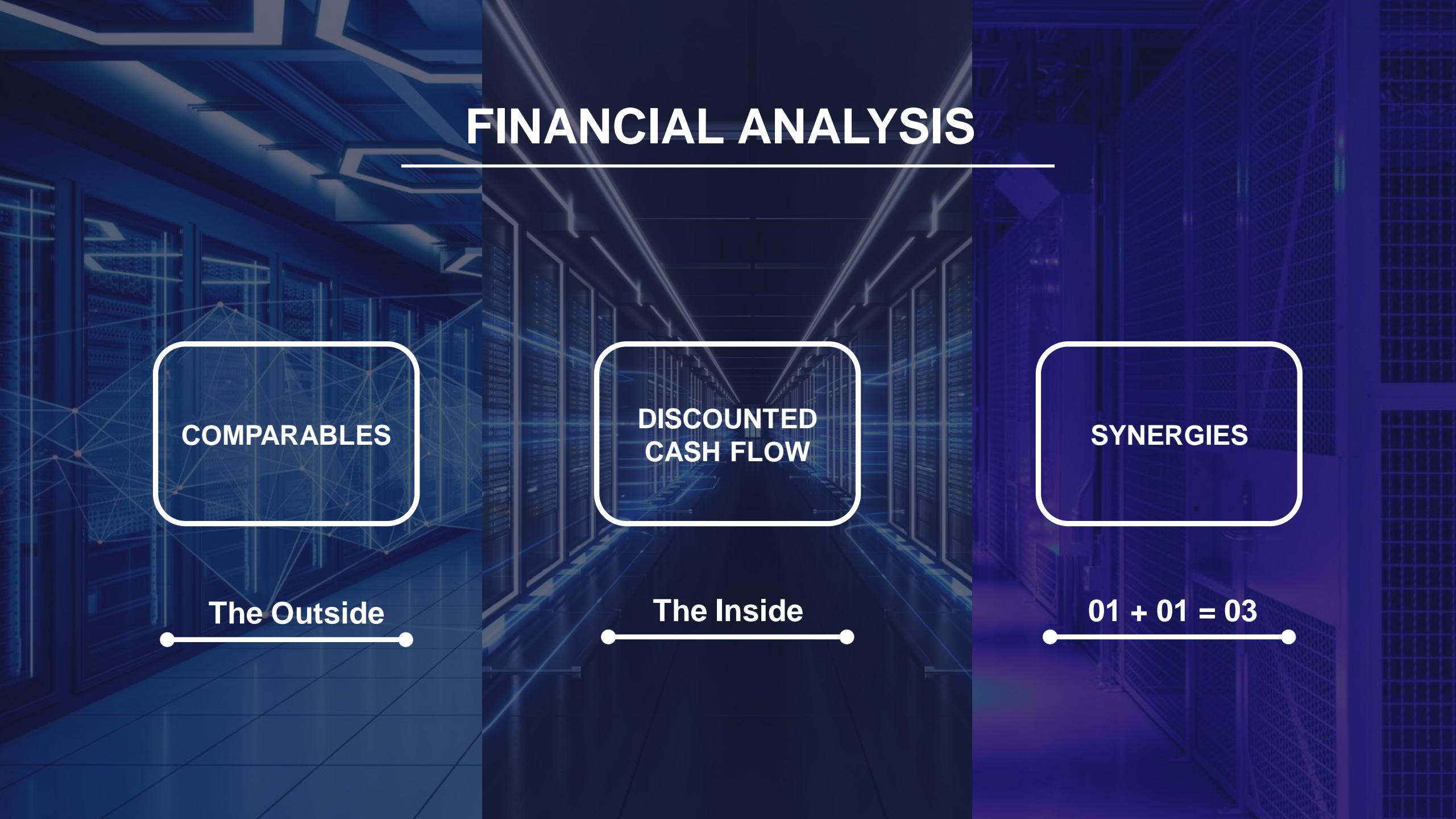
Combined offerings of IBM and Equinix



... and now fully servers all layers in the value chain

Cloud-computing value chain





FINANCIAL ANALYSIS

COMPARABLES

The Outside

DISCOUNTED
CASH FLOW

The Inside

SYNERGIES

01 + 01 = 03

FINANCIAL ANALYSIS

COMPARABLES

The Outside

DISCOUNTED
CASH FLOW

The Inside

SYNERGIES

$01 + 01 = 03$

Potential Peer Group

Data center operators, digital infrastructure providers, and Cloud service providers are potential peer groups for Equinix



1.

Data Centers

Similar **business model** and corporate structure as **REIT**. Own and operate **data centers** and provide **colocation services**.



2.

Digital Infrastructure

Support **connectivity** and **communication**. Often also **own** and **operate data centers**.



3.

Cloud Providers

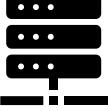
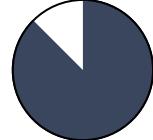
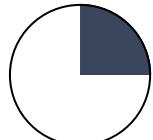
Also facilitate **connectivity** and often **own data centers** themselves. **Customers** of Equinix for xScale data centers.



Source: 10-K (Equinix Inc, 2023)),

Comparable Company Selection

Cloud providers were eliminated because they don't share the same revenue and cost drivers as Equinix

| | Market size | Market CAGR | Brand relevance | Revenue drivers | Cost drivers | Retained |
|---|----------------------------|----------------------------|--|--|---|--|
|  EQUINIX | - | 8.33% ('24-'28) | - | ✓ Interconnections & physical locations ✓ Churn rate ✓ Customer base ✓ Geographic diversification | ✓ Energy efficiency & utility cost ✓ Utilization ✓ Repairs & maintenance ✓ Rental payments | - |
|  Data Centers | \$329.3bn ('23) | 6.56% ('24-'28) |  | ✓ Interconnections & physical locations ✓ Churn rate ✓ Customer base ✓ Geographic diversification | ✓ Energy efficiency & utility cost ✓ Utilization ✓ Repairs & maintenance ✓ Rental payments |  |
|  Digital Infrastructure | \$233.7bn ('23e) | 23.60% ('23-'32) |  | ✓ Interconnections & physical locations ✓ Churn rate ✓ Customer base ✓ Geographic diversification | ✓ Energy efficiency & utility cost ✓ Utilization ✓ Repairs & maintenance ✓ Rental payments |  |
|  Cloud Providers | \$595.4bn ('23) | 11.37% ('24-'28) |  | x Interconnections & physical locations ✓ Churn rate ✓ Customer base x Geographic diversification | ✓ Energy efficiency & utility cost ✓ Utilization x Repairs & maintenance x Rental payments |  |

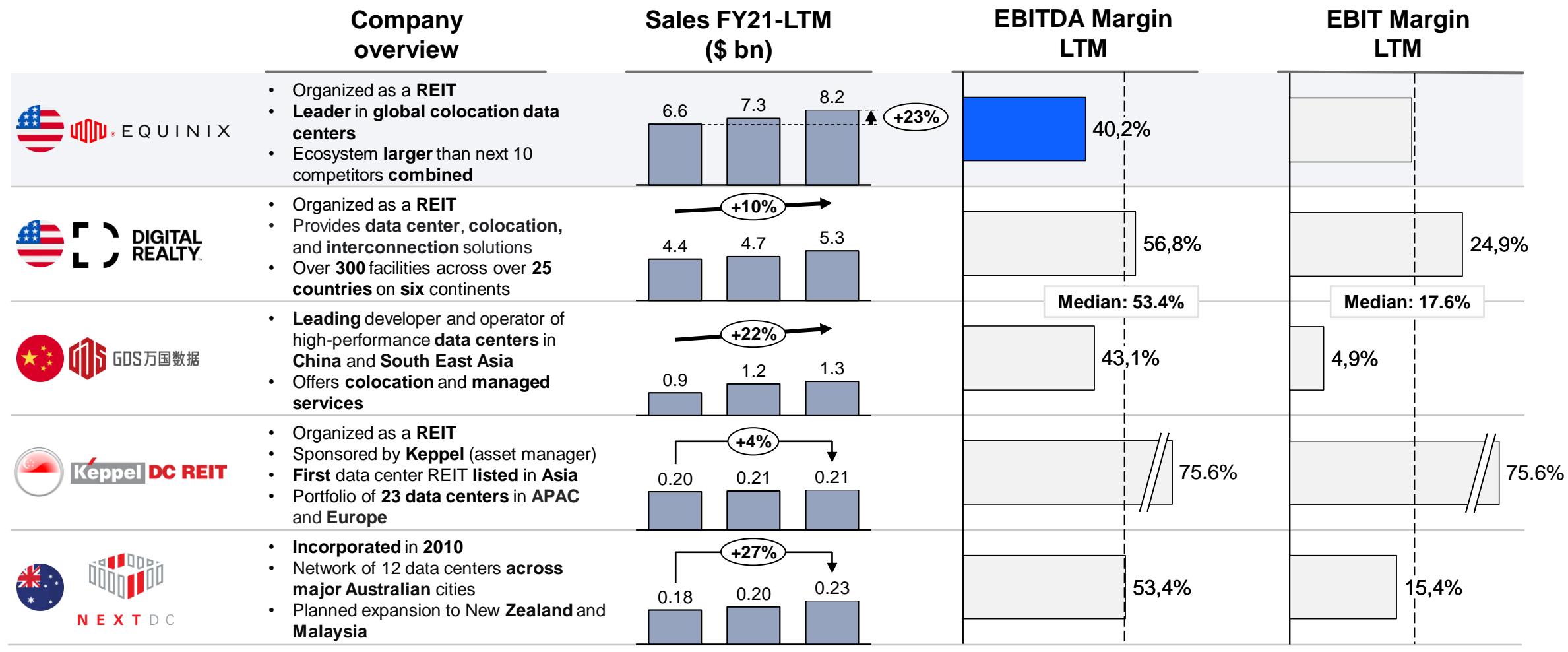
The dependency on physical facilities and property management distinguishes data centers and digital infrastructure from Cloud providers

Data centers is the most comparable segment

Source: (Statista, (2023f, 2023e)), (Yahoo Finance, 2023a)

Peer Group Analysis

While Equinix is growing faster and is bigger than most of its peers, it is less profitable given disproportionate employee count



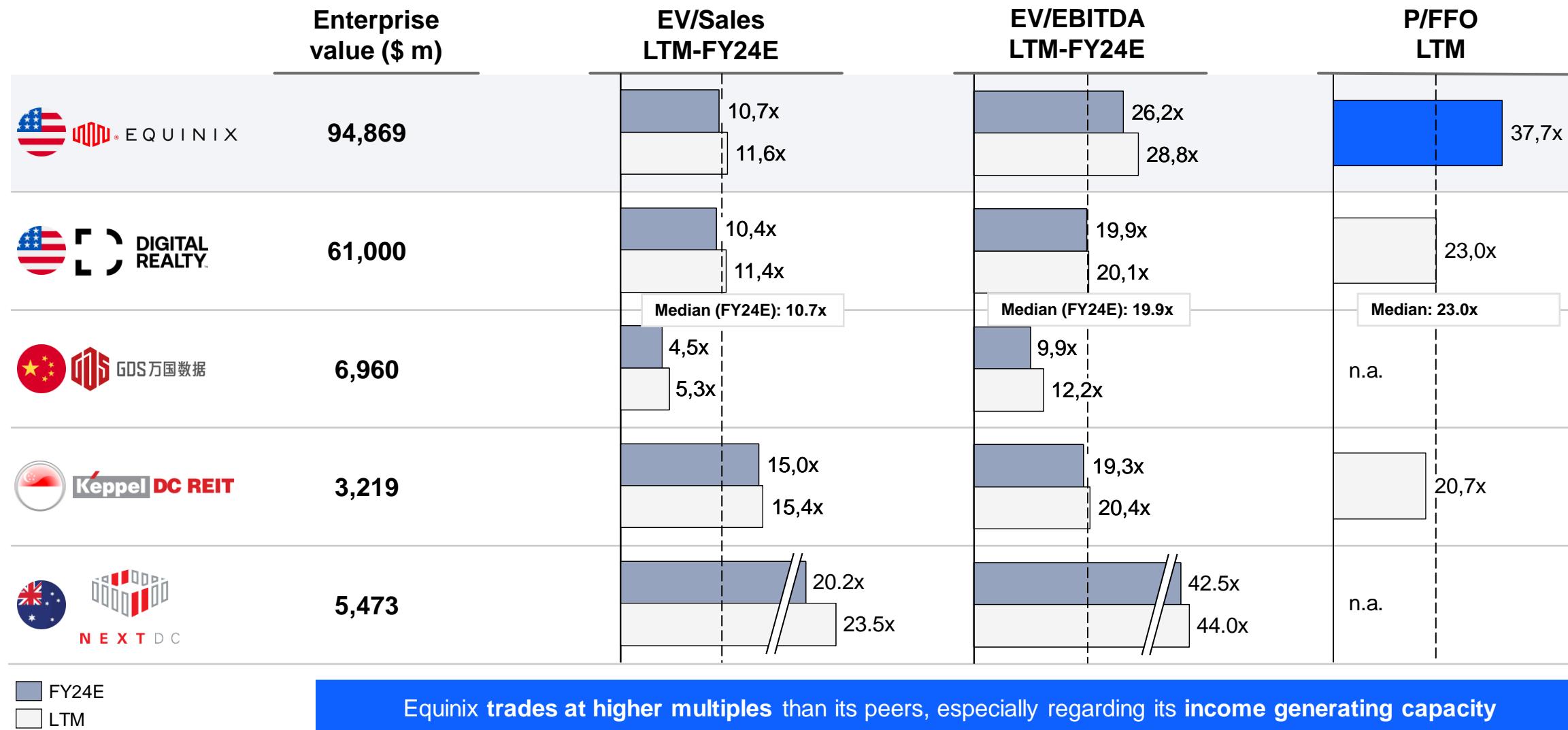
Equinix has a below-average EBITDA margin due to significantly higher **general and administrative expenses** given nearly **2x as high employee count/revenue** as peers

Equinix has **grown faster** than its peers and is the **largest provider**

Source: (Yahoo Finance, 2024)

Peer Group Trading Multiples

Equinix trades at comparable EV/Sales multiples but when incorporating profitability, it trades at a premium to its peers



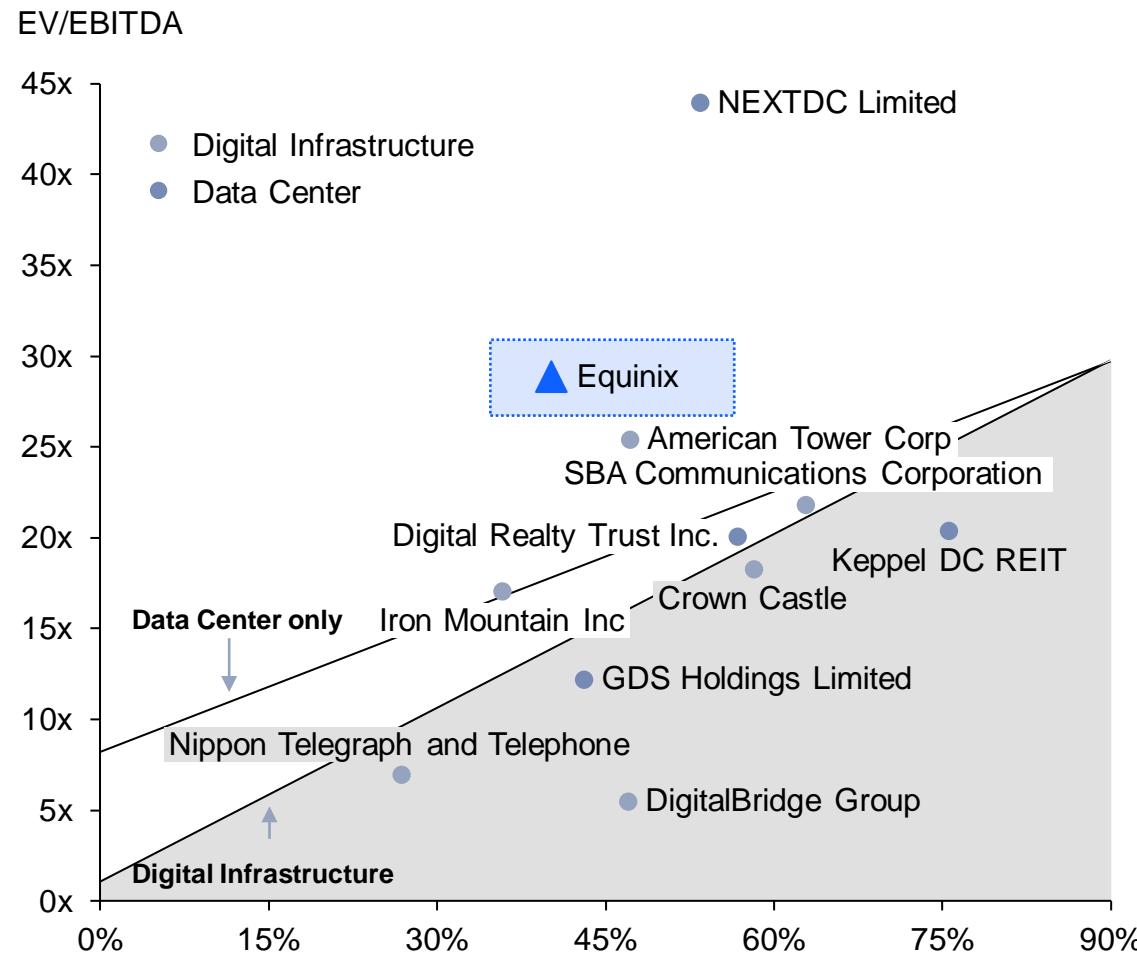
Source: (Yahoo Finance, 2024)

EV/EBITDA vs. EBITDA margins And Equinix Valuation



EBITDA margins explain a part of the variability in multiples. Yet, Equinix proves overvalued compared to its peer group

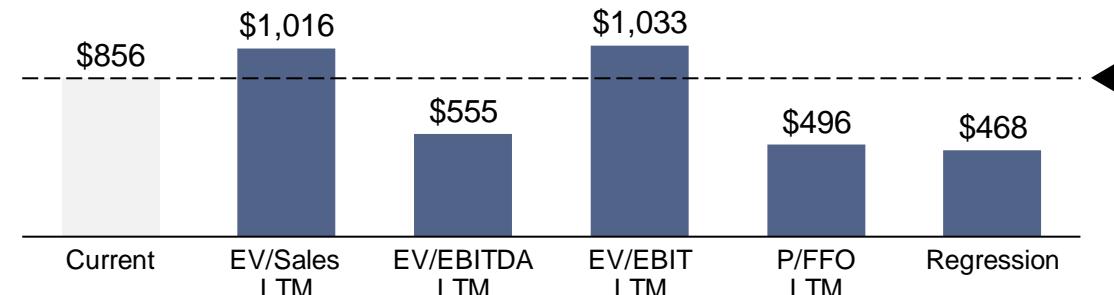
EV/EBITDA LTM vs. EBITDA Margin LTM



Key Takeaways

- Data Center providers trade at **higher multiples** compared to Digital Infrastructure
- **Positive relationship** between **EBITDA margin** and **EV/EBITDA** for both peer groups
- But EBITDA margins **only explain 9.3%** of the variability in EV/EBITDA, indicating that **other factors** like expected growth are also **important**
- Equinix trades at a **higher multiple** than its EBITDA margin would suggest
- Premium may be due to **higher growth or market leadership**

Implied Equinix's Share Price (Median Peer Group)

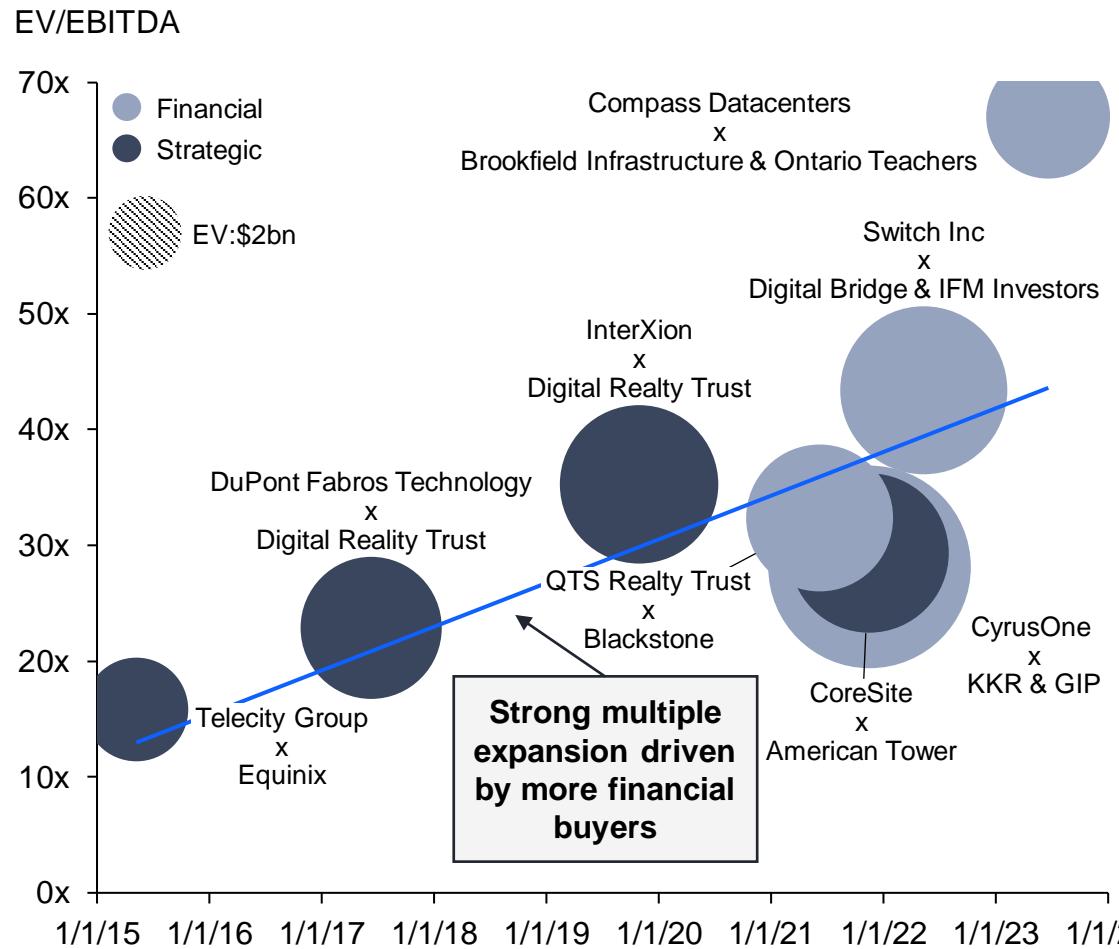


Equinix is overvalued based on comparable multiples

Precedent Transactions

Rising multiples due to high demand from private equity firms and record-breaking deal sizes make an acquisition unattractive

EV/EBITDA multiples for selected precedent transactions

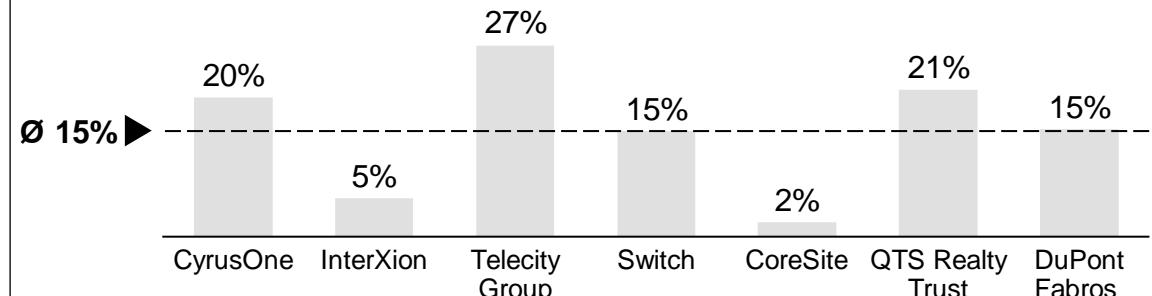


Source: (10-K (Switch Inc, 2021)), 10-Q (Switch Inc, 2022), (Baker and Young, 2015), (Blackstone, 2021), (Data Center Dynamics, 2023), (Gregg, 2023), (Hammond and Tan, 2021), (KKR, 2021), (Mergermarket, 2023), (Roshan, 2019), (Sen, 2022), (Synergy Research Group, 2023)

Key takeaways

- The market for data center acquisitions is **very active**, with deal volume approaching **\$48bn** in 2022 and **187 transactions**
- Multiples have **expanded significantly** over time
- While strategic buyers dominated previously, **private equity firms** accounted for **91%** of deal volume in 2022, leading to **higher demand**
- Record-breaking deals are happening every year (e.g., CyrusOne in 2023), driven by private equity firms
- Median EV/EBITDA is 29.3x**, compared to Equinix's current trading value of **28.8x**
- But multiples **may decline** as **rising interest rates** make **refinancing** more **expensive** for private equity firms

Offer Premiums (Prior Day Closing Price)



Precedent transactions indicate a median value for Equinix of \$1,027



FINANCIAL ANALYSIS

COMPARABLES

The Outside

DISCOUNTED
CASH FLOW

The Inside

SYNERGIES

$01 + 01 = 03$

Equinix Revenue & Free Cash Flow Projections



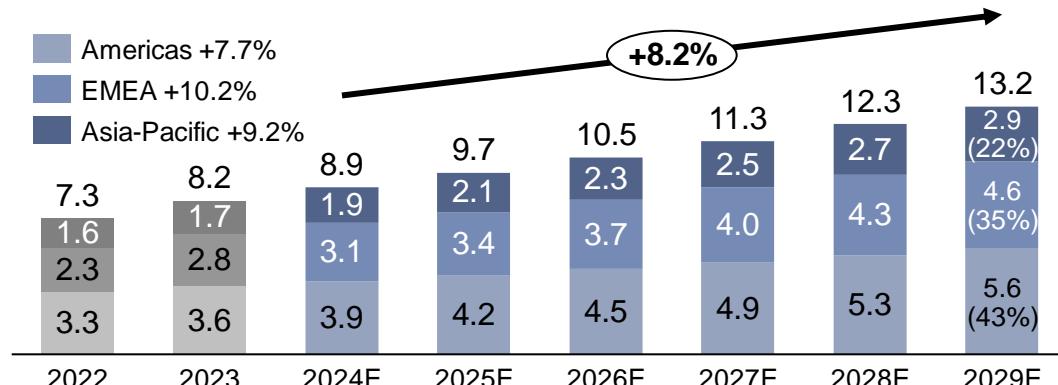
Equinix's standalone DCF valuation assumptions align with management estimates and project a revenue CAGR of 8.2% (FY24-29)

Cash flow forecast assumptions (base case)

- Revenue growth driven by price increases and number of data centers
- Estimated FY24 ending cabinet equivalent capacity in line with guidance of 382,000 and reported data centers under construction
- FY24-29 revenue CAGR** at the lower end of management guidance of 8-10% given size and lower expected market growth
- EMEA** grows faster than Americas given higher announced data-center expansions
- Gross margins stabilize and slightly increase given extraordinary margin depression in EMEA in FY23 due to energy price increases
- SG&A expenses** decrease as a percentage of revenue due to economies of scale and growth in regions outside the US
- Capex** during FY24-27 is in line with expectations of \$3bn p.a. and decrease as fewer data centers are built and growth is driven by current facilities

Equinix will increase its revenues in all regions, especially EMEA

Revenue projections by geography (\$ bn)



Source: (10-K (Equinix Inc, 2023))

Executive Summary

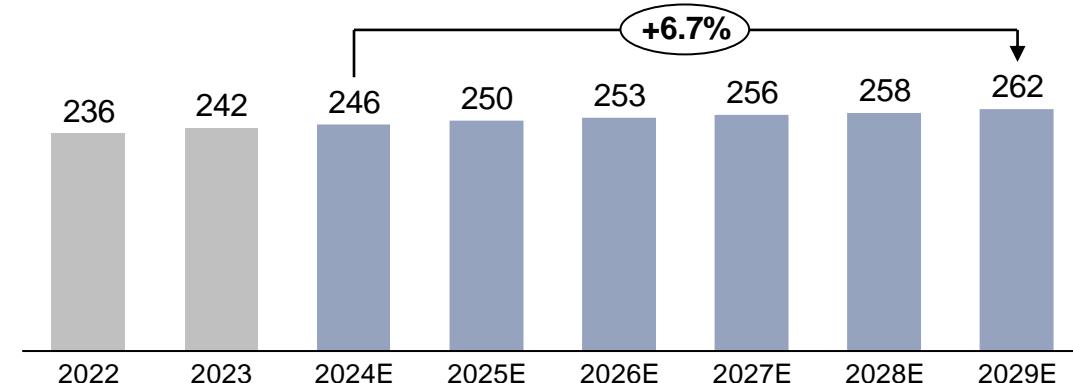
Market Analysis

Strategic Fit

Financial Analysis

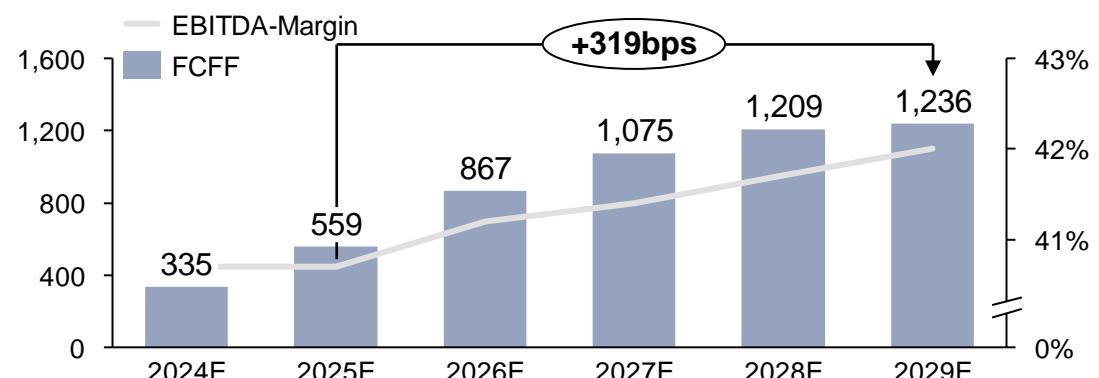
The amount of Equinix data centers is expected to rise

Total number of IBX data centers



FCFF is expected to increase by 319 bps by 2029

Free Cash Flow forecasts (\$ m)



Equinix Discounted Cash Flow (Base Case)



Equinix's free cash flow projections are in line with the observed market trends towards Cloud usage

| USDm | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E | 2031E | 2032E | 2033E | Terminal |
|------------------------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| Revenue | 8,898 | 9,669 | 10,476 | 11,346 | 12,254 | 13,195 | 14,021 | 14,700 | 15,203 | 15,507 | 15,818 |
| Growth | 8.7% | 8.7% | 8.3% | 8.3% | 8.0% | 7.7% | 6.3% | 4.8% | 3.4% | 2.0% | 2.0% |
| EBITDA | 3,621 | 3,935 | 4,316 | 4,697 | 5,110 | 5,542 | 5,942 | 6,284 | 6,556 | 6,746 | 6,881 |
| Margin | ① 40.7% | 40.7% | 41.2% | 41.4% | 41.7% | 42.0% | 42.4% | 42.8% | 43.1% | 43.5% | 43.5% |
| D&A | (2,046) | (2,224) | (2,409) | (2,609) | (2,818) | (3,035) | (3,225) | (3,381) | (3,497) | (3,567) | (3,638) |
| EBIT | ② 1,575 | 1,711 | 1,907 | 2,088 | 2,291 | 2,507 | 2,717 | 2,903 | 3,060 | 3,179 | 3,243 |
| Tax rate | ② 13.9% | 13.9% | 14.0% | 14.1% | 14.2% | 14.2% | 14.3% | 14.4% | 14.4% | 14.5% | 14.5% |
| (-) Taxes | (219) | (239) | (267) | (294) | (324) | (357) | (388) | (417) | (442) | (461) | (470) |
| (+) NOLs | 219 | 239 | 267 | 294 | 91 | - | - | - | - | - | - |
| EBIAT | ③ 1,575 | 1,711 | 1,907 | 2,088 | 2,058 | 2,150 | 2,328 | 2,486 | 2,618 | 2,718 | 2,772 |
| (+) D&A | 2,046 | 2,224 | 2,409 | 2,609 | 2,818 | 3,035 | 3,225 | 3,381 | 3,497 | 3,567 | 3,638 |
| (-) Capex | (3,292) | (3,384) | (3,457) | (3,631) | (3,676) | (3,958) | (4,031) | (4,043) | (3,991) | (3,877) | (3,954) |
| (-) Increase in NWC | 6 | 8 | 8 | 9 | 9 | 9 | (27) | (32) | (35) | (38) | - |
| Free cash flow to firm | 335 | 559 | 867 | 1,075 | 1,209 | 1,236 | 1,495 | 1,793 | 2,089 | 2,370 | 2,456 |
| Discount factor | 0.952 | 0.898 | 0.848 | 0.801 | 0.756 | 0.714 | 0.674 | 0.637 | 0.601 | 0.568 | - |
| Present value of FCF | ④ 319 | 502 | 736 | 861 | 915 | 883 | 1,008 | 1,142 | 1,256 | 1,345 | - |

Commentary

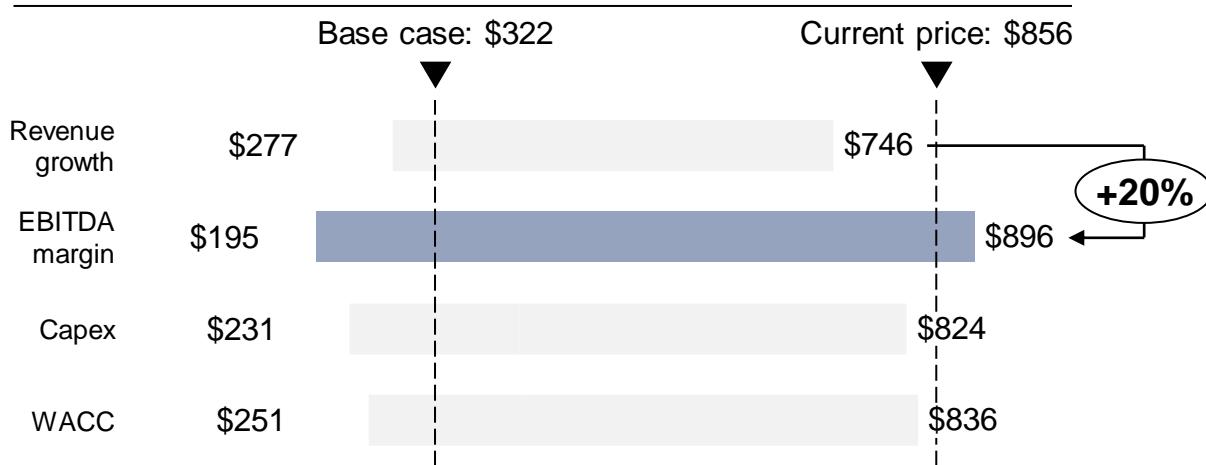
- 1 Due to **economies of scale** in **headcount** general and administrative expenses move **closer** to that in EMEA & Asia (around 13% vs. 31% in the Americas)
 - Stock-based compensation not excluded as **disproportionately high**
- 2 Tax rate **below marginal tax rate** in US given **taxation as REIT**
 - Tax rate **increases slightly** to 14.5% as share of non-taxable operations **decreases** as a percentage of revenue
- 3 In line with mgmt. target of **~\$3bn of capex per year** FY23 – FY27 to expand and maintain Equinix's platform
 - Declines as percentage of **revenue** as more **maintenance capex** needed and **less for expansion**
- 4 **Free cash flow to the firm** was used instead of **AFFO**
 - Better reflects **high level of capital expenditure** to enable growth

Source: 10-K (Equinix Inc, 2023)),

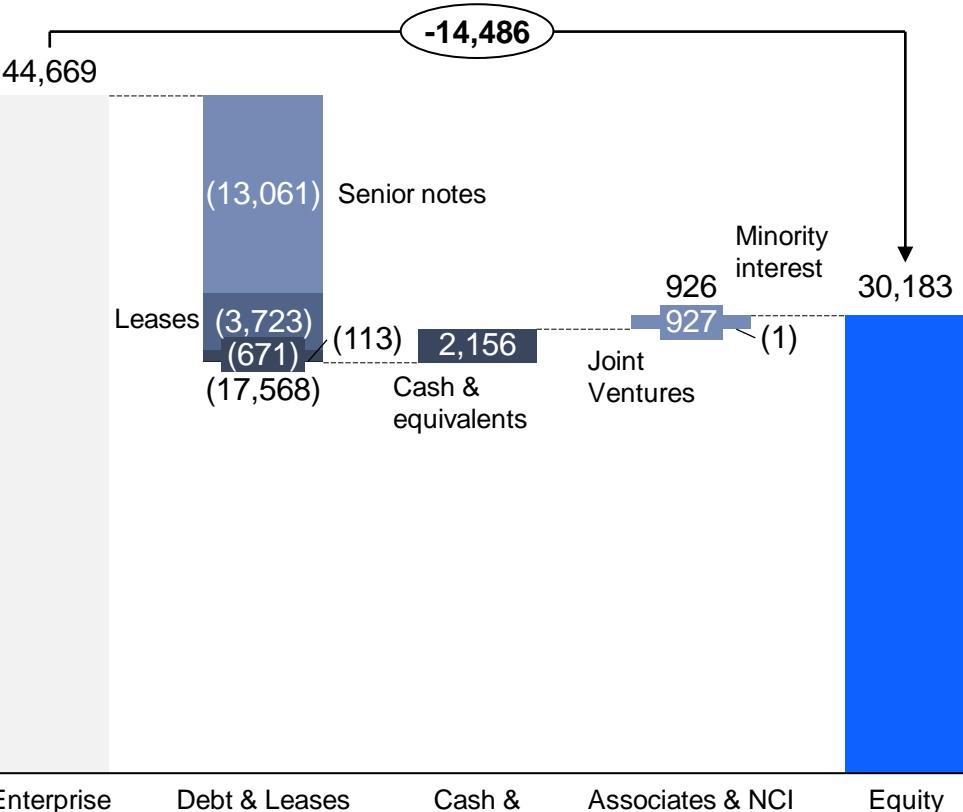
Equity Valuation And Sensitivity to Value Drivers

While Equinix appears overvalued under base case assumptions, significant margin improvements could justify its market price

Value per share after -10% / 10% change in value drivers



Enterprise value to equity bridge (base case, \$ m)



Fundamental Value Drivers

- Base case assumptions result in a **62.4% downside** with a fair value of **\$322 per share**
- EBITDA margin** has the largest impact on Equinix's value, with a **10% increase** in the margin yielding a value of **4.7% above** the current share price
- WACC** also has a **large** impact on value, but is **unlikely to change** assuming equity premiums and interest rates remain stable
- A 10% **reduction** in estimated **capital expenditures** could bring intrinsic value **close to the stock price**
- Revenue **growth** has the **least** impact on value
- Overall, increases in cash flow from **higher margins** through more **efficient overhead** and **lower capex** could **increase value** materially

Source: 10-K (Equinix Inc, 2023))

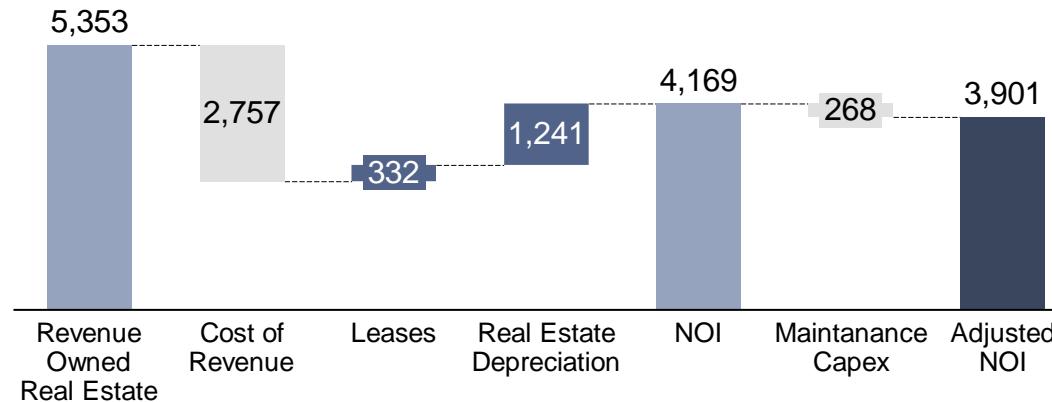
Equinix is overvalued by 62.4% but if it lowers the disproportionately high SBC, its price could be justified

NAV REIT Valuation

Existing owned data centers have high market value, but disproportionate SG&A expenses significantly reduce firm value

Equinix holds a substantial NOI despite revenue costs

Net Operating Income From Owned Real Estate FY24e (\$ m)



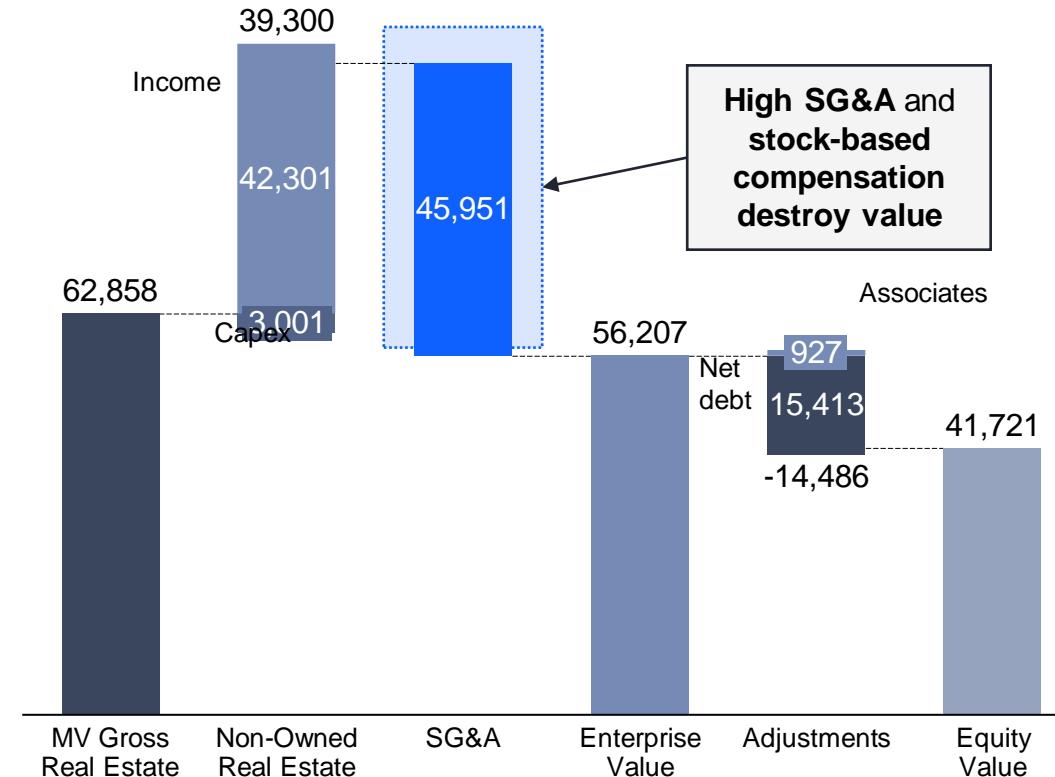
NAV Valuation Implications

- The **market value of data centers owned by Equinix** is around **\$62,858m**
- Non-recurring revenue** were excluded as they are not generated by the real estate itself and were **valued separately**
- Assumed **cap rate** of around **6.21%** given **increases in interest rates**
- But present value of Equinix's **SG&A** expenses **reduces the value** of the firm **substantially**, confirming that its **SG&A expenses** are **disproportionately high**
- High expansion capital expenditures depress** free cash flow in the DCF but comparatively low maintenance capex (**5% of revenue**) yields **attractive returns from the existing portfolio**

Source: (10-K (Equinix Inc, 2023))

High SG&A and stock based compensation decrease Value

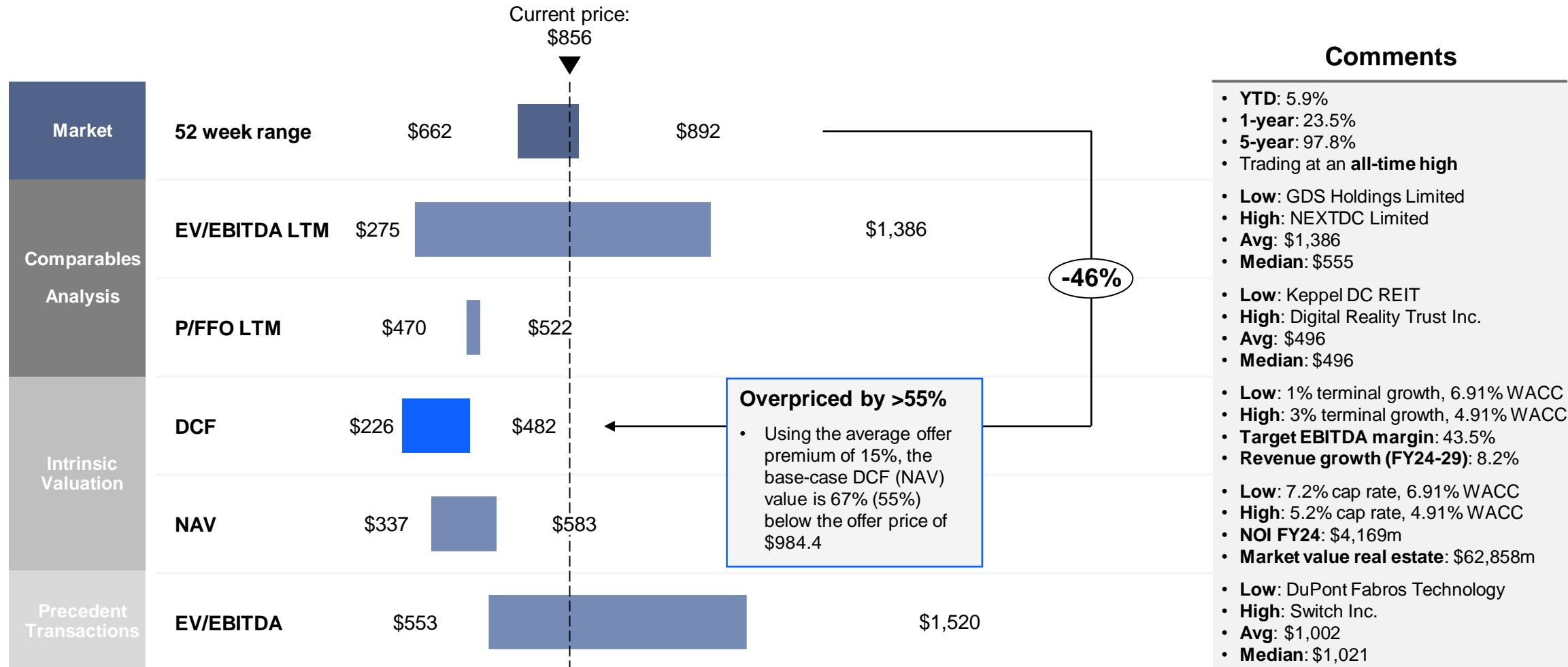
NAV of Equinix Data Centers Adjusted For Overhead (\$ bn)



Equinix's existing data centers have attractive returns but high overhead and expansion capex reduce firm value

Equinix Valuation Summary

Equinix is overvalued according to intrinsic value and trades at an all-time high



Equinix is **overpriced by >55% based on intrinsic valuation** and comparables suggest that the **likely acquisition price** of **\$984.4** would **destroy** substantial value

IBM shouldn't buy Equinix

Source: (Yahoo Finance, 2024)



FINANCIAL ANALYSIS

COMPARABLES

The Outside

DISCOUNTED
CASH FLOW

The Inside

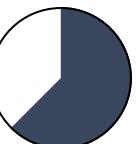
SYNERGIES

$01 + 01 = 03$

Synergies



Synergies can be generated through offering IBM clients colocation solutions and reducing SG&A expenses

| | Synergies | Reasoning | Duration | Impact |
|-------------------|---|---|---|--|
| Revenue Synergies | <ul style="list-style-type: none">Offer IBM Cloud Solutions when re-negotiating leases for Equinix customersIntegrate Equinix data centers in consulting offers | <ul style="list-style-type: none">Access to larger customer base who already need Cloud solutionsOffer Cloud consulting customers colocation services |  3-5 yrs |  |
| SG&A Reduction | <ul style="list-style-type: none">Reduce large SBC expensesReduce Equinix's large overhead, which is above that of competitors | <ul style="list-style-type: none">Use IBM's support functions to run Equinix's facilitiesUse IBM sales representatives to sell data center leases |  2-5 yrs |  |
| Shared Resources | <ul style="list-style-type: none">Combined revenues generated at competitors (e.g. Digital Realty Trust) increase bargaining powerIncrease utilization of data centers | <ul style="list-style-type: none">Renegotiate more favorable leasesMove IBM connectivity needs to Equinix, increase utilization & cut spending with competitors |  3-5 yrs |  |
| Interconnections | <ul style="list-style-type: none">Denser network reduces latencyImproved edge computing capabilities | <ul style="list-style-type: none">Combined data centers provide more interconnections and increase flexibility and scalabilityReduce cost per interconnection |  1-2 yrs |  |

By combining **IBM Cloud** and **consulting** offerings with **Equinix's colocation** facilities, **cross-selling synergies** can be generated

Significant potential for **cutting cost**

Source: 10-K (Equinix Inc, 2023)), (IBM, n.d.)

Cross-Selling Synergies

By combining IBM's offerings with that of Equinix, cross-selling synergies can be generated

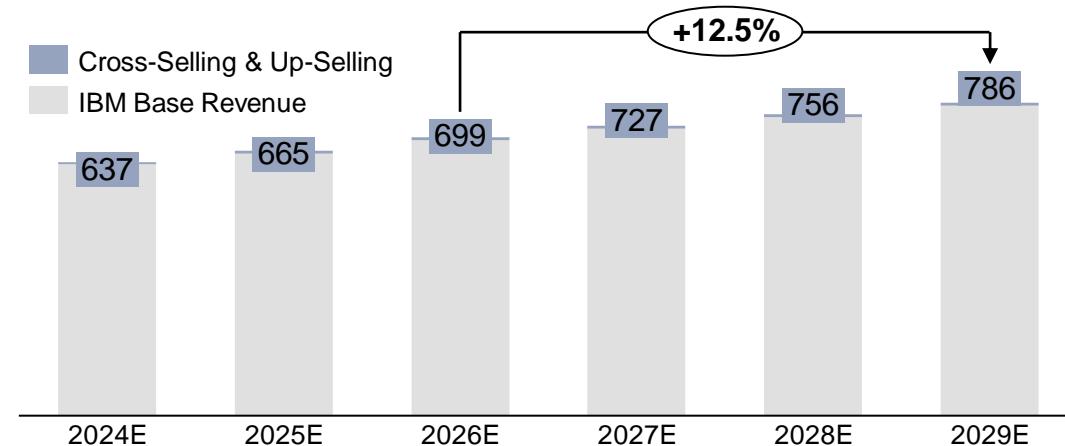
IBM And Equinix consolidate the data center market of America



Source: (10-K (Equinix Inc, 2023)), (IBM, n.d.)

High revenue growth from cross and up-selling synergies

Revenue Through Cross-Selling & Up-Selling (\$ m)



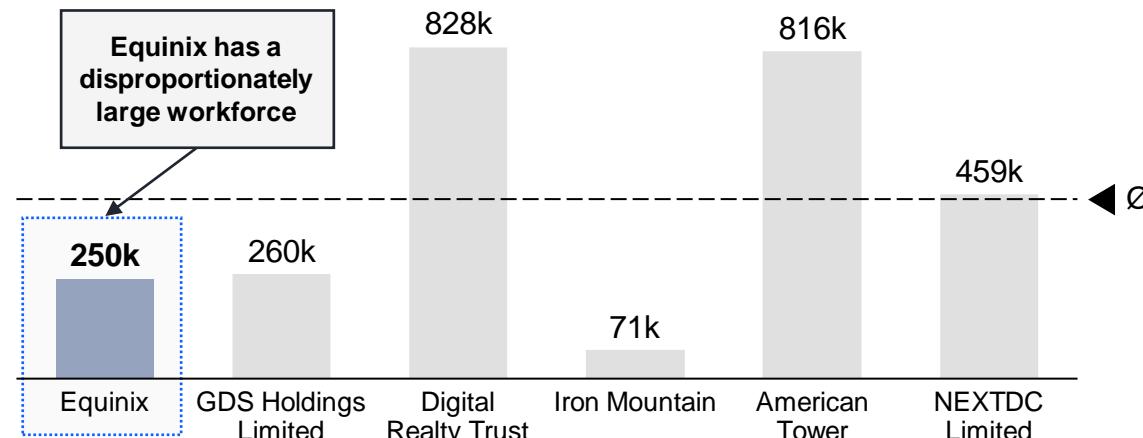
- By offering new and current IBM clients **colocation services** at Equinix's data centers **additional revenue** can be generated
- **Denser data center network** increases **attractiveness** due to higher computing power and lower latency for clients
- Worldwide network improves IBM's **edge computing capabilities**, which could make customers choose higher priced offerings

Cross-selling & up-selling synergies of \$4,253m attainable

Cost Synergies

By reducing Equinix's number of employees and increasing bargaining power, cost synergies can be generated

Comparison Of EBITDA Per Employee (\$)

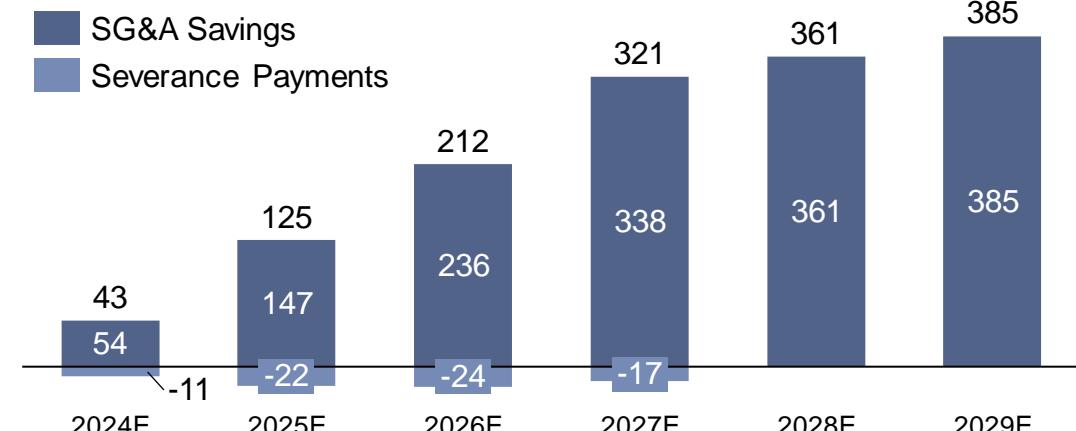


Digital Realty Trust Major Customers FY23

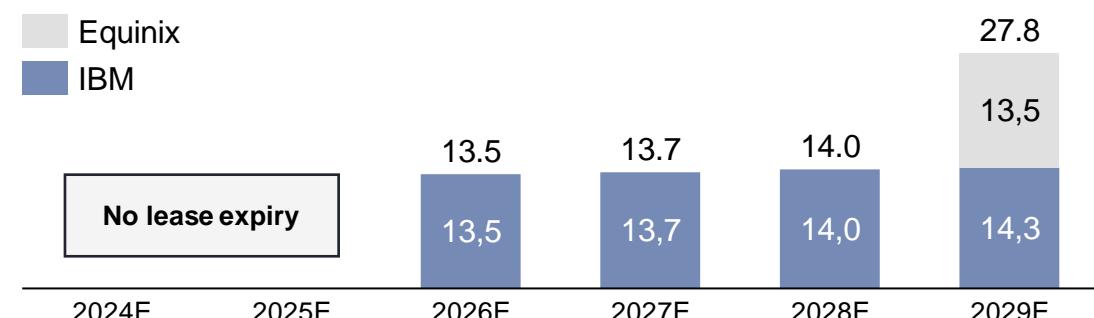
| Tenant | Revenue (\$ k) | % of Revenue | Lease Term in Years |
|-------------------------------|-----------------|--------------|---------------------|
| 1 Fortune 50 Software Company | 418,935 | 10.9% | 8.2 |
| 2 Social Content Platform | 212,198 | 5.5% | 4.7 |
| 3 Oracle Corporation | 164,487 | 4.3% | 6.4 |
| 3 Global Cloud Provider | 156,892 | 4.1% | 5.0 |
| 4 IBM | 129,569 | 3.4% | 2.3 |
| 5 Equinix | 93,346 | 2.4% | 5.9 |

Source: (10-K (Digital Realty Trust Inc, 2023))

EBITDA Added Through Headcount Reduction (\$ m)

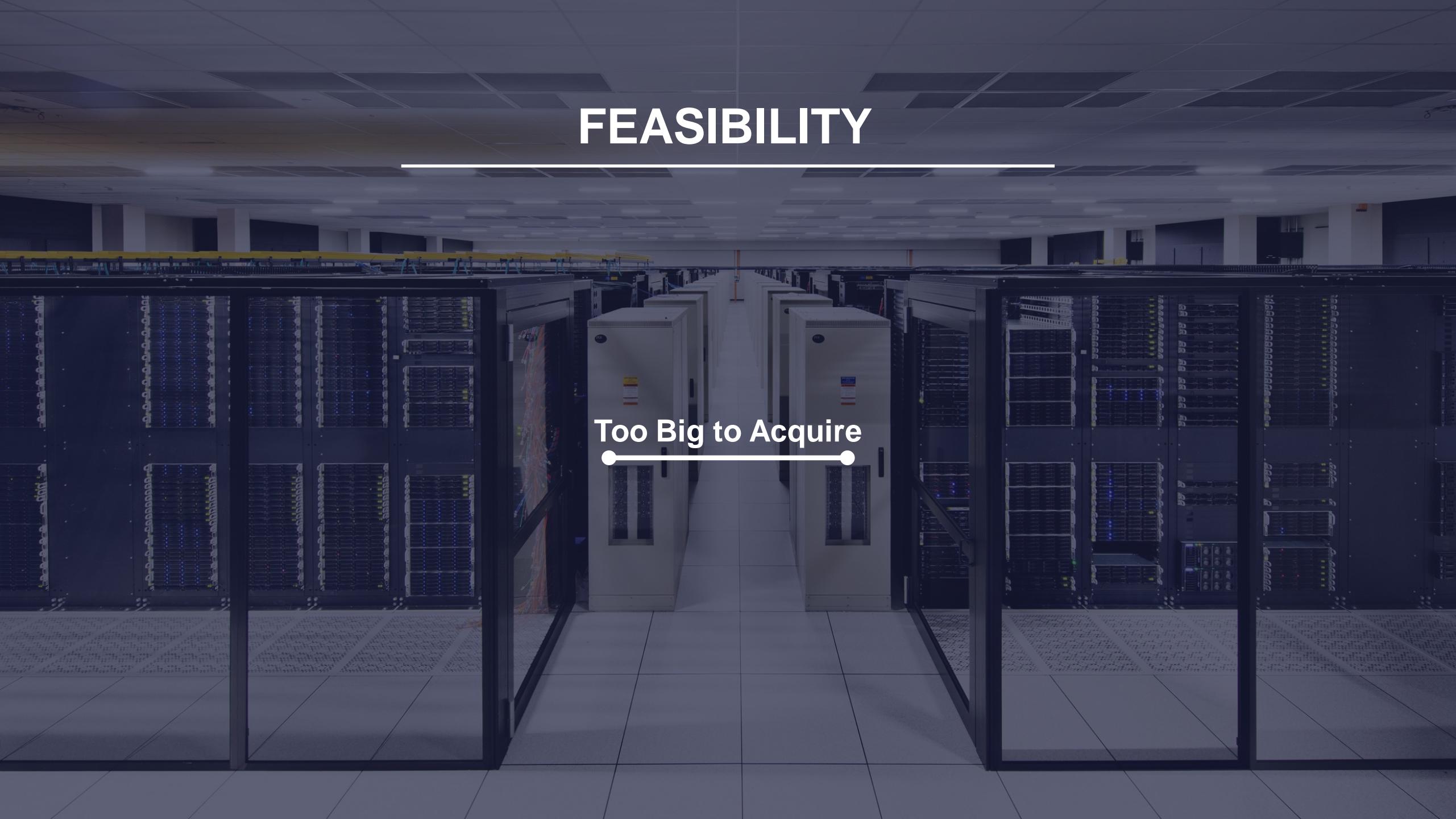


EBITDA Added Through Lease Re-Negotiations (\$ m)



Synergies of \$ 7,933m can be generated through cost-savings

FEASIBILITY



Too Big to Acquire

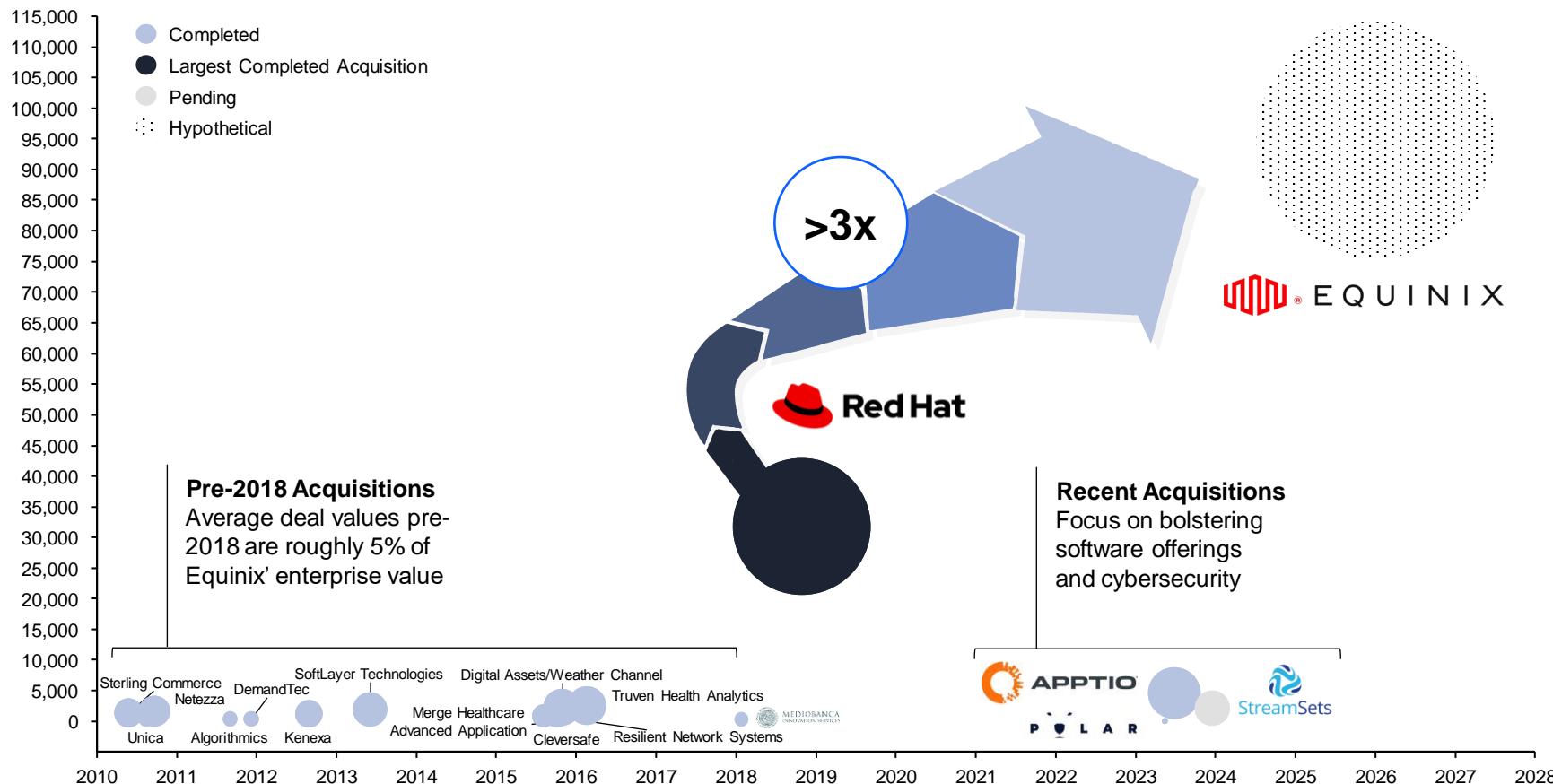
IBM Does Not Acquire Businesses of Equinix's Size



in the history of IBM, only the Red Hat deal exceeded a \$5bn transaction value, implying that Equinix is valued at over 3x IBM's largest transaction

An acquisition of Equinix would break with IBM's pattern of smaller acquisitions

Transaction values of significant IBM acquisitions from 2010-2024 in \$ m



Excessive Deal Size

IBM's acquisitions have historically focused on smaller companies

<\$5bn

in transaction value

IBM's acquisition of Red Hat Inc. for **\$31.8bn**

in transaction value was the only ever exception due to exceptional strategic fit

An **Equinix** acquisition **would deviate even further** from IBM's M&A strategy

Thematic Misfit

IBM's strategic M&A efforts were focused on bolstering its **software** offerings and **did not include** acquiring **REITs** such as Equinix, resulting in a thematic misfit

Source: (Bloomberg, 2024), (Refinitiv Eikon, 2024), (IBM Newsroom, 2023a)

IBM Cannot Merge with Equinix as it is a Real Estate Investment Trust



Equinix is legally classified as a REIT, allowing it to be exempt from federal corporate income tax, an advantage lost through a merger

Equinix is classified as a Real Estate Investment Trust (REIT)

REITs enjoy federal tax benefits if they follow a few key restrictions

Asset and Income Composition

At least 75% of assets must be cash or invested in real estate as well as over 75% of gross income must stem from real estate

Income Distribution

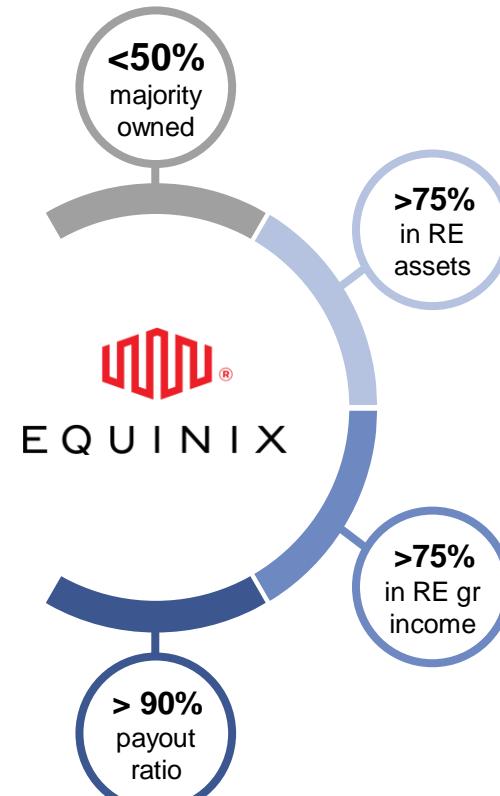
Mandatory distribution of at least 90% of taxable income to shareholders as dividends.

Structural and Ownership Requirements

Must be a qualified entity (corporation, trust, or association) with no more than 50% of shares held by five or fewer individuals.

Tax Status and Compliance

Must elect REIT status and adhere to specific tax filing and operational regulations.



Exemption from federal corporate income tax if classified as a REIT

Following a simple merger, IBM would not qualify as a REIT!

Source: (IBM Newsroom, 2023c), (IBM, 2024a) (Equinix, 2024)

A simple merger does not preserve REIT status

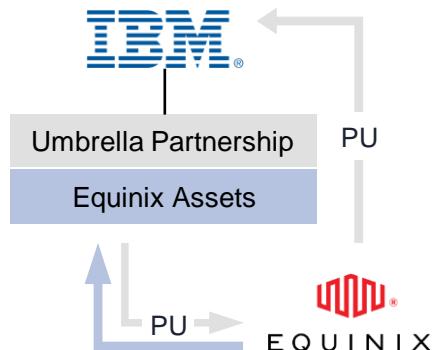
Equinix's favourable taxation would be lost in an IBM merger



An Umbrella Partnership REIT (UPREIT) preserves REIT status

An UPREIT structure allows IBM to seize control of Equinix indirectly

1. In an UPREIT transaction, Equinix would contribute its assets to a partnership in exchange for partnership units.
2. IBM would acquire control of Equinix indirectly by purchasing these partnership units.
3. This structure allows the REIT to operate within a larger corporate structure while maintaining its tax-exempt status, as the REIT itself does not directly merge into the acquirer.



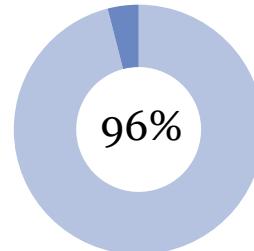
Financing Structure

IBM cannot feasibly finance the transaction value even when using a combination of cash, incremental debt and stock without severe drawbacks

IBM's largest acquisitions used cash from operations or debt

Historical acquisition financing structures

IBM has historically preferred using cash for acquisitions



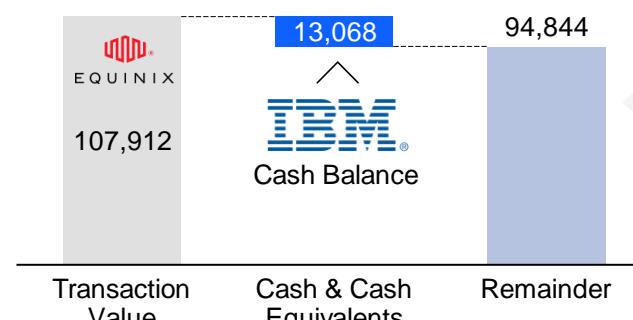
For the 2018 acquisition of Red Hat, IBM used **cash sourced from operations** and issued **incremental debt**



All of IBM's recent significant acquisitions used cash-on-hand

IBM's cash covers less than a third of the transaction value

Acquisition feasibility using cash-on-hand



Insufficient Cash

- IBM does not have sufficient cash-on-hand to buy Equinix
- If IBM wants to continue to refrain from using stock, >\$41bn of debt would need to be raised

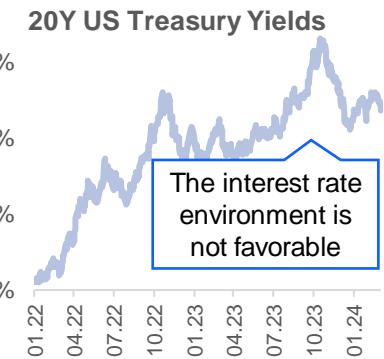
Source: (IBM Newsroom, 2023c) (Equinix, 2024), See Appendix for detailed merger model

IBM has insufficient debt capacity to finance the transaction

Analysis of credit rating impact

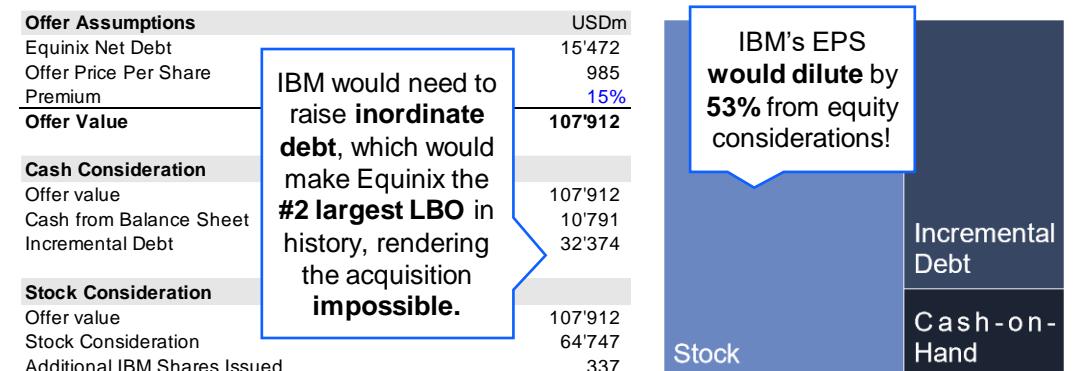
Debt Is No Solution

- IBM would **jeopardize their A- credit rating** by raising the necessary incremental debt
- Debt is an expensive option due to the current **elevated interest rates**



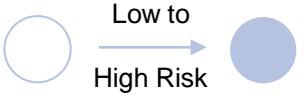
Even combining cash, debt and stock is not enough

Acquisition feasibility and proposed financing structure



Other Considerations

The acquisition is likely to fail due to difficult post-merger integration in addition to the inordinate transaction size

|  | Description of Risk Factor | Evaluation of Severity | Evaluation of Likelihood | Threat Assessment |
|---|--|--|--|---|
| Antitrust Regulation | <ul style="list-style-type: none"> Antitrust regulators may intervene if an M&A transaction is believed to lead to the formation of a monopoly The transaction may fail if a deal is believed to reduce competition | <ul style="list-style-type: none"> Antitrust blockage of the deal has high severity for the acquisition feasibility Regulatory intervention is unlikely unless the HHI exceeds 2'500 or increases by more than 100 | <ul style="list-style-type: none"> Regulatory intervention is moderately likely Though the data center HHI is well below the 2'500 threshold at 432 /10'000 |  |
| Post-merger integration | <ul style="list-style-type: none"> Difficulties in consolidating operations, systems, and corporate culture can hinder the integration. Potential disruption of ongoing business and loss of key personnel | <ul style="list-style-type: none"> IBM and Equinix operate in different businesses and may have conflicting corporate cultures As Equinix is a REIT while IBM is not there might be significant challenges | <ul style="list-style-type: none"> High, considering the size of both companies as well as the differing nature of their businesses It is likely that post-merger integration will be a lengthy and risky process |  |
| Customer Retention | <ul style="list-style-type: none"> Possibility of customer turnover due to service disruption or changes in service offerings can lessen synergies Dissatisfaction among existing customers may decrease loyalty | <ul style="list-style-type: none"> Existing customers of Equinix may not intend to adopt IBM offerings Synergies from cross-selling and up-selling may not materialise, and attempts may alienate customers | <ul style="list-style-type: none"> It is likely that customer retention issues could diminish synergies Some existing customers will not try IBM services, but synergies should materialise at least partially |  |
| FX Impact | <ul style="list-style-type: none"> Foreign exchange rate risk can impact the value of cross-border acquisitions due to uncertain currency translation Costs and benefits may fluctuate based on unpredictable FX rates | <ul style="list-style-type: none"> Both Equinix and IBM are incorporated in the US, meaning that the acquisition price is not affected by FX risk Equinix's EU assets' valuation does depend on foreign exchange risk | <ul style="list-style-type: none"> The overall likelihood of FX risks to pose a threat to the feasibility of the transaction are low Currency translation effects are unlikely to pose a material risk |  |

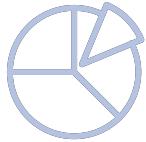
Source:

Conclusion for Equinix Acquisition Feasibility

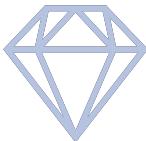
IBM should not acquire Equinix as an acquisition would destroy shareholder value and turn out infeasible due to the overvaluation of Equinix



Equinix is overvalued



The analysis of Equinix has found that according to Net Asset Value, Equinix is **overvalued** by about **48.1%** and according to the DCF, Equinix is **overvalued** by **64.2%**.



The acquisition of Equinix by IBM would have to include an **acquisition premium**. This acquisition premium is estimated to be **15%** of Equinix's market capitalization.



After also considering the synergies that could be generated by the combined companies, the purchase price of **USD 107.9bn** would be **too high** for **synergies of only USD 12.2bn**.

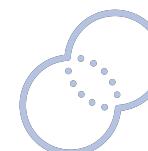
The acquisition is not feasible



A **cash acquisition is not possible**. While IBM may issue **debt**, its **credit rating** would adjust from **A- to BBB** as the acquisition requires inordinate levels of debt at high interest rates.



Even if IBM were to **raise more debt than the second largest LBO in history**, it would still need to also issue **USD 64.7bn in stock** and **dilute its earnings per share by 53.8%**



As a **REIT**, Equinix cannot simply merge with IBM as the combined entity would no longer qualify for the privileged taxation of a REIT. This complicates post-merger integration.

IBM should **not** acquire Equinix

Source:

ALTERNATIVE SOLUTION

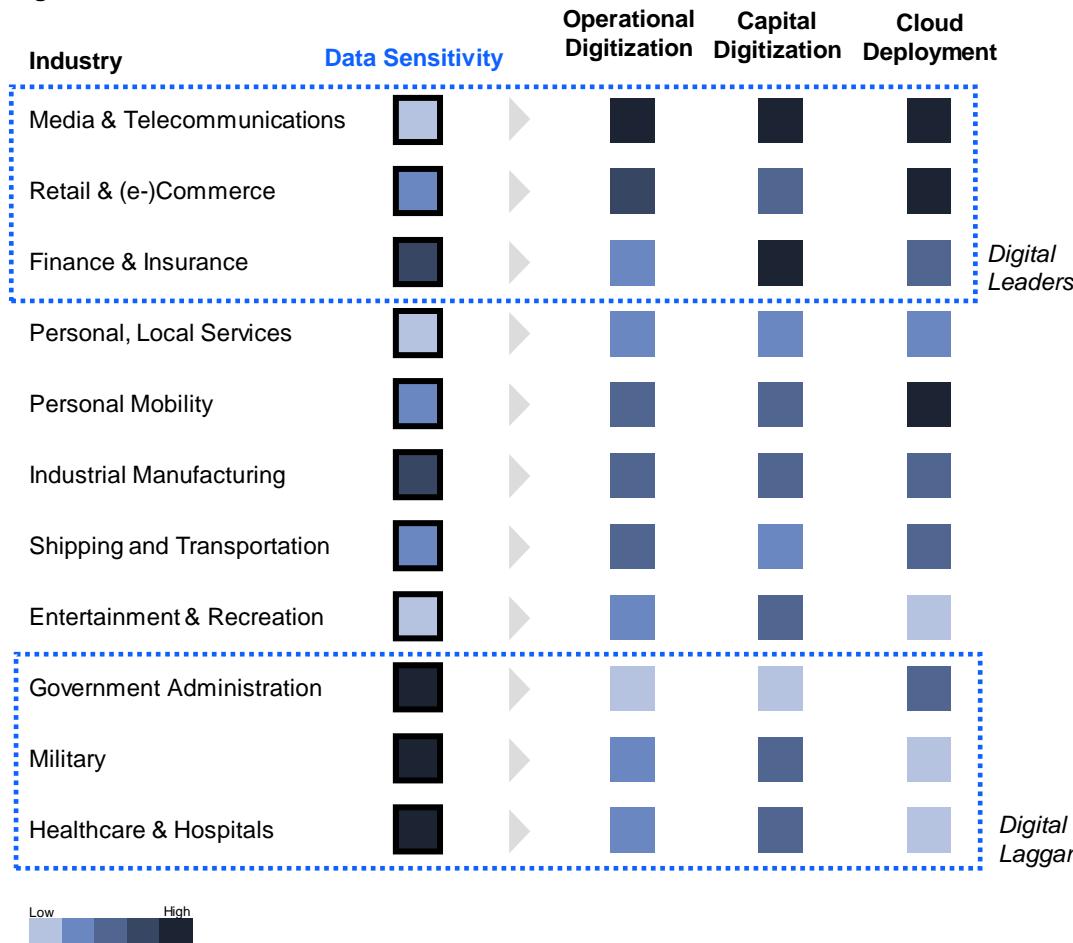
The Internet of Threats

The Future Economy is Digital - and so are its Vulnerabilities

The transformation of the economy means security in the digital world is just as important as in the physical

As digitization continues to transform the economy...

Digitization Levels across industries



... a few key verticals face hesitancy to deploy innovative, digital technologies out of significant security and safety concerns and high system complexity

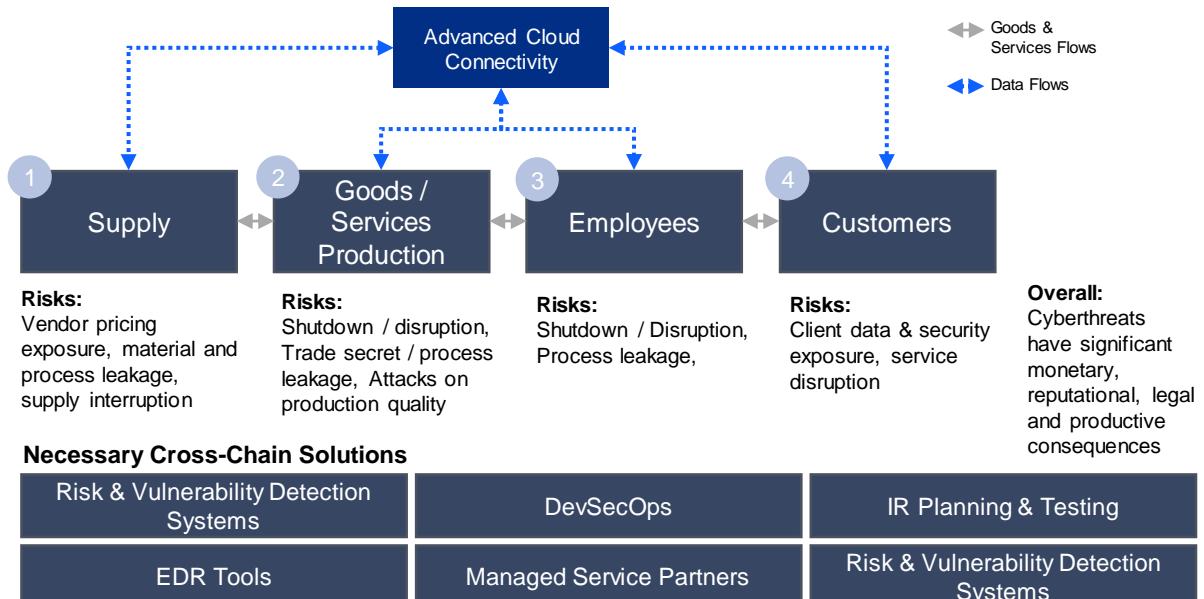
Time-to-market, cost or threat management?

- Firms face fundamental tensions between **business productivity needs** and **cybersecurity risks**.
- Currently, only a few industries have fully digitized their operations, their assets, and deployed Cloud technologies to capitalize on the power of data in their business.
- As data flows become more significant, this **tradeoff becomes more acute**.

Every aspect of the 'digital' enterprises requires robust cybersecurity models

- An organization is as vulnerable to cyberthreats as its weakest link: cybersecurity models must be robust and encompass all nodes in its data network.
- Risk Management cultures require company-wide technology deployments.

Digitization Across the Supply Chain: risks & solutions

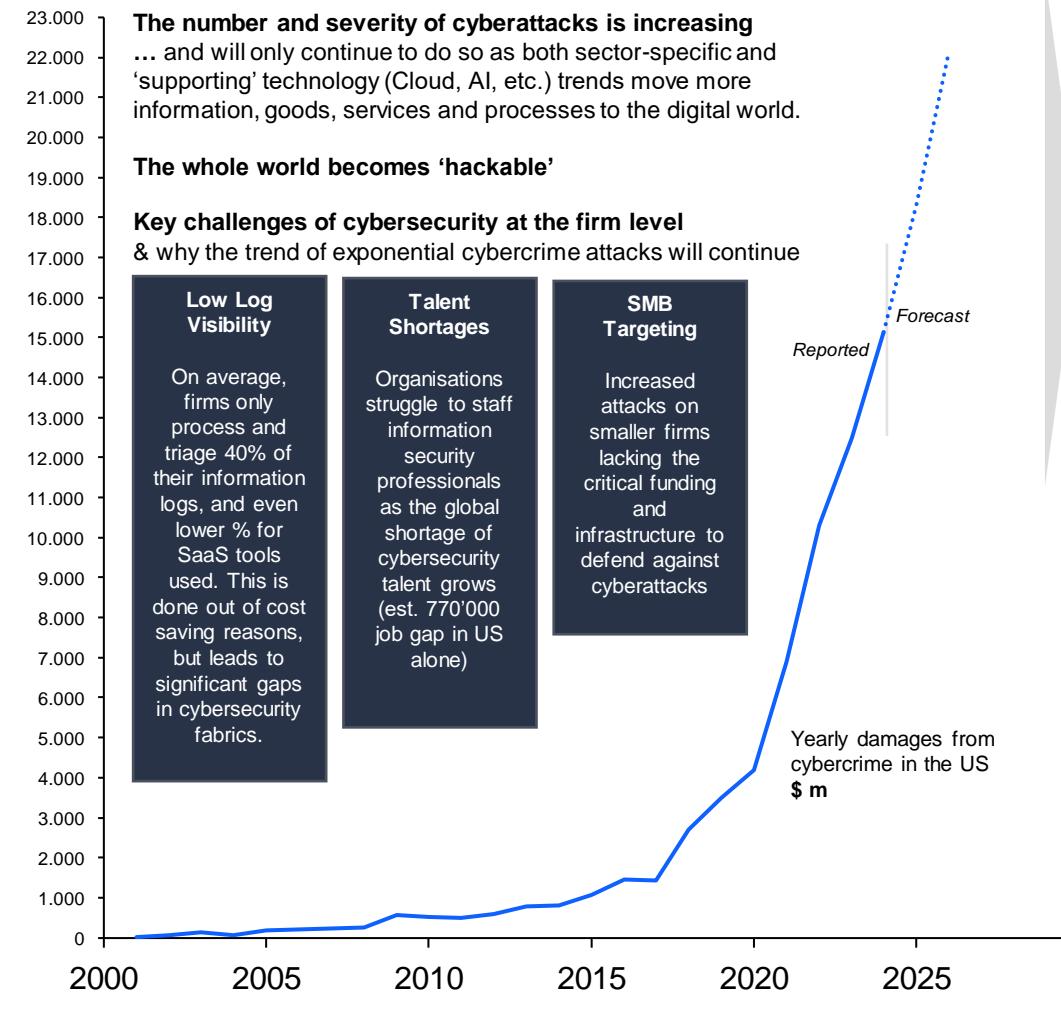


Source: (Gartner, 2023), (Statista, n.d.a) (Statista, n.d.b)

The Skyrocketing Market Opportunity of Cybersecurity

As the cost of individual and aggregate cybercrime increases, the allocation of investments towards cybersecurity will skyrocket

The cost of cybercrime continues to climb exponentially



With both increases in volume and average costs per data breach, firms are increasing cybersecurity budgets, generating strong demand in the market.

USD 4.45M
The average cost of a data breach
(Global, 2023)

| By region | \$ m |
|-------------|------|
| US | 9.48 |
| Middle East | 8.07 |
| Canada | 5.13 |
| Germany | 4.67 |
| Japan | 4.52 |

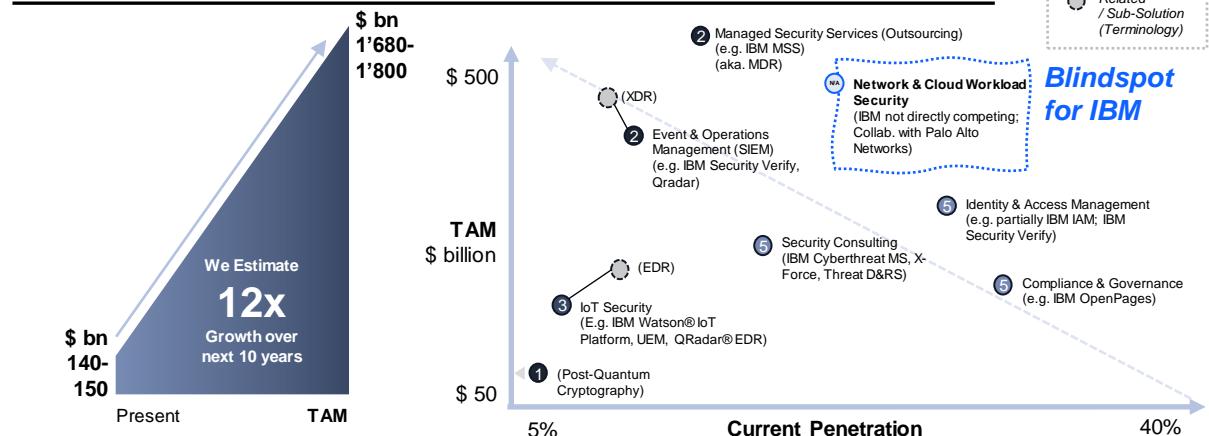
82%
of breaches involve the Cloud (Public, Private or Hybrid)

Average cost of data breach across industries in 2023, \$ m



Shifting the paradigm: Firms are recognizing that cybersecurity is more relevant than ever, especially in critical industries, and increasing their budgets correspondingly.

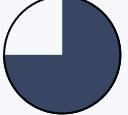
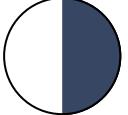
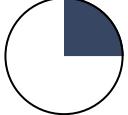
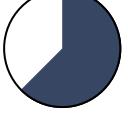
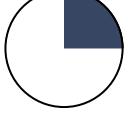
Market size & growth estimates, by cybersecurity service, \$ bn



Source: (FBI, 2023), (IBM 2023a), (Gartner, 2023)

Potential Alternative Targets

While IBM could acquire several companies, Rapid7 represents the most promising target

| | Company overview | Revenue LTM (3-year CAGR) | Strategic fit | Financial impact | Feasibility | Risks |
|---|---|---------------------------|---|---|---|---|
|  RAPID7 | <ul style="list-style-type: none"> Incorporated in 2000 Offers endpoint to Cloud data collection and sharing applications End-to-end threat detection Cloud risk & compliance solutions | \$778m (23.6%) |  |  |  |  |
|  Qualys | <ul style="list-style-type: none"> Incorporated in 1999 Cloud-based platform delivering IT, security, and compliance solutions Cybersecurity asset management Vulnerability detection & response | \$554m (15.2%) |  |  |  |  |
|  tenable | <ul style="list-style-type: none"> Incorporated in 2002 Cloud security solutions External attack surface management Vulnerability management & threat detection | \$799m (22.0%) |  |  |  |  |
|  VARONIS | <ul style="list-style-type: none"> Incorporated in 2004 Cloud-based data storage protection Protects unstructured data Data identification and tagging Identity & access management | \$499m (19.5%) |  |  |  |  |
|  CYBERARK | <ul style="list-style-type: none"> Incorporated in 1999 Risk-based credential security & session management Identity & access management Management of 3rd party credentials | \$752m (17.4%) |  |  |  |  |

Rapid7 offers the **best combination** between **strategic fit, value creation, and risks**

Attractive valuation, outstanding product, and high cross-selling potential

Source: (Yahoo Finance, 2024)

Rapid7 Company Overview



Rapid7 is the missing piece for IBM's data-center-focused strategy as it covers the cybersecurity dimension

Rapid7 company overview



Rapid7 is a **cybersecurity company** and the market leader in **Cloud protection**

Products

Sale of **cybersecurity related products** for threat detection, incident response, and compliance assessment

Makes up **95% of segment revenue**

Business Segments



■ Products ■ Professional Services

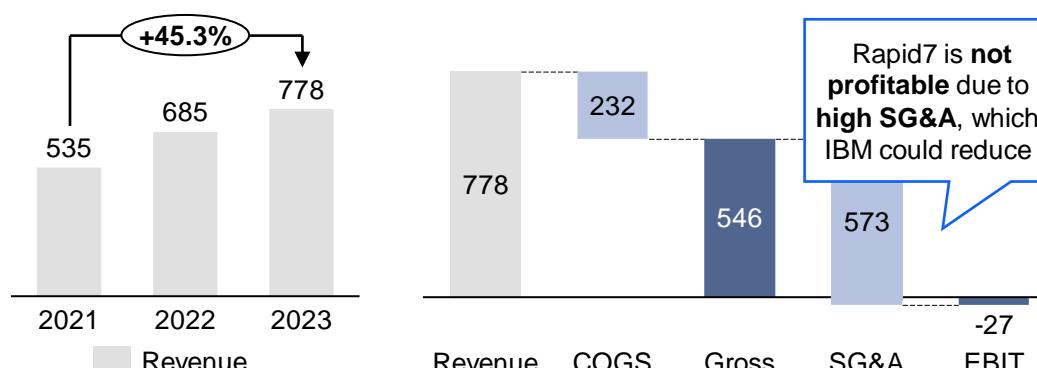
Professional Services

Provision of professional services to complement Rapid7's cybersecurity product suite

Makes up **4.8% of segment revenue**

Financial overview

Rapid7 is currently unprofitable due to high SG&A expenses



Source: (Rapid 7, (2024a, 2024b, n.d.))

Executive Summary

Market Analysis

Strategic Fit

Financial Analysis

Feasibility

Alternative Solution

Conclusion

Detailed product overview

Rapid7 is the market leader in cybersecurity infrastructure for Cloud

- ◀ InsightVM
- ◀ InsightIDR
- ◀ InsightAppSec
- ◀ InsightConnect



- ▶ Managed Services
- ▶ tCell
- ▶ Metasploit
- ▶ InsightCloudSec

Rapid7 offers **cybersecurity solutions for digital infrastructure** and is the **market leader in Cloud cybersecurity** with their **Cloud Workload Protection Platform** and products such as **InsightCloudSec** and **Cloud Risk Complete**

Customer Exposure



11'000+
Existing broad customer base

Geographical Exposure

Key Market USA

US Revenue
74.7% vs 25.3% exports

IBM And Rapid7 Strategic Fit

An acquisition would strengthen IBM's Cloud network security offerings, filling a key gap in the firm's cybersecurity portfolio

Comprehensive cloud security offering

IBM Cybersecurity Portfolio



With the acquisition of Rapid7, IBM remedy a crucial gap in its in-house Cloud workload security offering and create productive synergies in hybrid Cloud, network protection, EDR and vulnerability management.

Combining the two firm's product strengths and niche expertise would allow IBM to **service rather than operate all parts of the Cloud computing value chain**, without the downsides of capital-heavy investments.

Rapid7 integration

| Product | Offering Fit | Synergy Potential | | | |
|------------------------|---|---|--|--------------|--|
| InsightCloudSec | Particularly strong in Cloud security posture management (CSPM) and Cloud Workload Protection (CWP), InsightCloudSec would fill the crucial weakness in IBM's Cloud Security Solutions, and compliment IBM Randoori . | InsightCloudSec represents the crown jewel of the Rapid7 acquisition. | | Cloud | |
| InsightVM | InsightVM's ability to assess and remediate across on-premises, Cloud, and virtual infrastructures could dovetail with IBM's existing tools to provide a more robust end-to-end vulnerability management solution. | Provides a stronger foothold in vulnerability management, especially in Cloud management for IBM | | | |
| InsightIDR | Compliments IBM's SIEM offering by strengthening its Cloud-based analytics and behavior profiling tools in QRadar® . This grants IBM an edge in behavioral analytics and early threat detection. | Provides a lightweight alternative to IBM's existing SIEM & XDR tools, reaching a particular niche of lower-budget customers | | SME | |
| InsightConnect | Rapid7's security orchestration, automation, and response (SOAR) platform allows IBM to help clients streamline their responses to threats and efficiently manage workflows. It would compliment IBM's AIOps Insights , | Better servicing of SMEs and firms with nascent cybersecurity budgets, allowing for future upselling opportunities. | | | |
| tCell | + tCell bolsters IBM's offerings in web-app security in IBM WebSphere. Its runtime application self-protection (RASP) and in-app web application firewall (WAF) capabilities could be a value addition to IBM's Cloud and application security products. | | | | |
| InsightOps | + Rapid7's log management and configuration tool complements IBM's Cloud management solutions, offering IBM clients more options for Cloud visibility and analytics within QRadar® . | | | | |

Source: (Solberg, T.L., 2023), (Goldman Sachs, 2023), (IBM 2023a)

SMEs

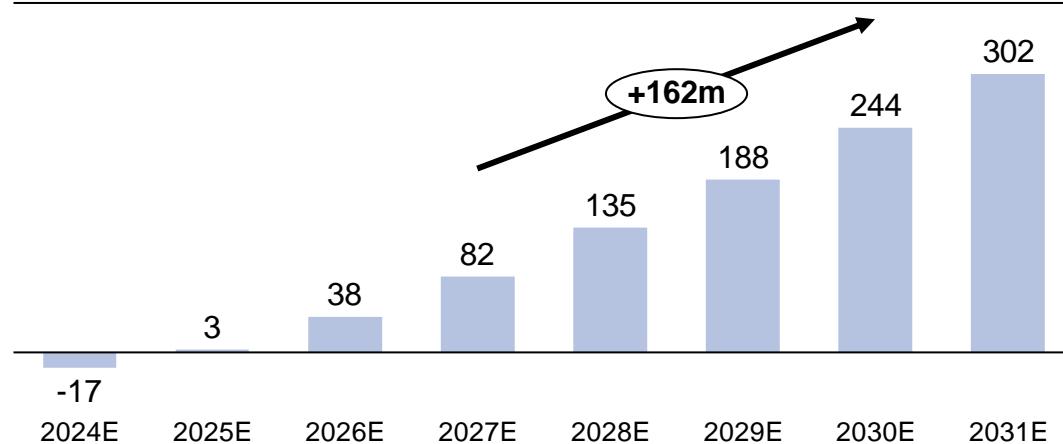
- Both IBM and Rapid7 service customers across industries and sizes, however, Rapid7's **Cloud-native offerings, software-first products and price points are geared more towards SMEs**.
- Rapid7's knowledge and expertise in managing cybersecurity for **Cloud computing firms, colocation centers, data centers and tech-heavy firms** would further allow IBM to offer its products in this growing niche.

Positioning itself well in these markets would enable IBM to capitalize on **strong demand growth** as SMBs from crucial industries accelerate investments in Cloud cybersecurity.

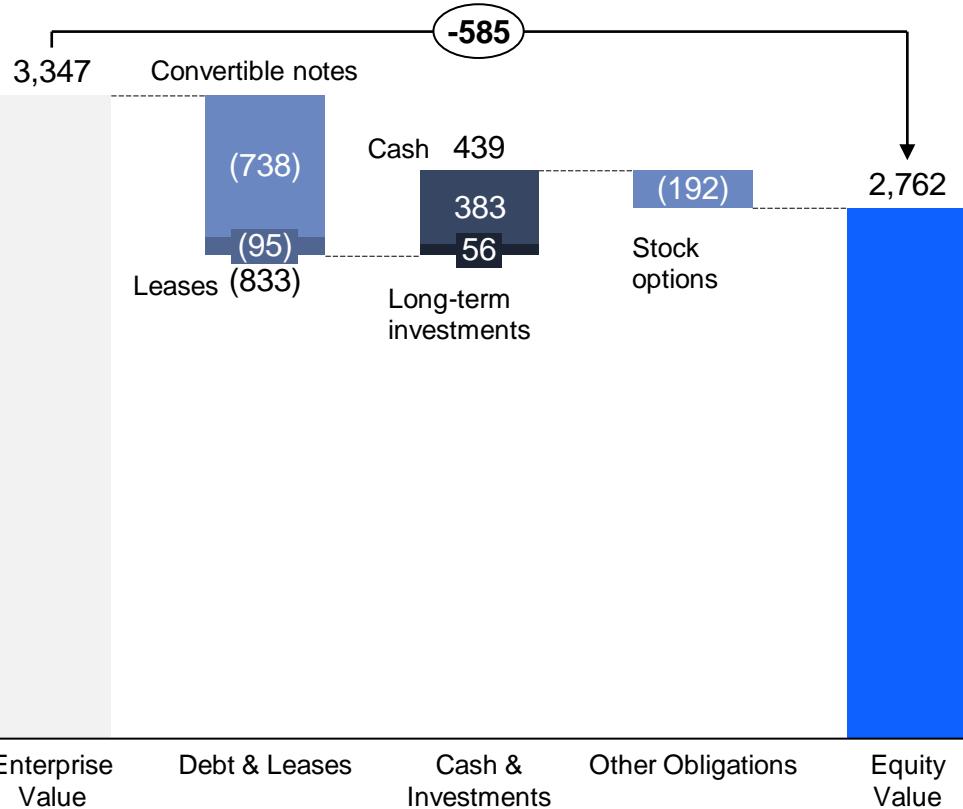
Stand-Alone DCF Valuation of Rapid7

The stand-alone DCF value of Rapid7 is around \$44.6 per share compared to the current price of \$54.4

Free cash flow forecasts (\$ m)



Enterprise value to equity bridge (\$ m)



Cash flow forecast assumptions (base case)

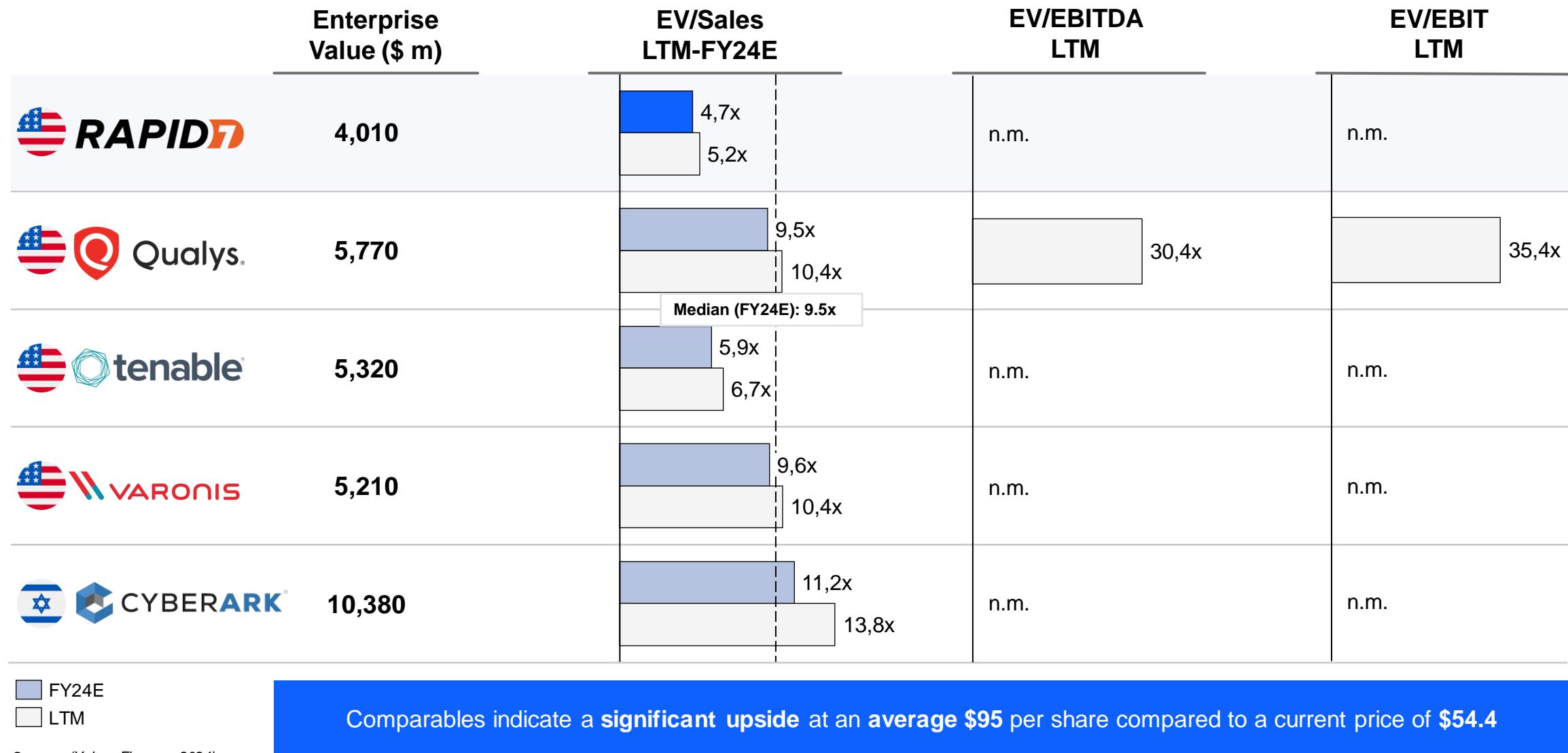
- Revenue growth around **12%** driven by customer **expansion, cross-selling**, and up-selling
- R&D expenses decrease** as percentage of revenue and move closer to industry average in line with past years' trends
- SG&A expenses move to industry averages** in the terminal year as already observed in the past years
- WACC of 8.34%** has been obtained using peer group beta, revenue weighted equity risk premium and current capital structure
- Capex at comparably low** percentage of revenue as most capex is reflected in **R&D expenses**
- Negative non-cash working capital** due to high **deferred revenue**

Base case assumptions indicate a down-side potential of **18.2%**

Source:

Peer Group Trading Multiples

Rapid7 trades at significantly lower multiples compared to its peer group, indicating high upside potential

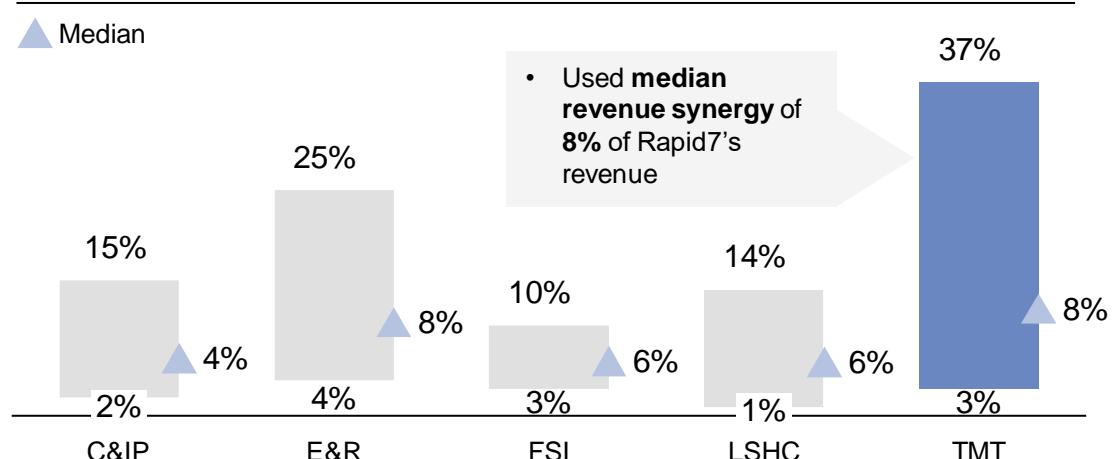


Source: (Yahoo Finance, 2024)

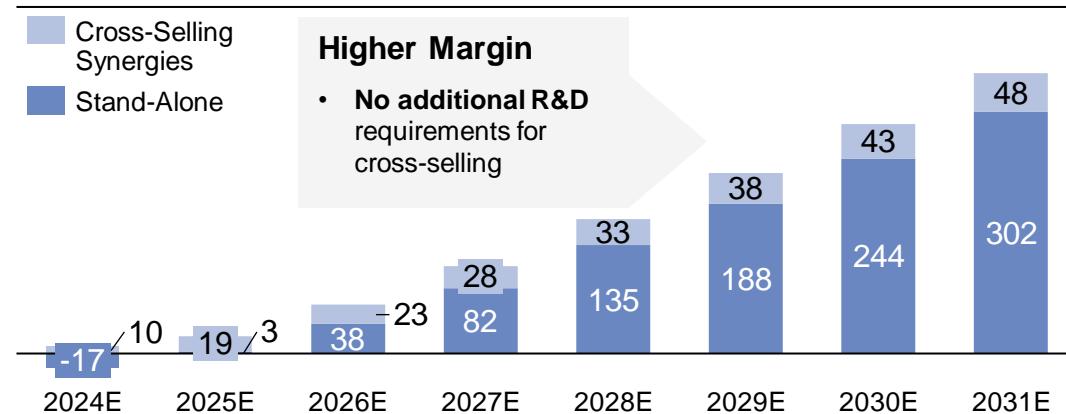
Valuation of Rapid7 Including Synergies

Rapid7's value to IBM is 20% higher than its share price, driven by cross-selling synergies and reductions in SG&A expenses

Revenue synergies, by industry (As % of Target Revenue)

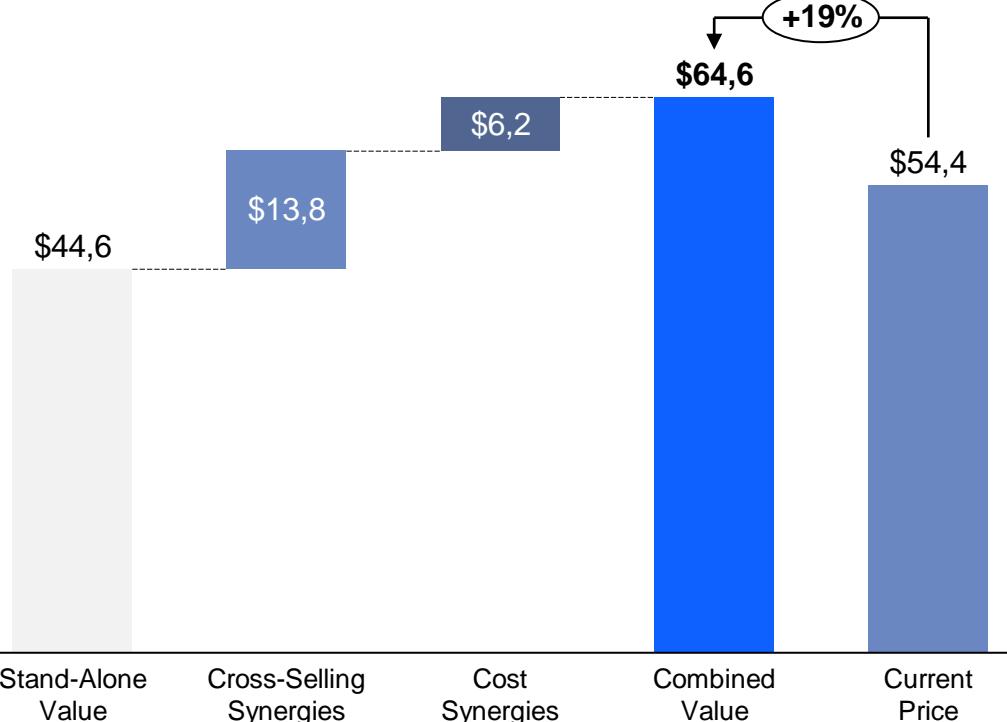


Cross-selling synergies additional free cash flow (\$ m)



Source: (Deloitte, 2022)

Value per share of Rapid7 Including synergies



Including revenue and cost synergies, Rapid7 is worth 19% more to IBM than its current share price

Acquisition Feasibility And Financing Structure

The acquisition of Rapid7 can be financed using IBM's current cash balance and leads to a win-win situation for IBM and Rapid7 shareholders



Feasibility considerations

The IBM acquisition of Rapid7 appears to be feasible

| Evaluation of Risk Factor Likelihood and Severity | | Threat Assessment |
|---|--|--------------------------------|
| Antitrust Regulation | <ul style="list-style-type: none">Regulatory intervention is unlikely in this caseThe cybersecurity HHI is well below the 2'500 threshold at 278 | HHI 278 /10'000 |
| Post-merger integration | <ul style="list-style-type: none">IBM has historical competence in integrating smaller tech companiesThe expected likelihood and severity of integration issues following the Rapid7 acquisition is therefore low | |

IBM should **acquire** Rapid7 given the strong synergies and feasibility of the transaction

Source: Yahoo Finance, 2024)

Financing structure

A cash acquisition is possible and creates value uplift for both sides

Transaction Assumptions

| Offer Assumptions | USDm |
|-----------------------|--------------|
| Rapid7 Net Debt | 547 |
| Offer Price Per Share | 70 |
| Premium | 30% |
| Offer Value | 4'890 |

| Synergies Net Present Value | |
|-----------------------------|--------------|
| Synergy 1 - Cross-Selling | 855 |
| Synergy 2 - Cost Synergies | 384 |
| Total Synergies, Net | 1'240 |

Value Creation / (Destruction)

| Pro Forma Valuation | |
|-----------------------------------|----------------|
| IBM Enterprise Value | 220'267 |
| Rapid7 Enterprise Value | 3'888 |
| Net Present Value of Synergies | 1'240 |
| Pro Forma Enterprise Value | 225'395 |

| | |
|-------------------------------------|----------------|
| Pro Forma Enterprise Value | 225'395 |
| Pro Forma Net Debt | 44'846 |
| Pro Forma Equity Value | 180'549 |
| Attributable to IBM Shareholders | 100% |
| Attributable to Rapid7 Shareholders | 0% |
| Additional Cash Consideration | 4'890 |

| | |
|---------------------------|---------------|
| IBM Net Debt | 44'299 |
| Rapid7 Net Debt | 547 |
| Incremental Debt | - |
| Pro Forma Net Debt | 44'846 |

| Value Uplift / (Destruction) | |
|------------------------------|-------|
| For IBM Shareholders | 2.6% |
| For Rapid7 Shareholders | 46.4% |

An All-Cash Transaction is Feasible

- In line with IBM's past transactions, the acquisition of Rapid7 can be financed using **exclusively cash-on-hand**
- An all-cash transaction **preserves IBM's credit rating** and **does not dilute earnings** as neither additional debt nor stock is issued

The transaction provides **value uplift** for both IBM and Rapid7 shareholders!

Post-Acquisition Strategy

Integrating Rapid7's cybersecurity capabilities post-acquisition to establish end-to-end hybrid Cloud leadership requires retaining key talents



Comprehensive secure and end-to-end Hybrid Cloud provider

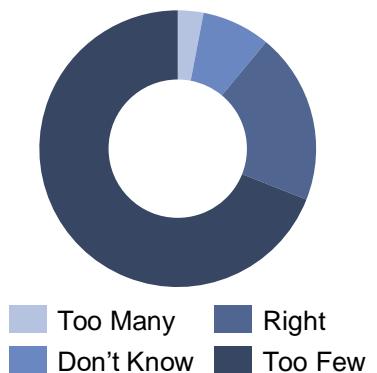
IBM can expand their strategic success position in hybrid Cloud



IBM can leverage Rapid7's **cybersecurity expertise** to establish **hybrid Cloud leadership**

Developing Key Cybersecurity Talent is the Main Concern

Acquiring and integrating Rapid7 allows IBM to strengthen key talent



There is a **shortage of cybersecurity workers** perceived at enterprises in the US

IBM can develop **edge over other cloud solution** providers by bolstering their cloud security capabilities with a **deep talent pool**

Source: (Help Net Security, 2017)

Post-merger integration strategies

Post-merger integration must consider talent, technology, and R&D

1. Workforce Integration and Retention

- Openness and transparency
- Off-hand approach to avoid alienating talent
- Monitor **attrition rates** closely and proactively
- Offer generous **stock options** to retain talent
- Focus on **furthering cultural integration**
- Continue to support **open source initiatives**

2. Technological Integration

- Integrate Rapid7's offerings with IBM's
- Enable integrations between offerings
- Align **software development**
- Consolidate code base maintenance
- Avoid technical debt and align architectures
- Streamline Cloud user **experience** for security

3. Streamlining of R&D Efforts

- Consolidate R&D efforts under IBM
- Leverage IBM research facilities for Rapid7
- Avoid redundancies in research efforts
- Communicate ongoing research projects
- Adopt a **structured approach** to R&D
- Integrate Rapid7's methods with IBM's

CONCLUSION

Back to the Future



Conclusion

IBM should focus on their strength and position itself as a leader in cybersecurity



A Future Among the (IBM) Clouds

- Computing will continue to **shift towards the Cloud and Edge solutions**, providing the foundation for technologies such as AI and IoT services
- This will drive immense productivity gains and a boost to productive processes across industries



The Centennial Rocketship

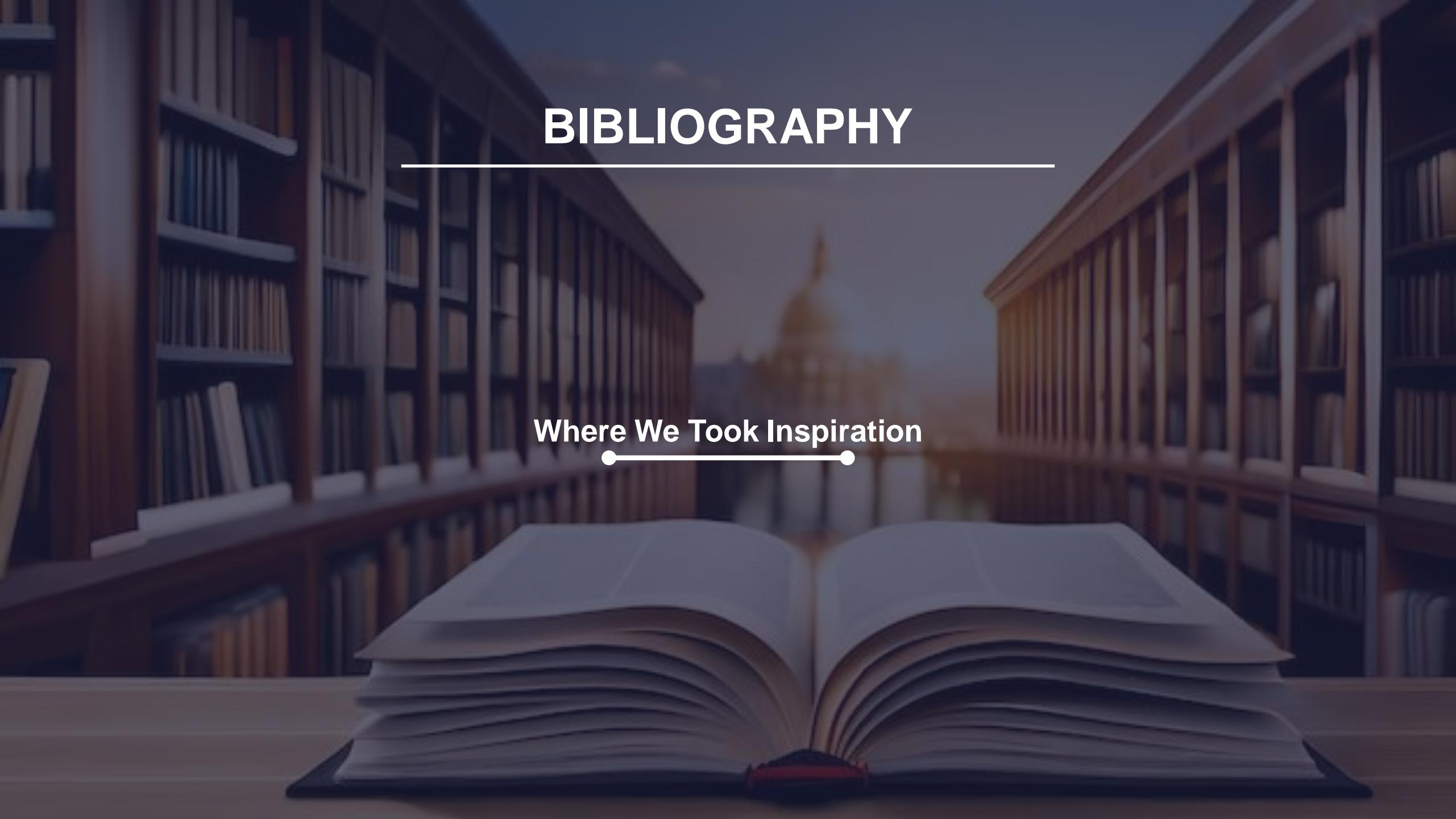
- IBM is committed to becoming the **one-stop-shop** for enterprise digitalization needs across its financing, consulting, software and infra. divisions
- It is crucial IBM **capitalizes upon the continued Cloud transformation**, especially as dependent technologies gain traction

Too Big to Acquire

- Acquiring Equinix would allow IBM to **operate across the Cloud computing supply chain**
- Yet, the acquisition would be expensive, uncharacteristic, and **yield minimal to negligible synergies** in the face of the capital required, destroying value for IBM shareholders

Reaching Cloud Nine

- Instead, **Rapid7 represents the ideal acquisition target**, strengthening IBM's core Cybersecurity offering in Cloud, Networking, and for SMEs
- The resulting synergies would solidify IBMs **position as the leading servicing firm across the entire Cloud Cybersecurity value chain**, increasing IBM shareholder value by 2.6%



BIBLIOGRAPHY

Where We Took Inspiration

Bibliography



- Antino (2024). Top IoT Trends in 2023 and What IoT Holds for the Future? [online] Available at: <https://www.antino.com/blog/top-9-iot-trends> [Accessed 28 Feb. 2024].
- Baker, L. and Young, S. (2015). Equinix to buy TelecityGroup for \$3.6 billion, Interxion deal ended. Reuters. [online] Available at: <https://www.reuters.com/article/idUSKBN0OE0GS/> [Accessed 25 Feb. 2024].
- Blackstone. (2021). QTS Realty Trust to Be Acquired by Blackstone Funds in \$10 Billion Transaction. [online] Available at: <https://www.blackstone.com/news/press/qts-realty-trust-to-be-acquired-by-blackstone-funds-in-10-billion-transaction/> [Accessed 29 Feb. 2024].
- Charles, A. (2023). Top 10 Emerging Cloud Computing Trends To Watch In 2023. [online] Koenig-solutions.com. Available at: <https://www.koenig-solutions.com/blog/cloud-computing-trends> [Accessed 28 Feb. 2024].
- Check Point Research (2023). The Tipping Point: Exploring the Surge in IoT Cyberattacks Globally. [online] Check Point Blog. Available at: <https://blog.checkpoint.com/security/the-tipping-point-exploring-the-surge-in-iot-cyberattacks-plaguing-the-education-sector/> [Accessed 28 Feb. 2024].
- ComputerWeekly.de. (2024). IoT-Trends für 2024 und darüber hinaus | Computer Weekly. [online] Available at: <https://www.computerweekly.com/de/meinung/iot-trends-fuer-2023-und-darueber-hinaus> [Accessed 10 Mar. 2024].
- Consultancy.asia (2023). IBM Consulting launches Japan Innovation Hub in the Philippines. [online] Available at: <https://www.consultancy.asia/news/5143/ibm-consulting-launches-japan-innovation-hub-in-the-philippines> [Accessed 10 Mar. 2024].
- Cybersecurity - Worldwide. Accessed: March 10, 2024. <https://www.statista.com/outlook/tmo/cybersecurity/worldwide> [Accessed 28 Feb. 2024].
- Cybersecurity Insiders (2023). Cloud Security Report. Available at: https://www.isc2.org/-/media/Project/ISC2/Main/Media/Marketing-Assets/CCSP/2023-Cloud-Security-Report-ISC2_final.pdf?rev=85380384b4e248148e14684d8e43375a&hash=27B496154D2B8AF3AEEE725D1BEF392F.
- Damodaran. (2024). Country Default Spreads and Risk Premiums. [online] Available at: <https://pages.stern.nyu.edu/~adamodar/> [Accessed 21 Feb. 2024].
- Data Centre Dynamics. (2023). Brookfield and DigitalBridge duke it out to acquire Compass Datacenters. [online] Available at: <https://www.datacenterdynamics.com/en/news/brookfield-and-digitalbridge-duke-it-out-to-acquire-compass-datacenters/> [Accessed 25 Feb. 2024].
- Deep Instinct. (2023). Infographic: Voice of SecOps (4th Edition) - Generative AI is Increasing in Cyber Attacks. [online] Available at: <https://www.deepinstinct.com/pdf/infographic-voice-of-secops-4th-edition-generative-ai-in-cyber>.
- Deloitte. (2022). Unlocking the full potential of M&A. [online] Available at: [https://www2.deloitte.com/content/dam/Deloitte/ch/Documents/mergers-acquisitions/study-v2.pdf](https://www2.deloitte.com/content/dam/Deloitte/ch/Documents/mergers-acquisitions/ch-en/fa-st-gallen-mergers-acquisitions-study-v2.pdf) [Accessed 07 Mar. 2024].
- Drapkin, A. (2023). 29 Key Artificial Intelligence (AI) Statistics to know in 2023. [online] Tech.co. Available at: <https://tech.co/news/ai-statistics-and-trends> [Accessed 29 Feb. 2024].
- Duarte, F. (2023). Amount of data created daily (2023). [online] Exploding Topics. Available at: <https://explodingtopics.com/blog/data-generated-per-day> [Accessed 26 Feb. 2024]
- Equinix (2024). Data Centers. [online] Available at: <https://www.equinix.com/data-centers#tab-2> [Accessed 26 Feb. 2024].
- McKinsey (2021) Cloud's trillion-dollar prize is up for grabs. <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/clouds-trillion-dollar-prize-is-up-for-grabs> [Accessed 01 Mar. 2024]
- Grimond, L., Beyer, M. and Maguire, A. (2023). Cloud Computing: A Boardroom View. [online] Available at: <https://web-assets.bcg.com/59/6e/b413265a492fb65579843b0122b3/bcg-cloud-computing-a-boardroom-view-final.pdf> [Accessed 10 Mar. 2024].
- Exploding Topics. (2022). 7 Cloud Computing Trends (2023-2028). [online] Available at: <https://explodingtopics.com/blog/cloud-computing-trends> [Accessed 26 Feb. 2024].
- Finro Financial Consulting. (2023). AI Startups: Valuations and Multiples 2024. [online] Available at: <https://finrofca.com/news/ai-startups-valuations-and-multiples-2024> [Accessed 10 Mar. 2024].
- FitchRatings. (2024). Equinix, Inc. [online] Available at: <https://www.fitchratings.com/entity/equinix-inc-82742345> [Accessed 24 Feb. 2024].
- Fortune Business Insights (2023). Infrastructure as a Service [IaaS] Market Share & Growth, 2030. [online] Available at: <https://www.fortunebusinessinsights.com/infrastructure-as-a-service-iaas-market-107351> [Accessed 23 Oct. 2023].
- Gartner (2023). Gartner Places Generative AI on the Peak of Inflated Expectations on the 2023 Hype Cycle for Emerging Technologies. [online] Gartner. Available at: <https://www.gartner.com/en/newsroom/press-releases/2023-08-16-gartner-places-generative-ai-on-the-peak-of-inflated-expectations-on-the-2023-hype-cycle-for-emerging-technologies> [Accessed 26 Feb. 2024].
- Gartner (2022), Magic Quadrant for Network Firewalls [online] Gartner. Available at: https://www.gartner.com/doc/reprints?id=1-2C1K77PM&ct=221219&st=sb?utm_source=marketo&utm_medium=email&utm_campaign=GlobalDA-EN-22-12-07-7014u000001tGHKAA2-P3-Security_Networks-gartner-mq-for-firewalls

Bibliography



- Gianni, P. and Maria, G. (2021). Handbook of Research on Teaching With Virtual Environments and AI. [online] Google Books. IGI Global. Available at: https://books.google.ch/books?hl=de&lr=&id=bxkfEAAQBAJ&oi=fnd&pg=PR1&dq=handbook+of+research+on+teaching+with+virtual+environments+and+ai&ots=ejjv-X4Chs&sig=M_LufbhDggMj8cRzEfV__lj-5_8#v=onepage&q=95%25&f=false [Accessed 10 Mar. 2024].
- GlobalData Plc (2022). Global: Top Cybersecurity Patents Holders (2002 - 2022). [online] Globaldata.com. Available at: <https://www.globaldata.com/data-insights/macroeconomic/global-top-cybersecurity-patents-holders-in-the-sector-2131431#:~:text=The%20top%20five%20patent%20holders> [Accessed 10 Mar. 2024].
- Goldman Sachs (2023). AI investment forecast to approach \$200 billion globally by 2025. [online] Goldman Sachs. Available at: <https://www.goldmansachs.com/intelligence/pages/ai-investment-forecast-to-approach-200-billion-globally-by-2025.html>.
- Gregg, A. (2023). Dupont Fabros merges with Digital Realty, creating a data center giant. Washington Post. [online]. Available at: https://www.washingtonpost.com/business/capitalbusiness/dupont-fabros-merges-with-digital-realty-creating-a-data-center-giant/2017/06/09/2a71d328-4d37-11e7-bc1b-fddbd8359dee_story.html [Accessed 29 Feb. 2024].
- Grimond, L., Beyer, M. and Maguire, A. (2023). Cloud Computing: A Boardroom View. [online] Available at: <https://web-assets.bcg.com/59/6e/b413265a492fb65579843b0122b3/bcg-cloud-computing-a-boardroom-view-final.pdf> [Accessed 10 Mar. 2024].
- Hammond, E. and Tan, G. (2021). American Tower Nears \$10 Billion Deal to Buy CoreSite. Bloomberg. [online] Available at: <https://www.bloomberg.com/news/articles/2021-11-14/american-tower-said-to-near-10-billion-deal-to-buy-coresite> [Accessed 29 Feb. 2024].
- Hao, K. (2019). Training a single AI model can emit as much carbon as five cars in their lifetimes. [online] MIT Technology Review. Available at: <https://www.technologyreview.com/2019/06/06/239031/training-a-single-ai-model-can-emit-as-much-carbon-as-five-cars-in-their-lifetimes/>.
- Help Net Security(2017). Keys to attracting and retaining cybersecurity talent. [online] Help Net Security. Available at: <https://www.helpnetsecurity.com/2017/05/11/retaining-cybersecurity-talent/> [Accessed 10 Mar. 2024].
- Hindustan Times. (2023). IBM says expansion in India's emerging clusters to build professional pools. [online] Available at: <https://www.hindustantimes.com/technology/ibm-says-expansion-in-indias-emerging-clusters-to-build-professional-pools-101694575898780.html> [Accessed 10 Mar. 2024].
- IBM. (2017). The importance of securing data in the cloud. [online] The importance of securing data in the cloud. Available at: <https://www.ibm.com/cloud/smartpapers/securing-data-in-the-cloud/>.
- IBM. (2020). IBM Products. [online] Available at: <https://www.ibm.com/products?types> [Accessed 25 Feb. 2024].
- IBM. (2023a). Cost of a data breach 2023. [online] IBM. Available at: <https://www.ibm.com/reports/data-breach> [Accessed 25 Feb. 2024].
- IBM. (2023b). IBM Strategic Partnerships | IBM. [online] www.ibm.com. Available at: <https://www.ibm.com стратегические партнерства> [Accessed 25 Feb. 2024].
- IBM. (2024a). Form 10-K 2023 Annual Report Report. Available at: <https://www.sec.gov/ixviewer-plus/ix.xhtml?doc=/Archives/edgar/data/51143/000005114324000012/ibm-20231231.html> [Accessed 25 Feb. 2024].
- IBM. (2024b). Maple Leaf Sports & Entertainment Ltd. (MLSE) | IBM. [online] Available at: <https://www.ibm.com/case-studies/maple-leaf-sports-and-entertainment> [Accessed 10 Mar. 2024].
- IBM. (n.d.a). IBM Security Products. [online] Available at: <https://www.ibm.com/security/products> [Accessed 25 Feb. 2024].
- IBM. (n.d.b). What is the internet of things? | IBM. [online] Available at: [https://www.ibm.com/topics/internet-of-things#:~:text=The%20Internet%20of%20Things%20\(IoT\)%20refers%20to%20a%20network%20of](https://www.ibm.com/topics/internet-of-things#:~:text=The%20Internet%20of%20Things%20(IoT)%20refers%20to%20a%20network%20of) [Accessed 28 Feb. 2024].
- IBM. (n.d.c). IBM Cloud Global Data Centers. [online] Available at: <https://www.ibm.com/cloud/data-centers> [Accessed 28 Feb. 2024].
- IBM. (n.d.d). IBM Cloud Global Data Centers. [online] Available at: <https://www.ibm.com/cloud/data-centers> [Accessed 01 Mar. 2024].
- IBM Newsroom. (2021). IBM Completes the Separation of Kyndryl. [online] Available at: <https://newsroom.ibm.com/2021-11-03-IBM-Completes-the-Separation-of-Kyndryl> [Accessed 28 Feb. 2024].
- IBM Newsroom (2023a). Krungthai Bank and IBM establish joint venture to drive sustainable growth in traditional banking business. [online] Available at: <https://asean.newsroom.ibm.com/Krungthai-Bank-and-IBM-establish-joint-venture> [Accessed 10 Mar. 2024].
- IBM Newsroom. (2023b). IBM Launches \$500 Million Enterprise AI Venture Fund. [online] Available at: <https://newsroom.ibm.com/2023-11-07-IBM-Launches-500-Million-Enterprise-AI-Venture-Fund> [Accessed 28 Feb. 2024].
- IBM Newsroom. (2023c). IBM to acquire Equine Global to expand consulting capabilities in Indonesia. [online] Available at: <https://newsroom.ibm.com/IBM-to-acquire-Equine-Global-to-expand-consulting-capabilities-in-Indonesia> [Accessed 10 Mar. 2024].
- IBM Newsroom. (2023d). IBM to Acquire StreamSets and webMethods Platforms from Software AG. [online] Available at: <https://newsroom.ibm.com/2023-12-18-IBM-to-Acquire-StreamSets-and-webMethods-Platforms-from-Software-AG> [Accessed 28 Feb. 2024].

Bibliography



- IBM Newsroom. (2023e). IBM Unveils the Watsonx Platform to Power Next-Generation Foundation Models for Business. [online] Available at: <https://newsroom.ibm.com/2023-05-09-IBM-Unveils-the-Watsonx-Platform-to-Power-Next-Generation-Foundation-Models-for-Business> [Accessed 28 Feb. 2024].
- Josh Mahan. (2023). Understanding Data Center Energy Consumption - C&C Technology Group. [online] Available at: <https://cc-techgroup.com/data-center-energy-consumption/#:~:text=this%20work%20efficiently>.
- KKR. (2021). Available at: https://media.kkr.com/rss-feed/news-release/?news_id=6f0b8be1-2767-4e42-ad91-23b9d45f9126&type=1 [Accessed 25 Feb. 2024].
- Kolesnikov, N. (2023). 65 + Cloud Computing Statistics You Need to Know For August 2023 – The Where, Why & How Much. [online] Techopedia. Available at: <https://www.techopedia.com/cloud-computing-statistics> [Accessed 10 Mar. 2024].
- Krewell, K. (2022). The Next Generation Of IBM Quantum Computers. [online] Forbes. Available at: <https://www.forbes.com/sites/tiriasresearch/2022/06/22/the-next-generation-of-ibm-quantum-computers/> [Accessed 10 Mar. 2024].
- Lambert Consulting (2023). Statistics and trends in Cloud Computing 2023 - 2024. [online] Lambert Consulting SA. Available at: <https://www.lambertconsulting.ch/en/statistiques-et-tendances-du-cloud-computing-2023-2024/> [Accessed 10 Mar. 2024].
- Lindner, O. (2020). Hybrid Digital Infrastructure Management for Edge Data Centers. [online] FNT Software Blog. Available at: <https://fntsoftware.com/blog/industry-expertise-hybrid-digital-infrastructure-management-for-edge-data-centers/> [Accessed 10 Mar. 2024].
- Little., A. (2019). Digital infrastructure as a driver of competitiveness. [online] Available at: <https://www.adlittle.com/en/insights/report/digital-infrastructure-driver-competitiveness> [Accessed 10 Mar. 2024].
- Macquarie. (2021). Could digital infrastructure be the next sustainable investment opportunity? | Macquarie Group. [online] Available at: <https://www.macquarie.com/au/en/insights/digital-infrastructure-as-a-sustainable-investment-opportunity-for-the-future.html> [Accessed 10 Mar. 2024].
- MarketsandMarkets. (2023). Hyperscale Computing Market Size, Statistics, Growth Analysis & Trends [2030]. [online] Available at: <https://www.marketsandmarkets.com/Market-Reports/hyperscale-computing-market-77118278.html> [Accessed 10 Mar. 2024].
- Minnix, J. (2023). 105 Data Center Stats You Should Know In 2024. [online] Brightlio - Technology Illuminated. Available at: <https://brightlio.com/data-center-stats/> [Accessed 01 Mar. 2024].
- Mok, A. (2023). More than half of tech workers think AI is overrated, study finds. [online] Business Insider. Available at: <https://businessinsider.com/tech-workers-say-ai-is-overrated-study-finds-2023-11> [Accessed 10 Mar. 2024].
- Nathan, A., Grimberg, J., Rhodes, A. (2023). " " TOP MIND. [online] Available at: <https://www.goldmansachs.com/intelligence/pages/top-of-mind/generative-ai-hype-or-truly-transformative/report.pdf> [Accessed 01 Mar. 2024].
- Nelson, M. (2021). Creating sustainable digital infrastructure. [online] Digital Infra Network. Available at: <https://digitalinfranetwork.com/creating-sustainable-digital-infrastructure/> [Accessed 10 Mar. 2024]
- Panchal, P. (2022). Benchmark Shows Performance Benefits of Equinix Fabric for Cloud Data. [online] Interconnections - The Equinix Blog. Available at: <https://blog.equinix.com/blog/2022/10/17/benchmark-shows-performance-benefits-of-equinix-fabric-for-cloud-data/> [Accessed 10 Mar. 2024].
- Petrosyan, A. (2024). Cost of a data breach in the U.S. 2023. [online] Statista. Available at: <https://www.statista.com/statistics/273575/us-average-cost-incurred-by-a-data-breach/#:~:text=As%20of%202023%2C%20the%20average> [Accessed 01 Mar. 2024].
- Precedence Research (2023). Hyperscale Data Center Market Size, Trends, Growth, Report 2032. [online] Available at: <https://www.precedenceresearch.com/hyperscale-data-center-market>.
- Rapid7 (2024) 10-k Annual report 2023. [online] Available at: <https://www.sec.gov/ixviewer/ix.html?doc=/Archives/edgar/data/0001560327/000156032724000021/rp-20231231.htm>
- Rapid7. (2024) Investor deck Q4'23 Earnings. Available at: https://s29.q4cdn.com/157304370/files/doc_financials/2023/q4/Investor-Deck-Q4-23-Earnings-FINAL.pdf [Accessed 10 Mar. 2024].
- Rapid7. (n.d.). Accelerate Security, Vuln Management, Compliance. [online] Available at: <https://www.rapid7.com/> [Accessed 10 Mar. 2024].
- Red Hat. (2023). Red Hat Named a Leader in 2023 Gartner® Magic Quadrant™ for Container Management. [online] Available at: <https://www.redhat.com/en/blog/red-hat-named-leader-2023-gartner-magic-quadranttm-container-management> [Accessed 10 Mar. 2024].
- Roshan, D. (2019). Digital Realty to buy InterXion in \$8.4 billion deal. Reuters. [online] Available at: <https://www.reuters.com/article/us-interxion-hldg-m-a-digital-realty-idUSKBN1X82GY/> [Accessed 25 Feb. 2024].
- Sen, A. (2022). DigitalBridge buys data center company Switch for \$11 billion. Reuters. [online]. Available at: <https://www.reuters.com/technology/switch-be-taken-private-by-digitalbridge-11-bln-deal-2022-05-11/> [Accessed 25 Feb. 2024].
- SES (2018). SES Networks Enables Direct Connectivity to IBM Cloud via Global Satellite Network | SES. [online] Available at: <https://www.ses.com/press-release/ses-networks-enables-direct-connectivity-ibm-cloud-global-satellite-network> [Accessed 10 Mar. 2024].
- Solberg, T.L. (2023). 7 Charts On the AI Stock Boom One Year After ChatGPT's Launch. [online] Morningstar UK. Available at: <https://www.morningstar.co.uk/news/243676/7-charts-on-the-ai-stock-boom-one-year-after-chatgpts-launch.aspx> [Accessed 10 Mar. 2024].
- Statista (2022). Software - Worldwide | Statista Market Forecast. [online] Statista. Available at: <https://www.statista.com/outlook/tmo/software/worldwide> [Accessed 26 Feb. 2024].

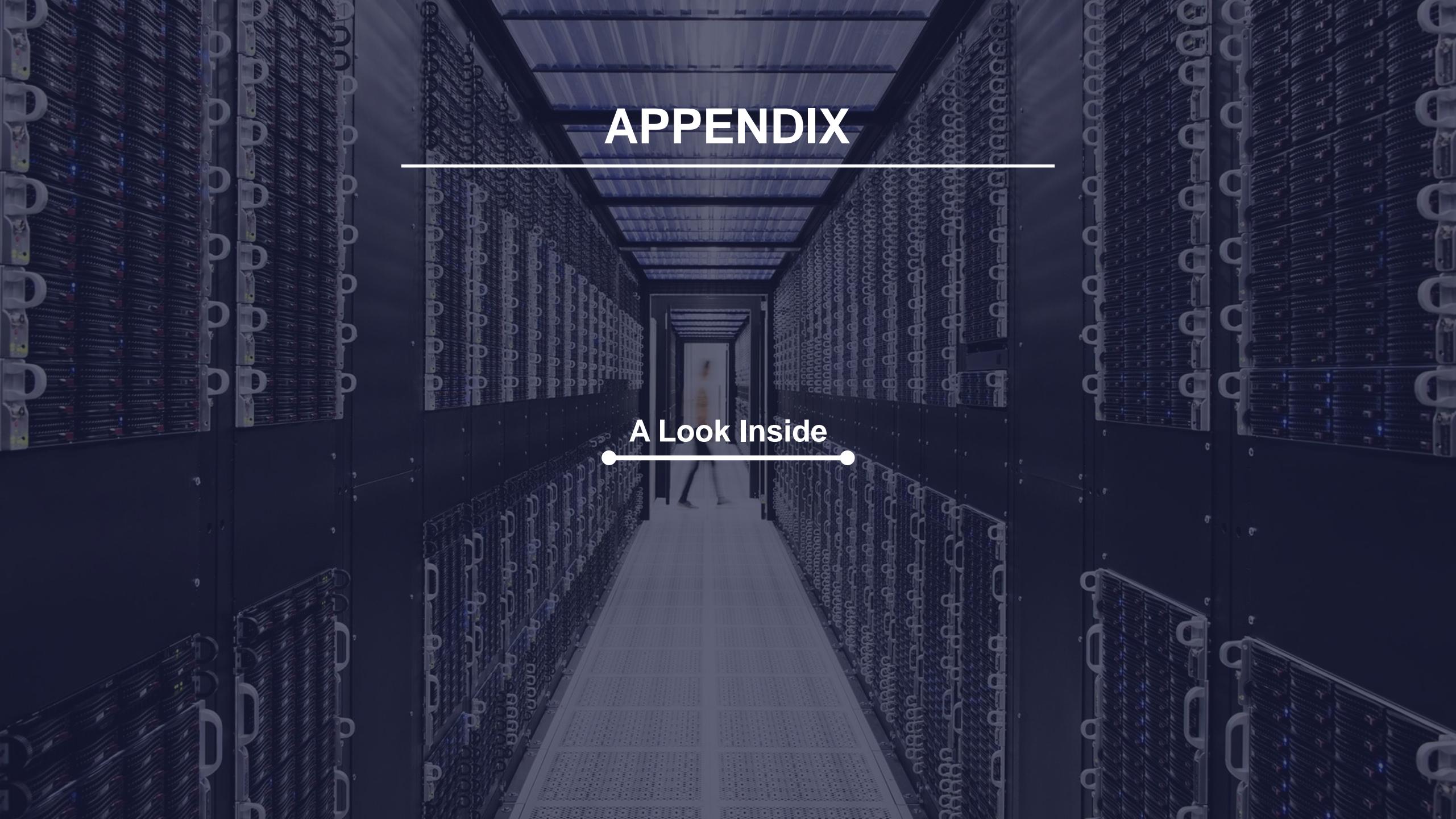
Bibliography



- Statista. (2023a). Global cloud infrastructure services spending 2022. [online] Available at: <https://www.statista.com/statistics/967292/worldwide-cloud-infrastructure-services-market-revenue/> [Accessed 25 Feb. 2024].
- Statista. (2023b). IoT connected devices by vertical 2030. [online] Available at: <https://www.statista.com/statistics/1194682/iot-connected-devices-vertically/> [Accessed 25 Feb. 2024].
- Statista. (2023c). Top 10 cloud vendors by revenue worldwide 2021. [online] Available at: <https://www.statista.com/statistics/1243513/top-10-cloud-vendors-by-revenue-fiscal-quarter-global/> [Accessed 25 Feb. 2024].
- Statista. (2023d). Global datacenter colocation market revenue 2014-2023 | Statista. [online] Available at: <https://www.statista.com/statistics/496373/datacenter-colocation-revenue-worldwide/> [Accessed 25 Feb. 2024].
- Statista. (2023e). Data Center - Worldwide | Statista Market Forecast. [online] Available at: <https://www.statista.com/outlook/tmo/data-center/worldwide> [Accessed 25 Feb. 2024].
- Statista. (2023f). Public Cloud - Worldwide | Statista Market Forecast. [online] Available at: <https://www.statista.com/outlook/tmo/public-cloud/worldwide#revenue> [Accessed 25 Feb. 2024].
- Statista. (2024a). Generative AI market size worldwide 2030. [online] Available at: <https://www.statista.com/forecasts/1449838/generative-ai-market-size-worldwide>.
- Statista. (2024b). SaaS market size worldwide 2024. [online] Available at: <https://www.statista.com/statistics/505243/worldwide-software-as-a-service-revenue/#:~:text=In%202023%2C%20the%20software%20as> [Accessed 10 Mar. 2024].
- Statista. (2024c). World: Generative AI market growth 2030. [online] Available at: <https://www.statista.com/forecasts/1449870/generative-ai-market-growth-global#:~:text=Growth%20of%20the%20generative%20AI%20market%20globally%20from%202021%2D2030&text=The%20generative%20AI%20market%20is> [Accessed 10 Mar. 2024].
- Statista. (n.d.a). Valuation of AI vs. non-AI startups by stage 2023. [online] Available at: <https://www.statista.com/statistics/1446293/median-valuations-ai-startups-by-stage/> [Accessed 10 Mar. 2024].
- Statista. (n.d.b). Worldwide AI tool users 2030. [online] Available at: <https://www.statista.com/forecasts/1449844/ai-tool-usersworldwide#:~:text=AI%20tool%20user%20numbers%20worldwide%20from%202020%2D2030&text=People%20using%20AI%20tools%20globally> - [Accessed 10 Mar. 2024].
- Stratton, J. (2022). 3 Key Components of High Performing Data Center Operations. [online] Interconnections - The Equinix Blog. Available at: <https://blog.equinix.com/blog/2022/04/28/3-key-components-of-high-performing-data-center-operations/> [Accessed 10 Mar. 2024].
- Synergy Research Group. (2022). Equinix, Digital Realty and NTT Control 30% of the Growing Worldwide Colocation Market | Synergy Research Group. [online] Available at: <https://www.srgresearch.com/articles/equinix-digital-realty-and-ntt-control-30-of-the-growing-worldwide-colocation-market> [Accessed 10 Mar. 2024].
- Synergy Research Group. (2023). Private Equity Totally Dominated 2022 Data Center M&A Deals, Breaking All Previous Records | Synergy Research Group. [online] Available at: <https://www.srgresearch.com/articles/private-equity-totally-dominated-2022-data-center-ma-deals-breaking-all-previous-records> [Accessed 25 Feb. 2024].
- The Business Research Company. (2024). Platform as a service (PaaS) Market Size, Share Analysis, Forecast To 2024-2033. [online] Available at: [https://www.thebusinessresearchcompany.com/report/platform-as-a-service-global-market-report#:~:text=The%20platform%20as%20a%20service%20\(paas\)%20market%20size%20has%20grown](https://www.thebusinessresearchcompany.com/report/platform-as-a-service-global-market-report#:~:text=The%20platform%20as%20a%20service%20(paas)%20market%20size%20has%20grown) [Accessed 10 Mar. 2024].
- Thompson, A. (2015). IBM's Generic Strategy, SWOT Analysis & Strategic Choices. [online] Panmore Institute. Available at: <https://panmore.com/ibm-strategic-choices-strategic-management#:~:text=At%20IBM%2C%20strategic%20choices%20of>.
- Thormundsson, B. (2023). Artificial Intelligence Market Size 2030. [online] Statista. Available at: <https://www.statista.com/statistics/1365145/artificial-intelligence-market-size/>.
- Trading Economics. (2019). United States Government Bond 10Y | 2019 | Data | Chart | Calendar. [online] Tradingeconomics.com. Available at: <https://tradingeconomics.com/united-states/government-bond-yield> [Accessed 21 Feb. 2024].
- Vardhman, J. (2024). 15 Crucial Data Center Statistics to Know in 2023. [online] Available at: <https://techjury.net/blog/data-center-statistics/>.
- Yahoo Finance. (2023a). [Latest] Global Digital Infrastructure Market Size/Share Worth USD 1000.52 Billion by 2032 at a 23.60% CAGR: Custom Market Insights (Analysis, Outlook, Leaders, Report, Trends, Forecast, Segmentation, Growth, Growth Rate, Value). [online] Available at: <https://finance.yahoo.com/news/latest-global-digital-infrastructure-market-103000574.html> [Accessed 29 Feb. 2024].
- Zhang, M. (2022). How Much Does it Cost to Build a Data Center? [online] Dgtl Infra. Available at: <https://dgtlinfra.com/how-much-does-it-cost-to-build-a-data-center/> [Accessed 26 Feb. 2024].

APPENDIX

A Look Inside



IBM x Equinix Acquisition Model



Company Financials

| IBM Financial Profile | USDm |
|-------------------------|---------|
| NOSH | 917 |
| Share Price | 192 |
| Market Cap | 175'968 |
| FY25 EPS | 11 |
| Est. P/E | 18.0x |
| Gross Debt | 57'367 |
| Cash & Cash Equivalents | 13'068 |
| Net Debt | 44'299 |
| Enterprise Value | 220'267 |

Transaction Assumptions

| Offer Assumptions | USDm |
|-----------------------|---------|
| Equinix Net Debt | 15'472 |
| Offer Price Per Share | 985 |
| Premium | 15% |
| Offer Value | 107'912 |

Cash Consideration

| | |
|-------------------------|---------|
| Offer value | 107'912 |
| Cash from Balance Sheet | 10'791 |
| Incremental Debt | 32'374 |

Stock Consideration

| | |
|------------------------------|---------|
| Offer value | 107'912 |
| Stock Consideration | 64'747 |
| Additional IBM Shares Issued | 337 |

| Equinix Financial Profile | USDm |
|---------------------------|--------|
| NOSH | 94 |
| Share Price | 856 |
| Market Cap | 80'383 |
| FY25 EPS | 14 |
| Est. P/E | 62.2x |
| Gross Debt | 17'568 |
| Cash & Cash Equivalents | 2'096 |
| Net Debt | 15'472 |
| Enterprise Value | 95'855 |

Financing

| %Cash | 40% |
|-----------------------|-----|
| from Balance Sheet | 10% |
| from Incremental Debt | 30% |
| %Stock | 60% |

Synergies Net Present Value

| | |
|------------------------------|--------|
| Synergy 1 - Cross-selling | 4'253 |
| Synergy 2 - Cost reduction | 7'489 |
| Synergy 3 - Bargaining power | 444 |
| Total Synergies, Net | 12'186 |

Fees

| | |
|------------------|----------|
| Transaction fees | 2'158.25 |
| % of offer value | 2.0% |

Accretion Dilution Analysis

| IBM Standalone | |
|----------------------------------|-------|
| Standalone EBIT | |
| Interest Expense | |
| % Tax Rate | |
| IBM Standalone Net Income | 7'502 |

Pro Forma Financials

| | |
|--------------------------------|--------|
| Consolidated EBIT | 10'500 |
| Consolidated Net Income | 8'471 |
| Long-term Synergies | 819 |
| Pro Forma Adjusted EBIT | 11'319 |
| Interest Expense | 3'850 |
| Pro Forma Adjusted EBT | 7'469 |
| % Tax Rate | 17.1% |
| Pro Forma Net Income | 6'195 |

Value Creation / (Destruction)

| Pro Forma Valuation | |
|---------------------------------------|---------|
| IBM Enterprise Value | |
| Equinix Enterprise Value | |
| Net Present Value of Synergies | |
| Pro Forma Enterprise Value | 328'308 |
| IBM Net Debt | 44'299 |
| Equinix Net Debt | 15'472 |
| Incremental Debt | 32'374 |
| Pro Forma Net Debt | 92'145 |

| Equinix Standalone | |
|--------------------------------------|-----|
| Standalone EBIT | |
| Interest Expense | |
| % Tax Rate | |
| Equinix Standalone Net Income | 969 |

| Pro Forma EPS | |
|---------------------------------|---------|
| Pre-Deal IBM NOSH | |
| Additional Share Issuance | |
| Pro Forma Diluted Shares | 1'254 |
| Pro Forma Net Income | 6'195 |
| Pro Forma EPS | 4.9 |
| IBM EPS Pre-Acquisition | 11 |
| % Accretion / (Dilution) | (53.8%) |

| | |
|--------------------------------------|---------|
| Pro Forma Enterprise Value | 328'308 |
| Pro Forma Net Debt | 92'145 |
| Pro Forma Equity Value | 236'164 |
| Attributable to IBM Shareholders | 73% |
| Attributable to Equinix Shareholders | 27% |
| Additional Cash Consideration | 43'165 |

| Value Uplift / (Destruction) |
|------------------------------|
| For IBM Shareholders |
| (1.9%) |
| For Equinix Shareholders |
| 32.7% |

The Equinix acquisition would be **value destructive to IBM Shareholders** and **EPS dilutive**

Equinix's Cost Of Capital And IBM's Debt Schedule

Equinix has a low WACC of 5.91% given a low beta from predictable cash flows and the acquisition

Equity Risk Premium

- Europe:** 35% of sales, equity risk premium grew to around **5.8%**, reflecting **comparably low risks**
- North America:** Revenue share of **44%**. Risk premium of **4.5%**
- Asia:** Revenue share of **21%**. Risk premium of **6.18%** reflects comparably higher risks

Equity Risk Premium: **5.3%**

Rating And Levered Beta

- Debt Rating:** Credit rating of **BBB+** yields an average credit spread of **1.47%**
- Unlevered Beta:** Median peer company unlevered beta of **0.3**
- Debt-to-Equity Ratio:** Target of **21.9%**
- Tax Rate:** Rate of **14.5%** reflects REITs benefits

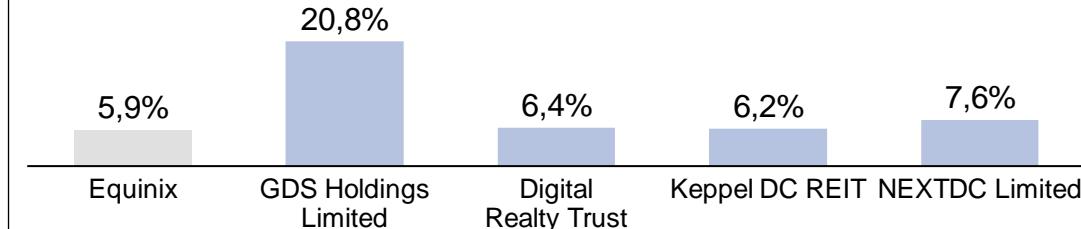
Pre-Tax Cost of Debt: **5.8%**

Cost of Capital

- Risk-Free Rate r_f :** **4.3%**
10-year US government bonds
- Equity Risk Premium:** **5.30%**
See left-side calculation
- Levered Beta:** **0.34**
See left-side calculation
- Cost of Equity:** **6.12%**
Based on CAPM
- Credit Default Spread:** **1.47%** Based on actual rating
- Pre-Tax Cost of Debt:** **5.8%**
 $r_f +$ credit default spread
- Tax Rate:** **14.5%**
Tax rate adjusted for REIT taxation
- After-Tax Cost of Debt:** **5.77%**
Pre-tax cost of debt * $(1-T)$
- Debt-to-Capital Ratio** **17.9%**
No change in leverage expected

WACC: **5.91%**

Cost of Capital Of Selected Peer Companies (in USD)



- Equinix** has the **lowest** cost of capital due to its **conservative financing**
- Equity risk premiums are **comparable** across selected peer companies

IBM Credit Rating Impact of Equinix Acquisition

Debt Schedule and Credit Risk Rating Impact

Synthetic Credit Rating Conversion Interest coverage to credit rating / spread

| > | ≤ to | Rating is | Spread is |
|------|------|-----------|-----------|
| 0.20 | 0.20 | D2/D | 20.0% |
| 0.20 | 0.65 | C2/C | 17.0% |
| 0.65 | 0.80 | Ca2/CC | 11.8% |
| 0.80 | 1.25 | Caa/CCC | 8.5% |
| 1.25 | 1.50 | B3/B- | 5.2% |
| 1.50 | 1.75 | B2/B | 3.6% |
| 1.75 | 2.00 | B1/B+ | 3.1% |
| 2.00 | 2.25 | Ba2/BB | 2.2% |
| 2.25 | 2.50 | Ba1/BB+ | 1.7% |
| 2.50 | 3.00 | Baa2/BBB | 1.5% |
| 3.00 | 4.25 | A3/A- | 1.2% |
| 4.25 | 5.50 | A2/A | 1.1% |
| 5.50 | 6.50 | A1/A+ | 0.9% |
| 6.50 | 8.50 | Aa2/AA | 0.7% |
| 8.50 | | Aaa/AAA | 0.6% |

| Debt Schedule | USDm |
|-------------------------|----------|
| Incremental Debt | 32'374 |
| Borrowing Term | 20 Years |
| IBM Credit Risk | A3/A- |
| Spread | 1.2% |
| 20Y US Treasury Yield | 4.4% |
| Annual Interest Expense | 1'816 |

| IBM Pre-Acquisition Credit Rating |
|-----------------------------------|
| EBIT |
| Interest Expense |
| Interest Coverage |
| Credit rating |

| IBM Post-Acquisition Credit Rating |
|------------------------------------|
| EBIT |
| Interest Expense |
| Interest Coverage |
| Credit rating |