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23/08/2022

Broadcom Acquires VMware for $61bn

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Source: CNBC

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DEAL INTRODUCTION

DETAILS ABOUT THE DEAL

Broadcom will acquire all *outstanding shares* of VMWare in a $61 billion cash-and-stock transaction.

- **VMware shareholders to receive either $142.50 in cash or 0.2520 shares of Broadcom *common stock* for each VMware share.**

- **Approximately 50% of VMware's shares are due to be exchanged for cash consideration, and 50% to be exchanged for Broadcom common stock.**

- **By the time the transaction closes, 88% of the combined company will be owned by Broadcom shareholders and 12% will be owned by current VMware shareholders.**

- **The transaction is expected to be completed in Broadcom's fiscal year 2023, and is subject to approval by VMware shareholders, as well as regulators.**

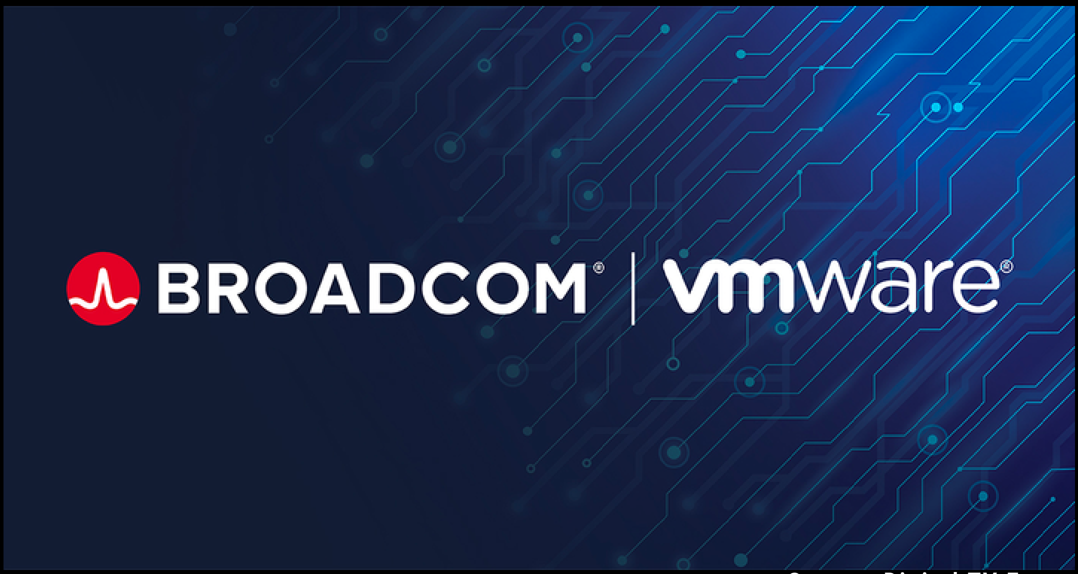
Source: Futurum

REASONS FOR M&A

- Broadcom is in the process of diversifying itself. This acquisition is a presentable opportunity for the company to expand their business into cloud computing services.

- By harnessing the expertise of VMware's technologies and industry-shaping software solutions, Broadcom can expect to gain around $8.5 billion of *pro-forma EBITDA* from the acquisition within three years post-closing.

- The acquisition of VMware will result in more innovative, combined infrastructure solutions. Broadcom will be able to satisfy their customers' increasingly demanding enterprise needs through the high *synergy* value of this transaction.



Source: Digital TV Europe

INDUSTRY OVERVIEW: CLOUD COMPUTING

WHAT IS CLOUD COMPUTING?

Cloud computing is the sector within the technology industry which provides its users with IT resources such as data storage, computing power and servers.

WHAT ARE ITS KEY FEATURES?

Hybrid Clouds:
The inability to efficiently shift workloads back and forth between a private and public cloud led to an increased demand for hybrid clouds. In 2012, CloudBolt developed a hybrid cloud management platform that resolved the inter-connectedness between public and private clouds.

Introduction of IaaS, PaaS and SAAS:
After Oracle introduced the Oracle Cloud in 2012, these 3 basic services (Infrastructure/Platform/Software-as-a-Service) rapidly became the norm. A greater number of public clouds started offering these services, some providing all three and others focusing on offering only one.

TRENDS FOR 2022

Edge Computing :
Facilitates near-instant data processing by disinter-mediating data centers. By combining with cloud computing, companies can gain more efficiency through perks such as lower bandwidth usage, lower volumes of transmitted data and minimal latency in response times.

AI & ML integration:
Cloud computing gives companies a gateway to cutting-edge AI solutions, by providing the infrastructure for large data-processing needs. Due to AI/ML platforms requiring high bandwidth and processing power, the cloud will contribute widely to the AI market's growth to $850.61bn by 2028.

Cloud Security:
Data security is essential to prevent hackers from exploiting vulnerabilities. Adaption of SASE (Secure Access Software Edge) is likely to be seen, in order to cut costs, simplify IT workloads and most importantly, help prevent unauthorised access to sensitive user data. Gartner predicts that at least 40% of companies will add SASE to their toolkit.

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ACQUIRER OVERVIEW

TICKER: AVGO

BROADCOM INC.

- Broadcom is an American-based company that provides an extensive range of semiconductor and infrastructure software solutions to corporate and government customers.
- Founded in 1961 as a semiconductor products division of Hewlett-Packard (HP).
- Products include broadband, software, data storage as well as other wireless connectivity services that help facilitate complex digital environments.

BUSINESS MODEL

- Large focus on having strategic customers that leverage multiple solutions to drive the company's revenue, sustainability and growth.
- Deliver an extensive range of infrastructure technology products through responsibly financed acquisitions of cutting-edge technologies and businesses.
- Invest largely into research and development to design products that lead the competition.

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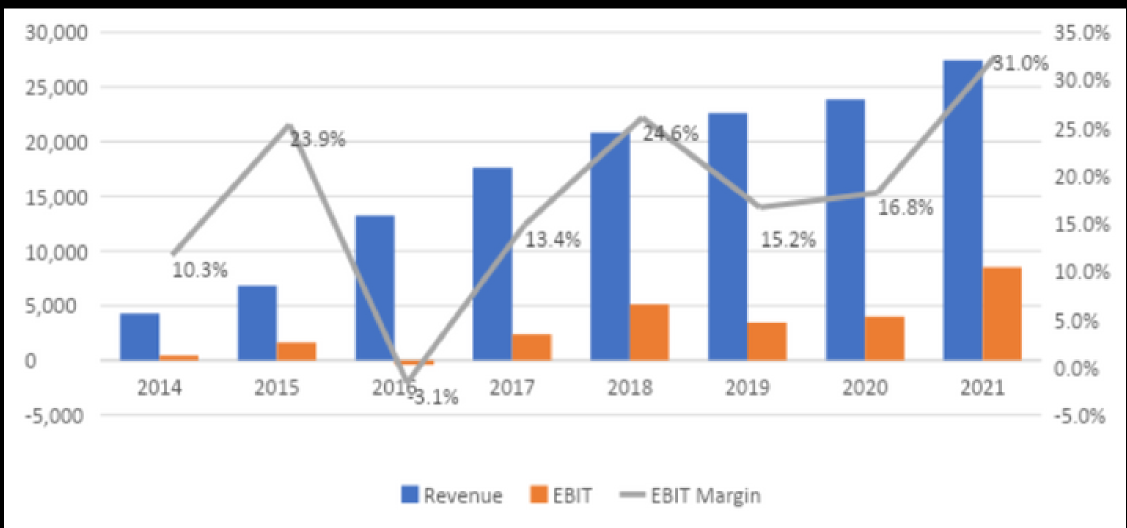
ESG PRACTICES

- The company designs products that help their business customers reduce data centre power consumption and facilitate green energy systems.
- Sustainable supply chain management to support the conservation of resources, recycling and the prevention of pollution across all operations.
- The installation of a VFD control panel in the Hyderabad, India office has been estimated to save up to 120,000 kWh on electricity annually.
- The company also promotes inclusion and diversity, and the Board is made up of almost half the members coming from underrepresented minorities.

KEY FINANCIALS



	2014	2015	2016	2017	2018	2019	2020	2021
EBIT Margin	10.3%	23.9%	-3.1%	13.4%	24.6%	15.2%	16.8%	31.0%

TARGET OVERVIEW

VMWARE INC.

Ticker: VMW

- VMware is an American company based in California that specialises in cloud computing software and virtualisation.
- The software VMware Horizon allows firms to run multiple virtual machines (VMs) from a single server, thus removing the need for multiple desktops.
- VMware also provides substantial cloud services, and more recently hybrid cloud software allowing cloud networks to be combined.
- In a post-covid world, demand for VMware's products have soared due to the need for centrally organised information stores.

BUSINESS MODEL

The company consists of two divisions: Software Licence and Maintenance & Professional Services.

- Software licence oversees the sale and licensing of softwares, whilst the services division provides customers constant technical support.
- VMware had revenue of $10.8 billion, 43% coming from the software licence and 55% from the maintenance and professional services.
- Revenue streams are split, however, the maintenance and professional services division receives a proportion of the subscription’s revenue. These revenue figures were recorded during the pandemic, implying a slight inflation, as firms sought for solutions to employees being restricted to working at home.

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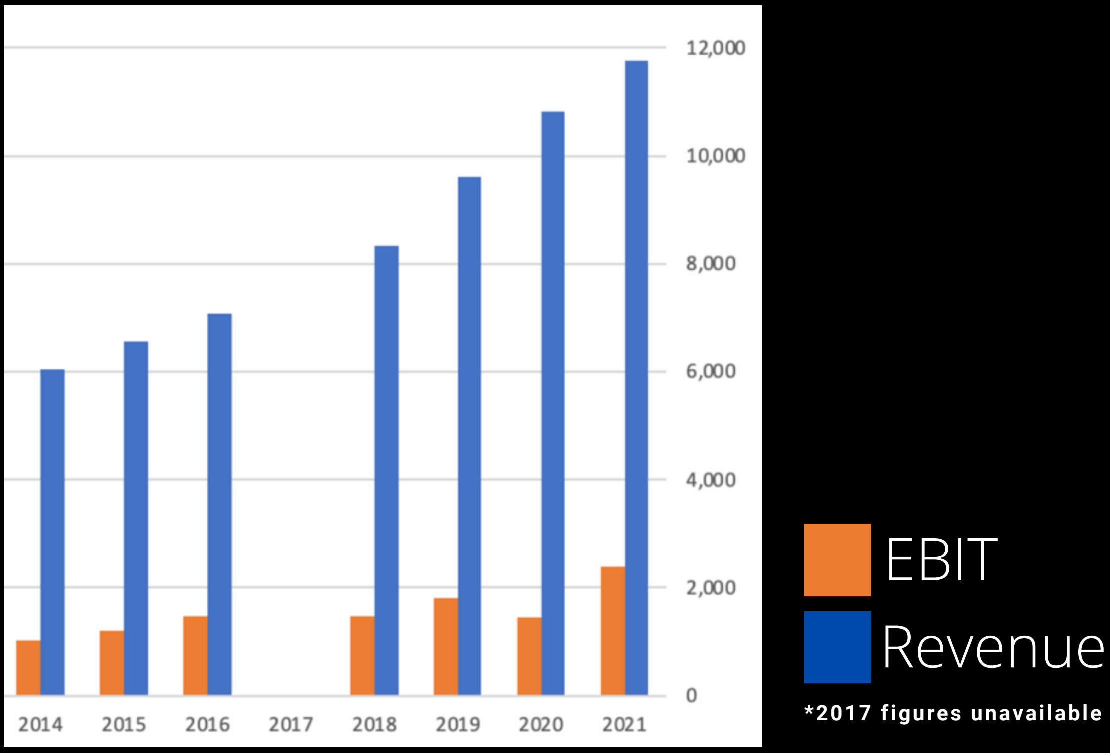
ESG PRACTICES

- VMware is very well positioned to prevent and lower emissions as a firm that exclusively sells software.

- The firm is certified as being 100% powered by sustainable energy, and thanks to VMware software, 1.2B metric tons of CO_2 emissions have been avoided since firms no longer need multiple desktops and physical storage solutions.

- By 2023 VMware plans to be included in the Dow Jones sustainability index, in addition to a 100% score in the Human Rights Campaign Corporate Equality index. The firm also wants to achieve A rating in the CDP which is an assessment of a firm's environmental performance.

KEY FINANCIALS



	2014	2015	2016	2018	2019	2020	2021
EBIT Margin	17.0%	18.2%	20.8%	17.6%	18.8%	13.3%	20.3%

DEAL ANALYSIS

STRENGTHS

- Broadcom can benefit from VMware’s cloud and virtualization solutions by providing clients with more robust services.

- Broadcom can also benefit from 'VMotion', a software allowing consumers to perform “live migrations”, an excellent tool to market to new consumers.

WEAKNESSES

- A potential weakness in acquiring VMware is its lack of product diversification, with the firm exclusively operating within the virtualization market. However, Broadcom is already diversified, which can pool the risk of virtualization falling short.

- Another potential issue is VMware's limited brand name and social media presence, a serious issue with the firm not being able to attract new customers or communicate its plans for the future effectively.

OPPORTUNITIES

- With virtualization technology becoming mainstream, the potential consumers are growing with a large number of firms now being able to not only afford the software but efficiently onboard the technology to use it. This rise in popularity of virtualization correlates with the rising popularity of virtual applications. This could be a goal for the firm to improve and ensure steady streams of future cash flows.

THREATS

- VMware shareholders are still sceptical about the implications of this acquisition due to Broadcom's track record in previous acquisitions, hindering the transition period of the deal.

- The deal is currently being investigated by the EU for potentially harming business competition.

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VALUATION ANALYSIS

PUBLIC COMPARABLES MODEL

Tech Conglomerates	Low	High
Selected EBITDA Multiple:	16.7x	17.0x
Implied Enterprise Value	77,524	78,982
Net Debt	(8,207)	(8,207)
Implied Equity Value	69,317	70,775
Equity Value per share	$ **164.03**	$ **167.48**
Premium / (Discount) %	**(13.13%)**	**(14.92%)**

Please click on the table to access full model.

As shown by our comparable companies' analysis, it is clear that VMware is a strong contender in both the cloud and virtualisation industry, as well as the wider technology space.

When focusing on profitability, VMware has an expected EBITDA margin of 34.24% for 2022, which ranks second highest in the cloud peer group. This figure also outperforms both IBM ($168bn) and Salesforce ($180bn) in the conglomerate group, despite VMware's much smaller enterprise value ($59bn). This could be due to VMware's recent shift away from resource-intensive virtual machines, towards containers, as well as more investment in hybrid cloud technology.

The firm also has strong *valuation multiples*, with the second and third lowest figures in each of the five metrics used in the model. This could suggest that VMware is currently undervalued relative to the wider industry, with an *EV/EBITDA* of 12.7x compared to an industry average of 25.3x in the cloud group, and 16.7x in the tech conglomerate group.

According to the implied share price of our model, VMware was purchased at a *discount* of between 13.13% - 44.85% across the two peer groups, presenting an interesting investment opportunity for Broadcom.

VALUATION ANALYSIS

DISCOUNTED CASH FLOW MODEL

Enterprise Value	47,419,727
(+) Cash	4,692,000
(-) Debt	(5,101,000)
Equity Value	47,010,727
# of Shares	417,680
Share Price	113

Please click on the table to access full model.

As calculated by the Discounted Cash Flow (DCF) Analysis, the VMware stock was slightly overvalued at the time of Broadcom's offer of acquisition ($120.54). As a result, Broadcom has offered to pay 26.6% more than the implied share price ($113), which is slightly higher than the actual 18.2% premium paid considering the closing share price ($120.54) on 25 May 2022.

The sensitivity analysis of the model suggested that the VMware's share price was in between $75-$221. However, VMware's all-time share price ranged from $94-$206 at the time of Broadcom's offer. Therefore, the valuation analysis was based on the base case of the DCF where the implied share price lied in between the VMware's all time share price performance.

To build the model, various assumptions were taken into consideration to be able to obtain the *Terminal Growth Rate* (3.0% in the base case), and the *Weighted Average Cost of Capital (WACC)* (7.2% in the base case). Therefore, it must be noted that the share price obtained from the model was affected by these assumptions.

CONCLUSION

IMPACT ON THE CLOSE COMPETITORS

Oracle :

- Broadcom has a poor history regarding the firm's customer satisfaction post-merger. In 2018, Broadcom acquired CA technologies for $18.9 Billion, and following the acquisition, CA consumers felt that the customer service was not up to its previous standards.

- This could create an opportunity for Oracle to gain VMware consumers if they feel the firm is no longer committed to its quality of customer service.

- On the other hand, VMware could benefit from the synergies as a result of joining the Broadcom conglomerate. These synergies could lead to increased innovation and productivity, which could limit Oracle's market power, who have already been struggling to compete with VMware's virtualisation software.

Red Hat:

- Broadcom's acquisition of VMware is likely to benefit Red Hat. This is largely due to Broadcom's strategy of refocussing efforts on their top 600 customers, meaning enterprise and commercial accounts will not be actively pursued. As a result, these specific customers may not have their needs satisfied, implying that they may start looking for alternatives, such as Red Hat, who could experience an increase in sales.

- Red Hat's platform conveniently provides tools for those customers looking to migrate their virtual machines from VMware. Red Hat OpenShift Virtualisation allows customers to run and manage virtual machines side-by-side with containers, increasing simplicity and speed of containerised workflows while still benefitting from VM-specific applications.

IMPACT ON THE INDUSTRY

With Broadcom looking to commit large sums of capital into VMware's R&D, the acquisition could enable the combined company to develop more cutting-edge software solutions, of which VMware has already shown itself to be a market leader. The fact that Broadcom will have a more diversified portfolio of tech products implies that they are likely to build their market share, leading to worried EU officials over the potential for a monopoly to form.

However, Broadcom's cost-cutting initiatives may negatively impact VMware's investment into their container software efforts. This would limit the expansion of VMware's container software portfolio of services and solutions, allowing competitors such as RedHat to prevail. However, this hinges on Broadcom ensuring that cost optimisation is strategically implemented to benefit both parties, in addition to constant communication between VMware partners and Broadcom executives, to avoid a *"Principal-agent problem"*.

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GLOSSARY

Common Stock: *ownership of a company giving voting rights.*

Discount: *decreased amount paid per share in comparison to the share price at the time of the M&A transaction, often presented as a percentage.*

EBIT: *Earnings before Interest and Tax. A useful measure in measuring a company's ability to undertake its operations and pay off debt.*

EBIT Margin: *EBIT as a percentage of total revenue (sales).*

EBITDA: *Earnings before Interest, Tax, Depreciation and Amortisation. A useful measure to compare companies profitability.*

EV/EBITDA: *Enterprise Value 'Multiple', gives insight into the value of companies against their cash earnings less their non-cash expenses.*

Outstanding Shares: *number of shares issued and purchased by investors, representing ownership of the company.*

Premium: *increased amount paid per share in comparison to the share price at the time of the M&A transaction, often presented as a percentage.*

Principal Agent Problem: *a conflict of interest between the owner of an asset and person tasked to control asset.*

Pro-forma EBITDA: *EBITDA excluding non-operational items deemed by the company to paint an inaccurate picture of its normal profitability.*

Synergy: *an increase in the value of two companies that have merged, due to greater efficiency, increased revenue or cost saving. Synergies can also be negative, due to conflicting team cultures or unexpected costs.*

Terminal Growth Rate: *A growth rate that a company is expected to grow at forever based on the market and industry conditions.*

Valuation Multiples: *Financial tool providing one metric as a ratio of another; often used to compare similar companies.*

WACC: *Cost of capital used to represent a firm's after-tax costs from all resources.*