Market Analysis Perspective:
Worldwide Managed Support Services, 2020

Rob Brothers

- o **Industry & Market Overview**
  - o **COVID Impact**
- o **Future View of the Market the numbers**
- o **Competitive Landscape (The Vendors)**

Worldwide Hardware Support and Deployment COVID19 Market

Drivers and Inhibitors (The COVID Effect)

- Remote workers will drive short term growth in deployment services, especially around laptops
- Security needs; deployment of remote software and security
- Long term slow down in spending on IT will impact deployment more severely than support

Impact on Market

- Most impact will be felt in the deployment market
- Support will remain stable as customers that do not upgrade will need to support assets that are in place for a longer period
- Watch for more remote support capabilities to dramatically increase
- During "recessionary" times TPM's tend to do well
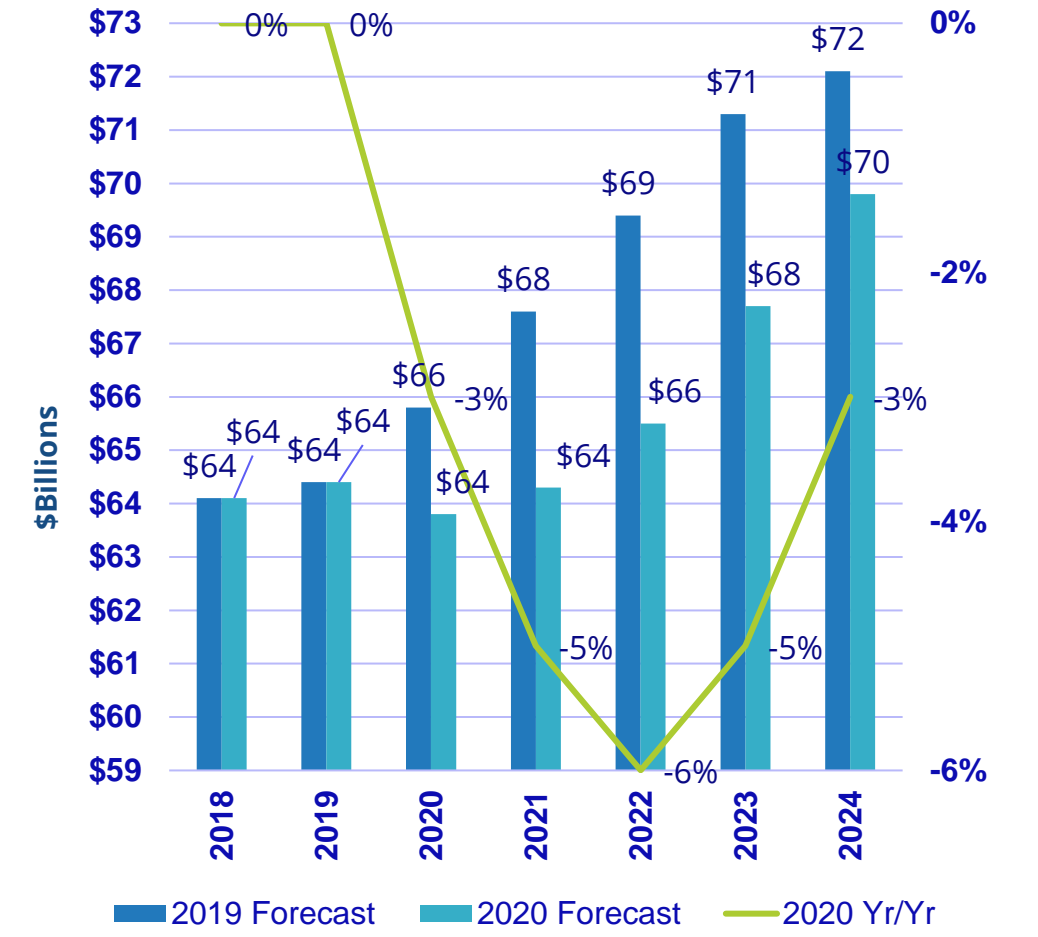- AR/VR solutions for remote support will increase more rapidly

Regional Differences

- Regions will rebound at different rates
- Check with local analysts for the latest updates
- IDC has published a forecast by region for Hardware Support and Deployment

Recommendations

- Keep investing and double down on remote support capabilities
- During this crisis it is more important than ever to reach out to customers
- Keep investing in higher end services that assist in cloud environments

	2018-2023 (Published 10/19)	2019-2024 (Published 4/20)
WW CAGR	X%	Y%

Chart: $Billions by year (2018–2024), showing 2019 Forecast, 2020 Forecast, and 2020 Yr/Yr.

- 2018: $64 / $64
- 2019: $64 / $64
- 2020: $66 / $64
- 2021: $68 / $64
- 2022: $69 / $66
- 2023: $71 / $68
- 2024: $72 / $70

2020 Yr/Yr: 0%, 0%, -3%, -5%, -6%, -5%, -3%

Legend: 2019 Forecast, 2020 Forecast, 2020 Yr/Yr

IDC — ANALYZE THE FUTURE

Remote Abilities and End Point Support/Management

Secure Remote Access - Due to COVID-19 and the need for new technology and changes to the working model of some organizations, for which of the following technology investments do you think demand will change, and in which direction? Total
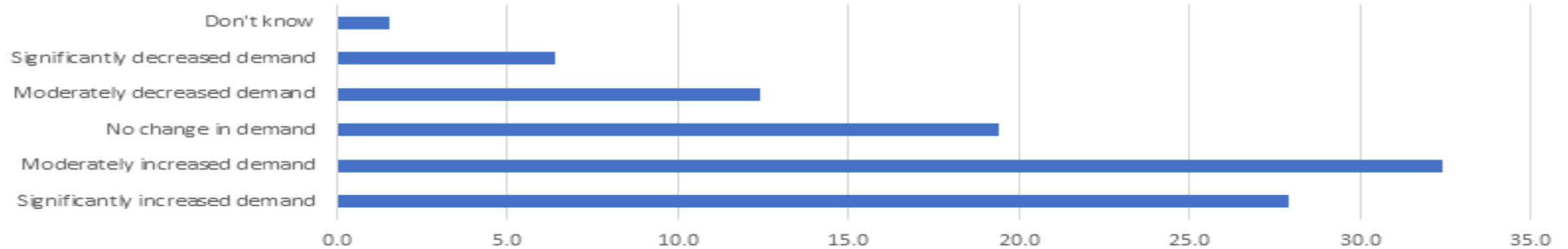
Endpoint Device Management - Due to COVID-19 and the need for new technology and changes to the working model of some organizations, for which of the following technology investments do you think demand will change, and in which direction?
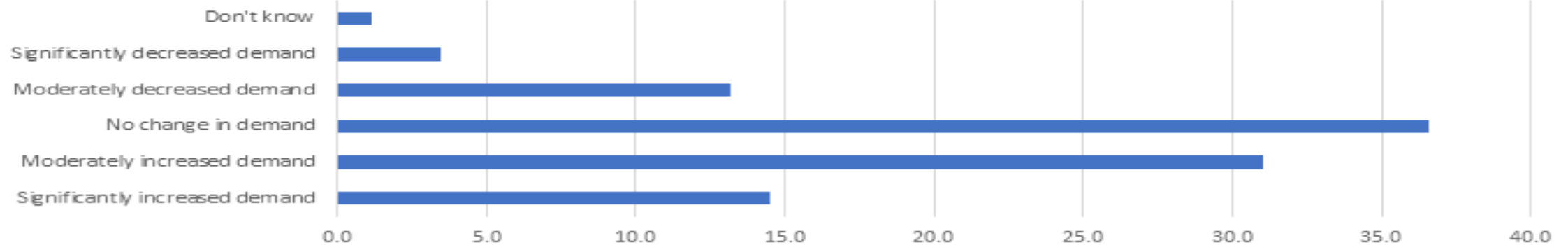
What is COVID Driving

- DAAS – Microsoft saw a 15X increase in Surface as a service
- Simpress (out of LATAM) "sold" 6000 laptops both as a service and other financial mean other than cap purchase
- New Financial offers from vendors (Although they may be difficult to navigate from what we are hearing)
- Remote workers and needs for Security and VPN access even the large vendors had to move thousands of call center workers remote

WW COVID19 Technology Sector Impact by the Numbers

- WW X86 Server sales will drop 2.2% in 2020 with a vast majority of that decline being seen in the enterprise space

Worldwide End User Spend on Servers, 2019, 2020 and 2024 and Five-Year CAGR (value in $ billions)

IT Infrastructure Market	Market Segment	2019 Value	2020 Value	2020 Growth	2024 Value	2019-2024 CAGR
Servers	x86	$83.8	$81.9	-2.2%	$109.8	5.6%
	non-x86	$8.0	$6.7	-16.0%	$6.8	-3.3%
Total Server		**$91.7**	**$88.6**	**-3.4%**	**$116.6**	**4.9%**
Source: IDC Worldwide Quarterly Server Tracker, March 26, 2020						

WW Server Sales Forecast

Year	2017	2018	2019	2020	2021	2022	2023	2024
CPU Type	Units	Units	Units	Units	Units	Units	Units	Units
ARM	12,982	50,714	102,711	154,787	192,329	220,466	252,674	275,849
CISC	4,719	4,581	4,322	3,839	3,692	3,614	3,471	3,309
EPIC	7,181	5,353	4,890	3,430	3,259	3,002	2,761	2,631
RISC	35,751	34,904	32,757	27,989	27,397	27,170	26,594	25,761
x86	10,180,402	11,753,602	11,600,170	11,342,492	11,998,325	12,655,181	13,258,783	13,874,597
TOTAL	10,241,034	11,849,154	11,744,850	11,532,536	12,225,002	12,909,433	13,544,284	14,182,146

X86 Server Sales by Vendor

Year	2015	2016	2017	2018	2019
Vendor	**Units**	**Units**	**Units**	**Units**	**Units**
ODM Direct	1,631,470	1,548,827	2,291,654	2,991,123	3,281,666
Dell Technologies	2,021,911	1,978,553	2,046,048	2,272,531	2,048,731
Hewlett Packard Enterprise	2,340,220	1,896,844	1,654,167	1,504,221	1,388,505
Inspur	338,292	404,474	590,058	908,404	1,016,301
Lenovo	939,468	881,578	625,204	768,635	756,576
Huawei	355,646	510,693	552,828	714,975	615,372
Super Micro		474,974	548,689	641,890	568,796
H3C		173,001	291,534	341,673	417,334
Others	613,900	281,451	292,026	324,699	337,072
Cisco	347,773	325,841	316,670	278,831	291,235
Sugon	216,176	240,375	261,130	302,878	215,006
Fujitsu	253,234	236,954	219,164	221,462	210,894
NEC	138,515	128,937	127,982	108,600	124,098

WW COVID19 Technology Sector Impact by the Numbers

- ## WW storage growth for 2020 will decline by 5.5%

Worldwide End User Spend on External Enterprise Storage Systems, 2019, 2020 and 2024 and Five-Year CAGR (Value in $ billions)

IT Infrastructure Market	Market Segment	2019 Value	2020 Value	2020 Growth	2024 Value	2019-2024 CAGR
External ESS	External RAID	$30.0	$28.3	-5.7%	$32.0	1.3%
	Storage Expansion	$0.4	$0.5	9.6%	$0.4	-2.4%
Total External ESS		**$30.0**	**$28.2**	**-5.5%**	**$32.0**	**1.3%**

Source: IDC Worldwide Quarterly Enterprise Storage Systems Tracker, March 26, 2020

WW Storage Sales Forecast

Product Category Group	Storage Class	2019 USD M	2020 USD M	2021 USD M	2022 USD M	2023 USD M	2024 USD M
External OEM	Entry	$5,677.52	$5,312.88	$5,394.96	$5,435.24	$5,515.04	$5,529.12
External OEM	High End	$6,310.73	$5,524.44	$5,530.54	$5,476.12	$5,457.98	$5,452.41
External OEM	Midrange	$18,316.41	$17,760.51	$19,075.78	$19,943.21	$20,695.99	$21,283.50
TOTAL		$30,304.66	$28,597.82	$30,001.27	$30,854.57	$31,669.02	$32,265.03

Storage Sales by Vendor

Year	2016	2017	2018	2019
Vendor	Units	Units	Units	Units
Dell Technologies	116,669	155,162	176,067	178,001
Hewlett Packard Enterprise	59,564	57,983	57,407	60,285
Huawei	24,551	34,040	42,000	54,673
NetApp	55,919	45,020	43,498	45,352
IBM	44,752	41,445	34,804	33,995
Lenovo		8,806	17,875	29,083
Hikvision	15,489	18,227	20,739	23,917
Hitachi	20,547	21,166	18,150	19,546
H3C	8,316	10,155	15,007	19,303
Inspur	11,518	10,949	13,880	12,459
Fujitsu	10,234	10,135	10,209	9,126
Pure Storage	2,823	4,587	6,695	8,951

Converged/Hyperconverged Infrastructure

Year	2016	2017	2018	2019
Vendor	**Units**	**Units**	**Units**	**Units**
Dell Technologies	15,098	41,307	68,700	100,527
Lenovo	2,093	4,596	8,008	16,502
Huawei	2,167	6,945	11,686	15,108
Cisco	1,674	7,003	9,268	13,659
H3C	4,497	5,440	9,143	13,347
Hewlett Packard Enterprise	6,090	8,204	10,974	11,735
Nutanix	3,976	5,978	9,051	9,507
Cisco/NetApp	6,657	6,777	4,817	4,385
Oracle	4,587	4,508	4,563	3,862
Hitachi	757	715	1,108	3,353
NetApp		51	685	1,190
TOTAL	**78,830**	**126,836**	**239,165**	**346,212**

WW Private/Public Cloud and Traditional IT Spend

Year		2019	2020	2021	2022	2023	2024
Deployment Model	Technology	Value (USD M)	Value (USD M)	Value (USD M)	Value (USD M)	Value (USD M)	Value (USD M)
Private Cloud	Compute Platforms	$9,788.45	$9,783.01	$10,813.71	$11,818.87	$12,985.54	$14,170.64
Private Cloud	Storage Platforms	$9,614.33	$10,032.03	$11,257.00	$12,623.81	$13,975.12	$15,079.91
Public Cloud	Compute Platforms	$25,759.29	$26,974.42	$29,523.37	$32,561.75	$35,359.71	$38,192.84
Public Cloud	Storage Platforms	$13,437.71	$13,420.38	$14,793.24	$16,268.95	$17,631.76	$19,096.94
Traditional IT	Compute Platforms	$34,484.06	$30,672.49	$31,612.72	$33,056.69	$33,899.67	$34,873.30
Traditional IT	Storage Platforms	$26,755.63	$24,807.89	$25,053.67	$25,020.46	$24,823.47	$25,051.61
TOTAL		$119,839.47	$115,690.23	$123,053.72	$131,350.54	$138,675.26	$146,465.25

- Cloud means there is an orchestration layer, and there will be on-premise "clouds"
- Vendors need equipment on-premise and to provide the services that go with it

Where are assets going, more cloud = less hardware support opportunities?

WW Cloud IT Infrastructure Forecast by Deployment
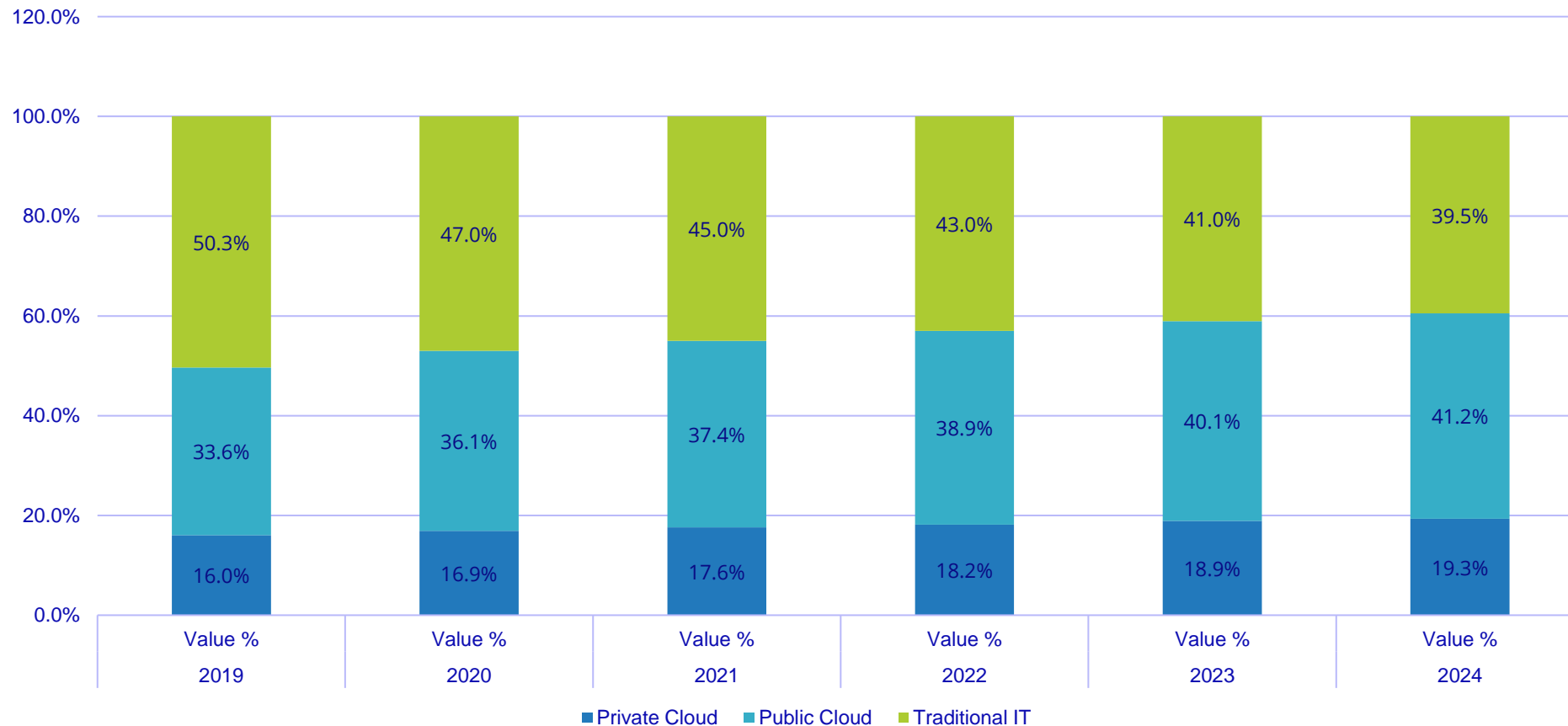
Cloud IT infrastructure will reach $99.9B in 2024; representing almost 60% of total IT infrastructure spending

	2019	2020	2021	2022	2023	2024
Traditional IT	50.3%	47.0%	45.0%	43.0%	41.0%	39.5%
Public Cloud	33.6%	36.1%	37.4%	38.9%	40.1%	41.2%
Private Cloud	16.0%	16.9%	17.6%	18.2%	18.9%	19.3%

Legend: ■ Private Cloud ■ Public Cloud ■ Traditional IT

This new IT infrastructure model will impact IT asset life cycle behaviors and support and deployment market

What Are Vendors Doing

- Extending EOL Support
- Flattening Support cost to extend to 5 yrs
- Enhancing higher end services with more "managed" support capabilities
- Moving to as-a-service options
- Building out backend tools for better contract and asset management

- Cisco clamping down on market from a software and product perspective (taking a chapter out of Oracles play book) (5% increase in renewals revenue in this year alone)
- Dell, NetApp and Pure moving to 5yr support models
- AWS announces 4yr depreciation schedule for systems

Dell Technologies on Demand (DTOD)
Flex on Demand and Data Center Utility

Strengths

- Universal landing page for all DTOD options https://www.delltechnologies.com/OnDemand
- Depth of coverage: Data center, storage, servers, network, PaaS and DaaS
- Base variable ratio: 70/30 is standard; many options available but price increases with more flex
- Risk evaluation includes remarketing group; part of the analysis is equipment fmvs, but regional coverage of refurb not as strong as HPEFS
- Strong demand in US- more urgent in EMEA
- Shift to longer terms (48 and 60mos) beyond 36mos
- Monthly billing for Cloud flex
- 60 day notice for Cloud Flex; other models becomes a custom negotiation similar to lease terminations; for Data Center utility will work with customer to reduce exposure

Challenges

- Metering/dashboard: using MicroVM for metering or Virtustream in some models; but no dashboards
- Partners: for a vast channel network working to build a simplified package that scales easily
- Majority of customers are storage focused
- Determining the key stakeholders within customers: often have multiple meetings with different agenda
- Financing 3rd party equipment: not offered with Flex

HPE Flexible Consumption Offers

Strengths

- Time in market – since 2013
- Integration with HPEFS -more business from variable structures:
  - PCaaS (HPI and HPEFS)
  - DaaS (HPI and HPEFS)
  - GreenLake & HPEFS- GreenLake
    - Amazon like portal
    - Has become a channel for wining new business (net new accounts)
  - Partnerships with Google Cloud,Equinix, CyrusOne
  - Acquisitions & Investments: CTP and RedPixie
  - Expand composable portfolio-composable cloud solution
- Price is still the key driver in all deals
  - Analytics show adoption rates for key workloads & products that are perfect for flexible models
- Integration of product groups in new models
- Global partners key to growth in all segments
  - Especially medium size businesses
- Leverage HPEFS Asset recovery team services
  - Improves profitability of all transactions
  - Ability to refurbish and remarket assets=reduced risk

Challenges

- Terms and conditions are still a rigorous internal process
- Evolving Channel strategy
  - 2019 UPDATES for Channel:
    - HPE signed ~50 new channel partners a month to sell GreenLake
    - HPE GreenLake Quick Quote: automated quote tool evaluates customers workload needs & provides fast quotes and pricing. Can be adjusted by partners to update metrics and generate proposal within minutes
    - Chatbot: AI driven chatbot answers partners questions & routes partner to GreenLake sales support if can't address Qs immediately
- Consistency of messaging across the globe
- Expansion of flexible models to SMB and medium size business through channel partners

Flex Consumption and Support Offers

- HPE Point Next – Expanding higher end "managed" Support services

- Dell ProSupport – No major changes, most notable jump in support numbers

- Lenovo Services – Newer to the space, has a large agreement with IBM

- Lenovo TruScale – Lenovo's as-a-service offer, power based

Competitive Landscape: HW deploy/support services market shares

HW Support and Deployment Revenue Top 10 Vendor, 2018 vs. 2019		
	2018	2019
Dell Technologies	$7,724.34	$8,406.61
Cisco	$8,243.34	$8,367.74
IBM	$6,364.96	$6,117.94
Hewlett Packard Enterprise	$5,526.48	$5,278.31
Oracle	$2,057.67	$2,074.09
Hitachi	$1,960.73	$1,963.49
Fujitsu	$1,818.19	$1,714.75
NetApp	$1,176.77	$1,158.56
NEC	$1,109.04	$1,119.48
Juniper	$867.12	$820.73

Source: IDC, 2019

© IDC

For More Information

Robert Brothers
Email: rbrothers@idc.com
Phone: 508.988.6981
Cell: 617.901.6125
Twitter: hw_support

Twitter
https://twitter.com/@IDC

LinkedIn
https://www.linkedin.com/company/idc

www.idc.com

IDC Commentary

The fast-changing environment has revealed some remarkable differences in how the pandemic has affected various segments of the market. As the first to be hit by the coronavirus, China will see the greatest negative impact in the first quarter of 2020 while other regions will start to experience the impact in the second quarter. Similarly, some industries (transportation, hospitality, retail, etc.) are facing significantly reduced consumer activity and business closures and others are being hit by an unexpected wave of demand for services, including video streaming, Web conferencing, and online retail. Facing economic uncertainty, many businesses are being forced to consider more expedited adoption of cloud services to fulfill their compute and storage needs. This spike in demand put unplanned pressure on the IT infrastructure in cloud service provider datacenters leading to growing demand for servers and system components. As a result, the IT Infrastructure market has two submarkets going in different directions: decreasing demand from enterprise buyers and increasing demand from cloud service providers. This dynamic is impacting the server market the most, resulting in just a moderate decline for the overall market in 2020. The external storage systems market, with a higher share of enterprise buyers, will experience a deeper decline in 2020.