



IDC MARKETSCAPE

IDC MarketScape: Worldwide Client Virtualization Software 2013 Vendor Assessment

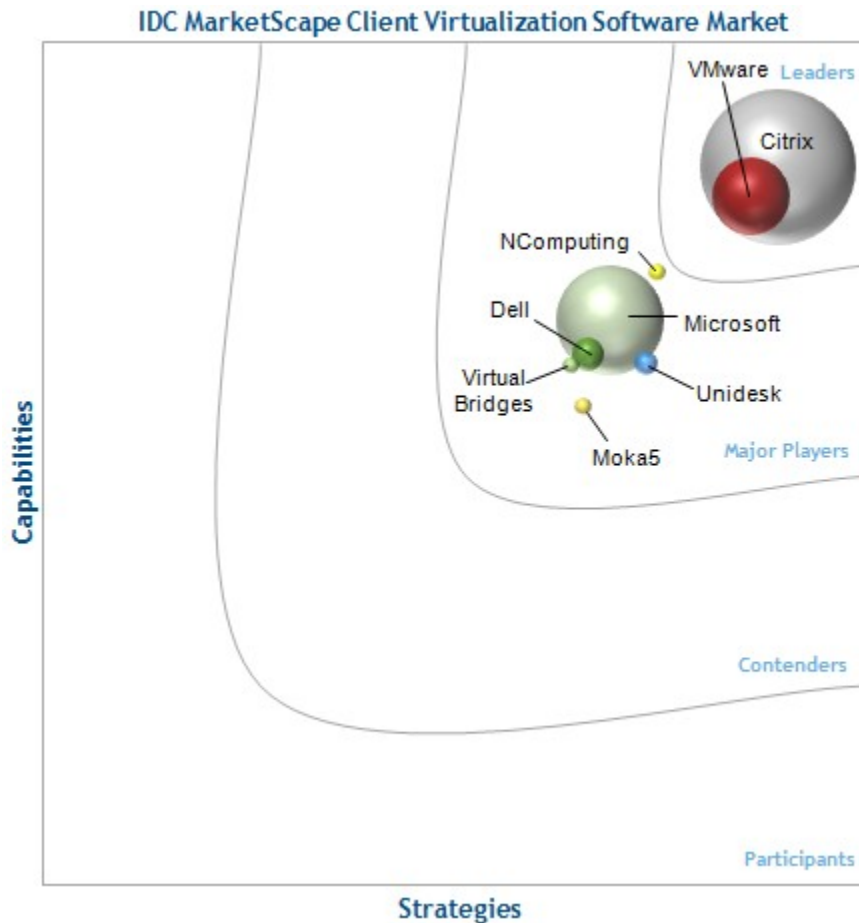
Brett Waldman

Iris Feng

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape Worldwide Client Virtualization Software Vendor Assessment



Source: IDC, 2013

Please see the Appendix for detailed methodology, market definition, and scoring criteria.

IDC OPINION

What started with smartphones and Macbooks and continued with the emergence of tablets – end users started to assert power over their devices and applications. The end result is that the days of IT dictating what device end users will use are nearly over. The rise of bring your own device (BYOD) is creating governance and regulatory nightmares while providing end users with unprecedented flexibility and agility. While IT is still intrigued by the possibility of a better desktop management model and the operational savings client virtualization software could deliver, it is the increased governance and the ability to deliver desktops, applications, and data to any device that are driving today's purchases.

The client virtualization software market has started to enter the maturity phase, and many vendors, through acquisitions, have started to expand their capabilities into physical desktop management, mobile enterprise application management, and SaaS application management. As vendors continue to expand their addressable market, they continue to integrate their existing portfolio, from both a technical and a licensing perspective. Customers are in turn confused about the capability and addressability of each vendor's solution. This IDC study represents the vendor assessment model called the IDC MarketScape. This research is a quantitative and qualitative assessment of the characteristics that explain a vendor's success in the marketplace and help anticipate the vendor's ascendancy. The study assesses the capability and business strategy of many client virtualization software vendors. This evaluation is based on a comprehensive framework and a set of parameters expected to be most conducive to success in providing client virtualization solutions, during both the short and the long term. As the client virtualization software market is a highly competitive one, all vendors performed relatively well in the study. Key findings include:

- All vendors in this study can provide the underlying virtual desktop provision and management capabilities. Leading vendors are more likely to offer solutions that address a broader audience with simplified management tools as holistically being able to manage desktop, mobile, and cloud applications from a single management console is quickly becoming a must-have for next-generation IT.
- Larger vendors naturally offer more capabilities to their customers; thus many of them lead in this study. However, many innovations are coming from the smaller start-ups, which build their whole business around those differentiating innovations. The result is many start-ups are gaining rapid traction in the market and performed well in this study.
- The client virtualization software market is maturing at a rapid pace; new approaches such as workspace as a service (WaaS) and mobile experience virtualization are beginning to emerge. The market itself is beginning to consolidate as larger vendors acquire unique smaller firms to access new capabilities and customer groups.

IDC MARKETSCAPE VENDOR INCLUSION CRITERIA

This IDC MarketScape includes vendors that create and sell software in the client virtualization space, with a focus on centralized virtual desktops, distributed virtual desktops, and virtual user session (VUS) software. Vendors that offer user state virtualization or application virtualization products but not

one of the aforementioned products were not included because these two types of solutions address a certain need in the market but do not fulfill a direct need for client virtualization solutions. Vendors also needed to be earning at least \$10 million in revenue or demonstrate enough momentum in the marketplace to make nearly \$10 million by 2013 according to IDC estimates.

ESSENTIAL BUYER GUIDANCE

Device form factors inside organizations are changing rapidly, regardless of whether they are personally or corporate owned. The days of a relatively homogeneous ecosystem built around Microsoft Windows is nearly over. Nearly every organization needs to deal with different operating systems and different form factors and yet still retain the capability to deliver legacy Windows-based applications to all of these different devices over both local and wide area networks. Buyers should therefore look for the following characteristics when evaluating client virtualization solutions:

- **Scalability:** Solutions need to be able to scale to support your sized deployment and still be manageable. Not all solutions need to be able to scale out to 10,000 seats, if they are purposefully built for SMB organizations; however, in those cases, simplicity becomes a defining factor.
- **Device compatibility:** The driving force behind client virtualization these days is mobility, and if a product cannot support Apple iOS and Mac OS, Android, and Windows devices, then it probably is not a good fit for your organization.
- **Mobile experience virtualization:** Streaming Windows applications to mobile devices is just table stakes. To take it to the next level, vendors need to be able to improve the experience of streaming keyboard- and mouse-based applications on touch-first devices. This can be accomplished through client software, improved protocols, and/or mobile optimized APIs.
- **Storage optimization:** While the price of storage is consistently coming down, it is still a large cost for implementing and growing client virtualization deployments. Vendors that offer ways of reducing storage costs are more likely to offer better total cost of ownership.
- **Cloud enabled:** If a vendor's solution is not currently cloud enabled, it needs to be on the vendor's 18-month road map. While IDC does not expect cloud deployments to be the norm in the next year, many customers will start to explore the option, either as a primary delivery model or in a hybrid environment.

VENDOR SUMMARY PROFILES

This section briefly explains IDC's key observations resulting in a vendor's position in the IDC MarketScape. While every vendor is evaluated against each of the criteria outlined in the Appendix, the description here provides a summary of each vendor's strengths and opportunities.

Citrix

Citrix was the original entrant to the modern client virtualization software market with the introduction of its MetaFrame product, now known as XenApp, back in 1995. With the introduction of Citrix XenDesktop 7, the company provides a complete solution for virtual apps and desktops, entirely

integrated into a single management platform. Also included in the XenDesktop 7 license is XenClient, a distributed virtual desktop solution. Additionally, the Citrix portfolio includes VDI-in-a-Box, its VDI software appliance offering for SMBs. Citrix masks the complexity of delivering desktops and applications behind Citrix Receiver, which acts as a gateway to the user's desktop, applications, and data from a variety of devices including phones, tablets, and PCs. Citrix can also help manage physical desktops and mobile devices with the FlexCast Management Architecture and XenMobile. IDC expects that over time, Citrix will continue integrating these pieces into one single, comprehensive platform.

Citrix not only provides the client virtualization software but also many of the pieces required for a successful implementation of a full solution, including server-side infrastructure such as XenServer (hypervisor), NetScaler (networking and SSL/VPN software), CloudBridge (WAN Acceleration), EdgeSight (performance diagnostics), Desktop Director and Studio (administration and help desk tools), and AppDNA (application compatibility). The company also has XenMobile, which securely delivers mobile, Web, and SaaS applications, and ShareFile, which securely delivers data – all of which can all be accessed through Receiver on nearly any device.

IDC has placed Citrix in the Leaders category in this IDC MarketScape. Citrix's position reflects the company's market leadership and ability to push the client virtualization agenda for the rest of the industry.

Strengths

The client virtualization software market is a not a one-size-fits-all type of market, and Citrix's ability to provide customers with a holistic and flexible solution is one of the company's greatest strengths. The company is also adept at making strategic acquisitions that bolster its solutions, expand its market addressability, and improve manageability and user experience. The company also has an exceptionally strong relationship with Microsoft, putting it in a unique position that most of its competitors can't match directly.

Opportunities

Citrix is in the process of re-architecting XenDesktop into a multitenant platform to better address the cloud opportunity, despite the fact that it already has approximately 2,600 cloud service provider partners. This update will also enable hybrid deployments, allowing customers to move virtual desktops and applications between the cloud and on-premise deployments. Citrix is also leading the market to better mobile user experiences with updates to its HDX protocol and its HDX Mobile SDK, which allows developers to quickly stream existing Windows applications to mobile devices with a near-native experience, and its Worx App SDK, which enables developers to extend enterprise-grade management and security in any existing mobile application delivered with XenMobile.

VMware

VMware was first to market with a centralized virtual desktop product or what it coined VDI. The company's leadership in this part of the client virtualization software market helped it drive the market forward, and the company jump-started competitors to rush forward with this approach to client virtualization. However, as the market has matured and taken on a more holistic view, VMware has

done the same. In the past few years, VMware has acquired Wanova and launched Horizon Mirage, which provides centralized image management by synchronizing changes of the Windows desktop back to a datacenter layer by layer – introduced Horizon Data for universal and centrally managed data delivery, and introduced Horizon Mobile to manage access to corporate applications and data from mobile devices. And most recently, the company acquired DeskTone to provide desktop-as-a-service (DaaS) and hybrid deployments.

DeskTone built its platform from the ground up to support service provider and cloud DaaS deployments. It provides multitenancy with support for multidatacenter locations, elastic scalability, and enterprise integration with comprehensive security and tiered role separation. DeskTone's virtual desktop platform enables a single management console to control delivery of multiple desktop and application models from full VDI to shared session desktops. It is important to note that the DeskTone Platform was architected to support dedicated compute infrastructure, so as to remain compliant with Microsoft Windows client licensing, which does not have a specific service provider license. DeskTone's product offers multitenant, elastic support that service providers need.

IDC has placed VMware in the Leaders category in this IDC MarketScape. VMware's position reflects the company's strong market position with VMware View and newfound credibility as a cloud-hosted solution through the recent acquisition of DeskTone.

Strengths

VMware leverages its market leadership in the hypervisor and cloud market to upsell its client virtualization solutions. The VMware Horizon Suite products can be purchased by organizations individually or all together. Horizon Suite is priced competitively so that customers are enticed to purchase the entire suite instead of individual products. Not only is VMware moving its products toward an integrated solution, but it is also building out its ecosystem of partners with programs like the VMware View Rapid Desktop program that certifies hardware appliances running VMware View.

Opportunities

VMware has had a lot of success inside larger organizations; however, with the VMware View Rapid Desktop program and the VMware View desktop as a service, VMware has the opportunity to go after the SMB and emerging markets with greater efficacy.

NComputing

NComputing vSpace virtualization software supports virtualizing Windows and Linux desktops using virtual user sessions with scalability up to 100 sessions per central server. This technology allows customers to publish desktops or single applications to its users, by hosting those instances on a single, centralized shared Windows Server operating system or Linux operating system. vSpace virtualization software can also be hosted in VM-based environments using Microsoft Hyper-V or VMware vSphere.

Over the past few years, NComputing has successfully evolved from a device-centric company whose virtualization software platform only supported its hardware end points to a software company with a client virtualization platform purpose built for simplicity, low cost, and minimal IT resource

requirements. The vSpace virtualization platform has matured significantly over the past two years to provide scale, performance, manageability, and software client support for PCs/laptops and Windows devices. The upcoming mobile clients and cloud-based management will accelerate NComputing's transition to a software solution company.

IDC has placed NComputing in the Major Players category in this IDC MarketScape. NComputing's position reflects the company's successful evolution from a hardware company to a software company with a hardware solution.

Strengths

NComputing's strength as a vendor in this market is the company's ability to provide simplified end-to-end virtual user session solution at a low cost, which has bred success in the midmarket and small enterprise, especially with education customers and in emerging regions. NComputing plans to continue to take advantage of this market opportunity as it continues to offer solutions that drive down the cost per virtual client seat and many of its larger competitors will have a hard time scaling down and simplifying their product offerings to meet the needs of these customers.

Opportunities

In CY 1Q14, NComputing will release the Unified workspace-as-a-service solution, designed for the SMB and midmarket, to address customer needs with regard to security and compliance as a result of the explosive mobile device growth and increasing BYOD trend. This Unified Workspace solution leverages NComputing's existing vSpace technology and will enable secure access to any Windows, Linux, Web, SaaS app, and any on-premise or cloud content from any device. Additionally, the solution leverages cloud technology and economics, and supports all-cloud, all-on-premise, or hybrid cloud/on-premise deployment models.

Dell

Dell vWorkspace provides one of the industry's fullest offerings, including centralized virtual desktops, virtual user session software, user state virtualization, and through its partnership with Moka5, distributed virtual desktops integrated into a single platform. Dell acquired vWorkspace as part of its acquisition of Quest Software, which had a strong focus on management solutions, so its approach to client virtualization is focused on managing end-user experience rather than providing the underlying virtualization technology.

Now that Dell also offers thin clients from its acquisition of Wyse, Dell is able to offer an end-to-end solution that not only includes the software but all the hardware from the back-end infrastructure to the end points.

IDC has placed Dell in the Major Players category in this IDC MarketScape. Dell's position reflects the company's ability to offer an end-to-end solution including software, hardware, and services.

Strengths

IDC believes that Dell's strength lies in the core capabilities that the company built around the assessment, monitoring, and management of workloads – not surprising given Quest's long history as a player in the systems management arena. By bringing in technologies like vFoglight, ChangeBASE, and Desktop Authority to manage an end-user workspace, Dell Quest is able to supplement partnering technologies in addition to offering a single bundle.

Opportunities

Dell acquired Quest just a little over a year ago, and it is continuing to integrate vWorkspace into its larger portfolio. Dell vWorkspace is already integrated with Dell Defender and Dell Enterprise Single Sign-on. IDC expects that in the near future, Dell will continue to integrate vWorkspace with other products such as SonicWall, Cloud Access Manager, and KACE 3000 Mobile Management Appliance. With these integrations, end-to-end offerings, and low-cost options, Dell is in a good position to go after SMB and midsize companies, as well as remote and branch offices. Given Dell's long-successful go-to-market model that addresses the needs of smaller and midsize companies, if packaged right, the company should grow its business in this market segment moving forward.

Moka5

Moka5 provides an elastic perimeter where end-user data and applications are delivered as managed and highly secure workspaces to popular end-user devices. Moka5 provides an easy-to-deploy and easy-to-use distributed virtual desktop that is ideally suited to support unmanaged PC and Mac use cases, such as with bring-your-own-device and contractor workforces. Moka5 offers both type-2 and bare-metal solutions. Both are easy to install, have wide platform compatibility, and relatively good performance. The type-2 solution includes seven layers of security to provide the necessary safeguards for a sound BYOD program.

For corporate-owned devices, Moka5 offers Moka5 BareMetal Player, which delivers simplified management using its layering technology and also protects against unmanaged or at-risk host operating systems by moving the hypervisor (VMware Player) and virtual machines to a purposely built, managed, and thin Linux OS layer. Arguably, the BareMetal Player is still a type 2 solution, but the Linux OS is essentially the virtualization wrapper that manages and secures the hosted virtual machines. Since the Linux OS is not for general-purpose use by the end user, there is less chance for inadvertent compromise of that environment. Moka5 also offers its solution as a managed service offering through partners that utilize its Service Provider Edition. Moka5 has also published a reference architecture to deploy its solution on Amazon Web Services.

For users with mobile devices, Moka5 also provides a secure, encrypted container, LiveData, that offers employees access to sanctioned corporate network resources (Windows file shares, SharePoint document libraries, intranet-hosted applications and Web sites, and cloud storage). Moka5 offers a single management console across both its desktop/laptop and tablet/phone solutions. It also provides built-in, secure sync that keeps the data across all these devices synchronized.

IDC has placed Moka5 in the Major Players category in this IDC MarketScape. Moka5's position reflects the company's strong position in the distributed virtual desktop market.

Strengths

Moka5's strength lies in Moka5's simplicity, both from an end-user perspective and an IT perspective. Moka5's solutions are built to easily integrate with the host operating system to make it a seamless experience for the end user. And due to its layered approach to management, IT can have as few as one golden image for thousands of users. Moka5 also licenses its products on a per-user basis with unlimited device rights, simplifying the licensing and flexibility for its customers.

Opportunities

Moka5 is investing heavily to make it easier for enterprises to integrate Moka5 into their existing systems management tools such as service desks, identity and access management, and workflows. By enabling these integrations, Moka5 will be better suited to go after larger organizations and opportunities.

Unidesk

With Unidesk VDI management software, IT can create layers to better manage, deploy, and scale Microsoft Windows in a centralized virtual desktop (aka VDI) environment. Unidesk builds desktops from a client operating system layer and any number of application layers. These reusable IT layers are then combined with a user layer that is unique to each desktop. This approach simplifies the delivery of applications and Windows patches and creates storage-efficient persistent desktops that sustain all user customizations, including user-installed applications. Unidesk gives IT administrators a single solution to create, patch, update, repair, and recover virtual desktops on any type of storage while giving end users a PC-like experience that overcomes many of the acceptance issues that hampered early desktop virtualization initiatives. Unidesk technology can replace application virtualization, user state virtualization, and image management point tools, notably reducing administration complexity. Unidesk layering can significantly reduce storage costs, application packaging time, desktop break/fix time, and the number of gold images needed down to as low as a single image for an entire organization.

IDC has placed Unidesk in the Major Players category in this IDC MarketScape. Unidesk's position reflects the company's ability to make other vendors' centralized virtual desktop offerings easier to manage and more cost effective.

Strengths

Unidesk doesn't make centralized virtual desktop brokering products, but it is clear when talking to the company's customers that Unidesk makes those solutions better. Because of this, Unidesk does not always get the same name recognition and sometimes loses out on deals when the brokers' native management tools are perceived as good enough. However, for companies that are looking to scale their deployments without increasing costs exponentially, Unidesk has a solution that must be explored.

Opportunities

Although many of Unidesk's 500+ customers are in SMB and midmarket enterprises, the company has proven its technology works at scale, with numerous customers having 1,000+ seat deployments. The next phase on the road map is to expand its current VMware-only platform support to Microsoft Hyper-V and the cloud. With strong partnerships with Dell, Cisco, and VCE; a growing reseller channel supported by a new distribution partnership with Ingram Micro's Promark division; and virtual desktop alliances with emerging storage vendors like Nimble, Nutanix, Tegile, and Tintri, Unidesk has laid the foundation for continued strong growth.

Virtual Bridges

Virtual Bridges' VERDE offers a full end-to-end client virtualization solution. By leveraging a mix of open source and proprietary technology, Virtual Bridges is able to offer all the software a customer would need to get a client virtualization solution up and running in a single package, minus the Microsoft components. The company also supports Linux virtual desktops, which would eliminate the need for any Microsoft licenses. VERDE includes application virtualization and both centralized virtual desktops (aka VDI) and distributed virtual desktops that allow for both online and offline usage.

VERDE can even manage images running off a USB stick. Also included with Virtual Bridge's offering is a unique branch office solution for remote offices, regional datacenters, or even hybrid cloud deployments.

IDC has placed Virtual Bridges in the Major Players category in this IDC MarketScape. Virtual Bridges' position reflects the company's ability to offer different client virtualization models with a simple and single installation at a price-effective cost.

Strengths

Virtual Bridges' strength lies in the company's ability to create an easy-to-implement solution with a sensible total cost of ownership and simple, single SKU licensing model. With single ISO installation, storage and IO optimization, and equal support for Windows and Linux, Virtual Bridges provides solid value for its customers. The company also offers services for the life of the offering, from workload assessment and persona segmentation to annual health checks and hardware/software assessments.

Opportunities

Because of its simple licensing, installation, and maintenance, Virtual Bridges has lots of opportunities in emerging countries and in the Asia/Pacific region. The company is also focused on providing better support for hybrid cloud scenarios, with an upcoming release to support multitenant environments, chargeback, and user-experience optimization.

Microsoft

Microsoft Remote Desktop Services (RDS) is the basis for the vast majority of virtual user-session deployments in the market today, even those that are partially enabled using solutions from other vendors. In recent years, the company has done much to enhance this product and other client

virtualization software technologies, through both organic growth and internal development, as well as through acquisition. However, even today, the company does not put its full marketing strength behind this technology the way it is capable of doing.

Microsoft's client virtualization portfolio is now more comprehensive than ever and includes user experience virtualization (UE-V) for user state virtualization, App-V and RemoteApp for virtual applications, Microsoft VDI for sessions (remote desktop services) for VM-based desktops, Client Hyper-V for distributed virtual desktops, and Microsoft Enterprise Desktop Virtualization (MED-V) for XP application compatibility.

Since the launch of Windows Server 2012 and the updated Hyper-V code, Microsoft has had a platform to support any size deployment. One of the new features with Windows Server 2012 is a refined user interface including a quick-start wizard that allows customers that are new to client virtualization or SMB customers to easily set up sessions, pooled VMs, or personal VMs. Microsoft has also improved App-V to make virtualized applications work more like traditional applications as well as reduce storage costs in VDI with the shared content store.

IDC has placed Microsoft in the Major Players category in this IDC MarketScape. Microsoft's position reflects the company's status as a market leader in the virtual user session and application virtualization markets and as a rising challenger in the centralized virtual desktop market.

Strengths

Microsoft has a direct sales force and a strong channel program that can reach just about any size organization from very small businesses to very large enterprises. Additionally, Microsoft has a large portfolio of products that many customers desire and standardize on. Since the vast majority of the client virtualization software market is built around environments running Microsoft Windows operating systems and applications, it has a strong influence over the market. Microsoft's licensing programs ensure that the company can monetize its products well, though this leaves some customer prospects untouched.

Opportunities

With Windows Server 2012 and Windows Azure, Microsoft is actively working with its installed base to move its workloads, including remote desktop services, to the public and hybrid cloud. And because Microsoft can dictate the licensing for Windows client, it has the ability to dictate how fast or slow the client virtualization software market should move over to the cloud. The company also limits its potential by packaging some of its client virtualization portfolio inside the Microsoft Desktop Optimization Pack (MDOP), which is primarily available to customers that subscribe to the company's maintenance product, Software Assurance (SA). Customers that don't have SA have a limited number of options through which they can procure MDOP. Therefore, Microsoft could expand its market opportunity by eliminating this restriction.

APPENDIX

Reading an IDC MarketScape Graph

For the purposes of this analysis, IDC divided potential key measures for success into two primary categories: capabilities and strategies.

Positioning on the y-axis reflects the vendor's current capabilities and menu of services and how well aligned the vendor is to customer needs. The capabilities category focuses on the capabilities of the company and product today, here and now. Under this category, IDC analysts will look at how well a vendor is building/delivering capabilities that enable it to execute its chosen strategy in the market.

Positioning on the x-axis or strategies axis indicates how well the vendor's future strategy aligns with what customers will require in three to five years. The strategies category focuses on high-level decisions and underlying assumptions about offerings, customer segments, and business and go-to-market plans for the next three to five years.

The size of the individual vendor markers in the IDC MarketScape represent the 2012 market share of each individual vendor within the specific market segment being assessed.

IDC believes that, given the advances made by the client virtualization software vendors and partners as well as the emerging service provider (cloud)-hosted models, ROI for client virtualization can become an achievable and measureable benefit. Of course, an organization shouldn't approach client virtualization purely because of ROI. Client virtualization is a new model of managed end-user computing, and organizations should approach it with a clear understanding of how client virtualization can benefit their environments in an operational sense.

When evaluating client virtualization software vendors, it is more important to focus on the solutions the specific vendors provide than to focus on the size of the vendor. Many start-ups in this IDC MarketScape offer unique capabilities that can minimize the initial cost of deployment, simplify management, and improve user experience. In fact, most start-ups have larger customers and partnerships that ensure their survival.

IDC MarketScape Methodology

IDC MarketScape criteria selection, weightings, and vendor scores represent well-researched IDC judgment about the market and specific vendors. IDC analysts tailor the range of standard characteristics by which vendors are measured through structured discussions, surveys, and interviews with market leaders, participants, and end users. Market weightings are based on user interviews, buyer surveys, and the input of a review board of IDC experts in each market. IDC analysts base individual vendor scores, and ultimately vendor positions on the IDC MarketScape, on detailed surveys and interviews with the vendors, publicly available information, and end-user experiences in an effort to provide an accurate and consistent assessment of each vendor's characteristics, behavior, and capability.

Market Definition

IDC defines virtual client computing (VCC) as a client computing model that leverages a range of software and virtualization solutions to improve upon the limitations associated with the traditional distributed desktop environment. The VCC model encompasses four client virtualization software technologies, which are discussed in the sections that follow.

Desktop Virtualization

Desktop virtualization technologies utilize hypervisor to decouple an operating system (OS) from the host hardware and isolate the specific client environment from other OSs running aboard a physical device. There are two types of desktop virtualization technologies:

- Centralized virtual desktop (CVD, or more commonly known as VDI) is a form of server-based computing; it utilizes server-grade hypervisor to host multiple unique and isolated client operating systems aboard a single server or group of servers in the datacenter environment. The virtual desktops are delivered to end users' devices via the network.
- Distributed virtual desktop (DVD) leverages client-grade hypervisor and/or host operating systems in an isolated environment on a distributed client device, such as a laptop. Therefore, the virtual machine resides on the local client hardware.

Application Virtualization

Application virtualization software encapsulates and isolates an application from its underlying host operating system, as well as from other local applications running within a client environment.

Virtual User Session

Virtual user session (VUS) is a mature server-based computing model that creates a shared environment to host multiple users from a single operating system. Each user gets access to his/her own profile and instances of installed applications.

User State Virtualization

User state virtualization (USV) encapsulates and isolates an end user's profile information and settings from its underlying host operating system, as well as from other local applications.

Strategies and Capabilities Criteria

Tables 1 and 2 provide key strategy and capability measures, respectively, for the success of client virtualization software vendors.

TABLE 1

Key Strategy Measures for Success: Client Virtualization Software Vendors

| Strategies Criteria | IDC Definition | Client Virtualization Software Definition | Weighting Rationale | Weighting |
|------------------------------------|--|---|--|-----------|
| Offering strategy | | | | |
| Functionality or offering road map | Future plans for offering functionality are well aligned with current and future customer needs and with priority customer segments. | This strategy provides a road map for existing products or for upcoming products. It defines internal R&D or external acquisition plans to add/improve specific products/functions. | Having a road map for potential partners and customers to examine will be the first and most important factor in their decision regarding the viability of the company's offering. | 2.0 |
| Delivery model | Plans are in place for support of offering delivery model(s) that will match customers' shifting preferences for adoption/consumption in the next five years, and to allow them to successfully capture revenue flow as it shifts among different delivery models (e.g., packaged software versus SaaS). | Channel program or direct sales force is in place to facilitate growth of existing and future products. Development of partnerships and services-based product delivery are also important. | Increasing product accessibility and decreasing barriers for adoption is one of the most important aspects of creating and growing the business. | 1.0 |
| Cost management strategy | Strategies for developing and producing the supplier's offering lead to competitive offering costs and support competitive pricing, customer engagement, and future opportunities. | General marketwide pricing and standardization of solutions ensure the management of costs in the space. | Cost of acquisition is a big concern of the customer, especially in the absence of reliable proof of long-term cost reduction. | 1.5 |
| Portfolio strategy | The offering is well supported and enhanced by a portfolio of complementary offerings offered by the company or its ecosystem of partners. | Core solutions provided by VCC vendors and subsequent components from both software and hardware make up the VCC ecosystem. Services products adds additional value to the ecosystem, either by vendors or by partners. | The VCC model is fragmented, and supporting technologies are required to deliver acceptable solutions. | 2.0 |

TABLE 1

Key Strategy Measures for Success: Client Virtualization Software Vendors

| Strategies Criteria | IDC Definition | Client Virtualization Software Definition | Weighting Rationale | Weighting |
|--------------------------------|---|--|--|-------------|
| Future integration strategy | This criteria measures how well will vendors support the ideal integration strategy for a given product type — for example, in some cases the ideal is a service-oriented architecture (SOA) across the application components supporting integration at the business process level. Vendors must be able to show the planned development of their integration capabilities in the near future and be able to clearly articulate their future approach for integration. | VCC is defined by a set of technologies, not one. They all need to work together seamlessly to provide a holistic solution. And they need to be integrated within an existing datacenter and/or cloud infrastructure. The road map for how well a vendor's software integrates with itself, other management tools, hardware, and the cloud is key to success. | How well the different pieces of the portfolio work together have a direct affect on the portfolio benefits delivered and thus have just as strong a weighting as the portfolio strategy itself. | 2.0 |
| Scalability strategy | This criteria measures how will the vendors support the ongoing increase in end-user demand for products and services as well as future plans for increased performance and support for a given number of users. In hardware terms, this may be planned support for 6–8 core in a smaller machine or in software so that the application will be rewritten to fully exploit such additional processing power. | Scalability in the client virtualization realm has jumped from supporting many users in a single environment to many users across many environments, including, but not limited to, private datacenters, colocation centers, public clouds, and branch offices. | Scalability is important, but not as important as the portfolio itself. As cloud becomes more important as a delivery model, this strategy will become more important. | 1.5 |
| Offering strategy total | | | | 10.0 |

TABLE 1

Key Strategy Measures for Success: Client Virtualization Software Vendors

| Strategies Criteria | IDC Definition | Client Virtualization Software Definition | Weighting Rationale | Weighting |
|------------------------------|--|---|--|-----------|
| Go-to-market strategy | | | | |
| Pricing model | The supplier's pricing model strategy is directly aligned with customers' preferences for payment (e.g., license, service, per seat, per transaction). | The pricing model has been well defined to suit customer needs. Additional options are priced on an ongoing basis. | Customers are less concerned with software costs, which are artificially low in the short term. Solution functions and capabilities are more important to customers right now. | 2.5 |
| Sales/distribution strategy | The sales/distribution strategy is aligned with the way customers want to buy the offering (e.g., online, offline, direct, indirect). | Multiple sales/distribution strategies leveraging direct channels and partners exist based on customer preference. | Adapting to customers' buying habits is vastly important to grow this emerging market. | 2.5 |
| Marketing strategy | There is a robust game plan/strategy for all relevant facets of marketing (e.g., brand development, promotion, demand generation) that matches where revenue is predicted to flow over the next five years. | Strategic marketing programs are in place to build brand equity, feature and price comparison, and rapid adoption. All of these are aimed at acquiring customers organically, from existing pools and from competitors. | Solid marketing strategies that deliver the right message to the right people can have a big impact at gaining customer mindshare. | 3.0 |
| Customer service strategy | Customer service strategy effectively retains customers and continues to innovate in customer retention and service areas, with the implication that the company will be able to achieve the level of service and support demanded by customers over the next three years or as a low-cost provider, and has a plan in place for customer service that will be universally embraced. | Customer services are implemented both on the vendors' and partners' aspects. It is also a large part of the revenue for the service providers. Thus customer services are innovative and result proven. | Sound customer service strategy can not only retain existing customers but also generate additional revenue and cross-sale additional products. | 2.0 |

TABLE 1

Key Strategy Measures for Success: Client Virtualization Software Vendors

| Strategies Criteria | IDC Definition | Client Virtualization Software Definition | Weighting Rationale | Weighting |
|--------------------------------------|---|---|--|-------------|
| Other go-to-market strategy | This is a placeholder for any industry-specific issue that cannot be slotted into one or more of the go-to-market strategy categories. | Short-term go-to market strategies aimed at lowering the cost of acquisition and to speed up time to market are in place from major vendors. | Reducing customer pain implementing VCC solutions can lead to additional sales. | 0.0 |
| Go-to-market strategy total | | | | 10.0 |
| Business strategy | | | | |
| Growth strategy | Management has a strong formula for growth for the company and one that aligns well with the market trends anticipated over the next three to five years. | Short-term growth through converting existing customers by lowering licensing costs is the current majority. Long-term growth lies in acquiring net-new customers by providing better VCC solutions, lower cost to market, and quick implementations. | The market is currently underaddressed, so a sustainable growth strategy is a must for vendors of all sizes. | 3.0 |
| Innovation/R&D pace and productivity | The company's innovation model maximizes its potential to generate market value. | Innovation for the VCC market will mostly come from the small start-ups or niche players. The larger vendors will continue to develop existing solutions through a more evolutionary manner; acquiring or licensing niche technologies would be the main form of large vendor innovation. | Current stage of VCC technologies cannot overtake traditional PC; thus innovation on improving user experience is important. | 3.0 |
| Financial/funding model | The company's strategy for generating, attracting, and managing capital maximizes its potential for creating market value. | Larger vendors will be able to secure financial positions through monetizing their business models. Smaller vendors will rely on external funding. | Sustainable financial growth is key to grow internal talents and external customers. | 2.0 |

TABLE 1**Key Strategy Measures for Success: Client Virtualization Software Vendors**

| Strategies Criteria | IDC Definition | Client Virtualization Software Definition | Weighting Rationale | Weighting |
|--------------------------------|--|--|---|-------------|
| Employee strategy | The company's strategy for attracting, motivating, and retaining talent maximizes its opportunity for creating market value. | The company's ability to attract, motivate, and retain employees will be directly attributable to the company's reputation and investment in the market. | Growing internal workforce and acquired external talents are key to growth. | 2.0 |
| Business strategy total | | | | 10.0 |

Source: IDC, 2013

TABLE 2**Key Capability Measures for Success: Client Virtualization Software Vendors**

| Capabilities Criteria | IDC Definition | Client Virtualization Software Definition | Weighting Rationale | Weighting |
|--|--|--|---|-----------|
| Offering capabilities | | | | |
| Functionality/offering delivered | Current offerings, architectures, methodologies, and best practices match directly to current customer needs and with current vendor skills to deliver maximum customer benefit. | Vendors in the market should have finished products, along with services and customer strategies already in place. | Having a portfolio of products to address different use cases and situations improves a vendor's position in the market. | 1.5 |
| Delivery model appropriateness and execution | The offering is delivered today in the way(s) that matches customers' preferences for adoption/consumption. | Vendors will have multiple delivery models that fit a multiplicity of customers. | Delivering VCC solutions through a customer's preferred method reduces cost of sales and builds better customer relationship. | 1.0 |

TABLE 2

Key Capability Measures for Success: Client Virtualization Software Vendors

| Capabilities Criteria | IDC Definition | Client Virtualization Software Definition | Weighting Rationale | Weighting |
|------------------------------|--|--|---|-----------|
| Cost competitiveness | The cost structure for this offering is competitive, yet supports the flexibility required to adjust to the pricing models that customers want today. | The products are to be priced competitively and aligned with customer expectations. Additional products such as ongoing services should be priced accordingly. | Software cost of a VCC solution is less of a concern for customers in the short term. | 1.0 |
| Portfolio benefits delivered | The offering is well supported and/or enhanced by a portfolio of complementary offerings. | Components in addition to the core product offerings are well documented and illustrated. | Well-marketed supportive VCC components can improve user experiences and help in closing deals. | 3.0 |
| Integration | The ideal is still a service-oriented architecture (SOA) across the application components supporting integration at the business process level. For evaluation, this usually means that providers are able to show the development of an advanced programming language such as .NET or Java. Providers must also be able to clearly articulate their Web services approach in applications in use and in their tactical plan. | VCC is defined by a set of technologies, not one. They all need to work together seamlessly to provide a holistic solution. And they need to be integrated within an existing datacenter and/or cloud infrastructure. How well a vendor's existing software integrates with itself, other management tools, hardware, and the cloud is key to success. | Integration has a direct affect on the portfolio benefits delivered. However, customers have shown a willingness to wait for integration as long as it's on the road map. | 2.0 |

TABLE 2

Key Capability Measures for Success: Client Virtualization Software Vendors

| Capabilities Criteria | IDC Definition | Client Virtualization Software Definition | Weighting Rationale | Weighting |
|--|--|---|---|-----------|
| Scalability | Evaluation is on in at least one of the following criteria: concurrent users and throughput. Some products will require an alternative scale to reflect scale, such as model size, number of simulations per hour, and number of unique items. | Scalability in the client virtualization realm has jumped from supporting many users in a single environment to many users across many environments, including, but not limited to, private datacenters, colocation centers, public clouds, and branch offices. | Scalability is important but not as important as the portfolio itself. As cloud becomes more important as a delivery model, this strategy will become more important. | 1.5 |
| Offering capabilities total | | | | 10.0 |
| Go-to-market capabilities | | | | |
| Pricing model options and alignment | The pricing model is currently aligned with customers' preferences for payment (e.g., license, service, per seat, per transaction). | Pricing for the VCC markets is flexible to meet various customer types and requirements. Scalability is well established for customers of all sizes. | Pricing for the VCC market is likely to become bundled (hardware and software) as the market becomes more converged. | 3.0 |
| Sales/distribution structure, capabilities | The current sales/distribution structure is aligned with the way customers, especially those in high-growth market segments, want to buy (e.g., online, offline, direct, indirect). | Sales and distribution are well established for direct sales and through channels to reach to all potential customers. | Ability to sell customer solutions rather than products is crucial for success. | 2.5 |
| Marketing | The company's marketing organization is aligned with the priority customer segments and executing well. | Vendors in the VCC space have direct marketing initiatives and specific direct marketing for high-priority customers. | Marketing is important to educate customers about VCC at the same time to gain mindshare. | 2.5 |

TABLE 2

Key Capability Measures for Success: Client Virtualization Software Vendors

| Capabilities Criteria | IDC Definition | Client Virtualization Software Definition | Weighting Rationale | Weighting |
|--|--|--|--|-----------|
| Customer service | The company's service organization is aligned with priority customer segments and executing well. | Customer service is a revenue stream for the vendors in the VCC space and is thus well developed. | Customer service is a tool to retain and grow the VCC business. | 2.0 |
| Other go-to-market capabilities | This is a placeholder for any industry-specific issue that cannot be slotted into one or more of the go-to-market capabilities categories. | Short-term go-to market strategies aimed at lowering the cost of acquisition and to speed up time to market are in place from major vendors. | Reducing customer pain implementing VCC solutions can lead to additional sales. | 0.0 |
| Go-to-market capabilities total | | | | 10.0 |
| Business capabilities | | | | |
| Growth strategy execution | Management is executing well on its formula for growth for the company (e.g., by acquisition, organic growth). | Marketing and product teams are well trained and equipped to develop the emerging VCC market. | Management in the VCC space communicates with customer executives to grow the business at a top, strategic level. | 3.0 |
| Innovation/R&D pace and productivity | The company's pace and productivity of innovation is generating market value. | Larger vendors address the market by evolving current products through R&D and acquisition. Smaller vendors address the market through innovation and development. | Bringing new solutions and updates to market ensures leadership position in the VCC space, both as mindshare and market share. | 3.0 |
| Financial/funding management | The company is generating, attracting, and managing capital to create market value. | Vendors have the financing to continuing growth in the VCC market. | Strong financials ensure continuation and growth of the business. | 2.0 |

TABLE 2

Key Capability Measures for Success: Client Virtualization Software Vendors

| Capabilities Criteria | IDC Definition | Client Virtualization Software Definition | Weighting Rationale | Weighting |
|------------------------------------|---|---|--|-------------|
| Employee management | The company is attracting, motivating, and retaining the necessary talent to create market value. | Vendors will continue to retain and acquire talents that can aid growth of their VCC solutions. | Growing the VCC business requires talents inside and out. Vendors that can attract and retain the best talents are better positioned for growth. | 2.0 |
| Business capabilities total | | | | 10.0 |

Source: IDC, 2013

LEARN MORE

Related Research

- *Mobile Experience Virtualization: Bridging the Desktop to Mobile Application Gap* (IDC #245101, December 2013)
- *Market Analysis Perspective: Worldwide Client Virtualization Software, 2013: Flexible Workspaces* (IDC #245095, December 2013)
- *Worldwide System Infrastructure Software 2014 Top 10 Predictions: Buyers, Markets, and Ecosystems Transformed* (IDC #244386, December 2013)
- *Amazon Enters Workspace-as-a-Service Market with WorkSpaces and AppStream* (IDC #lcUS24457013, November 2013)
- *VMware Acquires Desktone to Accelerate Desktop as a Service* (IDC #lcUS24396113, October 2013)
- *Citrix Industry Analyst Conference: Enabling Mobile Workstyles Through Cloud Solutions* (IDC #lcUS24389613, October 2013)
- *VMware Reaffirms End-User Computing as Strategic Priority* (IDC #lcUS24331813, September 2013)
- *Worldwide Virtual Client Computing 2013-2017 Forecast* (IDC #241837, June 2013)
- *Worldwide Virtual Client Computing 2012 Vendor Shares* (IDC #241785, June 2013)

- *XenDesktop 7: Reimagined for the Cloud and Mobile World* (IDC #lcUS24143913, June 2013)
- *VMware Announces VMware Horizon Suite for Managing and Securing Multi-Device Access to Virtualized Desktop Services* (IDC #lcUS23977713, February 2013)
- *Worldwide Workspace-as-a-Service 2012-2016 Forecast: The Emerging WaaS Market* (IDC #238600, December 2012)
- *IDC MarketScape: Worldwide Client Virtualization 2012 Vendor Analysis* (IDC #237753, November 2012)

Synopsis

This IDC study represents the vendor assessment model called the IDC MarketScape. This research is a quantitative and qualitative assessment of the characteristics that explain a vendor's success in the client virtualization marketplace and help anticipate the vendor's ascendancy. IDC assesses the capabilities and business strategies of many desktop virtualization vendors. This evaluation is based on a comprehensive framework and a set of parameters expected to be most conducive to success in providing client virtualization solutions, during both the short and the long term.

"The rise of mobile and cloud applications is subverting existing IT management paradigms. Holistically being able to manage desktop, mobile, and cloud applications from a single management console is quickly becoming a must-have for next-generation IT," said Brett Waldman, research manager, Client Virtualization Software. "With the market rapidly changing, vendors are innovating to keep up with the increasingly demanding end-user workforce and regulatory issues that the consumerization of IT is bringing upon IT departments. It is important to understand the strengths and capabilities to understand which vendors are a good fit for a specific organization."

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1000 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For more than 48 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

Global Headquarters

5 Speen Street
Framingham, MA 01701
USA
508.872.8200
Twitter: @IDC
idc-insights-community.com
www.idc.com

Copyright Notice

This IDC research document was published as part of an IDC continuous intelligence service, providing written research, analyst interactions, telebriefings, and conferences. Visit www.idc.com to learn more about IDC subscription and consulting services. To view a list of IDC offices worldwide, visit www.idc.com/offices. Please contact the IDC Hotline at 800.343.4952, ext. 7988 (or +1.508.988.7988) or sales@idc.com for information on applying the price of this document toward the purchase of an IDC service or for information on additional copies or Web rights.

Copyright 2013 IDC. Reproduction is forbidden unless authorized. All rights reserved.

