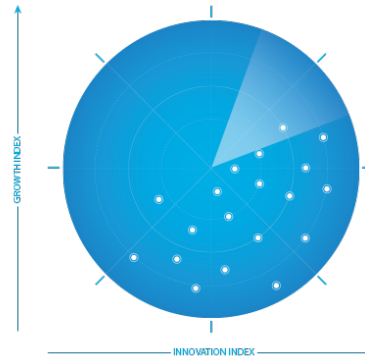# FROST & SULLIVAN
BEST PRACTICES
AWARDS

FROST & SULLIVAN

2020 BEST PRACTICES AWARD

vmware®

2020 GLOBAL DESKTOP-AS-A-SERVICE GROWTH, INNOVATION & LEADERSHIP FROST RADAR AWARD

FROST
RADAR™

CONGRATULATIONS!

Frost & Sullivan is proud to present VMware with this year's Frost Radar™ Best Practices Award for Growth, Innovation & Leadership Excellence in the Desktop-as-a-Service Market.

Frost & Sullivan's global team of analysts and consultants continuously research a wide range of markets across multiple industries and locations. As part of this ongoing research, we identify companies that consistently develop new growth strategies based on a visionary understanding of the future, and thus more effectively address new challenges and opportunities. This involves extensive primary and secondary research across the entire value chain of specific products and services. Against the backdrop of this research, Frost & Sullivan recognizes VMware for these valuable achievements.

This recognition is strictly reserved for companies that are market leaders and are at the forefront of innovation. These companies consolidate or grow their leadership position by continuously innovating and creating new products and solutions that serve ever-evolving customer needs. These companies are also best positioned to expand the market by strategically broadening their product portfolio. Achieving Growth, Innovation & Leadership (GIL) is never an easy task, but it is one made even more difficult considering today's intensely competitive environment, customer volatility, economic uncertainty, and rapid technology evolution. In this context, VMware's receipt of this Award signifies an even greater accomplishment.

Moreover, this recognition is the result of many individuals (employees, customers, and investors) making daily choices to support the organization and meaningfully contribute to its future. Frost & Sullivan enthusiastically acknowledges and celebrates these achievements. Once again, congratulations on your accomplishments and we wish you great success in the future.
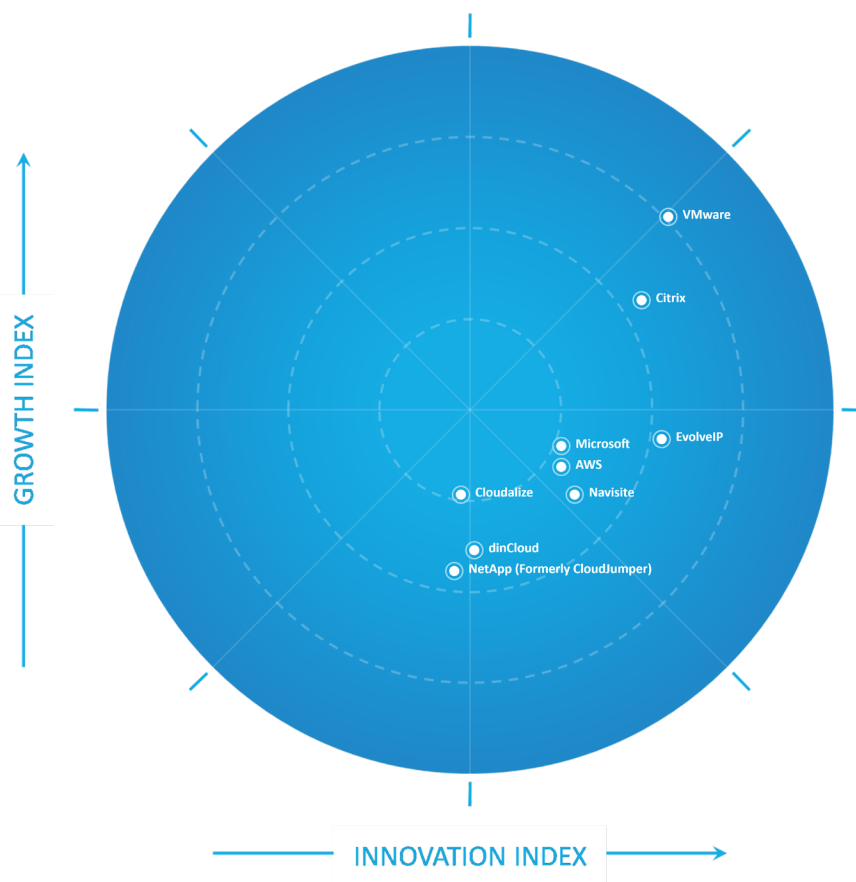
Sincerely yours,

Darrell Huntsman
Chief Executive Officer
darrell@frost.com

The Frost Radar^{TM}
Desktop-as-a-Service

In crowded market, Frost & Sullivan has independently ranked the top 9 platform and service providers in our Frost Radar™ analysis.

The key parameters independently analyzed by Frost & Sullivan include:

- Innovation Scalability
- R&D
- Product Portfolio
- Mega Trends Leverage
- Customer Alignment
- Growth Pipeline
- Vision and Strategy
- Sales and Marketing
- Revenue Growth
- Market Share Growth

Frost & Sullivan studies related to this independent analysis:

- Desktop-as-a-Service Market Powering a Post-Pandemic Workforce (2020)

The Growth Environment

Since the first PC was introduced into the workplace, enterprise IT departments have struggled with the heavy maintenance burden of installing, patching, and upgrading software on individual employee devices. At the same time, businesses face escalating cost, security, and productivity risks from employees who (deliberately or inadvertently) do not comply with corporate policies for installing software or securing their devices. The challenge becomes greater as more employee-owned devices are connected to the network. When corporate data and applications are distributed to individual devices, the company loses control over how they are used.

The global pandemic exacerbated the need for centrally managed, globally dispersed desktop solutions available to end users from any location or Internet-connected device available. To address the challenge, vendors and service providers have introduced several technologies that centralize control and management of corporate software and data while limiting what resides on the individual client devices.

Desktop-as-a-Service (DaaS) is the next evolution of centrally managed workspaces. DaaS lifts virtual desktop infrastructure (VDI) into the cloud, hosting the centralized desktops with a cloud provider rather than in the customer data center. But DaaS also has a drawback for some businesses. In some instances, DaaS providers offer only a portal through which employees can access other cloud-based applications. So while DaaS can run on multiple devices, the applications themselves may not be optimally supported by the device's operating system.

Workspace-as-a-Service (WaaS) addresses this challenge. With WaaS, the provider may centrally host and maintain licensed software, which is distributed to users as customized desktop "images" comprising the specific applications they require. Because the self-contained application images are pre-configured to work with the WaaS operating system, WaaS can avoid the integration issues that employees can encounter with DaaS. In a WaaS solution, a clean image of the desktop and the applications that are pre-loaded into the desktop are generally delivered with each login and may persist only for the duration of the session. Therefore, WaaS poses less risk for security and data corruption than when licensed software is loaded directly onto each device. WaaS decreases the time and effort required to maintain software on thousands of employee devices. In many cases, it also allows for lower overall software licensing fees than DaaS while still providing the applications employees need.

With the pandemic driving a significant rise in telework and the need to enable remote work for a vastly larger population of employees than telecommuted in the past, DaaS and WaaS vendors have had a tremendous opportunity to introduce enhanced services that help businesses succeed. After examining the major platform providers and selected managed service providers in the DaaS/WaaS market, we have found VMware to lead the field in terms of both growth and innovation.

Frost Radar™ Growth, Innovation & Leadership Award
The Desktop-as-a-Service Market

Growth

- VMware has experienced significant growth in the Horizon universal license – which supports Workspace ONE – in the last twelve months, prior to the global pandemic.
- During the pandemic, DaaS revenues generated through Horizon Cloud grew exponentially, a trend that VMware expects to continue in a post-COVID-19 business environment.
- Similarly, VMware saw robust growth in the number of DaaS active daily users in the second quarter of 2020.
- Prior to the global pandemic, VMware identified use cases outside of telework that would increase DaaS adoption, including cloud bursting, disaster recovery, cloud migration, and application colocation. These additional use case foci are driving additional DaaS growth.

Innovation

- VMware has created its Workspace ONE as a complete digital workspace platform, aggregating device management, application and desktop delivery, service access, and endpoint security within a single platform. Few providers offer such a comprehensive platform to deliver DaaS.
- The platform, which uses VMware Horizon as its foundation, supports numerous desktop and application deployment options, including on-premises deployment, public cloud deployment on AWS, Google Cloud Platform, Microsoft Azure, and IBM Cloud.
- VMware has also made extensive strides to enhance the user experience by using advanced protocols that adapt to changing network conditions.

Next Steps

- VMware has a strong global presence, in part due to partnerships with the largest cloud hyperscalers. However, today, VMware does not support DaaS deployment on the Alibaba cloud. As a prominent provider in Asia, extending support to Alibaba would increase VMware's reach globally.
- Further integrating intelligent management capabilities using the Workspace ONE Intelligence platform would further enhance, simplify, and automate the DaaS management functions.

What is the Frost Radar™?
Companies to Action – Benchmarking Future Growth Potential

What is it?

A robust analytical tool that benchmarks companies' innovation focus and growth performance in a given market.

How is it built?

Through in-depth analysis built on Frost & Sullivan's 360-degree research methodology (primary and secondary research) and objective rating of companies in a given market.

Why do you need it?

To understand how companies benchmark against each other in their ability to innovate and grow against a backdrop of industry transformation.

What will it accomplish?

Companies can gain an objective, independent perspective of their innovation and growth strategies, including their robustness, effectiveness, relative competitive strength, and implications for their long-term success.

How to use it?

The Frost Radar™ is a dynamic tracking tool that offers frequent rating and positioning of companies that are leading the industry in growth, innovation, or both. Because of changes in the operating environment and internal organizational changes, their positioning in the Frost Radar™ will change over time. It is important to leverage the Frost Radar™ to ensure that companies are aware of changes to their ecosystem and their relative positions to it.

What does it mean to be on the Frost Radar™?

Companies have been chosen to be in the Frost Radar™ because they have proven themselves to be worthy by demonstrating excellence in growth, innovation, or both, and are able to translate that into proven solutions that benefit their clients. At times, companies with high market share may not place on the Radar. Companies are chosen because they are already doing great things or are poised to do great things.

All companies on the Frost Radar™ could be Companies to Action. Best Practice recipients are the companies that Frost & Sullivan considers the **Companies to Act On Now**.

Growth Excellence Award

The Growth Excellence best practice award is bestowed upon companies that are achieving high growth in an intensely competitive industry. This includes emerging companies making great strides in market penetration and seasoned incumbents holding on to their perch at the pinnacle of the industry.

Innovation Excellence Award

The Innovation Excellence best practice award is bestowed upon companies that are industry leaders outperforming their competitors in this area, or new market entrants contending for leadership through heavy investment in R&D and innovation.

Growth, Innovation & Leadership Award

The Growth Innovation Leadership (GIL) best practice award is bestowed on companies that are market leaders at the forefront of innovation. These companies consolidate or grow their leadership position by continuously innovating and creating new products and solutions that serve the evolving needs of the customer base. These companies are also best positioned to expand the market by strategically broadening their product portfolio.

Frost Radar™ – Benchmarking Future Growth Potential
2 Major Indices, 10 Analytical Ingredients, 1 Platform

Vertical Axis – The Growth Index

Growth index is a measure of a company's growth performance and track record, along with its ability to develop and execute a fully aligned growth strategy and vision; a robust growth pipeline system; and effective market, competitor, and end-user focused sales and marketing strategies. The elements of this index include:

- **GI1: Market Share (previous 3 years):** This is a comparison of a company's market share relative to its competitors in a given market space for the previous 3 years.
- **GI2: Revenue Growth (previous 3 years):** This is a look at a company's revenue growth rate for the previous 3 years in the market/ industry/category that forms the context for the given Frost Radar.
- **GI3: Growth Pipeline:** This is an evaluation of the strength and leverage of a company's growth pipeline system to continuously capture, analyze and prioritize its universe of growth opportunities.

- **GI4: Vision and Strategy:** This is an assessment of how well a company's growth strategy is aligned with its vision. Are the investments the company is making in new products and markets consistent with the stated vision?

- **GI5: Sales and Marketing:** This is a measure of the effectiveness of a company's sales and marketing efforts in helping it drive demand and achieve its growth objectives.

Horizontal Axis – The Innovation Index

Innovation index is a measure of a company's ability to innovate products/services/solutions (with a clear understanding of disruptive Mega Trends) that are globally applicable, are able to evolve and expand to serve multiple markets, and are aligned to customers' changing needs. The elements of this index include:

- **II1: Innovation Scalability:** This determines whether an organization's innovations are globally scalable and applicable in both developing and mature markets, and also in adjacent and non-adjacent industry verticals.

- **II2: Research and Development:** This is a measure of the efficacy of a company's R&D strategy, as determined by the size of its R&D investment and how it feeds the innovation pipeline.

- **II3: Product Portfolio:** This is a measure of a company's product portfolio, focusing on the relative contribution of new products to its annual revenue.

- **II4: Mega Trends Leverage:** This is an assessment of a company's proactive leverage of evolving, long-term opportunities and new business models, as the foundation of its innovation pipeline.

- **II5: Customer Alignment:** This evaluates the applicability of a company's products/ services/ solutions to current and potential customers, as well as how its innovation strategy is influenced by evolving customer needs.