Research Report

FREEFORM DYNAMICS

in association with

vmware®

Self-Service IT Delivery

From opportunity to strategic imperative?

Freeform Dynamics Ltd, 2020

The self-service opportunity

If you work in IT delivery or support, either as a leader or practitioner, you'll be familiar with a common dilemma. Should you focus on immediate business requirements, working around the limitations of your existing environment, or take time out to look at how the latest advances in technology and ideas can enable efficiency and effectiveness over the longer-term? Our latest research highlights an area in which you might not have to make this kind of call. Feedback from 200 IT professionals suggests that adoption of self-service delivery, and the automation that enables it, can deliver short-term benefits and help to transform IT for the future. And the good news is that you may already have most of what's required in place.

Key Takeaways

01

The pandemic has accentuated an existing need to transform IT

Much has been written about how the recent Covid-19 pandemic has driven new requirements. Arguably more significant for the longer-term, however, is the way in which it has underlined the need to transform IT delivery in ways that were already known, e.g. through Agile development, DevOps and other moves to break down traditional barriers.

02

An area now receiving much more attention is self-service delivery

Popularized by the public cloud, self-service was already firmly on the agenda of over a quarter of research respondents in relation to on-premises and hybrid environments. Since the crisis hit, however, this number has more than doubled, with a further group saying it's an area that should ideally be prioritized, even if their current level of emphasis is low.

03

Self-service is seen as both an efficiency and transformation enabler

Reasons for an increased emphasis on self-service include easing the burden on IT operations, streamlining access to resources for DevOps and application support teams, and more generally allowing resources and risks to be better managed in fast-moving environments. Self-service both within IT and for end users has a place in driving these benefits.

04

Self-service is a natural and integral part of infrastructure evolution

Effective self-service depends on automation capabilities in areas such as resource provisioning, application deployment and overall systems orchestration, all very familiar in the context of public cloud. With two thirds of study participants already on the path to making their infrastructure more cloud-like, the foundations for self-service are steadily being laid.

05

The chances are that much of what's needed is already in place

Three-quarters acknowledge that IT vendors have introduced more cloud-like functionality into existing solutions over the years, but many also say that it's all too easy to overlook relevant features. This certainly applies in the area of self-service. Underutilization of service catalogs and associated portal facilities, APIs and tooling represents a significant opportunity.

As if life in IT wasn't busy enough already!

Life for most IT professionals has always been pretty hectic. The constant need to juggle often conflicting short-term priorities and longer-term imperatives is familiar in both smaller and larger-scale business environments. Against this background, it's less a case of the Covid-19 pandemic disrupting a previously settled situation, and more one of priorities being shaken up in an already dynamic environment. This has created additional work and pressure within IT teams, but hasn't fundamentally changed overall digital objectives.

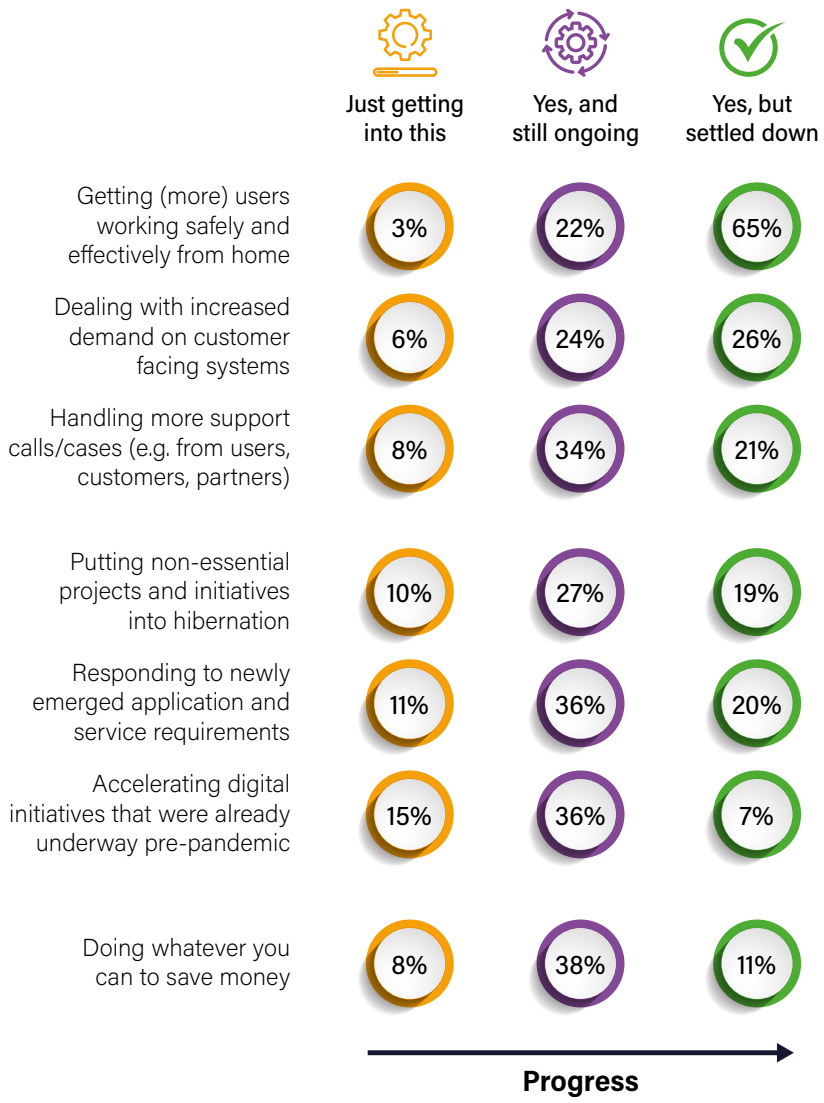
Digital imperatives

Most organizations were already making efforts to support more flexible working and enable greater digital interaction with customers. Pandemic-related activities, while creating short-term pressure, have therefore led to the implementation of capabilities that still have relevance going forward.

Impact on overall agenda

While the initial rush to home-working is now largely behind us, a whole range of other pandemic-response activities and adjustments are still ongoing or imminent for many IT teams. One thing for certain is the crisis has certainly been a catalyst for change that's frequently positive.

Pandemic response activities



Understandable financial pressure

Many of the activities we see above are concerned with maintaining business operations and performance as much as possible. Despite such efforts, commerce has clearly slowed down in many parts of the economy, so the emphasis on saving money is understandable where cited. It's notable, though, that the percentages here add up to less than 60%, not every IT team is experiencing cost pressure. That said, uncertainty is likely to prevail, so efficiency remains important.

The stresses and strains of picking the pace

IT teams in general should be applauded for coping with what's been thrown at them as a result of the pandemic. However, the need to move so quickly at such short notice has not been without consequences, and the limitations of systems and processes have also become more obvious. When asked about challenges, a range of issues were highlighted during our study, which provides more insight into the impact of the crisis.

Needs must

The previously mentioned financial constraints, together with the need to move quickly, has encouraged a degree of what can only be characterized as 'corner cutting' in some cases. While totally understandable, this does have consequences. Half of our study participants, for example, acknowledge the build-up of technical debt, which may come back to bite so will need to be dealt with at some point down the line.

Need to get things done quickly and cheaply, regardless of the longer-term impact

53%	56%	55%	49%	50%
Have experienced some level of challenge	Have experienced some level of challenge	Have experienced some level of challenge	Have experienced some level of challenge	Have experienced some level of challenge
Having to work within tighter budget and funding contraints	Emphasis on 'fast and easy' rather than 'good and future proof'	Need for undesirable compromises to get things done quickly	Need to shortcut normal due dilligence to get things done quickly	Rapid build-up of technical debt that will come back to bite later

IT feeling the strain

The impact on IT staff at an individual and team level is highlighted in terms of what they have been asked to deliver and how. Disruptions and constraints arising from social distancing have added to the usual level of pressure.

Staff-related pressure

53%	42%
Have experienced some level of challenge	Have experienced some level of challenge
IT staff forced out of their comfort zone with no time to prepare	IT team activities hampered by absences and social distancing

Aggravating factors

When you need to move quickly, you soon find out where the weaknesses are in your systems and processes. With regard to IT infrastructure, a lack of inherent change-friendliness has hampered the speed and ease of response, as have low levels of automation.

Lack of infrastructure flexibility& automation

48%	54%
Have experienced some level of challenge	Have experienced some level of challenge
Infrastructure not geared up to enable rapid change	Significant manual effort required to implement changes

Focusing on the positive

Looking beyond the clear and considerable challenges, a more positive outcome of the recent crisis is an increased focus on more modern, flexible and open ways of working within IT, together with more effective and efficient mechanisms for delivering IT services to business users.

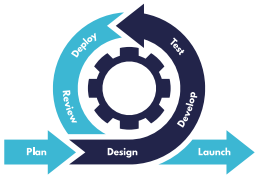
Harmonization receiving even greater focus

Despite the ongoing trend towards convergence and hyper-convergence at a systems level, silos have stubbornly persisted within IT teams and across disciplines that impair responsiveness and flexibility. An increased focus on more integrated, automated and collaborative approaches to delivery is therefore to be welcomed.

Focus was already high (pre-pandemic)

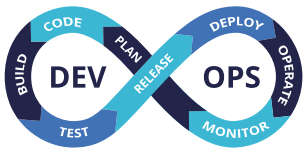
Have increased focus (since pandemic)

No increase, but there should be



Agile software development

32% **21%** **12%**



DevOps and/or Continuous Delivery

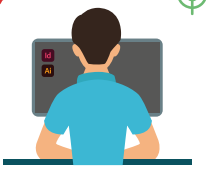
31% **24%** **13%**

Enhanced collaboration mechanisms

29% **42%** **16%**

Self-service within IT

27% **30%** **17%**



End user self-service

24% **23%** **21%**

Why is self-service part of this mix?

One way to break down barriers is to move from traditional ticket-based request/response mechanisms to a self-service model. This isn't about encouraging anarchy; indeed, it's quite the opposite. Self-service can grease the wheels of IT delivery, while enabling greater control and compliance.

43% Strongly agree/agree

Use of public cloud has awakened many to the value of self-service

61% Strongly agree/agree

Internal IT focused self-service can ease the burden on operations teams

62% Strongly agree/agree

End user focused self-service can ease the burden on IT teams in general

43% Strongly agree/agree

Self-service is a key enabler of effective DevOps and Continuous Delivery

54% Strongly agree/agree

Policy-driven self-service can enable flexibility while assuring compliance

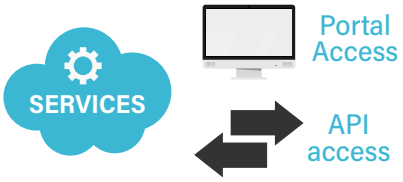
What's needed to create a self-service environment?

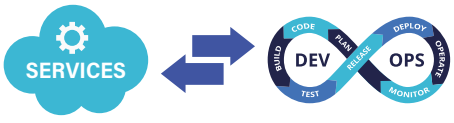
Self-service IT delivery sounds like a relatively simple concept when considered at a high-level, but to achieve the right balance of flexibility, efficiency and control requires a clear understanding of what's needed for success.

The principle of 'inclusivity'

An inclusive approach to both sourcing and delivery is pivotal. Services may be derived from any mix of cloud or non-cloud and on-premises or hosted resources, 'packaged' with associated policies in a way that hides implementation detail. Services are then published via a service catalog accessed via portals and/or APIs depending on user needs.

How would you rate the value, or potential value, of support for the following in relation to self-service?





	Significant value	Some value
Centralized management and delivery		
A policy-driven and open API-enabled service catalog	53%	23%
Abstracted services that hide implementation detail	51%	29%
Role based management and access	57%	27%
Policy-based workflow and approval mechanisms	51%	30%
Reporting and analytics (service adoption, health, etc)	59%	27%
Anything as a service		
Blending of cloud/non-cloud, on-prem/hosted	43%	37%
Blueprints to provision/manage entire landscapes	36%	37%
Configurations, run-books, etc defined as code	55%	27%
DevOps efficiency and friendliness		
Integration with provisioning/orchestration engine(s)	56%	25%
Integration with commonly-used developer tools	55%	24%

But not really a point solution

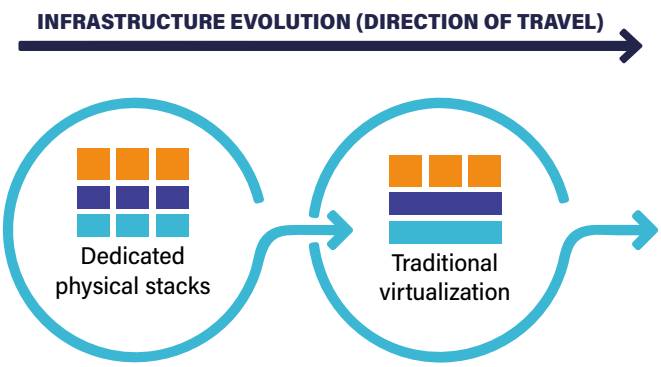
From a provisioning, orchestration and management perspective, self-service leverages the automation capabilities of your infrastructure and any public clouds used to construct services. From a consumption perspective, API-level access is then critical for integration into development and DevOps tool-chains as developers typically look for code-based rather than portal-based access.

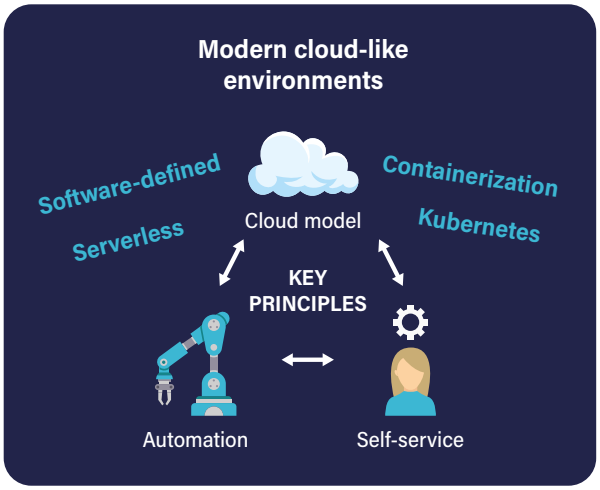
Self-service is part of a broader infrastructure discussion

Given that it's not a point solution, it makes most sense to consider self-service in the context of your broader infrastructure evolution plans and activities. In philosophical and practical terms, self-service sits alongside enhanced automation and the cloud delivery model as you move towards more cloud-like environments.

Necessary but insufficient

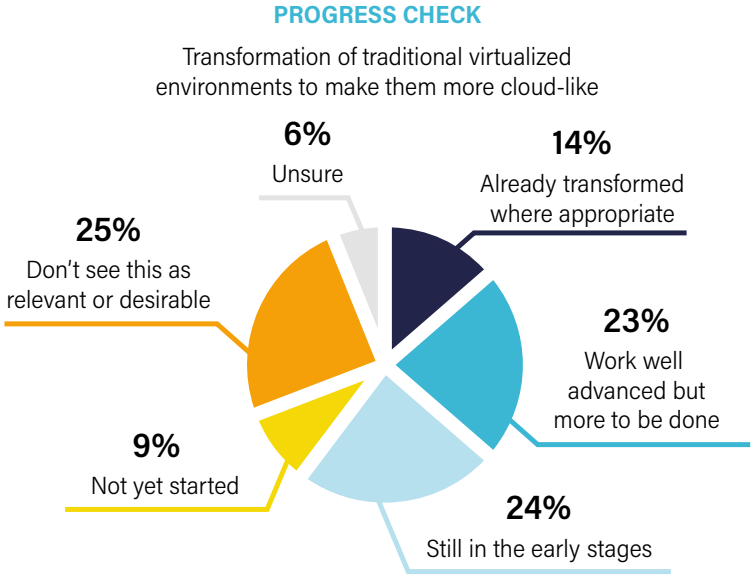
Self-service may be an enabler of modern delivery methods and IT transformation in general, but it's important to recognize that it just represents one part of the puzzle. While it's arguably difficult to build a cloud-like environment without it, other components and capabilities are required as you enhance your infrastructure.





Right discussion, right time

Self-service is clearly not a new concept, so why pay attention to it now? The reason is because two thirds of study participants say they are on a journey to transform their traditional virtualized environments to make them more cloud-like. Failing to consider self-service as you do this could represent a missed opportunity.



Evolution versus revolution

Treating self-service as an aspect of infrastructure evolution makes even more sense when you consider what's been going on in the infrastructure space. As existing solutions such as traditional virtualization platforms have been extended and enhanced, you are likely to have acquired cloud-like capabilities whether you intended to or not, which can be leveraged as part of your modernization activities.

Building on your existing systems environment

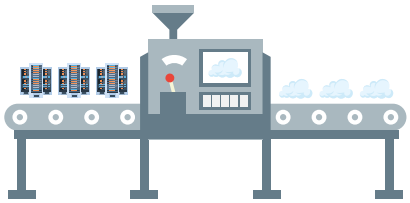
The jury is out on the need for rip and replace, but opinions gathered in the research suggest that more incremental approaches to modernization and the introduction of self-service are possible.

46% Strongly agree/agree

Moving from traditional virtualization to an on-prem cloud model doesn't require a total 'rip and replace'

68% Strongly agree/agree

Self-service can take the form of a consumption layer on top of traditional platforms

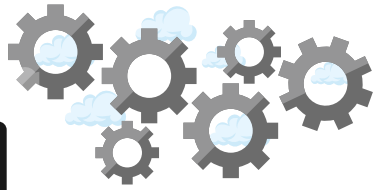


75% Strongly agree/ agree

Over the years, IT vendors have been adding more cloud-like features into their traditional offers

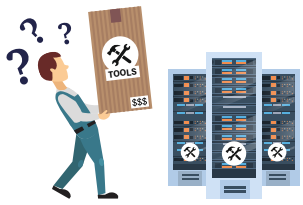
44% Strongly agree/ agree

Have undoubtedly overlooked potentially valuable cloud-like features in existing environment(s)



60% Strongly agree/ agree

Say it's hard to keep up with new features and functions rolled out by vendors from release to release



29% Strongly agree/ agree

Have bought additional tools to provide capabilities that we later found we already had

But do you know what's already in place?

While exploiting features and functions added to existing solutions sounds like a good idea, it's sometimes hard to keep track of what's made it into your environment. In extreme cases, some have even procured capabilities they already had.

But wait, haven't we been here before?

Whether new to you or not, the truth is that self-service technology has been available for many years from both commercial vendors and the open source community, and adoption experiences haven't always been positive. With this in mind, what approach makes most sense for you?

Previous experiences with self-service have been mixed

What's clear when we look at the approaches listed below is that good and bad experiences are reported almost equally for every option.
The only approach standing out as disproportionately problematic is the procurement of a discrete commercial solution. This underlines the earlier point about inclusivity.

Given that automated self-service systems can be implemented in many ways that aren't mutually exclusive, how do the following approaches figure in your activities or plans?

	Used/using successfully	*Used/using but not Ideal*	*Considering /would consider*	*Would not consider*
Implement mostly by leveraging features already provided by our core platform(s) and tools	29%	28%	21%	9%
Paid for extensions or upgrades to our core platform(s) that provide necessary features	13%	15%	35%	23%
A separately procured commercial service-catalog/ portal environment delivered as an integrated solution	6%	12%	22%	44%
An open source based service-catalog/portal environment delivered as an integrated solution	11%	10%	46%	19%
A combination of two or more of the above	9%	10%	46%	14%

Need to get off on the right foot

It's of course not possible for us to tell you which approach will be right for you, but an implied imperative from the results shown here is the need to pay adequate attention to implementation as well as technology. This is especially true if you are leveraging existing capabilities as we have suggested. If there's no incremental hardware or software cost, it's more tempting to take a speculative or more casual approach, and/or to fail to scope adequately from a functional and integration perspective.

Adoption and implementation hurdles

When it comes to working self-service capabilities or enhancement into your plans and activities, you may encounter various hurdles. A range of these were highlighted by the IT professionals participating in our research. While some clearly relate to genuine challenges, others almost certainly reflect shortfalls in knowledge and experience of the latest technology in this space.

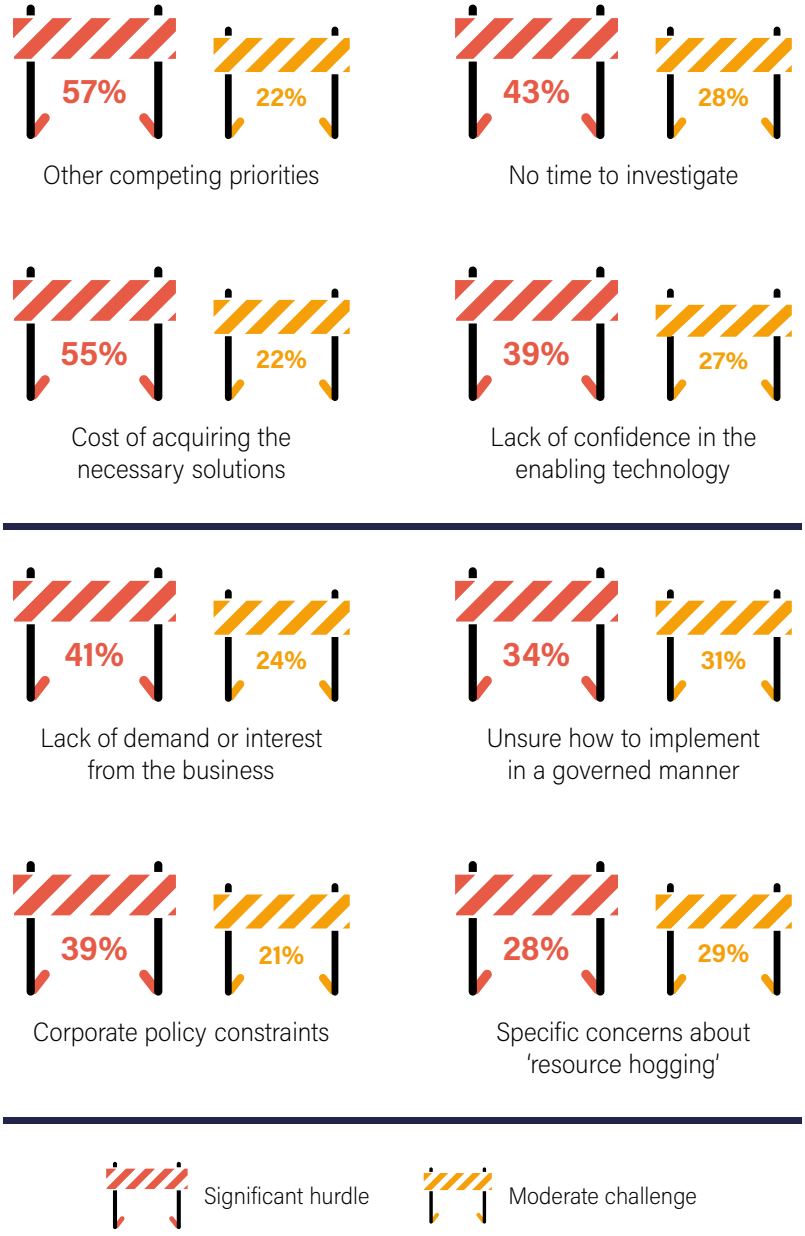
Understandable concerns

As mentioned at the outset, overcoming the problem of other competing priorities is always hard, as is finding the time to investigate. The trick here is to consider long term benefits as well as immediate requirements. Appreciating that much of what you need is already available and well-proven – e.g. automated provisioning and automation capabilities – can help to deal with some of the other concerns.

The perceived problem is sometimes the solution

This last cluster of hurdles is interesting because it reflects concerns about issues that a well-implemented self-service solution would actually solve. Users and stakeholders generally respond very well when the benefits are explained, and when policies are embedded and enforced in a central service catalog, pretty much all aspects of governance, control and compliance are strengthened.

How much do the following inhibit or limit your use of cloud-style self-service for on-prem and hybrid systems access?



Final thoughts and conclusions

The study we have reported in this document differs to much of our other research. Rather than looking at how to make the right technology procurement decisions, it ended up being more concerned with how existing investments could be leveraged to deliver change and transformation with little or no additional spend.

Not exactly for free, but…

Of course, that's not to say that no money needs to change hands at all, more that you are likely to acquire most of what you need to implement self-service as you routinely upgrade and extend your existing systems to introduce more automation. The latest incarnation of your virtualization platform, for example, almost certainly incorporates a fully functioning service catalog to enable various aspects of automated provisioning and orchestration. If you look closely, you will probably also find a portal environment and set of APIs to allow both interactive and code-based access.

The need to think strategically and inclusively

Such features and functions represent a good starting point for any self-service initiative, though it's important to think through your requirements and consider the role of self-service within your overall delivery strategy. As you do this, think through how it might be possible to streamline activity across the application lifecycle, enabling DevOps teams, for example, to be more self-sufficient while strict operations policy is enforced behind the scenes.

Another opportunity is to better support other groups that are now frequently involved in application development and digital initiatives. These are increasingly separate from your core IT organization, e.g. Agile development teams embedded in the marketing department, digital agencies working on the lasted campaigns, and so on. The natural port of call for these groups is the public cloud, but for reasons of cost, compliance and integration you may prefer them to work with your on-premises environment – at least for ultimate deployment.

If you are serious about Hybrid-IT, self-service is essential

Zooming out from that last point, we frequently hear the view in our research that public cloud, while incredibly useful in many circumstances, is not right for everything – far from it in fact. There's now a clear consensus that applications and workloads will not only reside in multiple clouds and on a range of hardware stacks, but many are likely to move over time as demands and usage patterns change. With this in mind, service abstraction, which is an inherent part of self-service delivery, provides freedom for specialists to migrate and switch behind the scenes invisibly to service consumers within both IT and the business. It also allows non-cloud applications to be consumed by users in a more cloud-like manner.

And as a last thought, consider what will happen if old demarcation lines and ticket-based request/response systems remain in place. In short, those who need rapid and flexible access to resources and application functionality will turn to the public cloud even more than they are doing at the moment. The bottom line is that self-service in relation to your on-premises and hybrid environment is one of the best ways to give service consumers what they need, while retaining full control and visibility over how your infrastructure is used as a strategic corporate resource.

About Freeform Dynamics

Freeform Dynamics is an IT industry analyst firm. Through our research and insights, we aim to help busy IT and business professionals get up to speed on the latest technology developments, and make better-informed investment decisions.

For more information, and access to our library of insights, commentary and free research, visit www.freeformdynamics.com.

About VMware

We enable organizations to flex and to harness new technology quickly, without disrupting operations. We streamline the journey for our customers to become digital businesses that deliver better experiences for their customers, that in turn drive growth. Our software helps business users simply and securely access the apps and data they need, from anywhere, to do their best work. Organizations can embrace innovation at scale for competitive advantage.

With vRealize Automation Cloud, customers can leverage self-service automation and DevOps-for-infrastructure capabilities for their hybrid cloud environment with enhanced flexibility and automated infrastructure resource delivery that utilizes DevOps principles.

For more information, please see: https://cloud.vmware.com/vrealize-automation-cloud