BEING RESILIENT

PREPARE TO VIRTUALIZE THE WAY WE WORK ON-DEMAND

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SUMMARY VIEW

With preparation, with the cloud, with our solutions for workplace operations, virtualization of the way we work is a problem we have solved before. But are we truly prepared to simply switch on-demand from the physical to the virtual? What elasticity of the cloud will that take? What is the ecosystem of resources and capabilities that we will need to leverage on-demand? What is the stress test that our infrastructure will have to weather before we know it is ready to deliver? We have tried to answer these and other questions both for ourselves and our clients, and are happy to share the learning with you.

From our experience, we believe, here's what it'll take to virtualize the way we work:

Transform
the Workplace to Connect, Collaborate and Co-create

Contextualize
Experiences for Personas and Devices

Power
Intelligent Service and Self-help

Assure
Digital Trust for the Virtual Ecosystem

Contained as we have been in our homes, in recent times, we have also been striving and learning to optimize our remote working lives for peak performance, productivity and efficiency. While many businesses admittedly struggled, at first, to settle their workforce into distributed home offices, now that they've figured out how to work remotely, it is going to get harder - even costly - to not consider the model as a norm for the future. Therefore, no longer will it suffice to digitize just our customer value chains. Our global work value chain - people interactions, processes and systems - will need to become all-digital too.

This conversation, then, is about imagining and implementing innovative, digital solutions that uniquely equip a diverse set of distributed workers to collaborate, using all manner of devices, while securely accessing company and work resources anywhere/anytime with self-service support options. Then again, this conversation is also about adopting intelligent and elastic cloud infrastructure to support short- and long-term workplace strategies and capabilities that bring collaboration tools, automation, mobility and analytics into the several remote workspaces that now make up our workplaces.

Thanks to the accelerating maturity of cloud solutions, we've isolated the many benefits of coming together in one workplace to solve business problems, and found ways to stretch these benefits to reach workers anytime and anywhere. We also have the ability to work through the complexity and interconnectedness of bringing together this infrastructure, along with applications across multiple platforms to support any device capability. With planning, with preparation, with the cloud, with our solutions for workplace operations, as we know it, this is a problem we have solved before. Several times over. But are we truly prepared to simply switch on-demand from the physical to the virtual? What elasticity of the cloud will that take? What is the ecosystem of resources and capabilities that we will need to have ready to leverage on-demand? What is the stress test that our infrastructure will have to weather before we know it is ready to deliver? Can we help solve this for our work value chains?
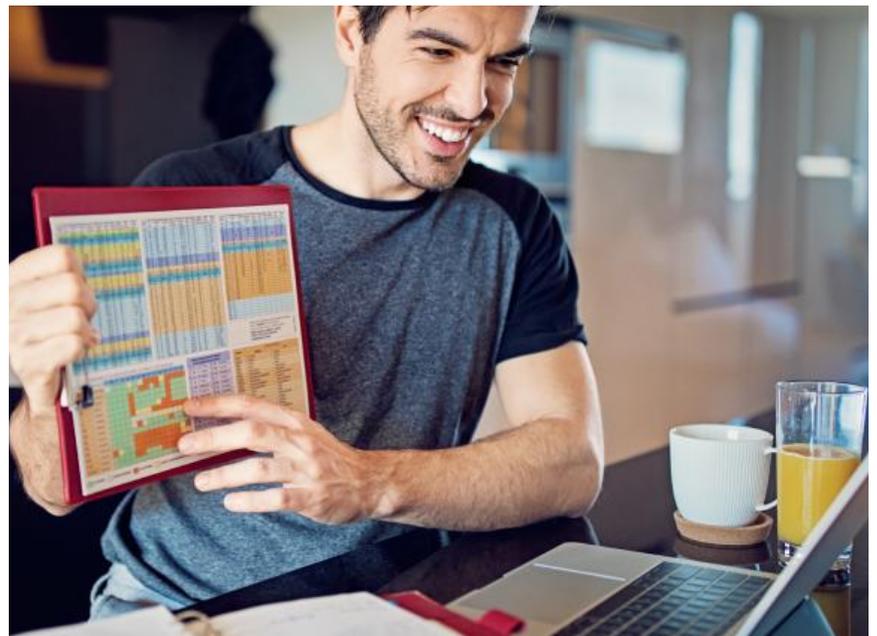
In our attempt to answer these questions and from our experience, we believe, here's what it'll take to virtualize the way we work:

Transform
the Workplace to Connect, Collaborate and Co-create

An insurance major client was keen to transform their legacy end-user computing landscape, to support their digital-first, mobile-first strategy, with BYOD and virtual desktop Infrastructure devices. We enabled this by migrating their systems to Windows10 and O365. This helped them immensely in boosting business productivity while also bringing in infrastructure and operational efficiencies.

Cloud-powered tactics for team and ecosystem collaboration will become pervasive. In addition to anytime-anywhere collaboration suites and compute-on-the-go, data-led smart automation will enable massive personal productivity gains. Open source suites enabled to deliver at enterprise scale and rigor will grow in adoption. What will, however, make the biggest difference is a single destination, housing all these enablers that provide distributed users a common, shared context. With unified onboarding, a single app catalog, and enhanced user experience for accessing these services, the destination will move the collaboration needle significantly.

The leverage of virtual desktops for productivity boosts will be widely recognized. Virtual desktop infrastructure provides the distributed workforce access to everything from the office, including server applications, SaaS tools, and file/folder systems through a secure single sign-on. They create for employees a work environment free of micro-distractions (multiple open tabs, notifications from apps and chats, etc.) and also enable them to build intelligent workflows for whatever work needs to be done. It is also a quick, efficient and secure path to scale IT for an expanding and distributed workforce, with the flexibility to ramp up or down at the speed of business.

When complemented by a cloud environment to build and test applications, this enables the distributed workforce to build upon each other's work simultaneously. Remote workers can also be enabled to self-configure, from the cloud, their work environments and their predefined 'work stacks' comprising the right software packages, files, content and setting environment variables. This makes it easy to share projects securely with others and run them on different platforms. It also simplifies deployment to servers.

Especially at first, workers could struggle with new tools, even new policies. Preparing comprehensive digital learning assets – that cover all there is to know, including learning that they might have got from co-located colleagues or mentors before their workspaces were virtualized, will shave off the initial learning curve. This will prepare them for potentially every scenario, just in case, they need it. In addition, bite-sized, just-in-time learning will also be needed to support their work routines and help them solve tough problems.

We will reorient our operating models and build greater flexibility into our workplaces, talent models and policies. This will create the landscapes in which technology can boost productivity for our recovery-focused businesses.

This can be a significant employee amplifier because, increasingly, productivity and performance will be measured in terms of joint value created from outcomes rather than a count of lag indicators like time and effort. Shared success will be celebrated more than ever.

QUICK CHECK

- ✓ Ensure secure private cloud readiness to virtualize the work value chain on demand.

- ✓ Be ready with a choice of collaboration and productivity suites appropriate for various work environments.

- ✓ Prepare to launch on-demand cloud virtual desktops for remote workers, including gig workers and talent-on-rosters for project requirements.

- ✓ Enable stocks of devices for delivery to recruits a day before their joining along with relevant tools and apps based on user personas and roles.

- ✓ Prepare to deliver new employee services on-demand so these can be accessed remotely.

- ✓ Prepare to deliver on-demand workspaces/pods for teams to collaborate and get trained on.

Contextualize
Experiences for Personas and Devices

A global manufacturer of industrial products needed a single-point destination to automate approvals for gifts purchase, hospitality bookings and training registration for their global workforce. We delivered an O365 & SharePoint service-based intranet portal with context-specific information and persona-based experience for over 2000 users to access anytime, anywhere and on any device. They've since seen a Q-o-Q 10% increase in user adoption.

Our many experiences as consumers have long been digitized and personalized. Apps and voice assistants that recognize us before they respond, no longer surprise us. For long our employees have waited for their service experience at work to catch up. As the personal and professional work environment blur in their home offices, this expectation will only escalate and consumer-grade experiences at work will become an inevitable eventuality. With remote workers spending their whole work week engaging with the applications they need, a rich set of data will be generated and analyzed on the cloud. This can be easily leveraged to reimagine and design experiences based on each employee's motivations, psychological traits and context. For example, some tasks, like seeking a certain kind of information to respond to a request-for-proposal on time, are typically activated in moments of stress. But the same search for information when executed as an attempt to learn more in preparation for a conversation with a customer at a later date and time is less stressful. The user may be willing to consume a lot of related information in the second instance but not in the first. This sort of insight can help shape the experience in more context-sensitive ways.

These experiences can also encourage healthy work routines. For example, automated smart nudges to perform business-critical operations ahead of time, or a suggestion to simply put on a VR gear, when stuck in the middle of a work problem, and instantly finding oneself with a mentor who's ready to help. We already have the technology. We were already working in some of our offices like this. It'll all be in a day's work from home, very soon.

QUICK CHECK

- ✓ Readiness to deploy a computational design SaaS platform to orchestrate data-led personalized experiences.

- ✓ Ready and live repository of customer journey maps.

- ✓ Develop key business and IT user personas.

- ✓ Cloud-readiness for user data collection and analysis of data.

- ✓ Live repository of scenarios for problem analysis and idea development.

- ✓ Published governance structure to build out personas, assign rights, etc.

Power
Intelligent Service and Self-help

A telecom giant wanted to bring together six instances of their global ITSM platform that automated and supported various complex workflows. They needed this done to onboard new customers faster, get a unified view into chargeable services and integrate the workflows for automatic billing. ServiceNow provided the technology platform, and Infosys brought in the unified service experience to deliver more for less for their enterprise.

With remote workers accessing systems at unusual times and also accessing systems they otherwise regularly didn't, round-the-clock pressure on support teams will mount to breaking point. Their capability will need to be amplified by technology. Intelligent self-service, with cloud elasticity, for employees, is the only way companies can drive service capacity higher and cost per service-request lower, even as the workforce scales. The results can drive a never-before always-on, always-reliable ecosystem of ready support for a workforce focused on delivering for the business. Intelligent AI-powered service desks and extreme automation in operations delivery will become the order of the day. Our jobs will be to ensure that however, employees want to be served — by bots or human interaction or a combination of both — their needs are met unquestioningly, seamlessly.

QUICK CHECK

✓ Readiness to deploy a cloud native ITSM platform that can:

- Enable users to define their work style, preference, tech-savviness and communication medium.

- Bring the convenience of service catalogs, knowledge artifacts, self-help and business standard operating procedures customized for personas.

✓ Readiness to deploy a service desk that is individualized (persona-based), intelligent and focused on key IT and business personas.

✓ Readiness to deploy self-healing tools to automatically resolve user issues.

✓ Readiness to deploy self-help mechanisms for users enabled through ITSM platforms like ServiceNow rich with knowledge assets.

✓ Availability of rich suites of intelligent IVR, Azure Bots and interactive self-help.

✓ Readiness to deploy robotic process automation and smart user interface.

Assure
Digital Trust for the Virtual Ecosystem

A life sciences leader was looking to modernize their workplace with secure collaboration for their workforce. This meant leveraging cloud infrastructure to deploy and manage the IT, devices, applications and data that their workers require anytime, anywhere. We helped them set up the infrastructure and secure it with Microsoft Enterprise Mobility + Security while empowering their employees to work in new and flexible ways.

We are looking at a future when we will need to move from less than 10 percent to 100 percent of our workforce in the virtual and remote working model. This will not only expand the threat surface but also create new surfaces for attacks in the form of remote access infrastructure, remote access methods, collaboration platforms, and the like. The need to focus on modernizing our critical legacy systems to make them accessible remotely is urgent and real. So is the need to build new use cases to identify new attack and fraud patterns. Because, it's the same technologies arming remote workers with powerful new virtualization capabilities that are also exposing them to new threats, that they need to be defended from. These hazards are born from both technical and behavioral vulnerability.

While this is the big picture view, the immediate challenge is related to end-user device protection. Company-owned devices are easier to control and monitor. If BYOD devices are repurposed for official purposes, conditional access can be provided wherein no unmanaged device is allowed to connect to the organization network through a VPN. However, access is provided through VDI without connecting to the network directly. VDI ensures no data is stored on the endpoint and is the best solution to prevent data theft.

QUICK CHECK

✓ Ensure robust security by design into the distributed ecosystem.

✓ Lookup a sample list of the necessary security controls and policies to ensure managed endpoints are well-protected:

- Deploy an endpoint protection platform solution as a frontline defense to prevent malware attacks and detect malicious activities. Defenders that can prevent, detect, hunt, anticipate and remediate threats are valuable.

- Implement an endpoint detection and response solution to help detect, investigate and mitigate advanced cyber threats.

- Ensure the encryption of devices.

- Authenticate and authorize the right access controls for users, for example, USB access, admin rights, etc.

- Protect documents containing sensitive information from unauthorized access by implementing Information Rights Management.

- Build secure connectivity models and standards for remote working leveraging VPN with multifactor authentication.

Recalibrate security policies and standards to adjust to the new connectivity models and possible attack paths.

- Adopt a Secure Access Service Edge framework.

- Implement certificate-based device authentication.

✓ For personal devices maintain a balance between corporate data privacy and employees' privacy.

✓ Disable screen scrapping and print screen applications on endpoints. Safeguards, such as data masking and data division, similar to what we implement in call center controls need to be provisioned so that sensitive info is not displayed on-screen.

✓ Create virtual desktops on Azure or AWS to maintain customer confidentiality while connecting to a customer network remotely. Physical ODCs can hence be substituted with virtual ODCs. From a personal device at home, one can connect to the virtual ODC to access the customer network. The advantage here is that one does not need to provision anything on the unmanaged endpoints and the necessary security controls are adhered to by connecting through the virtual ODC.

End Notes

With the right structure, culture, processes backing the right technology, virtualized work can boost productivity and morale. It stands to reason that employees who spend less time commuting and have better work-life balance are likely to be more productive, motivated, and ready to mobilize. We have been bringing together all these elements, for ourselves and our clients, to help us navigate a new way of working that will make us fit for the future – in whatever shape that unfolds.

For more information, contact askus@infosys.com

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