Maintaining Business Continuity

Working From Home policies best enable businesses to stay productive during unpredictable times, and also present employees with the opportunity to enhance their own work/life balances.

In establishing business continuity through a WFH policy, we've seen many companies go through the following steps. To help you save a lot of time and IT budget, here they are:

**Phase 1: Desktop workstations — users take office workstations home.**

Powerful workstations can be too large for home use — users may not have dedicated areas to work or hide it away at the end of the work day.

VPNs to access the corporate network are all well and good but the user is working locally — data is being copied from the network and local copies can be made.

**Phase 2: Mobile workstations — solve the size issues in the home.**

Mobile workstations can be just as powerful now as a standalone tower workstation for most users still does not solve the data problem as it is still local compute.

Data sizes are high, internet is indeterministic and so users want to be more agile.

**Phase 3: Remote workstations — harness the power of desktop machines, remotely.**

Use a device at home as the client device as a windows into the remote workstation.

Compute, GPU and data are now contained in the office and the client receives screen data only — not corporate data.

But can you use this infrastructure even more effectively?

**Phase 4: Full consolidation — collocate data and workstations in the datacenter for faster processing and enhanced productivity.**

With Dell Technologies remote virtualization solutions, you can increase the reach of workstations by virtualizing where appropriate. OcClient Access Softwareional or lower power workstation need can yield a 1-to-many relationship for better resource usage.

Degree of business continuity

[Click here to learn more]
Enabling Life to Carry On

Making sure everything stays up and running is one of the most important aspects of every business. Yet this is easier said than done can and be rapidly impacted by world events, data breaches, or a sudden shift to remote working. Remoting and virtualization can help businesses negotiate these difficulties by giving staff the flexibility to work wherever they feel most comfortable, all while ensuring data isn't needlessly replicated, and remains safely in the corporate domain.

Organizations which undertake a remoting and virtualization journey will reap numerous security and productivity rewards. In fact, businesses can even colocate data, compute and graphics all together – remotely – to ensure workers get exactly the same experience they had in the office, wherever they are.

See the most common workflows where remoting and virtualization can be adopted below.
Standard Remoting Workflows

Agencies and individual designers or videographers always need mental space to be creative and can’t be held back by slow, frustrating technology. This option delivers real productivity gains, by providing an environment that feels like the user is right next to the workstation. Data security is paramount and when implemented, all the data stays secure in the datacenter and only pixels are transmitted.

Challenges:
1. Pixilated images – Teradici PCoIP® protocol dynamically adjusts to bandwidth and latency issues to give a smooth performance.
2. Lag on moving footage – with PCoIP only the pixels that change are transmitted securely across the network. Reduced bandwidth utilization and efficient codecs give great performance.
3. Slow transfer speeds – by changing quality and compression then information can still be delivered even if the connection is ‘challenging’.

Overcome these challenges with Dell’s remoting solutions, as below:
Remoting Workflow Solution Example

Whether in M&E, Energy, Automotive and beyond, a 1-1 dedicated remote working solution for standard office and high performance workstation tasks is possible. Deliver the graphics to your remote location as if you were local to the machine. Utilize the software host on the remote machine or use the add in Teradici PCIe card to deliver zero impact on performance. Resolutions up to 2560x1600 are supported in the hardware configuration.

Dell Precision 5820 Tower Workstation.

Brainpower that matches yours: The latest Intel® Xeon® processor powers your most demanding applications. Now featuring a new generation of single-socket architecture with up to 18 cores, you can extract maximum performance for your biggest ideas.

Accelerate every project: Run your software as fast as possible and get real-time results thanks to this memory expandable machine with up to 512GB of 2666MHz RDIMM ECC memory (not available with Core X CPUs).

Teradici PCoIP Remote Workstation Card.

With the Teradici Host Card, workstation users can remotely create 3D models and designs for visual effects, motion pictures, as well as applications in construction, manufacturing, architectural, and engineering projects.

End users remotely accessing office hardware can do so via dedicated Zero Client virtual PCs such as the Wyse 5030 PCoIP or compact conventional workstations such as the new Precision 3240 Compact Workstation which can be mounted out of sight for minimum clutter.

Dell Optimizer for Precision

Click here to learn about dynamic custom performance tuning for your applications.

Find Out More

ISV certification

Click here to learn about the performance and reliability benefits of ISV certification for your applications.

Find Out More

Wyse 5030 PCoIP Zero Client.

For virtual desktop or blade PC environments, the Wyse 5030 PCoIP zero client delivers a full desktop experience to your users while ensuring important data remains safely in the cloud or the datacenter. Using the PCoIP protocol, each virtual desktop is transmitted to the endpoint as encrypted bitmaps, so no data is ever stored locally.

Dell 27 Monitor: P2719H.

Optimize your workspace with this efficient 27" monitor built with an ultrathin bezel design, a small footprint and comfort-enhancing features.

Why Dell Technologies for Workstation Virtualization?

Click here to learn more about how Dell Technologies can help you with your workstation virtualization needs.

Find Out More
4K Workflows

Many designers, architects, and engineers need to work with large datasets to model and simulate solutions both inside and outside the office. Enter the 4K virtual desktop, which operates just like a native workstation, regardless of task or location. This will always deliver true color and will compress file sizes with absolutely no loss of quality.

**Video Editing**

Working in higher and higher resolutions can be challenging with limited real estate. Work up to 4K 60fps with Teradici’s Client Access Software, leaving the workstation in the datacenter with the dailies and creating your opus remotely.

**AUTOCAD**

Larger and larger complex designs taking a long time to navigate around with a small window on the world? Move to a 4K resolution with Client Access Software and work remotely and efficiently.

**3D Modelling**

Running out of real estate for the toolboxes and additional applications you need? Achieve up to 4K at 60fps whilst working remote from the office with Teradici’s Client Access Plus software host.

**CFD Simulating**

Simulation requires a high amount of compute – CPU and GPU. Sometimes the power needed is too high for a domestic power circuit. Keep the powerhouse in the office and remote into it as if you were there with Client Access Software and harness the power.

**Challenges:**

1. Data modeling only runs in the office – secure your data and make sure that everyone is working on the latest revision.
2. Colors easily become corrupted – by using Teradici compression, lossless quality can be achieved across the 4:4:4 colorspace.
3. Compressing files to send degenerates quality – so, work on the originals in the datacenter and make sure you are working at the highest quality possible without compromise.

**Overcome these challenges with Dell’s remoting solutions, as below:**

4K Workflow Example Solution

[Find Out More]
4K Workflow Solution Example

Sometimes you need the best of the best – even when remote. Have up to 4K 60fps* resolution delivered from the remote office to the local client device. Bandwidth and latency will be constantly monitored and the best performance will be delivered to keep you productive and uninterrupted.

*Client has to support AVX2 extensions in the CPU to get up to 4K 60fps.

**Office Configuration**

Dell Precision 7920 Tower Workstation.
The Precision 7920 Tower combines versatile design and ultimate storage scalability to grow with your vision no matter where it takes you.

**Next gen performance:** Power through your most complex and demanding applications quickly and efficiently with a new generation of dual-socket performance. Featuring the latest Intel® Xeon® vPro® processor Scalable family with up to 28 cores per processor or a total of 56 cores when customized with Dual processors.

**Power your business:** Up to Intel® Xeon® vPro® processors offer businesses the performance, manageability, built-in security features, and stability of Intel® architecture and align to a future-proof.

**Remote Configuration**

Dell 5550 Mobile Workstation.
The world’s smallest and thinnest 15-inch mobile workstation. Featuring the latest Intel® Core™ and Xeon® processors, NVIDIA® graphics and Dell Optimizer for Precision.

Dell UltraSharp 27 4K Monitor: U2718Q.
The world’s first 27” 4K monitor with Infinity Edge that supports HDR content playback. See stunning colours and exceptional details on a virtually borderless display.

Dell Premier Wireless Keyboard and Mouse-KM717.
Enhance daily performance and productivity with the Dell Premier Wireless Keyboard and Mouse - KM717, which features an elegant design that will fit into virtually any workspace.

Teradici Client Access Software +.
Cloud Access Software seamlessly delivers workstation applications, while eliminating large data transfers, improving security, and reducing costs.

Dell Optimizer for Precision
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Why Dell Technologies for Workstation Virtualization?
Find Out More
4x Monitor Workflows

Discover the ultimate productivity benefits for business by allocating the compute, graphics and data that individuals need, as they need it. This has particular advantages for graphics and data-heavy workflows which can sometime experience 'lag'.

SolidWorks
Span multiple monitors to get larger real estate with equipment you may already have. Better efficiently and workflow, all remoted from a workstation back in the office to your place of work – wherever that may be.

AUTOCAD
Need multiple viewports and multiple drawings open at the same time? Keep the designs locked away in the office secure network and work on them remotely without fear of losing hard drives or USB keys.

3D Modeling
Using several packages in the workflow and want to see the flow pictorially? Arrange your monitors and applications as you see fit assured that the Teradici remoting solution can deliver on four monitor performance.

Financial Traders
Access to large amounts of data quickly and accurately is important for traders. Use up to four monitors and see the information remotely delivered to you as it is delivered to your remote trading desk.

Challenges:

1. It can be inefficient to perform certain task – more monitors, means more information and greater efficiency.
2. The lag can be frustrating – discover techniques to minimize lag and latency to deliver smooth interactions and keep you in the flow.
3. Layouts are limited when working remotely – organize the layouts on your remote desk, as if you were at the office, with up to four monitors.

Overcome these challenges with Dell’s remoting solutions, as below:

Finance / Trading Example Solution
Office / Source Configuration

Dell Precision 7820 Tower.

**Brainpower that matches yours:** The latest Intel® Xeon® processor Scalable Family powers your most demanding applications. Now featuring a new generation of dual-socket architecture with up to 28 cores per processor (or up to 56 cores when built with dual processors) so you can extract maximum performance for your greatest vision.

**Accelerate every project:** Run your software as fast as possible and get real-time results thanks to this memory expandable machine with up to 768GB of 2933 MHz RDIMM memory.

**Adapts to your innovations:** Your Precision 7820 Tower is ready for complex projects, including virtual reality workflows, with the next generation AMD Radeon Pro™ and highest-performing NVIDIA® Quadro® graphics. Your workstation supports up to 500W of graphics power and future graphics options up to 600W of graphics power per card (single CPU system with 950W PSU).

Remote Configuration

End users remotely accessing office hardware can do so via dedicated Zero Client virtual PCs or compact conventional workstations, such as the new Amulet Hotkey DXZ4 and Precision 3540 Compact Workstation, which can be mounted out of sight for minimum clutter.

Dell UltraSharp 24 Monitor: U2419H.

Experience superb screen performance on this 23.8" monitor in an innovative, stylish thin design, perfect for multiple-monitor environments.

4x Monitor Solution Example

Needing more real estate can be a requirement even when remote. Having 4 monitors can increase productivity and, in trader type scenarios, having access to lots of information without screen crowding is crucial. Teradici Cloud Access Software and PCoIP Remote Workstation Cards can support up to 4 screens remotely to enable maximum performance.

Dell Optimizer for Precision

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Find Out More

Why Dell Technologies for Workstation Virtualization?

Find Out More

Teradici PCoIP Remote Workstation Card.

With the Teradici PCoIP Remote Workstation Card, workstation users can remotely analyze charts across multiple monitors, and glean insights to make better trades.
One : Many - Virtualized Workstations

Virtualization reaps huge rewards for IT and the business by ensuring data is always stored in the safest location, colocated with the workstations, and accessed in the most secure way. By sharing and allocating resources such as GPU and CPU the reach of the workstation can be significantly increased and most efficient use of resources can be achieved.

**SolidWorks**

Multiple users on a single machine each with their own dedicated GPU and CPU. Have up to 4 users on a Dell Precision Rack 7920.

**AUTOCAD**

AutoCad not straining for CPU and GPU makes it an ideal candidate for a virtual workstation. Have multiple users on a single Rack 7920 workstation using an NVIDIA® RTX 6000 card and vGPU GRID software.

**Variable workloads**

Have a power user with an RTX 6000 hosted on the same machine as two lower power users sharing an RTX 6000 GPU – all running simultaneously.

**Variable Usage**

Host multiple users on a single machine during the day and then repurpose the machine into a rendering farm overnight to run the user jobs - ready for them the following morning.

**Challenges:**

1. Susceptible to data breaches – everything is now secure in the datacenter.
2. Expensive, inefficient storage – this is now colocated in the datacenter for maximum throughput.
3. Provisioning homeworking and ocClient Access Softwareional workstation users – it is now simple to deliver exactly what is needed.

**Overcome these challenges with Dell’s remoting solutions, as below:**

1:Many Virtualized Workstations Solution Example
1: Many Virtualized Workstations Solution Example

Want to get more users on a single workstation? Want to be able to spin-up and spin-down workstations as production or rendering nodes? Want to increase the reach of your workstations to users that have oClient Access Software need for an ISV certified platform?

By placing your 2U Rack workstation in a secure, but 100% network accessible central environment, your data/IP never leaves the host workstation. And with 24-hour access, multiple users (1:1) can work the same project at different times without the potential security risks associated with physically transferring data between sites.

Dual Processor configuration for best results:
- VMware ESXi
- Up to 4x Quadro® RTX 4000
- Up to 3x Quadro® RTX 5000/6000/8000
- Quadro® RTX 6000/8000 needed to run NVIDIA® vGPU stack (licenses apply)

Want to get more users on a single workstation? Want to be able to spin-up and spin-down workstations as production or rendering nodes? Want to increase the reach of your workstations to users that have oClient Access Softwareional need for an ISV certified platform?

By using VMware ESXi on a rack workstation then up to four users can be provisioned in GPU passthrough or many more by utilizing NVIDIA®’s vGPU and Quadro® RTX 6000. Each virtual machine is self contained and running the Teradici Cloud Access Software stack to give peace of mind that what you expect to see, you do see.

NVIDIA® vGPU Software.
Deliver graphics-rich virtual desktops and workstations with NVIDIA® virtual GPU (vGPU) software—accelerated by NVIDIA® GPUs—the most powerful on the market today. Run compute-intensive server workloads, including Artificial Intelligence (AI), Deep Learning, Data Science, and High-Performance Computing (HPC) on a virtual machine and leverage the benefits of improved manageability and security.

VMware V7.0 ESXi.
ESXi VMware hypervisor. Each VM running a copy of Cloud Access Software.
Abstracts the hardware from the underlying OS, allowing users to share and allocate resources to multiple users simultaneously.

Remote Configuration

Dell Precision 3551 Mobile Workstation.
A 15-inch workstation with the performance power to handle intense design work from CAD, to professional video editing. Featuring NVIDIA® Quadro® graphics.
Further enhanced capabilities with Teradici Cloud Access Software soft client.

Dell UltraSharp 27 4K Monitor: U2718Q.
The world’s first 27” 4K monitor with Infinity Edge that supports HDR content playback. See stunning colours and exceptional details on a virtually borderless display.

Dell Premier Wireless Keyboard and Mouse-KM717.
Enhance daily performance and productivity with the Dell Premier Wireless Keyboard and Mouse - KM717, which features an elegant design that will fit into virtually any workspace.