



SOLUTION BRIEF . APRIL 2020

# Overcoming The IT Challenges Of Remote Work With Mobile SD-WAN From Celerway

Almost overnight, remote work has become commonplace worldwide. In fact, many commentators predict that what began as a precautionary measure during a crisis will be the new norm after the crisis subsides.

This brave new world of remote work puts sudden new demands on SMEs. Whether you are new to remote work or have established policies for it, you must ensure your IT services meet the needs of remote employees while keeping corporate data and devices safe.

The Celerway mobile SD-WAN platform is designed for just such a time as this, when companies need networks that are flexible enough to be wherever their employees are. In fact, Celerway's mobile-first approach is key to overcoming the challenges of adapting your IT infrastructure for a remote workforce.

# Overcome unpredictability of remote work environments

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Unlike the controlled IT environment of the central or branch office, the remote work environment is unpredictable and different for each employee.

For employees working from home, not all wired connections are created equal. Consider rural households with two adults working remotely plus children accessing the internet at the same time, using poor-quality DSL or fiber. Equipped with Celerway routers, these remote employees would have robust connectivity gained by combining residential connectivity with one or more simultaneous 4G connections. Our leading-edge technology makes maximum use of the wired connection, only employing 4G as you define for specific traffic or specific 4G carriers to control costs.

Employees who travel may not always have access to a wired connection or Wi-Fi, or if these are available, neither may be reliable or secure. A Celerway router sidesteps these hurdles, creating reliable secure connectivity by combining multiple simultaneous 4G connections. You can boost resilience even further by using SIMs from diverse cellular data providers.

Celerway was built with mobile in mind, making it ideal for overcoming the unpredictability and variety of remote work environments. Multiple configuration options enable you to adapt your router deployment as needed. For example, you can set policies to match specific traffic types with specific WAN connections and specific scheduling policies on each WAN. This way, you ensure that the user's business critical applications have priority on the best available networks, while controlling cellular data costs.

The classic approach to Quality of Service (QoS) is simply to assign traffic from each application or user to each link, without accounting for the uncertainty inherent in cellular data networks. Celerway supersedes the classic approach with a holistic one, using multiple techniques to manage bandwidth resources to the benefit of all applications and users. Our innovative implementation of Smart Queue Management (SQM) enables you to configure Celerway routers to optimize bandwidth usage, virtually eliminating any observable effect of competing bandwidth demands from multiple users. In a work-from-home scenario, all members of the household benefit, as simultaneous teleconferencing, streaming of virtual classrooms, and gaming will not be hampered by latency and jitter.

In both scenarios, 4G is an essential tool because of the way CelerwayOS addresses the complexity and uncertainty inherent in cellular data networks. Unlike other solutions, CelerwayOS goes beyond traditional failover and actively preempts network degradation, enabling secure video conferencing and other real-time virtual collaboration to proceed without interruption.

# Mitigate cyber security risks of remote work

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Remote work exposes your company to additional cyber security risks. Providing cyber security awareness training enables employees to apply best practices at home and in the field, but you must also ensure your company data is secure as it moves between remote locations and the company network.

If you have not implemented a VPN solution with encryption for this purpose, then Celerway's VPN with Phantom offers additional benefits not found in standard VPN. Unlike standard VPN which involves a single network, Celerway's dynamic VPN load balancing leverages multiple simultaneous networks. CelerwayOS constantly monitors each network against dozens of parameters, always selecting the best available network while retaining the original IP address—an indispensable feature for live remote collaboration. With seamless switching, even if one or more of the network connections were to degrade or fail, the user experiences no change in application performance.

If your company already has a VPN solution, Celerway routers can work alongside it, whether IPsec, OpenVPN, or another protocol, and you can choose to implement the Celerway VPN or not. If you do not implement Celerway's VPN, users will still enjoy the benefits of load balancing and failover to the best available network.

If your company uses virtual machines that employees access over the cloud, you can guarantee uninterrupted secure connectivity with Phantom and dynamic switching across networks.

# Simplify complex remote work deployments

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Deploying and maintaining routers to dozens or hundreds of employees can be a challenge. Registering, configuring, and shipping routers can take time, while educating users on setup and fielding their support calls is resource intensive.

In contrast, Celerway makes it easy to get your remote workforce set up and productive right away, thanks to easy deployment and truly plug-and-play simplicity for the user.

Celerway routers arrive ready to be activated using license keys generated in Nimbus, Celerway's user-friendly remote administration platform. Upon activation, the routers automatically download the latest firmware. Remote activation by license key ensures Celerway routers cannot be hijacked, and downloading firmware upon activation ensures your new Celerway routers have the latest

security features. With other solutions, storage in a warehouse for weeks or months means they may arrive at the customer with security vulnerabilities due to outdated software.

Celerway routers come with a standard configuration of the most common settings, so they work out of the box, but you can custom configure them to suit specific remote work scenarios. When Celerway routers arrive at your employee locations, users need only power them on to start working. That means no need for user training and no added strain on your IT support team.

If your organization needs to adapt quickly to the new norm of remote work, we stand ready to answer your questions and help you with a Celerway deployment. Give us a call to find out more.



Celerway is on a mission to keep business ahead of the mobile curve. Based in Oslo, Norway, Celerway offers the only open source-based mobile-first SD-WAN platform and a range of high-performance multi-WAN routers. With Celerway, customers harness the power of multiple simultaneous wireless and wired connections, expanding network reach.