


**How to Improve Remote User Satisfaction and
Maximize ROI by Using SSL VPNs for Mobile
Access, Telecommuting, and Partner Extranets**

Virtela White Paper
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Executive Summary

Have more users traveling or working remotely? Struggling to consistently deliver the same availability and accessibility to applications and resources to your remote users anywhere in the world as those users in your offices? Strapped for IT resources and money to support remote users? You're not alone.

Many companies are struggling with how to provide their increasingly distributed stakeholders the access they need to information and resources, when they need them, from wherever they are located. Typically, extending access to a bevy of remote users can add a lot of complexity and costs to the overall IT infrastructure, becoming a management nightmare for those responsible for its administration. Plus, there are the potential security issues associated with allowing users who are not under the company's direct control to enter and access the company's network. But, if done well, the benefits of a good remote access strategy can be significant, ranging from satisfied remote users to cost savings and productivity gains, disaster recovery preparedness, reduced environmental impacts and an improved ability to attract and retain top talent.

One of the best underlying solutions available to support remote access is SSL VPNs. Using an Internet connection and a web browser, end users login to their VPN and are then able to access all or a subset of their corporate applications as specified by the IT manager's security policies. The SSL protocol is available

on all standard Web browsers as a secure transport mechanism to send private data across the public Internet. There is no need to pre-install software on the end user's device, therefore one can use a wide variety of Internet-enabled devices, enabling the organization to securely extend access to almost anyone. Because SSL VPNs operate at the application layer, it is possible to offer extremely granular access controls to limit unnecessary exposure of information and resources, making it ideal for users coming from an insecure end-point, such as a home PC. Often additional two-factor authentication can be used to verify the user for even greater security.

There are multiple remote access applications that an SSL VPN is well suited to support, such as:

- ***Mobile Access*** - enables workers who, out of necessity, need to remotely access company resources. The occasional access provides continued productivity in the face of seemingly disruptive activities, allowing employees who are traveling or unable to make it into the office, due to weather or pandemic events, to access the information and resources they need to do their jobs.
- ***Telecommuting*** - supports employees who regularly work from home or a fixed location (such as a small remote office), either on a full or part-time basis. To ensure ongoing productivity, telecommuting employees typically

receive the same access to applications that they would get if they were sitting at their desk at headquarters.

- **Partner Extranets** - allow businesses to securely grant the individuals and organizations that make up their extended operations, access to the information and resources they need to conduct business. Extranets can be used to support the varied needs of contractors, suppliers, distributors, partners, and even customers in a way that is both convenient and secure.

This white paper discusses the benefits of using SSL VPN remote access for mobile access, telecommuting, and partner extranets, in order to maximize your investment.

Mobile Access

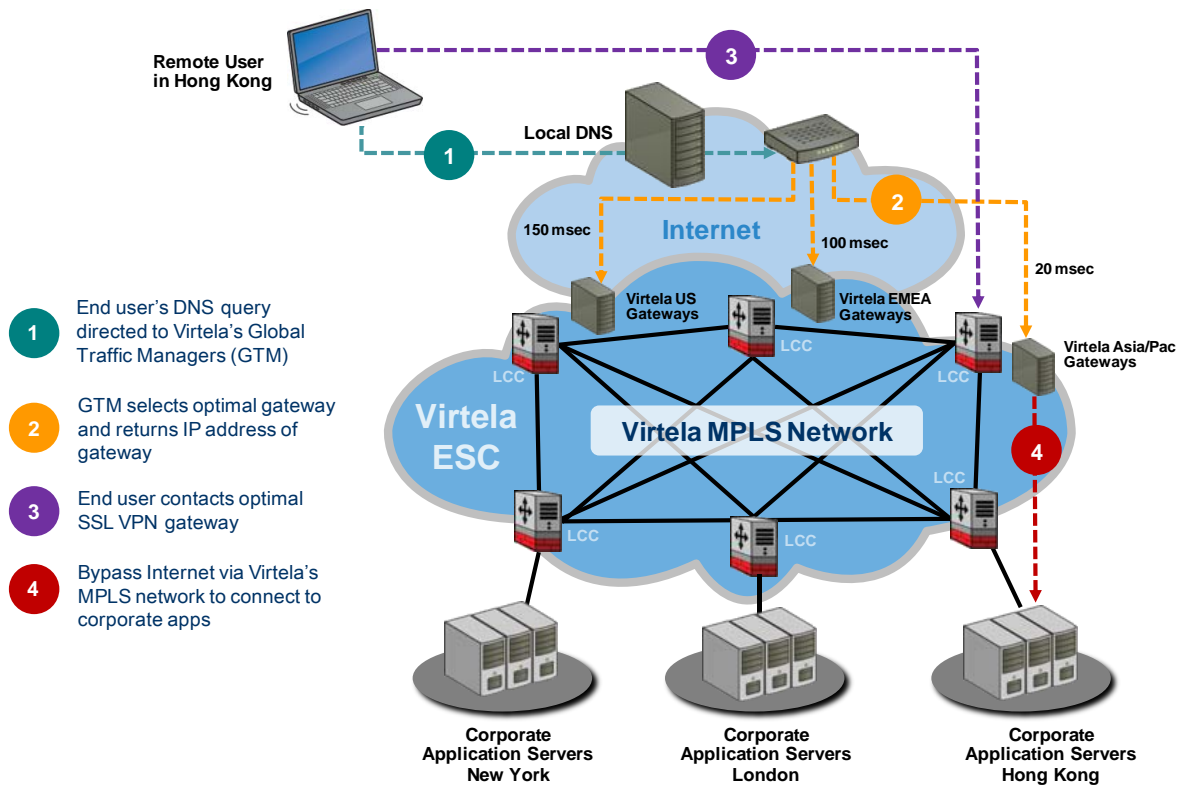
Sometimes life and work demands necessitate employees to work outside the office. When this happens, businesses need to be able to support their employees who require remote access to company resources to be productive, whether the employee is travelling or is unable to be in the office due to unforeseen events, such as weather emergencies or a pandemic. Typically, remote access solutions are designed for travelling workers, however, the unforeseen circumstances also need to be planned for to ensure enough capacity is available when needed. Predicting the exact timing, duration, and impact of a pandemic or other event can be difficult, but even though the specific disaster is unpredictable, it can be expected that something will happen at some time, and you need to be ready.

To prepare, you need a solution that can support users with a reliable experience that is

simple to use given that many of the remote users have limited to no technical expertise. It should be scalable to enable you to meet spikes in access requirements, without having to overprovision or pay for costly network overbuilds. These same users could be under duress due to circumstances, so it's vitally important the solution doesn't burden them with complicated installation or management requirements. In fact, many businesses would like a solution that offloads the provisioning and maintenance of this mobile access to those outside of the organization, so their IT department can focus on supporting the other needs of the overall business.

Virtela's Mobile Access Solution

Virtela offers a Managed Cloud-based SSL VPN service that has helped many enterprises cost-effectively support their mobile workers and protect their business continuity. Virtela's Managed Cloud-based SSL VPN service leverages Virtela Enterprise Services Cloud (ESC) which consists of virtualized global gateways and load balancers at Local Cloud Centers (LCCs) around the world and Virtela's underlying, intelligent multi-carrier MPLS backbone. It offers a capex-free, secure remote access solution for multinational corporations and their users as they travel the globe. Virtela's gateways reside in Asia Pacific, Europe, and the US, so users can be seamlessly routed to the closest Virtela gateway to take advantage of the performance of the Virtela MPLS network to connect back to their corporate data center. In this way, the end user's exposure to the public Internet is minimized, and the result is a better overall experience. Virtela's performance optimization capabilities are depicted in the following diagram.



To address business continuity needs, Virtela offers a seat reservation service where, for a nominal fee, seats can be reserved to accommodate unforeseen spikes in activity, billable only when used. This provides a means to scale capacity without having to overbuild the network.


CTS, a publicly traded global manufacturer of electronic components and sensors, depends on Virtela to scale the support of their rapidly growing distributed workforce. With 5000 employees in nine countries across North America, Europe and Asia, Virtela's Managed Cloud-based SSL VPN service allows CTS to achieve an efficient, flexible and cost-effective global solution. CTS eliminated the expense of premises-based equipment and improved the overall performance, security and reliability of their remote connections by easing the Internet traffic load previously experienced at specific hub locations.

Telecommuting

Telecommuting is increasing in popularity as corporations look for ways to cut real estate costs, provide more flexibility to their workers, reduce carbon emissions, and exercise disaster recovery plans. The U.S. Chamber of Commerce estimated that in 2006 there were 30 million full and part-time teleworkers in the US, a number they expected to grow to between 50 and 100 million by 2012.

In aggregate, it has been estimated that businesses could save between \$15 billion to \$30 billion through 2020¹ through telecommuting initiatives as a result of reductions in real estate costs and subsequent operational expenses, such as air conditioning,

¹"Smart2020 Report," by The Climate Group on behalf of the Global e-Sustainability Initiative (GeSI), with independent analysis by McKinsey & Company, 2008.



heat and power. This benefits the environment as well, as organizations are able to reduce the carbon emissions produced by an employee's daily commute. For those responsible organizations looking to minimize their carbon footprint, the Consumer Electronics Association found that telecommuting in the U.S. saves nine to fourteen billion kilowatt hours of electricity annually, reducing gasoline consumption by 840 million gallons and abating close to 14 million tons of carbon emissions (representing indirect emissions that companies include in their carbon reporting²).

The impact telecommuting can have on morale and employee satisfaction should not be underestimated. A recent survey by Regus³ found that a fifth of commuters around the world have considered quitting their jobs because of the time it takes them to travel into the office.

This can explain in part, the estimates by the Center for Urban Transportation Research⁴ that companies can achieve productivity gains up to 30% with a good telecommuting program. The flexibility provided by the ability to telecommute can reduce stress levels, increase

²For example, 2,500 organizations in more than 60 countries around the world measure and disclose their greenhouse gas emissions and climate change strategies through the Carbon Disclosure Project (CDP), www.cdproject.net, acting on behalf of 475 institutional investors, holding \$55 trillion in assets under management and some 60 purchasing organizations such as Cadbury, PepsiCo and Walmart.

³http://www.economist.com/daily/news/displaystory.cfm?story_id=15106202&fsrc=nwl

⁴<http://www.cutr.usf.edu/index.shtml>


job satisfaction, and support employee recruitment and retention.

A good telecommuting solution enables an employee to have round-the-clock access to business resources and communications to help them do their job whenever and wherever they are. It should be simple to use, requiring no complex installation or management to minimize support headaches and maximize productivity. It should provide access to users whose home may be in a rural or hard to reach location (e.g. with no fiber broadband connectivity, only satellite access) and ensure the appropriate security measures are in place to maintain the security stance of the organization.

Virtela's Solution for Telecommuting

Virtela's Cloud-based Managed SSL VPN service provides a managed solution that accommodates the ease of use that small office and work-at-home users need, while providing the access control policies that IT managers demand. In addition, remote employees have the same uptime requirements as employees in the corporate office, and cannot be blocked from accessing the applications they need. Virtela offers up to 100% availability, as well as comprehensive usage reports to help IT managers track who is using the service and who might be having problems and why.

GAB Robins, an insurance corporation that spans 50 countries, provides a comprehensive network of loss adjusting, third party administration and managed care services. GAB turned to Virtela for a solution that would allow them to maximize their web-enabled business and get greater productivity out of 300 remote and teleworker locations. They wanted to better support their agents, who needed to



nightly push claims to the company's SQL database. GAB also wanted to simplify access for their agents when they were on the road, without sacrificing security, so they could quickly get the claim information they required. They chose Virtela's Managed Cloud-based SSL VPN service to simplify remote access for all who used it and as a result, were able to achieve substantial costs savings over their previous solution and provide a flexible, easy-to-use way to access information whenever and wherever their agents needed it.

Partner Extranets

More and more business is conducted by individuals and organizations outside of the direct control of any individual company; all of whom require access to specific information and resources in order to fulfill their part of overall business operations. Just think of all the contractors, consultants, and business partners you interact with on a daily basis. Then think about your supply chain, and all the manufacturers, distributors, and integrators you work with to keep things moving smoothly. And we can't forget about customers, and their requirements for support and real-time status information. As globalization continues to flatten barriers of entry into the world's economies, companies are going to need to continue to leverage outside resources and tap global talent pools to compete. The trend-lines of companies relying more on "external," non-traditional employee resources all seem to point up and to the right. For example, global consulting industry revenues were at \$330 Billion (US) in 2008 and are projected to grow at an annual compound growth rate of 5.3 percent

through 2011.⁵ Offshore outsourcing is growing revenues at an 11% annual rate⁶.


Extranets can be used to support the varied needs of all these "external" constituents in a way that is both convenient and secure. They can provide an instant, secure connection to the specific resources that a particular individual will need to do their job, without opening up the network to unnecessary exposure. Access can be granted based on the user and their relationship to the organization, and that access can be quickly changed to accommodate updates in roles and responsibilities. As all of these users are outside of the direct control of the organization, it is necessary that the solution provides granular control over which information and resources they can access to minimize risk.

Virtela's Partner Extranet Solution

Virtela's Managed Cloud-based SSL VPN service has helped companies securely extend and manage access to resources to those outside of their direct control. The administration of partner extranets can be a major headache for corporations, in terms of setup, security policy definition and enforcement, documentation, and the support of non-corporate users. Often, policies are inconsistently defined and poorly communicated within a corporation, creating security risks. . Virtela takes the administration burden off of the IT manager, with clearly documented policies and procedures and controls in place. Virtela's solutions also provide granular access control with the ability to look at end user attributes such as antivirus

⁵ Plunkett Research,
<http://www.plunkettresearch.com/Industries/Consulting/ConsultingStatistics/tabid/177/Default.aspx>

⁶Logicaster,
www.logicaster.com/outsourcing_statistics.html



and firewall before allowing an end user to connect, with customized remediation messages for end users that fail the check. This provides the IT manager with an element of control over unmanaged partner machines.

Virtela provides partner extranet services for a multi-national agricultural machinery manufacturer, with 2,500 dealerships selling their equipment around the world. The manufacturer needed a way to provide its dealers access to the company's product information database to facilitate sales, without exposing other proprietary corporate applications. Virtela's Managed Cloud-based SSL VPN service was used to ensure their dealership partners have the product, pricing, and ordering information they need, whenever they need it. As a result, the company has seen accelerated sales cycles and improved customer responsiveness as dealers now have the ability to easily view real time product information and check order status.

Conclusion

By using Virtela's Managed Cloud-based SSL VPN services businesses can maximize their return on investment by leveraging a unified solution to implement any or all of their mobile access, telecommuting, and partner extranet initiatives. Virtela's solution eliminates the capex associated with deploying SSL VPN gateways, load balancers and high availability configurations, while also providing operational expense savings, due to Virtela's built in 24x7

monitoring, management, and troubleshooting expertise. Whether enabling people to work from home, supporting your employees as they travel to far flung locations, or connecting your stakeholders around the globe to the resources they need to conduct business with you, Virtela can ensure you have the solution that matches your needs and budget.

About Virtela

Virtela Technology Services Incorporated is the world's largest independent managed network, security and cloud services company. Virtela offers an award-winning suite of services - including managed networks, security, application acceleration and proactive infrastructure management - to mid-market and Fortune 500 customers around the world. Virtela offers unparalleled geographic reach to more than 190 countries through its partnerships with more than 500 carriers.

Virtela is headquartered in Denver, Colorado, with globally distributed Network Operations Centers in the U.S., India and the Philippines. For more information, please call +1 (720) 475-4000 or visit www.virtela.net.