



# Evaluating secure remote access models

**Explore how GoToMyPC compares to traditional VPNs**

Doing business overseas used to be expensive, but now it doesn't have to be. And that's good news for the majority of businesses, because over the last two decades, as the Internet globalized the business landscape, working with people in other countries became routine.

Today, secure remote access to your computers is no longer a luxury—it has become a necessity. Being able to tap into your home or office computer from hotels, Internet cafés and airport kiosks can greatly increase your efficiency, productivity and job satisfaction.

However, providing remote access in a secure, scalable and economical way poses several challenges for IT departments. The traditional approach of using Virtual Private Networks (VPNs) to allow remote users to connect to the corporate network can often limit flexibility. In addition, deploying VPNs often results in a costly and time-consuming execution that negatively affects the productivity of end users and IT staff.

On the other hand, remote access through cloud-based services can fill the role of a VPN for organizations or act as a complement to an organization's existing VPN. The Tolly Group suggests CGoToMyPC as an alternative to VPNs, citing a higher return on investment and secure, scalable access.

This paper compares remote access to a traditional VPN in the following areas: ease of deployment, ease of use and administration, flexibility and security, scalability and total cost of ownership (TCO). Further, this paper cites customers that have found value in choosing GoToMyPC over VPN-based remote solutions.

### Ease of deployment

According to the Tolly Group, GoToMyPC is quicker and easier to implement than VPN-based remote desktop solutions are. Where a VPN requires the installation and configuration of customized hardware and/or software, GoToMyPC needs no hardware installation at all. Furthermore, special client software is not necessary to access the remote computer. Only a web browser is needed to log in to a remote computer running GoToMyPC.

“The mobilization of the workforce demands anytime access.”

Neil MacDonald  
Gartner Vice President  
and Fellow  
[www.gartner.com](http://www.gartner.com)

### Feature comparison: GoToMyPC versus remote access over VPN

Category	GoToMyPC	VPNs
Software installation	No client software required	Software required on clients
Configuration	Self-configuring	Client configuration required
Termination of encrypted sessions	End-to-end 128-bit encryption, load shared among all computers used	Centralized encryption requires hardware and/or software and imposes heavy CPU load
Firewalls	No changes required	Separate firewall configuration required

Category	GoToMyPC	VPNs
Network Address Translation (NAT) / IP Address Overloading	Transparent to NAT issues	Does not interoperate with NAT/IP overloading
IP protocol dependence	Allows use of all protocols on host	IP protocol dependent
Performance	Applications run on the LAN and only screen image is transmitted, yielding superior performance	Corporate applications designed to run on LAN are very slow over VPN
Authentication	Authenticates users at multiple points, one-time password generation available	May authenticate to the network and have access to services not available when logged in locally
Management of remote clients	Requires only a web browser, which reduces TCO	Difficult to install and maintain applications on the remote system
Inter-office use	Not a network but rather a secure tunnel to a particular computer	Can be used to connect offices

Source: Tolly, March 2009

### Ease of use and administration

According to the Tolly Group, GoToMyPC is very easy and intuitive to use. There is no specialized training required, and in most cases, the user only needs to know how to use a web browser in order to connect securely to the remote PC or Mac.

In contrast, a VPN-based remote desktop access solution often requires proprietary client software to connect to the VPN appliance on the remote office network. Once connected to the remote network, a remote desktop viewer application is needed to access the desktop on the target host computer.

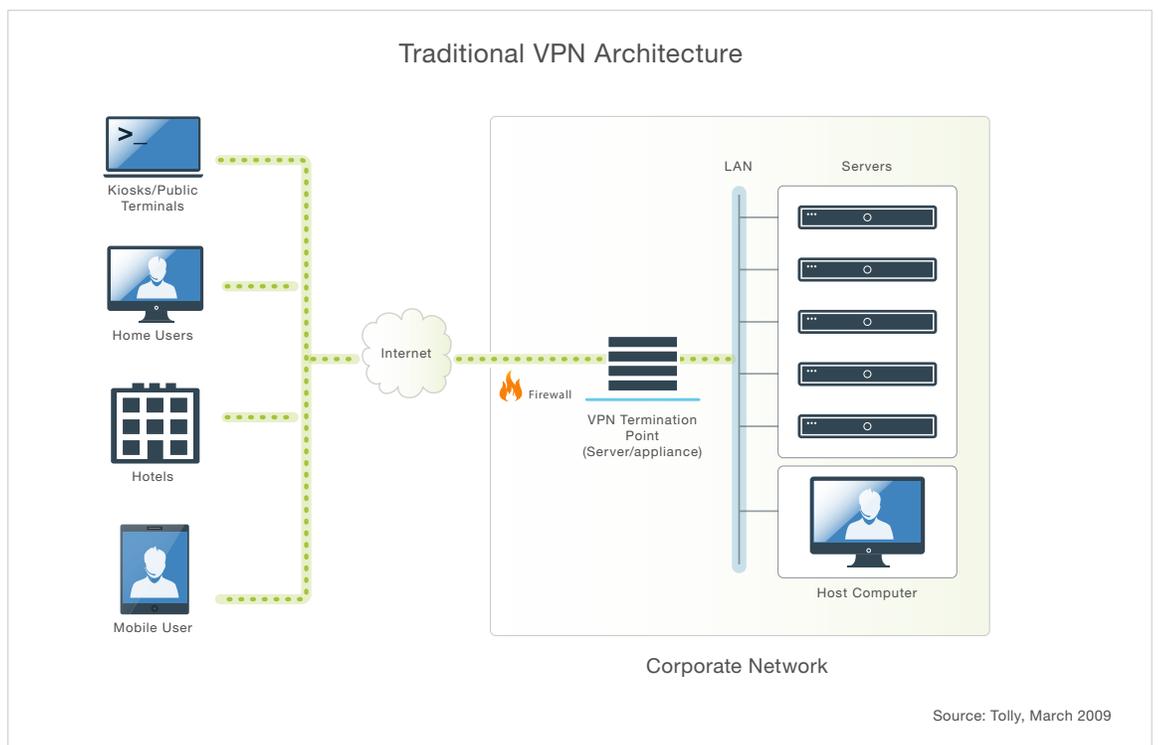
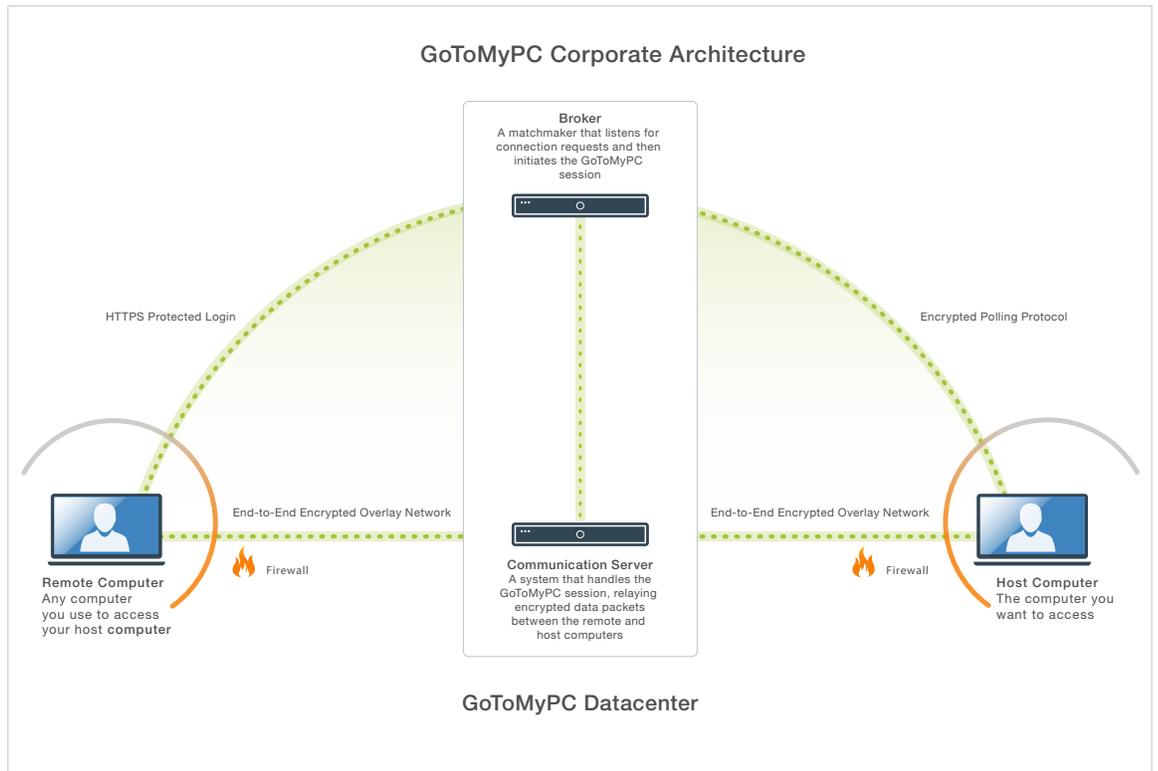
In terms of administration, GoToMyPC provides a unified web-based administration panel to manage the service. Both the client and host PC or Mac for the remote user can be provisioned, audited and managed from one central management interface. VPN-based remote access, however, often requires the IT administrator to obtain unstructured data from disparate systems, including firewall, VPN, router and server logs.

“We spent very little time deploying GoToMyPC; we didn't have to train anybody; and we don't have to worry about the configuration on the external PC. Our remote-access support calls went down by at least 80 to 90 percent when we switched to GoToMyPC.”

Paul Bromwell  
Chief Information Officer  
[www.frostbrowntodd.com](http://www.frostbrowntodd.com)

“One of our biggest concerns was ease of administration. We didn't want a product that needed a dedicated technician for administration. The administration of GoToMyPC is almost nil. Once GoToMyPC is set up, we're done.”

Larry Martin  
Network Administrator  
[www.ci.san-bernardino.ca.us](http://www.ci.san-bernardino.ca.us)



Source: Tolly, March 2009

### Flexibility and security of access

With GoToMyPC, users are free to use any device equipped with a web browser from any location—home office, hotels, airports, kiosks, etc. However, users of VPN-based remote desktop access are often limited to only using IT department-approved devices to access the corporate network over VPN.



Workers can access their remote desktops and devices from any location on multiple devices—enabling businesses to work faster with access to information anytime.

### Scalability

GoToMyPC is highly scalable by virtue of being a cloud solution, as all infrastructure components are hosted in datacenters. The encryption overhead on the infrastructure equipment is shared among all the client computers and the GoToMyPC service infrastructure.

In contrast, the encryption and connection processing overhead of VPN-based remote access is concentrated on the VPN terminating equipment on the corporate network. As the number of remote users increases, the hardware requirements and the software licensing costs of the VPN infrastructure can increase dramatically.

### Total cost of ownership (TCO)

GoToMyPC delivers a scalable, secure, easy-to-deploy and easy-to-use service that can dramatically reduce the total cost of ownership (TCO) of a remote access solution. In contrast, VPN-based remote access adds complexity and cost due to the need to maintain dedicated hardware and software at each corporate location that remote users might need to access.

“Security is very important for us and was a determining factor in our decision to purchase GoToMyPC. We have confidentiality and privacy requirements, so encryption is necessary.”

Alberto Kywi  
Chief Information Officer  
[cottagehealthsystem.org](http://cottagehealthsystem.org)

“We’ve seen a very high level of reliability with GoToMyPC. Attorneys have the confidence that they’re going to be able to use it. It just works.”

Paul Bromwell  
Chief Information Officer  
[www.frostbrowntodd.com](http://www.frostbrowntodd.com)

Furthermore, as the number of corporate locations that need to be provisioned for remote access increases, the TCO of a VPN-based remote access solution can increase dramatically due to the need to maintain VPN termination equipment at each location. In this scenario, GoToMyPC can turn out to be much less expensive, since it does not require dedicated hardware for every site

Cost Item		GoToMyPC Corporate Software as a Service (SaaS)			VPN-based Remote Access		
					Cisco ASA 5510		Cisco ASA 5520
		50 users	100 users	500 users	50 users	100 users	500 users
Cost of VPN hardware*	--	--	--	--	\$2,240	\$2,240	\$5,124
Cost of redundant VPN hardware (2 units)	1st year	--	--	--	\$4,480	\$4,480	\$10,248
	2nd year	--	--	--	--	--	--
	3rd year	--	--	--	--	--	--
Subscription cost*	1st year	\$5,970	\$11,940	\$59,700	--	--	--
	2nd year	\$5,970	\$11,940	\$59,700	--	--	--
	3rd year	\$5,970	\$11,940	\$59,700	--	--	--
SSL license cost for end user sessions (optional)*	Per year	Included	Included	Included	\$2,600	\$5,100	\$19,000
SSL license cost on redundant hardware for end user sessions (optional)	1st year	Included	Included	Included	\$5,200	\$10,200	\$38,000
	2nd year	Included	Included	Included	--	--	--
	3rd year	Included	Included	Included	--	--	--
Installation and deployment cost (estimated @ \$100 per hour cost of IT resources)	1st year	\$500	\$1,000	\$1,500	\$2,400	\$2,400	\$3,200
	2nd year	--	--	--	--	--	--
	3rd year	--	--	--	--	--	--
Power consumption at a steady state (taken from VPN hardware vendor data sheet)	--	--	--	--	90 W	90 W	90 W
Annual energy expenditure on VPN hardware (using average retail price of \$0.092 per kWh for industrial sector power in California in Jan. 2013)	1st year	--	--	--	\$188	\$188	\$188
	2nd year	--	--	--	\$188	\$188	\$188
	3rd year	--	--	--	\$188	\$188	\$188
Estimated maintenance (hours/week) (M)	--	1	2	4	5	9	14
Estimated maintenance per hour (C)		\$100	\$100	\$100	\$100	\$100	\$100
Estimated maintenance costs per year (M*C*52)	1st year	\$5,200	\$10,400	\$20,800	\$26,000	\$46,800	\$72,800
	2nd year	\$5,200	\$10,400	\$20,800	\$26,000	\$46,800	\$72,800
	3rd year	\$5,200	\$10,400	\$20,800	\$26,000	\$46,800	\$72,800
24/7 Support for end users (@ \$260** per user per year)	1st year	Included	Included	Included	\$13,000	\$26,000	\$130,000
	2nd year	Included	Included	Included	\$13,000	\$26,000	\$130,000
	3rd year	Included	Included	Included	\$13,000	\$26,000	\$130,000
Cost of support contract + warranty for VPN hardware	1st year	--	--	--	\$776	\$776	\$1,142
	2nd year	--	--	--	\$776	\$776	\$1,142
	3rd year	--	--	--	\$776	\$776	\$1,142
Total cost of ownership (TCO) over 3 years		\$34,010	\$68,020	\$243,000	\$126,772† to \$131,972‡	\$228,172† to \$238,372‡	\$625,838† to \$687,692‡

Note:

\* Cisco prices based on retail price quoted by reputed online retailer CDW.com in March, 2013. SSL license costs are for Premium SSL licenses, which are used for clientless VPN.

GoToMyPC Corporate subscription costs based on retail price

\*\* Cost of 24/7 Level 2 and Level 3 Technical Support, according to a model from a leading analyst firm

† TCO without SSL VPN licenses

‡ TCO with Premium SSL VPN licenses

Annual Energy expenditure calculation for the redundant appliance configuration used the formula:

$(2 \text{ appliances}) \times (90\text{W}/1000 \text{ kW}) \times (\$0.092 \text{ per kWh}) \times (24 \text{ hrs/day}) \times (365 \text{ days/year}) \times 1.3$

The factor 1.3 is included to account for the assumption that cooling costs add a 30% overhead to the cost to power the appliances.



With the GoToMyPC app for iPad, employees can access their office computers as if they were physically at their desk, removing the need to work from the office entirely.

### Secure remote access with GoToMyPC

Our online services make it easy for companies to support and trust employees, allowing work to take place with anyone—anytime, anywhere.

GoToMyPC gives consumers and corporate employees the ability to remotely access and work on their computers from any web browser. This easy and secure service works on PCs and Mac computers, through firewalls and without the need for pre-installed client software.

### Conclusion

Workplace mobility is now a standardized business process for competitive businesses. And as more companies adopt mobile work strategies, finding cloud-based solutions that allow for anytime, anywhere work is top of mind. Cloud-based tools, such as GoToMyPC, empower businesses to propel productivity and results outside the boundaries of location.

For more information about GoToMyPC, please visit [www.gotomypc.com](http://www.gotomypc.com).

“Based on an average GoToMyPC usage of 1,400 hours a month and an average hourly rate of \$125, we calculated that scientists in the field can accomplish \$2.1 million worth of additional work every year. In the past, they did significantly less work on site because of problems connecting over the VPN. They simply had to postpone many tasks until they were back in the office.”

*Bradley Lauritsen  
Senior Manager of  
Geoscience Computing  
[www.apachecorp.com](http://www.apachecorp.com)*

“VPN solutions are good, but there is a lot of management involved. With GoToMyPC we save on costs associated with a VPN, including hardware, software and administration.”

*Paul Bromwell  
Chief Information Officer  
[www.frostbrowntodd.com](http://www.frostbrowntodd.com)*