



# Internet-based remote support for help desks

White Paper

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## Introduction

Providing timely, efficient, and cost-effective technical support for *all* users is one of the challenges that many organizations face today. Remote control tools, which allow remote access to or control of another computer whether the end user of the remote computer is there or not, is a natural choice for the help desk for transferring files, running applications, and resolving critical technical issues. Normally, this type of solution requires the remote computer to have software preinstalled and running in order for someone to gain access – a common approach on the corporate network. In some situations, however, it doesn't make financial sense. If a help desk center provides support to thousands of end users outside their network, it is not operationally feasible to install traditional remote control software clients on all its users' computers.

Recently, there has been an increase in Internet-hosted remote control services. These services offer remote control access but without many of the tasks and costs associated with installing, maintaining, and administering the software. Still, in most cases, a resident-based piece of software is required and must be installed and running prior to enabling remote control services on the host machine. And in many situations, it is not permissible to allow independent, third party intermediaries access to sensitive data because this involves a significant security risk.

So, how can help desk experts support the large number of end users who are outside their own network? To provide the expert technical support that end users expect, help desk staff need to be able to quickly respond to a help request. End users do not have a formal relationship with the help desk, and they will often be behind an unmanaged firewall. In addition, the help desk has little or no influence over the hardware that is being used, which can result in big problems with the connectivity through the firewalls that shield most computers today.

The answer is an on-demand remote support solution. NetOp On Demand Remote Control is the next best thing to having help desk personnel at your computer with you – whenever you ask for it. NetOp On Demand Remote Control provides a way for customers (or indeed your in-house employees) to get expert technical support in response to a help request anywhere, anytime. Most importantly, NetOp On Demand Remote Control is secure; it doesn't use third-party servers to route traffic, and offers 256-bit AES encryption, securing all help sessions against eavesdropping.

With NetOp On Demand, no software is required to be preinstalled and/or running prior to receiving remote support and the program automatically removes all of its software components from the end user's computer once the support session has ended, eliminating the need to maintain, upgrade, and service newly installed client applications.

This white paper describes the benefits of an on-demand remote support solution and describes the way that NetOp On Demand Remote Control, as part of the NetOp Remote Control product range, can meet all your remote control needs.

## Advantages of Internet-based Remote Support

The advantages of a help desk center being able to support its customers remotely are numerous. Resolution of problems is faster and more accurate and this means happier customers, increased customer satisfaction and loyalty. In addition, help desk centers can improve their productivity and overall efficiency.

Typically, a support incident involves a lengthy and complex diagnostic process where an end user has to gather settings and log files and send them to the help desk center, so it in turn can replicate the end user's environment. This can all take days of e-mail and phone sessions. With remote support, help desk centers can resolve end user's problems within a single, interactive session.

## Reduced Support Costs through Increased Productivity

In a typical help desk center interaction, the majority of the time spent is trying to understand what the customer's actual problem is. With remote support, this time is cut down dramatically, because the help desk employee can see the exact error message, find the relevant configuration information and guide the customer to the correct resolution. And, less time is spent at the help desk center trying to recreate the problem experienced by the customer. Remote support allows the help desk staff to see the customer's problem first hand and fix the problem immediately. And because the work is actually done on the machine with the problem, there is no wasted time spent trying to find out what the differences are between the lab and the customer environment. The result is that help desk employees can solve issues with less calls and at a fraction of the time spent previously, therefore making them available for other customers.

## Reduced Time to Resolution

Sometimes, in a traditional support environment, a support issue can take time to be resolved because the customer is difficult to get hold of, or because the customer cannot understand the instructions they are given to fix a technical problem. Remote support eliminates these types of delays and it is more likely that issues can be solved in a single interaction or at least in fewer iterations. This means that for those customers that are hardest to reach, the time to close an issue is greatly reduced. Not only is customer satisfaction improved but also help desk centers save time on managing ageing issues and this increases their overall efficiency.

## Increased Customer Satisfaction and Loyalty

When a customer calls a help desk center they are already frustrated. This frustration is often exacerbated by being kept hanging on the phone, having to explain their situation, often to several people, being given the task of gathering configuration files and data, and finally having to wait to be called or e-mailed back. Furthermore, if the customer has inadvertently provided inaccurate data to the help desk center, the resolution can take even longer and can lead to further frustration. Frustrated customers aren't satisfied customers and dissatisfied customers are almost never loyal customers.

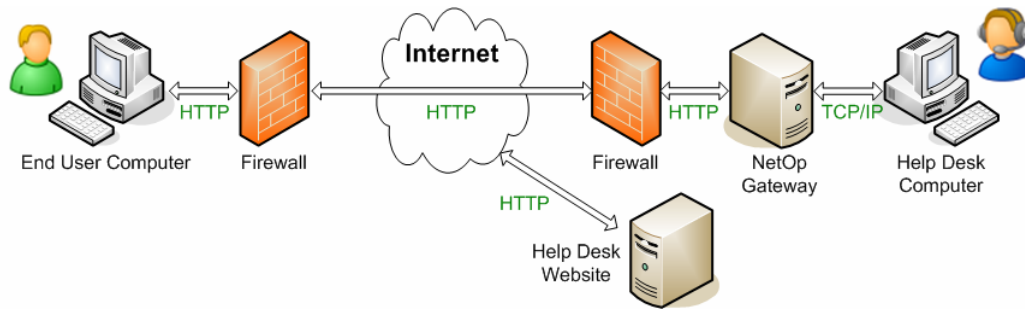
With remote support, the situation is different. A help desk center employee can take over the customer's computer and see the problem and this is easier and more accurate than the customer having to describe the situation. The help desk center employee can gather the relevant configuration information and the problem is more likely to be resolved in a single session. In addition, the customer can see exactly what the help desk center employee is doing, so the value of support is more tangible. The result is that remote support customers have not only higher satisfaction, but also more importantly, higher loyalty.

## Solution for the Enterprise Market

When choosing an internet-based remote support solution, it is essential that support organizations consider the security, flexibility, scalability, and speed of the product. NetOp has a remote control legacy and history of supplying remote control solutions to the high-end market, and NetOp On Demand Remote Control continues to follow this strong track record, providing secure remote control and overcoming the barriers faced by traditional remote support.

Aimed at large organizations supplying software end-user support, such as Internet service providers, telecommunications companies, ERP vendors, CRM vendors, and banks, NetOp On Demand Remote Control offers end users the chance to download a remote control Host from a dedicated website (or via links placed on an existing website) and request help from a help desk center, *when they need it*. With 256-bit AES encryption and no third-party servers to route traffic, the solution is very secure. NetOp On Demand Remote Control is also flexible, offering the choice of multiple or single connections, and it is highly scalable, so it can grow to suit your increasing business needs.

Using NetOp On Demand Remote Control is a way to maximize help desk efficiency. It enables help desk personnel to chat online in real time with customers, remotely view an end user's computer, and share their mouse and keyboard control, if allowed.



End users download a small application temporarily to their computer from a website. The help session is initiated from this end user's computer using HTTP running through port 80 (most firewalls will allow outbound traffic without restrictions whereas inbound traffic is completely tied down by default). The end user can disconnect the session at any time and can also define security roles to allow different levels of remote access.

## Key Features

The key features of NetOp On Demand Remote Control include:

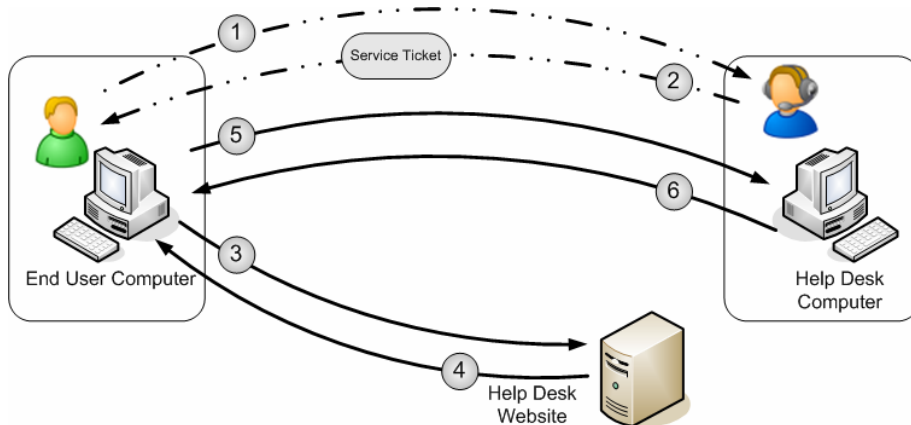
- No pre-installed software required
- Small downloadable file – only 650 kb in total
- Operational in seconds
- No footprint remains on the end user's computer
- Firewall friendly
- High security
- Easy to use – no training needed
- Help request with a one-time Service Ticket or a shared Help Service name
- View the end user's desktop
- Use the end user's keyboard and mouse
- Secondary mouse pointer for annotation by help desk staff in View-only mode
- File transfer for sending updates, drivers, and to retrieve data for further analysis
- Chat
- User-confirmed access
- Authentication to prevent unauthorized access to the help desk center
- Emergency disconnect using an automatically assigned hotkey
- Security roles to control allowed session actions
- Extensive event logging providing a basis for call tracking and invoicing
- Powerful encryption protecting the sessions against eavesdropping
- Session recording enabling auditing and documentation
- Communication over TCP using HTTP tunneling at port 80
- Proxy server support for Microsoft ISA Server 2004, Squid, KEN!, WinProxy 6.0, and CCProxy
- NetOp Gateway support including NetOp and Windows authentication
- Supports Intel based (x86) processors running Windows 2003, XP, 2000, ME or 98 (SE)

## How it Works

NetOp On Demand Remote Control is a way of offering services to end users. The system consists of two basic modules: A special Guest Edition of NetOp Remote Control (Guest) and a NetOp On Demand Remote Control Host (Host).

- The Guest is the visiting part - it can take control of the Host.
- The Host is the visited part - it can allow the Guest to take control.

To connect the Guest to the Host, a service ticket is required. The service ticket is the identifier enabling the connection between the end user computer and the help desk computer.



The end user and the help desk employee follow these steps:

1. An end user runs into a problem and calls the help desk center by phone.
2. The representative at the help desk center supplies a service ticket.
3. The end user is guided to a specific website.
4. The end user downloads and runs a small executable file containing the Host. The end user enters the required information, including the service ticket.
5. The Host connects to the help desk center.
6. If permitted by the end user, the help desk employee takes control of the remote computer and fixes the problem. When the session has ended, the Guest disconnects from the Host and the application automatically deletes itself.

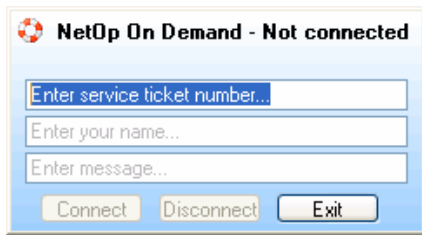
End users requiring help can visit a customized website and select a specific link to download an executable Host module and an XML-based configuration file packed together in a single file. After the executable has been downloaded and the configuration file has been read, the configuration file is deleted, leaving no footprint on the end user's computer.

Users use the small executable Host module on their desktop to issue a Help Request to the help desk center. They can choose to contact any help desk member who is available (using a "help service name") or, alternatively, they can specifically connect to a particular member of the help center, using a dynamic one-time name (called a "Service Ticket"). Using help service names allow users to manually or automatically establish a connection to the help desk, whereas using a service ticket requires the user to start the connection manually.

Each computer at the help desk center has a Guest installed. When the help request has been received it is added to a common queue for all help desk personnel to see. A help desk employee selects the request from the queue on their computer (this automatically removes it from the common queue) and he/she can then initiate a remote control session, online chat, or a file transfer session with the end user's computer.

## Access Any Desktop

NetOp On Demand Remote Control makes it possible for help desk centers to access any Windows desktop and provide support, *when requested*. After downloading the NetOp On Demand Host, the end user will see a small dialog box on their desktop:



The dialog box is always on top. The end user can enter the following information in the customizable fields:

- Enter service ticket number – a mandatory specific identification number provided by the help desk center.
- Enter your name – an optional field that uniquely identifies the user (for example, the user's e-mail address). If this field is left blank, the program will automatically assign the name: "Windows Logon name@Windows Computer name".
- Enter message – a short explanation of the problem (optional).

When the Host module is downloaded the default configuration includes the "Enter service ticket number" field. This field allows users to fill in a special one-time service ticket number that enables them to connect to a specific employee at the help desk center.

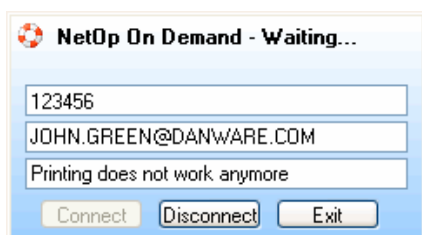
The configuration can be set up by the local NetOp Distributor to make the user's Host module either connect automatically to any available employee at the help desk center or to select a name from a list, or to enter it manually.

### Initiating a Help Request

After filling in the NetOp On Demand Remote Control dialog box, the end user can initiate the Help Request by clicking Connect. This establishes a connection to the help center. The call for help first reaches a NetOp Gateway that requires identification in order to access the help desk. The end user may be prompted for a username/password/domain, username/password, or just a password. These credentials can be embedded encrypted in the configuration file, avoiding the user being prompted for credentials.

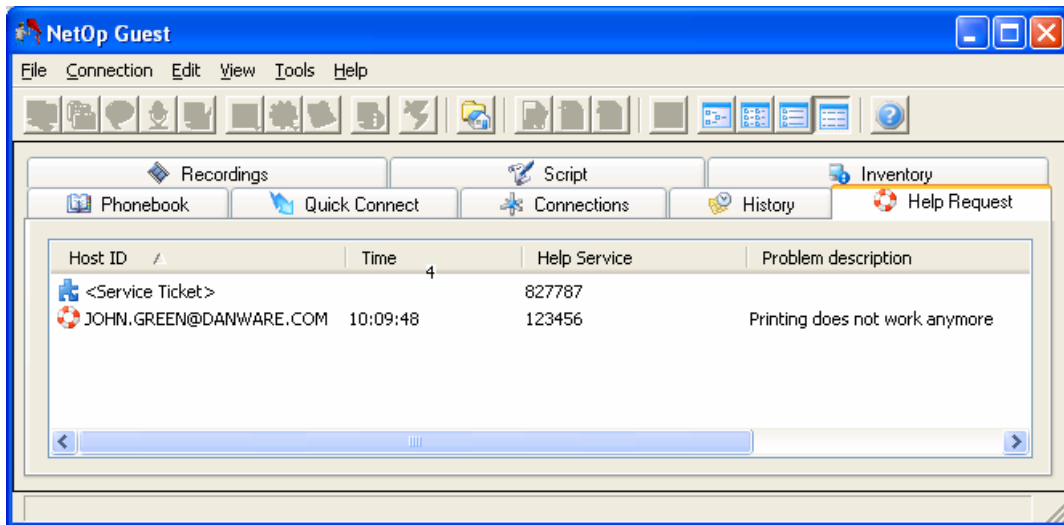


If the requested help service provider is found or the service ticket matches, the help request is delivered to the help desk center. The end user is notified of the changed status in the title of the dialog box: NetOp On Demand – Waiting ....



## Responding to a Help Request

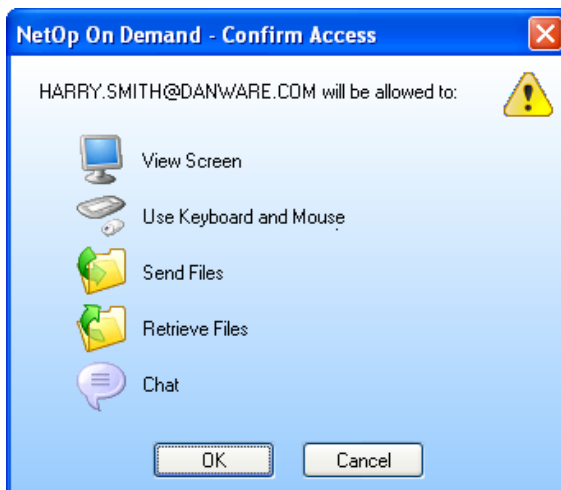
The help desk center receives the help requests in the main Guest window. The help desk employee selects the request and initiates the desired session type.



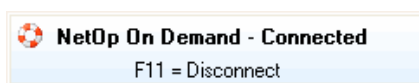
Once a help desk employee decides to respond to a help request and connect to a Host computer, the end user waiting for help will be prompted to accept the session.

## Confirming Access

The prompt to confirm access ensures that the end user always controls which Guests have access to their computer, and he or she is made aware of when this takes place. The end user sees the following Confirm Access dialog box:



Once the end user accepts, the help desk employee can see their desktop and the end user is again notified of the changed status, this time in the title: NetOp On Demand - Connected. At the same time, the application window shrinks to hide the edit boxes.



## Disconnecting

During the session, the end user always has the option to end the session by using the Disconnect hotkey displayed in the Host module – this hotkey is assigned every time a request for help is sent out and it is removed when not connected. The program selects a hotkey automatically, choosing a free function key, starting with F12 and working downwards until a free key is found.

## Modules

The complete NetOp On Demand Remote Control solution is delivered in three packages: NetOp Remote Control 8.0 CD with a standard Gateway license; NetOp Remote Control 8.0 CD with one or more Guest EX licenses; and a NetOp On Demand Remote Control CD containing the Host Module in two configurations; one for full access and another for view only, both with customer specific settings for communication and security.

The setup requires the presence of a web server, which is included in most operating systems starting from Windows 2000.

- NetOp On Demand Remote Control 1.3 Host  
A downloadable, digitally signed, pre-configured executable file, with limited functionality
- NetOp Remote Control 8.0 Guest EX  
An extended Guest, with a special serial number enabling sessions with On Demand Host
- NetOp Remote Control 8.0 Gateway  
A standard Gateway with a standard serial number

## Proxy Server Support

NetOp On Demand Remote Control communicates by using HTTP encapsulation, which creates a bi-directional data connection tunneled in HTTP requests.

If communicating through one or multiple HTTP proxy servers, each proxy server may, by design, allow or disallow tunneling mode communication that enables a free data packet flow. The alternative is transaction mode communication, which operates by single data packet requests and responses. Tunneling mode provides much faster data transfer than transaction mode.

Some proxy server designs identify themselves by adding a proxy server design identifier to data packet headers, while other proxy server designs do not.

Proxy server designs are many and varied and change frequently. NetOp On Demand Remote Control has been tested with these proxy server designs:

<b>Proxy Server Design</b>	<b>Allows Tunneling</b>	<b>Adds Identifier</b>
Microsoft ISA Server	No	Yes
Squid	No	Yes
KEN!	No	Yes
WinProxy Secure Suite 6.0	Yes	No
CCProxy	Yes	No

Both the NetOp Guest EX and NetOp Gateway (routing the help requests) can detect whether a help request is passed through a proxy server and can read any server design identifier.

If the help request does not pass through a proxy server, the Guest or Gateway responds in tunneling mode.

If the help request is passed through a proxy server, the Guest or Gateway will by default respond in transaction mode, because if tunneling mode is used but disallowed by a proxy server in the line of communication, the connection will be lost.

## Benefits of NetOp On Demand Remote Control

With NetOp On Demand Remote Control, end users can obtain remote support without having a pre-installed Host, when they need it and when they request it. Furthermore, the end user does not need to configure any firewalls or have administrative computer rights to run the Host, and they do not have to be concerned about security risks.

NetOp On Demand Remote Control offers the following competitive advantages:

- Complete product range – Because you use the same NetOp Remote Control 8.0 Guest interface whether you run On Demand sessions or traditional remote control sessions, you have a powerful tool for both internal/external technical support, as well as for system administration and network management.
- Higher security – Not all competitors offer 256-bit AES end-to-end encryption, and none of the products allow the encryption to be set at a level of choice. In addition, unlike competition, NetOp On Demand Remote Control doesn't use third-party servers to route the traffic, making sure the traffic is not vulnerable to hostile peeking.
- Faster connections – Because no third-party servers are used to route the traffic, the traffic pattern is more straightforward and therefore connections are faster.
- Multiple/single connection – Not all competitive products allow you to choose between connecting to an entire help desk or to individual help desk members.
- Superior scalability – The NetOp Gateway, which is part of the setup, can handle up to 200 concurrent sessions per Gateway. When extended with load balancing and multiple Gateways, this can support several thousand sessions.
- Rapid ROI – Reduced support costs through increased productivity and the ease of implementation result in a rapid return on investment.
- Increased customer satisfaction and loyalty – Customers get their support problems solved quickly and with minimum frustration.

## Conclusion

NetOp On Demand Remote Control is a new breed of remote support that is being rapidly adopted in help desk centers. It provides the next best thing to being there in person, letting technical support staff and help desk employees virtually sit next to their customers, see what's on their screens, and take over their desktops. NetOp On Demand Remote Control makes it easy to set up a connection to a help desk center, no matter how end users' computers are connected to the Internet and regardless of the hardware they are using.

Standing out from the competition, NetOp On Demand Remote Control makes it easy to diagnose and resolve issues, but most importantly, its design means that it does this in a way that is secure, under the end user's control, fast, and scalable. NetOp On Demand Remote Control doesn't require end users to install time-consuming or undesired software, and because it is part of the NetOp Remote Control product range, it comes with a track record of secure remote control, completing all your remote control needs.

For more information: [nod.netop.com](http://nod.netop.com)