

Using R-1 with SOCKS

1. What is SOCKS?

SOCKS is a proxy mechanism that allows client PCs to gain full access to hosts outside their local network while providing a high degree of security for the local network.

As a publicly available protocol, SOCKS is commonly used as a firewall, protecting local networks from unauthorized access from the outside. Access is managed from the private network to the public network, but access is denied from the public network to the private network.

Technically referred to as a circuit-level gateway, SOCKS actually consists of two components: a SOCKS server and a SOCKS client library. The SOCKS server establishes a connection and monitors ongoing access to and from the network.

The SOCKS Client installs on any client machine running the MS TCP/IP included with Microsoft's Windows NT/2000 and Windows 98/Me/XP operating systems. (The MS TCP/IP is the one that can be added to Windows for Workgroups.) With the SOCKS client installed, any Windows NT/2000, or Windows 98/Me/XP, or Windows for Workgroups workstation can take advantage of the SOCKS firewall security.

The SOCKS client supports SOCKS version 4 and 5.

2. How to Install and Configure

SOCKS server

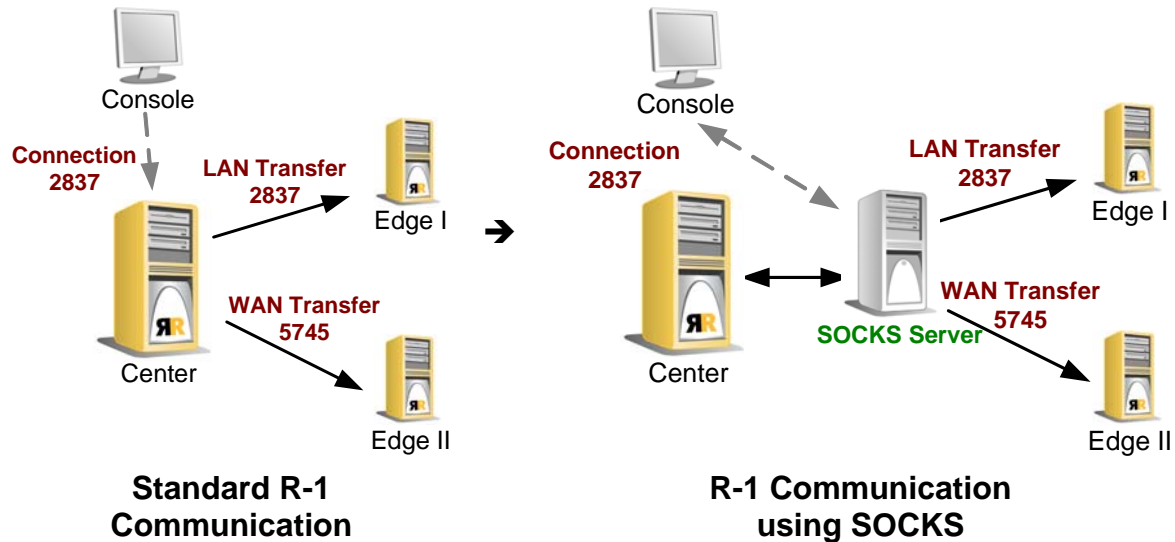
1. Install according to your SOCKS server installation instructions
2. Configure your SOCKS server to accept connections at the SOCKS IP:PORT.
R-1 uses ports 2837 and 5745.

SOCKS Client

Please follow carefully the steps below. All steps must be performed on any R-1 machine (Console, Center, Edge).

- **Port 2837** is used for Console ↔ Center communication and Center ↔ Edge LAN transfer.
- **Port 5745** is used for Center ↔ Edge WAN transfer.

Configure your SOCKS clients according to their role-play in R-1.



3. Step-by-Step

1. Download the Hummingbird SOCKS from:
http://www.hummingbird.com/products/evals/nc/socks_form.html
2. Install it on the R-1 machine.
3. Edit `c:\winnt\system32\hummingbird\connectivity\8.0\socks\socks.cfg`

Put in it only the following lines:

```
SOCKD5 @= serverlist dst_addr dst_mask dst_port EQ 2837  
SOCKD5 @= serverlist dst_addr dst_mask dst_port EQ 5745
```

Where:

- **serverlist** - is a comma separated list containing the names or IP addresses of SOCKS servers (use IP addresses for better performance). Each address may be optionally followed by an explicit port number if the server is listening on a non-standard port. (eg. 192.100.0.1:1081). The default port number is 1080.
- **dst_addr** - is a dotted quad IP network/host address (eg. 192.100.0.0)
- **dst_mask** - is a dotted quad IP netmask (eg. 255.255.255.0)
- **st_port** - is the number of a destination port (eg. 23)

Example

```
SOCKD5 @=192.168.71.128 192.168.71.100 255.255.255.0 EQ 2837  
SOCKD5 @=192.168.71.128 192.168.71.100 255.255.255.0 EQ 5745
```

Means that access to (and only to) 192.168.71.100 ports 2837, 5745 will be redirected using the socks server (192.168.71.128)

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For any additional information, contact us at support.repliweb.com