

# **eSoft InstaGate High Availability**

September 4, 2003

## ***Frequently Asked Questions***

1. What is the HA SoftPak?

The eSoft InstaGate High Availability (HA) SoftPak improves network reliability by allowing a backup InstaGate to operate in a “hot stand-by” mode. This provides unattended fail-over to a backup InstaGate in the event of a hardware or network failure.

2. How does the HA SoftPak work?

The backup InstaGate automatically detects when the primary InstaGate is no longer available and takes over for it. When the primary InstaGate becomes available again, the backup automatically returns to stand-by mode.

3. How is availability measured?

HA uses a “heartbeat” protocol for the backup to determine if the primary is available. The heartbeat can be done over an Ethernet network or serial cable. Any failure between the InstaGates, including hardware, switches, hubs or cables, will cause the fail-over to occur.

In addition, the primary unit uses the heartbeat protocol to monitor the backup unit. In the event of a failure in the backup unit, the system administrator is alerted with an email.

4. Do both InstaGates have to be installed on the same network?

Yes, the primary and backup InstaGates must be installed on the same network. For example, both LAN interfaces should be plugged into the same hub or switch.

5. Can both InstaGates be used at the same time?

No, when the backup InstaGate is in stand-by mode, it cannot be used. Once HA is disabled, the InstaGate can be configured and used normally.

6. Does HA work with any InstaGate model?

Yes, but the two InstaGates (primary and backup) must be the same model. For example, an InstaGate EX2 cannot backup an InstaGate PRO. The different InstaGate models are EX, EX2, xSP Branch Office, xSP Business, and PRO.

7. Does HA support all InstaGate network interface types?

HA only supports Ethernet as the primary network interface. It can only support other interface types, such as modems, as backups when used with Internet connection fail-over.

8. Can I upgrade my existing InstaGate to support HA?

Yes, by purchasing the HA SoftPak. However, you will need two InstaGates in order to use HA.

9. What happens when one InstaGate needs to be replaced?

When the primary InstaGate has to be replaced, the backup InstaGate will assume operation. After the primary InstaGate is replaced, the backup InstaGate will have to be reconfigured with the new serial number of the primary InstaGate.

10. How are the InstaGates configured?

Both InstaGates need to be configured with a unique IP address. The primary is also configured with a virtual address that will be shared between both InstaGates. The backup InstaGate will automatically download configuration information from the primary InstaGate.

11. Do I need unique IP addresses for each InstaGate?

Yes, each InstaGate needs a unique IP address. They also need a shared virtual IP address on each interface that you want to use with HA. Other network nodes, such as workstations and servers, should be configured to use the shared address so fail-over will work properly.

12. What information is synchronized between the InstaGates?

All system configuration information is synchronized between the InstaGates, except their IP addresses.

13. What is not synchronized between the InstaGates?

No user data, such as web sites and mailboxes, or log files are synchronized between the InstaGates.

14. Does the HA SoftPak have to be purchased/installed on both the primary and backup InstaGates?

No, the HA SoftPak is only required on the primary InstaGate.

15. Do I need to purchase the same SoftPaks on the backup InstaGate?

No, SoftPak subscriptions are only required on the primary InstaGate. The backup InstaGate will automatically mirror the SoftPak subscriptions of the primary.

16. Do I need to purchase Software Care on the backup InstaGate?

No, Software Care is only required on the primary InstaGate.

17. Do I need to purchase Hardware Care on the backup InstaGate?

If you want to extend your hardware warranty then you must purchase Hardware Care.

18. Does HA work with all eSoft SoftPaks?

HA is compatible with all eSoft SoftPaks, but will not automatically synchronize configuration information will all SoftPaks. The following SoftPaks are fully supported:

- Desktop Anti-Virus
- Gateway Anti-Virus
- Firewall Policy Manager
- Modem Communications
- Security Check
- SiteFilter
- SmartReports
- SpamFilter

The following SoftPaks are supported, but user data is not synchronized:

- Internet Server
- Mail Server
- Webmail

The following SoftPaks are supported, but configuration information is not synchronized:

- AppFilter
- Intrusion Detection and Prevention
- VPN Manager

19. Does HA work with Internet Connection Fail-over?

Yes, these features are independent, but compatible with each other.

20. Is HA transparent to my network applications?

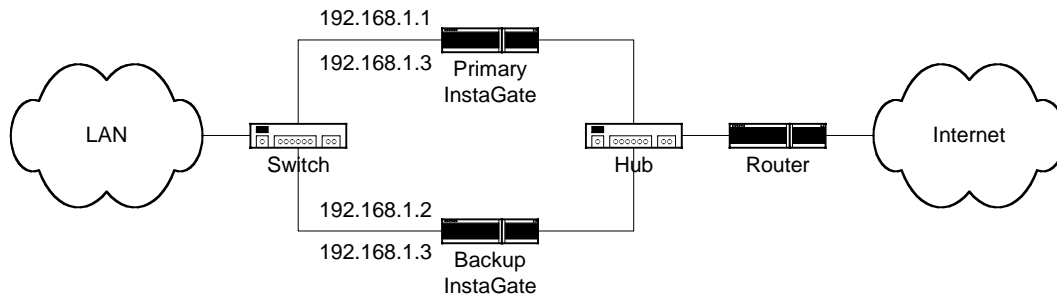
HA is transparent to most network users. However, active connections are not synchronized between the InstaGates, so they will be lost. This is transparent to most users because their applications should automatically reconnect just as they would after any temporary network outage. VPN tunnels will also be automatically reconnected. Because it takes approximately 10 seconds for fail-over to occur, users may notice a brief loss of network connectivity.

21. How long does it take for the backup InstaGate to detect a failure and assume operation?

It takes approximately 10 seconds for the backup InstaGate to detect a failure and take over operation.

## Example Configuration

In this example, two InstaGates are configured to provide fail-over between their LAN interfaces. Each InstaGate has unique LAN IP addresses of 192.168.1.1 and 192.168.1.2. They also share a virtual address of 192.168.1.3. Workstations and servers on the LAN are configured to use the shared 192.168.1.3 address as their proxy and/or default gateway.



The primary InstaGate is configured with the HA address and the port to use for verifying availability, as shown in the screen shot below.

**Network: High Availability** ?

**High Availability**

High Availability Clustering  Enabled

Mode

High Availability LAN Address

High Availability WAN Address (Optional)

High Availability DMZ Address (Optional)

**Availability Connection**

Verify availability via  LAN  
 WAN  
 DMZ  
 Serial Port 1

The backup InstaGate is configured with the address and password of the primary InstaGate, as shown in the screen shot below. After the backup is configured, it connects to SoftPak Director to download any necessary software and then synchronizes its configuration with the primary InstaGate.

**Network: High Availability** ?

**High Availability**

High Availability Clustering  Enabled

Mode Backup ▾

**Authentication**

LAN Address of Primary Node 192.168.1.1

Admin Password of Primary ●●●●●●●●

**Data Synchronization**

Synchronization Interval 15 Minutes

Apply Cancel

When the primary InstaGate is active, it accepts requests for the shared address (192.168.1.3) and replies or forwards requests to the Internet as necessary. The backup InstaGate regularly polls the primary InstaGate to ensure it is available. When the primary becomes unavailable, the backup InstaGate becomes active and starts accepting requests for the shared address (192.168.1.3). Other network systems are unaware of the change and do not have to be reconfigured to use the backup InstaGate. A similar configuration will work with the WAN and DMZ interfaces.