

Integrated High Availability™ (iHA)

iHA Delivers Deep Automation and Real Availability for Resilience Customers

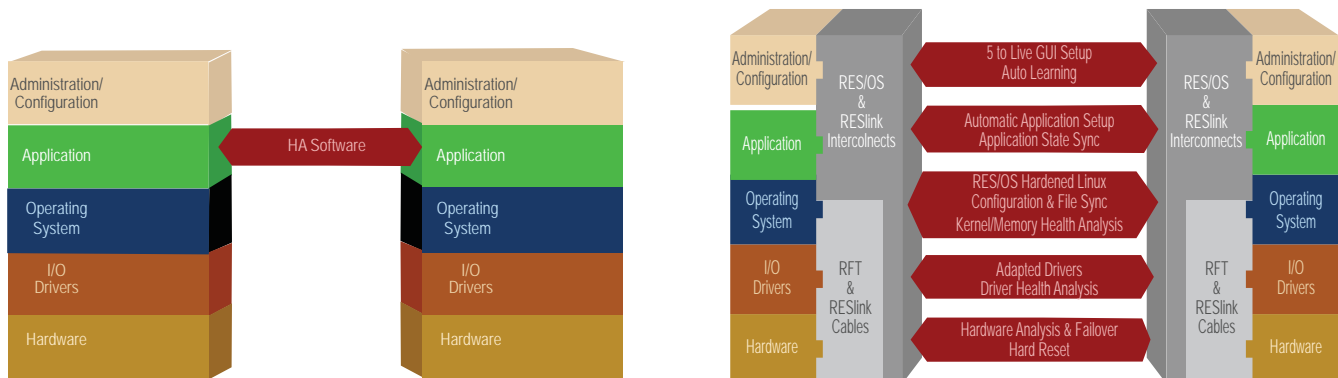
When your security isn't available, your network is either open to catastrophic attack or is offline — placing your profitability at risk. “Gartner expects high availability — the ability to remain continuously operational through such features as backup and fail over processing — to become a standard feature in firewalls, with leading products having the ability to place at least two firewalls in parallel and to provide automated switchover*.” Resilience’s Integrated High Availability™ (iHA™) delivers availability of 99.999% (Five Nines) which effectively eliminates security-related network downtime — both unplanned and planned — for superior business continuity. Resilience’s hyper-availability derives from three factors:

- superior failover architecture
- automation that minimizes human intervention, and
- engineered upgrade paths.

iHA Fails Over when HA Just Plain Fails

Ordinary HA architectures monitor only the application layer to detect “heartbeat” and sometimes state to trigger failover. Denial of service attacks and connectivity problems can cause asynchronous routing or “split brain syndrome” that floods the network with data from both modules, taking the system down. Standard HA architecture is also vulnerable to intermittent software failures (OS, kernel, drivers) that go undetected by the application.

In contrast, Resilience’s RESlink™ architecture integrates high availability across all system layers to create iHA — a multi-layer trigger solution that has no single point of failure. iHA architecture prevents split-brain syndrome and other faults that cause standard HA systems to fail.



Standard HA monitors one layer for 99.9% uptime or over 500 minutes of network outage per year.

iHA integrates HA across all layers for 99.9% availability or 5 minutes of outage per year.

iHA Automation Eradicates Planned Network Disruptions

With ordinary HA, planned downtime for administration, recovery and upgrades causes hours if not days of non-availability. Resilience's self-configuring modules and RESlink connectivity let users hot swap replacement modules and perform rolling hardware and software upgrades in the field, in minutes, with little or no disruption to active firewalls. Simply connect a replacement or upgrade module and power it up. The active module configures the new module without human intervention or error. Resilience iHA security appliances effectively eliminate unplanned and planned network outages for Five Nines availability.

iHA Available at Three Levels

You can configure Resilience security appliances for any of three levels of iHA to meet a variety of availability and economic challenges: iHA with Cluster XL, iHA and iHA Ready.

iHA with Cluster XL – the ultimate availability

If your organization can tolerate zero discontinuity in session, Resilience offers iHA with Cluster XL. This two module, two-license architecture provides full state failover with no loss of session and supports all Cluster XL configurations.

iHA, Hot Standby – Two appliances conserve capital with a single Check Point license

Enterprises that want to balance availability with economy will find the optimum solution in Resilience iHA appliances configured for Hot Standby. iHA appliances automatically fail over after a thirty-second pause. Since software contributes significantly to the cost of security, iHA appliances configured for Hot Standby provide the best balance of availability and value.

iHA Ready – Ready for iHA when you are

Where economy is the driving factor, Resilience offers robust Secured By Check Point™ security appliances in single-module, single Check Point license configurations. Users can upgrade from iHA Ready to iHA with automatic failover by adding a second module.

Integrated High Availability from Resilience delivers the highest level of availability during normal operation as well as during administration, recovery and upgrades. With Resilience's Continuous Secured Ownership WarrantySM ensuring the longest product life in the industry, Resilience security appliances give new meaning to the word "available."

IHA integrates HA across all layers for 99.999% availability or 5 minutes of outage per year. Standard HA monitors one layer for 99.9% uptime, or over 500 minutes of network outage each year.

* Gartner Research, DPRO-90319, June 3, 2004

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