

Software-Defined WAN (SD-WAN)

Use every link you pay for — and keep calls clear when one fails

Connects your offices over every internet link they have and keeps each application on the link that suits it — calls on the cleanest, bulk on the cheapest, LTE only when nothing else works.



TotalHeal
LinkFabric

Contents

1	Executive summary	6	Security and data handling
2	The challenge	7	Where it fits
3	Architecture	8	Deployment and system requirements
4	How it works	9	Technical specifications
5	Capabilities in detail	10	Getting started

1 Executive summary

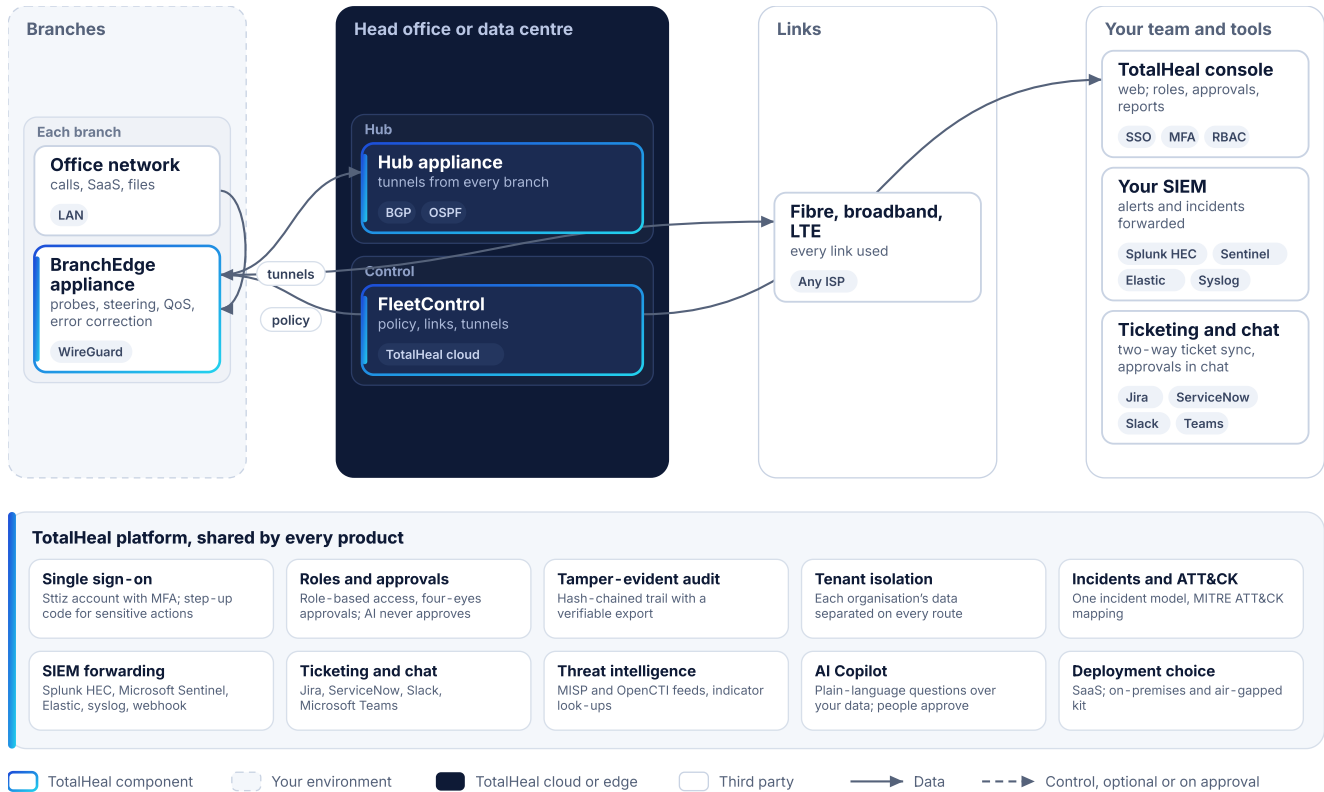
LinkFabric builds encrypted tunnels over every internet link of every office, measures each link every two seconds and steers each application over the link that meets its needs, with error correction and copies for the links that lose packets.

2 The challenge

Offices have two or three internet links and use one: the backup sits idle until the main link fails and calls freeze while someone notices. MPLS between sites is expensive, and a lossy broadband link makes video calls unusable even when it is up.

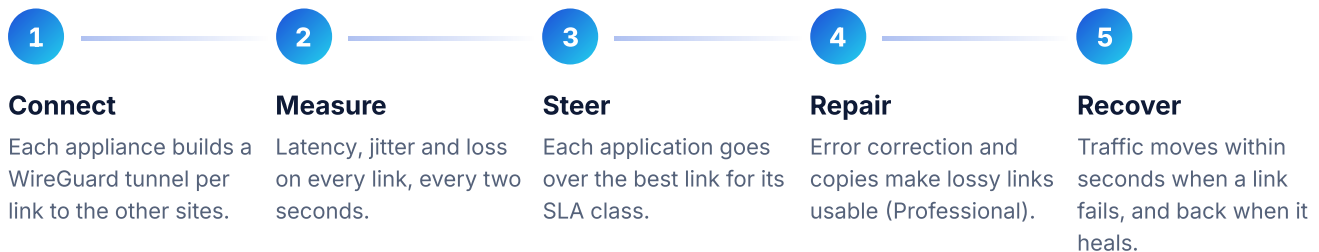
The TotalHeal approach. LinkFabric runs on the same BranchEdge appliances as FireWarden. Each appliance builds an encrypted WireGuard tunnel over every internet link to the other sites, measures every link every two seconds, and sends each application over the link that meets its needs — moving it within seconds when a link degrades, and back when it recovers.

3 Architecture



Each appliance builds a tunnel per link to the hub or every site, measures each link and steers each application; FleetControl sends the policy.

4 How it works



5 Capabilities in detail

- Tunnels over every link**

One WireGuard tunnel per internet link to the other sites, hub-and-spoke (branches reach each other through a hub) or full mesh; branches behind NAT dial the hub.

Measured, not assumed

Latency, jitter and loss on each link every two seconds, measured over the link itself; a link with five failed probes in a row is down and its traffic moves at once.

Each application where it belongs

Steering rules by application or destination with an SLA class — calls and meetings, business SaaS, bulk; the best link that meets the class, in your order of preference, with LTE and 5G only as a last resort. Flows stay on their link while it is healthy.

Lossy links made usable

On the Professional tier: forward error correction (one parity packet per 2–16) rebuilds lost packets; calls can be copied over a second link; traffic between offices can be spread packet by packet over every link; flows can be balanced by bandwidth.



Call quality

On the Professional tier, a MOS score per link, estimated from latency, jitter and loss.



QoS and routing

Upload shaping on every link with classes and DSCP marking; static routes, BGP and OSPF; DHCP and the office resolver.



Zero-touch

Register an appliance's serial number with its site and template before it ships; on first contact it sets itself up.

6 Security and data handling

Measured over the link

Each link is probed through itself, so a dead link is never reported healthy.

Encrypted between sites

Office-to-office traffic always travels inside WireGuard.

Backup stays backup

Metered links carry traffic only when nothing else meets the need.

No loops

The tunnels' own packets always leave through their own link.

7 Where it fits

Retail chains on broadband

Replace MPLS with two broadband links and LTE backup per store.

Clear calls

Teams and Zoom stay on the cleanest link and move before people notice.

Rural sites

Error correction keeps a lossy link usable for business applications.

8 Deployment and system requirements



Cloud (SaaS)

Available

Policy and FleetControl in the TotalHeal cloud; appliances at your sites.



On-premises

Available

Delivered with our team from the on-premises kit.



Air-gapped

Available

Offline kit, offline licence file and offline update bundles.

Protected platforms



BranchEdge appliance

Debian 12 or Ubuntu 22.04+, x86-64 or arm64



Links

Fibre, broadband, MPLS, LTE / 5G, satellite

On-premises server

Operating system

RHEL, Rocky Linux or AlmaLinux 8 / 9; Ubuntu 20.04, 22.04 or 24.04; Debian 11 / 12

Processor

4 vCPU (tested configuration)

Memory

8 GB recommended (6 GB minimum)

Disk

Network and access

- A BranchEdge appliance at each site
- A public address at the hub (or at each site for full mesh)

Alerts and tickets to

splunk> Splunk



Microsoft Sentinel



Elastic



Syslog / CEF

10 GB free for software, releases and backups, plus data

Sign-in

Active Directory / LDAP, SAML 2.0 or OpenID Connect

Software

Nothing to pre-install: no container runtime, database, web server or Java



Jira



ServiceNow



Slack



Microsoft Teams



9 Technical specifications

Features	Included		
Tunnels over every link	✓ Included		
Measured, not assumed	✓ Included		
Each application where it belongs	✓ Included		
Lossy links made usable	✓ Included		
Call quality	✓ Included		
QoS and routing	✓ Included		
Zero-touch	✓ Included		
Availability by tier	Essential	Professional	Elite
WireGuard tunnel per internet link; hub-and-spoke or full mesh; zero-touch set-up by serial number	✓ Included	✓ Included	✓ Included
Latency, jitter and loss on every link every 2 seconds; steering by SLA class with failover; LTE / 5G only as a last resort	✓ Included	✓ Included	✓ Included
QoS with DSCP; static routes, BGP and OSPF; DHCP and the office resolver	✓ Included	✓ Included	✓ Included
Balance flows over links; stripe packets over every link between offices; copy calls over a second link	—	✓ Included	✓ Included

Forward error correction on the tunnels (one parity packet per 2–16)	—	✔ Included	✔ Included
Call quality (MOS) per link	—	✔ Included	✔ Included
High-availability pairs (VRRP)	—	—	✔ Included
List price per appliance per year	US\$180 · ₹17,130	US\$330 · ₹31,400	US\$480 · ₹45,680
Platforms and coverage			
Appliance	BranchEdge: Debian 12 or Ubuntu 22.04+, x86-64 or arm64		
Links	Fibre, broadband, MPLS, LTE / 5G, satellite — any IP link		
Data plane	WireGuard, Linux policy routing, nftables, tc, FRR (BGP, OSPF), keepalived (VRRP)		
Deployment options			
SaaS	✔ Available Policy and FleetControl in the TotalHeal cloud; appliances at your sites.		
On-premises control plane	✔ Available Delivered with our team from the on-premises kit.		
Air-gapped	✔ Available Offline kit, offline licence file and offline update bundles.		
Licensing			
Priced per	appliance per year		
Counted	BranchEdge appliances running LinkFabric		
Trial	30 days, up to 2 appliances		
Editions	LinkFabric is sold on its own, per appliance; FleetControl is included.		
Government profile	Government is a profile, not a separate tier or price list: the Elite tier with Government defaults switched on — data residency in India, four-eyes approval of policy changes, a distinct approver for every approval-level action, retention of at least 180 days, and the CERT-In and DPDP reporting clocks.		
Procurement dossier	Compliance matrix, bill of materials, architecture and hardening, SLA and OEM authorisation letter, on request		
On-premises server			
Operating system	RHEL, Rocky Linux or AlmaLinux 8 / 9; Ubuntu 20.04, 22.04 or 24.04; Debian 11 / 12		
Processor	4 vCPU (tested configuration)		
Memory	8 GB recommended (6 GB minimum)		
Disk	10 GB free for software, releases and backups, plus data		
Sign-in	Active Directory / LDAP, SAML 2.0 or OpenID Connect		

Software	Nothing to pre-install: no container runtime, database, web server or Java
Requirements	
Requirement 1	A BranchEdge appliance at each site
Requirement 2	A public address at the hub (or at each site for full mesh)

10 Getting started

- A BranchEdge appliance at each site
- A public address at the hub (or at each site for full mesh)

Start a 30 days, up to 2 appliances trial in the TotalHeal console with a Sttitz account. For a quote, an on-premises installation or the procurement dossier (compliance matrix, bill of materials, architecture and hardening, SLA, OEM authorisation letter), write to business@totalhealsecurity.com.

About TotalHeal

TotalHeal is a security platform from Freaquer Corporation Pvt Ltd: endpoint, network, application, cloud, security-operations and backup products, each sold on its own and run from one console.

Datasheet

totalhealsecurity.com/datasheet/linkfabric

Figures are from our own tests where stated, with their dates. Specifications can change; this whitepaper is dated 27 October 2026.