



PRODUCT BRIEF · S.A.L.T CI

# S.A.L.T NEXUS

One sovereign console for every server and desktop you run. Terminals, files, fleet health and remote desktop in one browser tab, with an AI engineer that reads, runs and reports with you, on any device.

NEXUS Shell · SSH & files

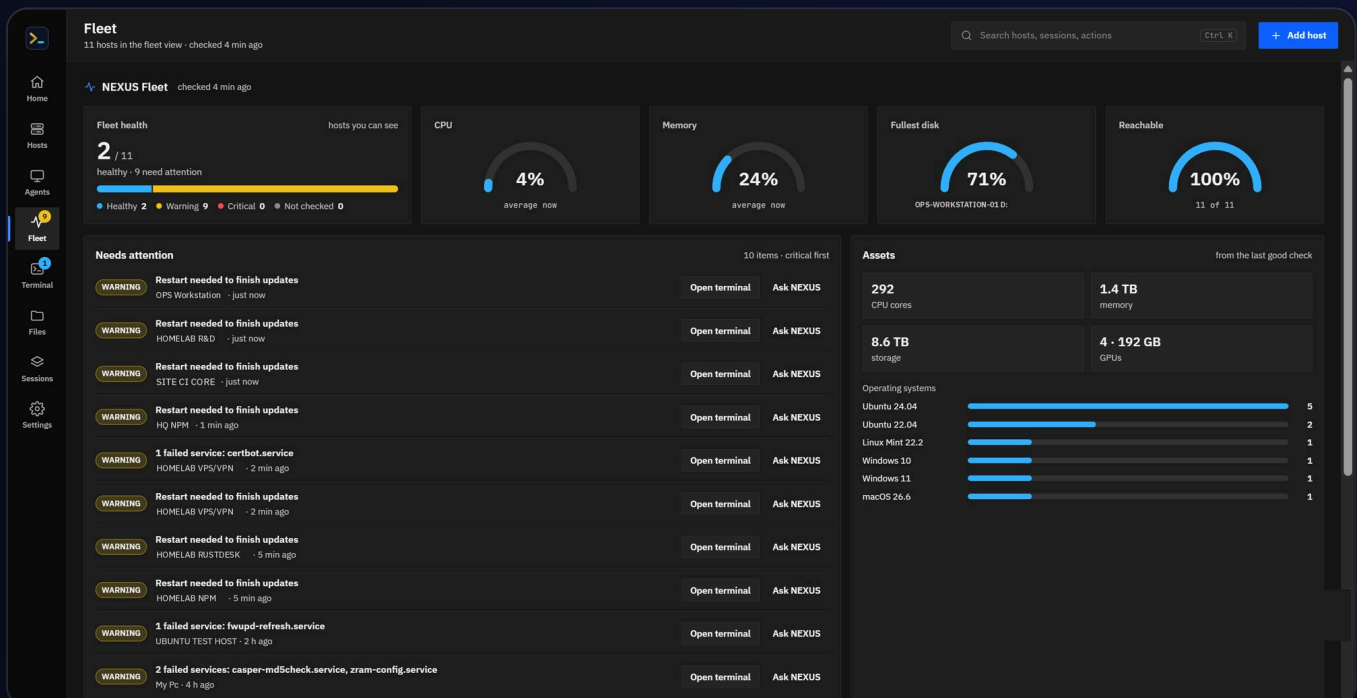
NEXUS Fleet · agentless health

NEXUS Desktop · RDP, VNC & Agent

NEXUS AI · sees and acts, with your OK

Credential vault & full audit

Self-hosted, air-gap ready, white-label



## 01 · THE PROBLEM

# Running an estate still means **six tools** and a lot of **copy-paste**

An engineer's day: PuTTY or PowerShell for one server, WinSCP for files, a remote-desktop tool for the Windows box, a monitoring page nobody checks, passwords in a notebook, and terminal output pasted into a chat AI that cannot see the machine. Nothing is shared, and nothing is recorded in one place.



## Tools everywhere

Terminal, file transfer, remote desktop, monitoring and AI are separate apps with separate logins and no shared history.



## Credentials scattered

Passwords and keys live in notes, scripts and personal laptops, with no control when people move on.



## AI that cannot see

Chat assistants guess from pasted snippets. They cannot run a command, read the screen, or check their own advice.



## No view of the fleet

Disks fill and restarts pile up unseen. Most monitoring needs an agent on every machine before it shows anything.



## Remote desktop outside

Desktops behind NAT go through a third-party relay, outside the organisation's audit and its own servers.



## Tied to one desk

Close the laptop and the session is gone. A phone cannot pick up where the office PC left off.

## WHAT S.A.L.T NEXUS CHANGES

| BEFORE                                  | WITH S.A.L.T NEXUS                                                                                                                   |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>A desktop SSH client per PC</b>      | A web app (PWA) for Windows, macOS, Linux, Android and iPhone. Sessions live on the server and keep running when the browser closes. |
| <b>Passwords in notes</b>               | A vault on the server: every secret sealed with AES-256-GCM, unsealed only to connect, never sent to a browser.                      |
| <b>A separate file tool</b>             | Files beside every terminal, server to server, and any local folder through the NEXUS local bridge.                                  |
| <b>Monitoring as a project</b>          | NEXUS Fleet reads the health of every server through the access NEXUS already holds. Nothing to install.                             |
| <b>Remote desktop through outsiders</b> | NEXUS Desktop: RDP and VNC with nothing installed, or the NEXUS Agent behind NAT, relayed by your own NEXUS server.                  |
| <b>Copy-paste into a chat AI</b>        | NEXUS AI sees the live terminal and the remote screen, runs commands and clicks with you, and asks before anything risky.            |
| <b>Nobody knows who did what</b>        | Roles, private hosts and one audit log for sign-ins, sessions, commands, desktops, transfers and AI steps.                           |

## One tab: every server, every desktop, and an AI engineer beside you.

Open it on the office PC, carry on from the phone. Every device shows the same sessions, the same screens and the same conversation, live.

## 02 · THE PLATFORM

# One console, **four modules**, one intelligence

S.A.L.T NEXUS is the secure-access and operations layer of S.A.L.T CI. A NEXUS server holds people, hosts and credentials; the web app reaches Linux, Windows, BSD and macOS machines over SSH, RDP, VNC or the NEXUS Agent. The modules share one sign-in, one vault and one audit log.

## MODULE

**NEXUS Shell**

SSH terminals and files in the browser. Sessions outlive the page and follow you to every device.

## MODULE

**NEXUS Fleet**

Health and assets of every server and PC, agentless over SSH or reported by the NEXUS Agent.

## MODULE

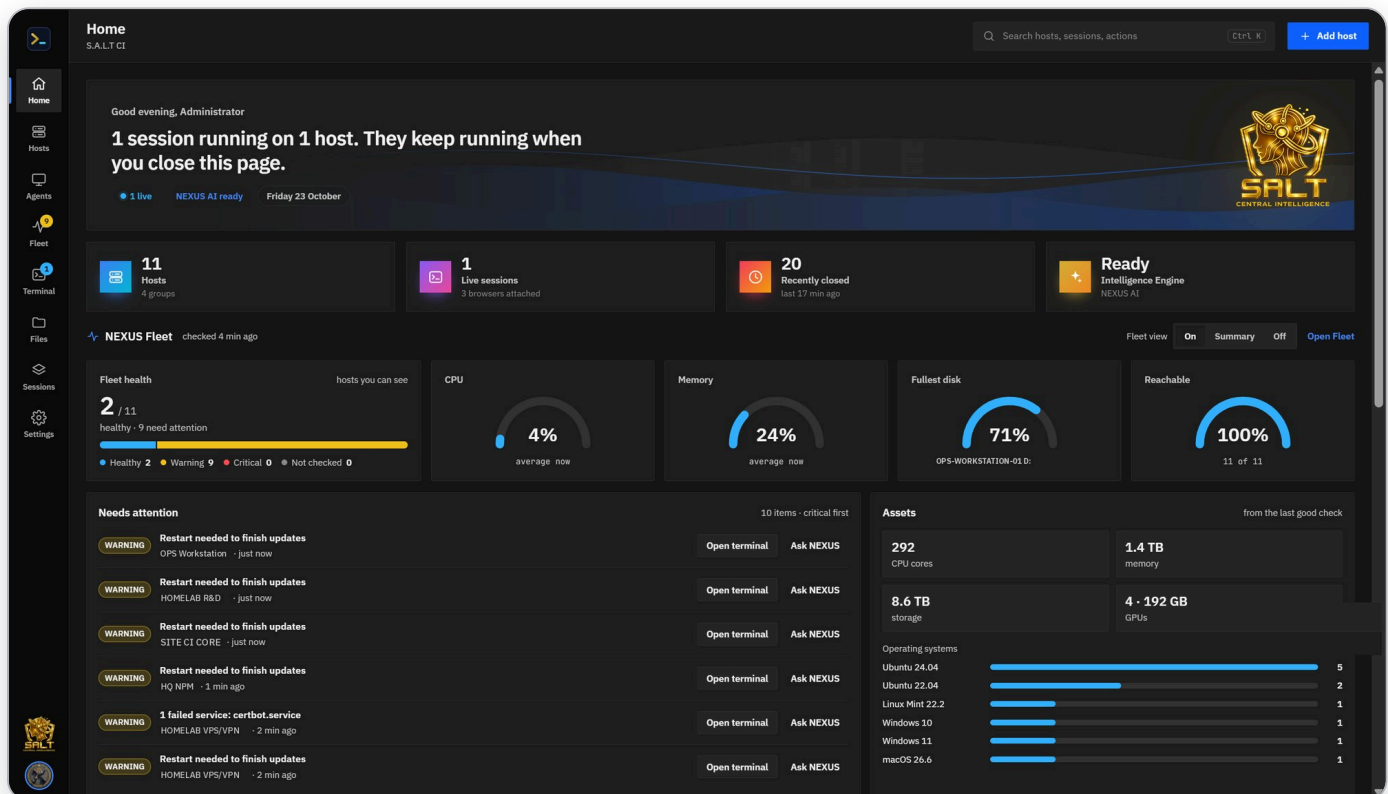
**NEXUS Desktop**

Remote desktop over RDP and VNC, or the NEXUS Agent for Windows, Linux and macOS behind NAT.

## THROUGHOUT

**NEXUS AI**

The NEXUS Intelligence Engine: reads terminals and screens, runs and clicks with you, writes the report.



**Home.** Live sessions, the engine's status and the fleet at a glance: health, gauges, what needs attention, and the assets behind it. Host names in this brief are illustrative.

**Sessions that follow you**

Terminals and desktops run on the NEXUS server. Close the page, open it on the phone, and pick up the same tab with what happened while you were away.

**Ctrl+K for everything**

Connect, attach, open a desktop, jump to any host or page, add a host or switch theme from one palette.

**One record**

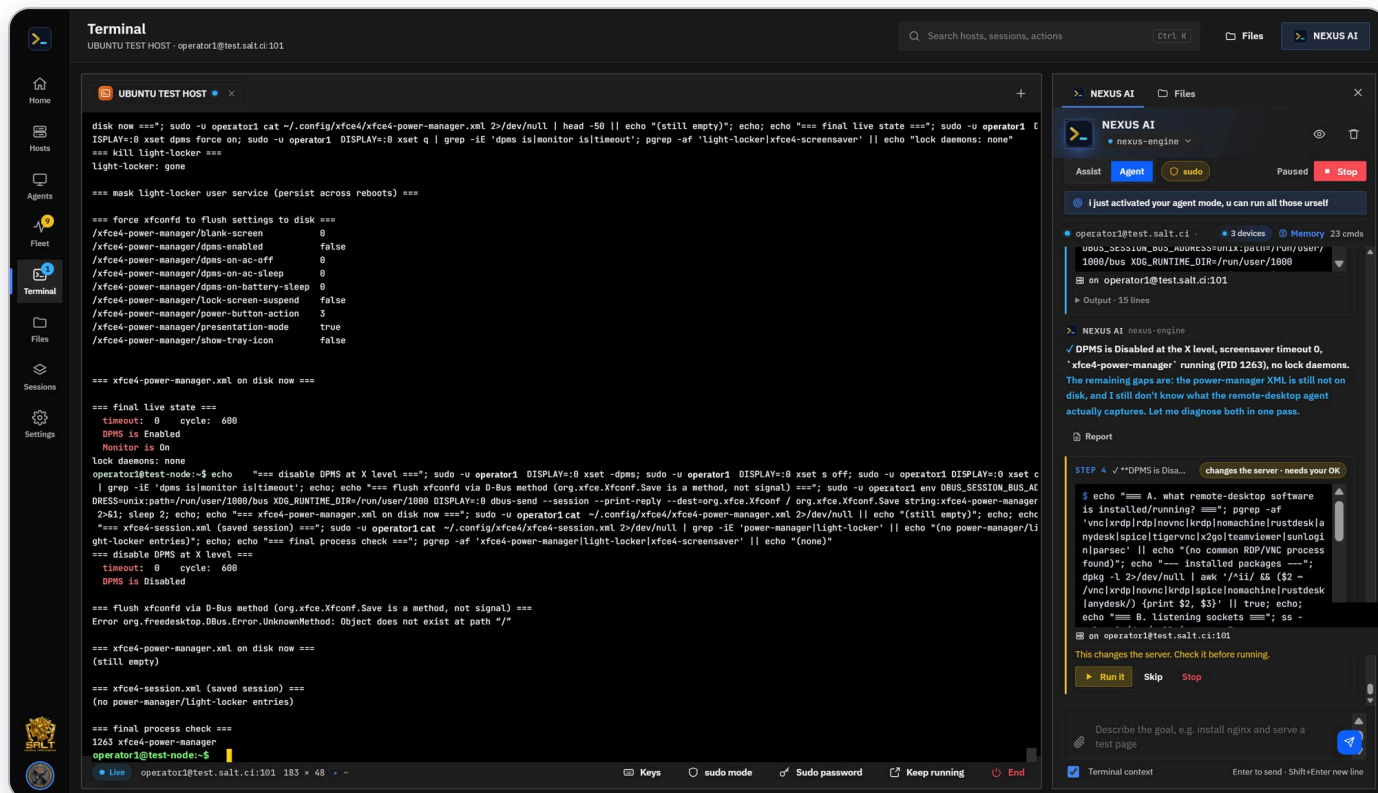
Every sign-in, session, transfer, desktop, consent answer and AI step is audited with person, time, address and outcome.

## 03 · NEXUS SHELL

# A terminal that **works with you**, not just for you

Many tabs, many sessions to one host, and NEXUS AI in the side panel watching the same terminal.

Below, the agent has diagnosed a desktop power-management problem step by step, and its next step waits for an OK because it changes the server.



**Agent mode.** Read-only steps run by themselves; each step card says where it runs. "Changes the server · needs your OK" holds the command until someone presses **Run it**, from any signed-in device.

## Terminal that follows you

- Background sessions with replay of what you missed
- Reconnect in the same tab when a host drops
- bash, zsh (macOS), BSD shells, Windows cmd and PowerShell

## Smart keys

- nano, vim, less, http and pagers get their own key strip
- One-tap answers to Save? (y/n) prompts
- Ctrl and Alt latches for keys the browser keeps

## Sudo from the vault

- One button types the stored sudo password
- Optional automatic answer per host
- Never shown, never logged

## Your terminal, your way

- Six themes, fonts, cursor, scrollbar and bell
- Right-click paste and a check before multi-line pastes
- Scroll wheel and swipe scrolling, even inside full-screen programs

## Recorded when it matters

- Session recording and playback per policy
- Searchable timeline of commands and output
- Turned into a branded Word or PDF session report

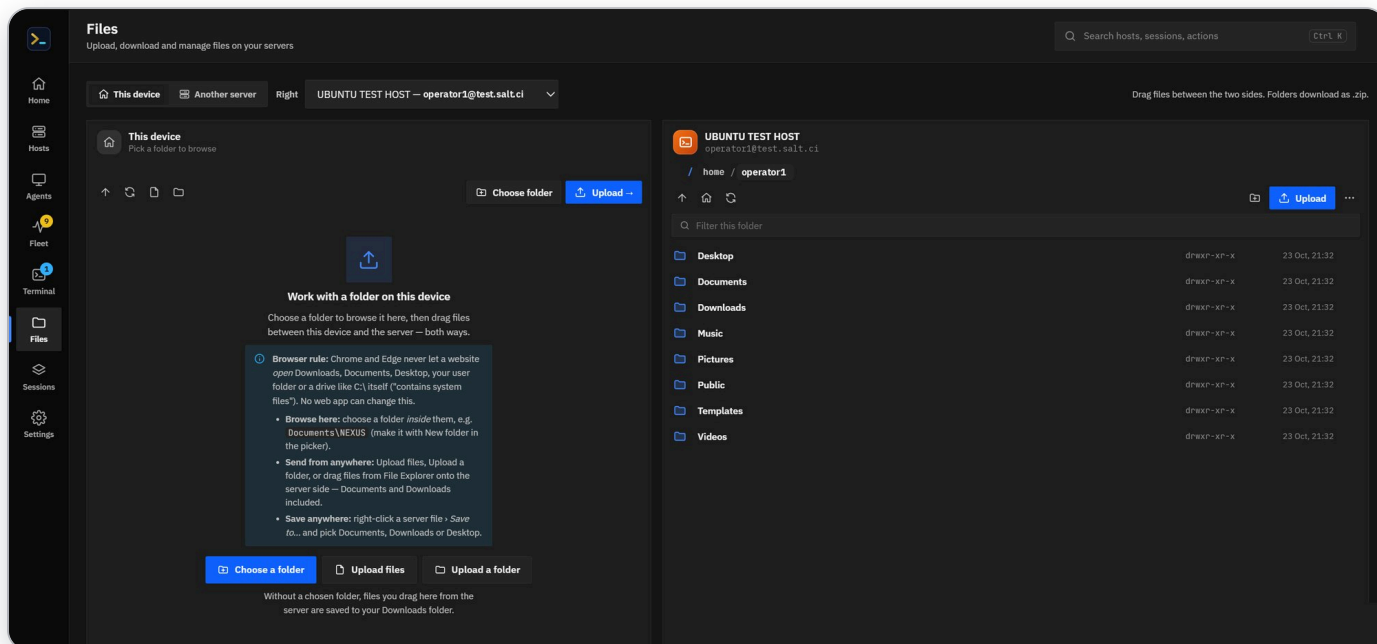
## Team runbooks

- Save a goal as a runbook: "patch and reboot web tier"
- Shared across the organisation, run by NEXUS AI
- Same safety rails as every agent run

## 04 · FILES &amp; HOSTS

# Every file and every host, **reachable and in order**

Files open beside the terminal over the same connection. Drag between this device and a server, or between two servers, and the copy runs on the NEXUS server, never through the browser.



**Files.** This device on the left, a server on the right. Switch the left side to **Another server** for server-to-server copies.

## Transfers that finish

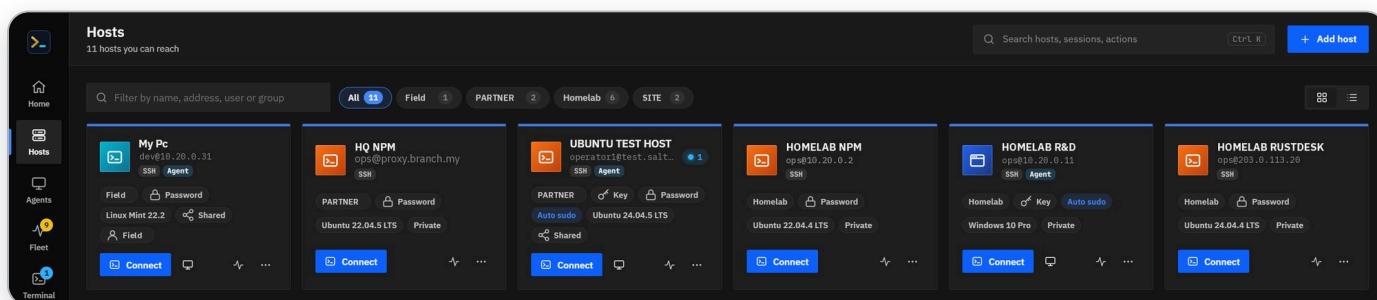
- Upload, download, zip folders, edit text in place
- Copy or move server to server, with progress on every device
- Jobs resume after a restart; optional speed limit

## NEXUS local bridge

- A small helper on your PC opens any local folder: C:\, Documents, Downloads
- Goes beyond what browsers allow a web app
- Off until you install it; audited like any transfer

## Clone a host, or fifty

- Duplicate a host with its port, user, sign-in and group
- Add several: paste a list of addresses, test them in one go
- Credentials copied on the server, never in the browser



**Hosts.** Groups, sign-in method, auto-sudo, sharing and OS on every card; SSH and Agent badges show how each machine is reached.

## Through a VPN tunnel

Reach a host or group through a tunnel set on it, with presets for WireGuard, OpenVPN, IPsec/IKEv2, Tailscale/Headscale, ZeroTier and SoftEther. Split tunnel only, credentials sealed in the vault, opened only for the session.

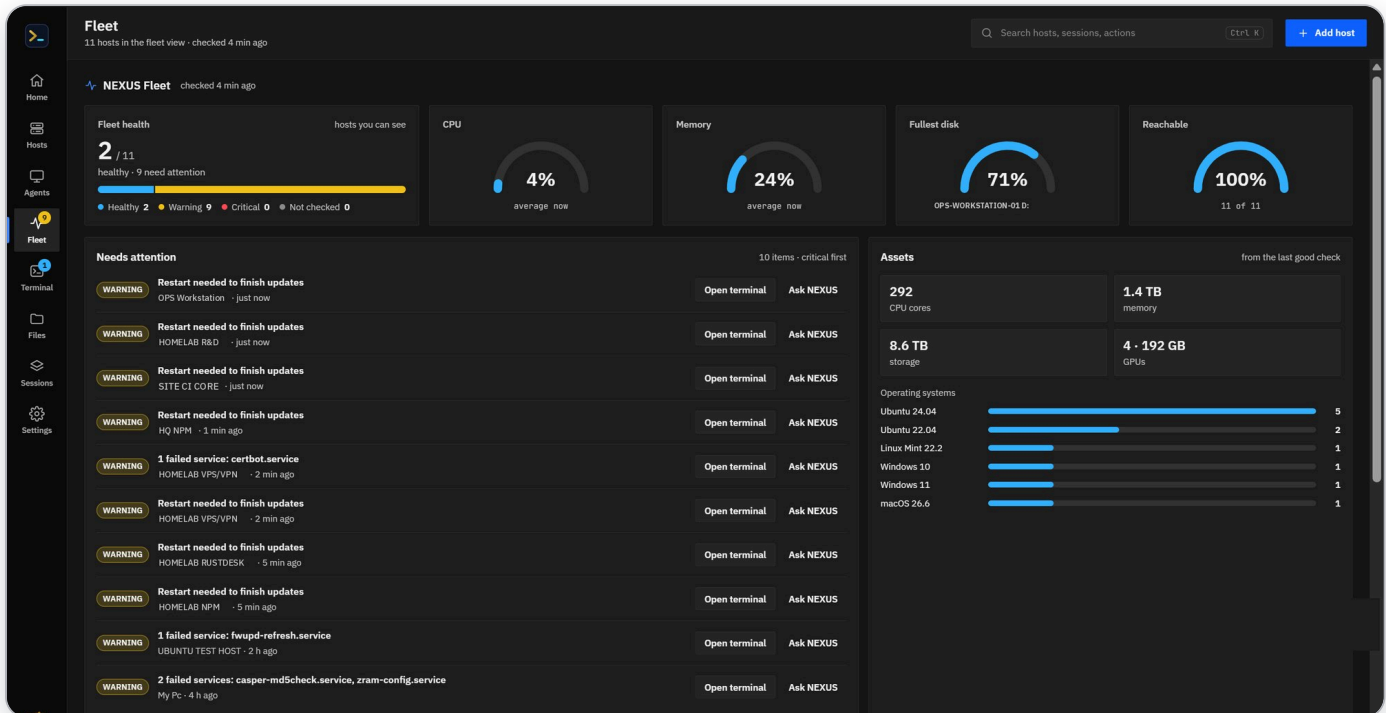
## Jump hosts and bastions

Chain through a bastion to reach private subnets, with each hop's key checked. Machines with no inbound access at all join through the NEXUS Agent.

## 05 · NEXUS FLEET

# The health of the whole estate, with nothing to install

NEXUS already holds trusted access to every server. NEXUS Fleet uses it: one short batch of read-only commands per host, every few minutes, on its own connection. Windows machines report through the NEXUS Agent instead. Management gets the picture without another agent rollout.



**NEXUS Fleet.** Fleet health, CPU, memory, fullest disk and reachability; what needs attention, critical first, each with **Open terminal** and **Ask NEXUS**; assets across the estate.

## HEALTH RULES

| CHECKED           | WARNING        | CRITICAL |
|-------------------|----------------|----------|
| Each disk         | 80%            | 90%      |
| Memory            | 85%            | 95%      |
| CPU               | 95%            | per host |
| Load              | 2x cores       | per host |
| Failed services   | one or more    | per host |
| Restart / updates | restart needed | per host |
| GPU temperature   | 85 °C          | per host |

Thresholds can be set per host. Linux and macOS over SSH; Windows through the agent, with GPU, load and pending Windows Updates.

## History and forecasts

30 days of trends per host and "/data full in about 7 days" before it happens.

## Alerts where people are

Email and WhatsApp alerts by rule and severity, one per outage, with a recovery notice.

## Monthly infrastructure report

A branded Word and PDF report of health, incidents, capacity and assets, for management.

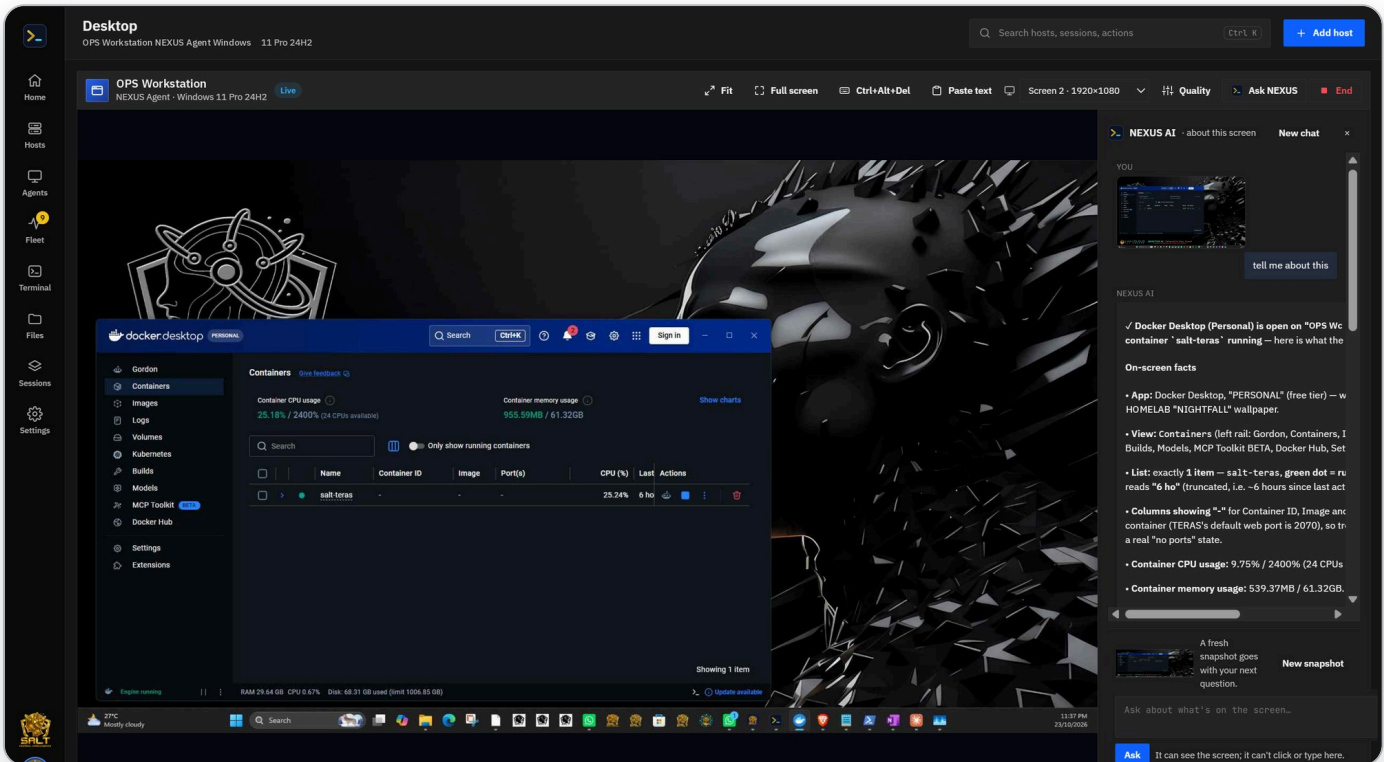
## Viewer role and TV view

Management sees the dashboard, host pages and reports, never terminals or files. A kiosk view runs on the operations-room screen.

## 06 · NEXUS DESKTOP

# Remote desktop on **your own ground**, with AI beside it

Machines NEXUS can reach open over RDP or VNC with nothing installed. Machines behind NAT run the NEXUS Agent, which connects out, so nothing opens on their firewall. Your own NEXUS server relays the screen.



A Windows 11 workstation through the NEXUS Agent, second of two monitors. NEXUS AI explains what is on screen in a running conversation; each question takes a fresh snapshot.

## Every system

Windows and Server, Linux (X11 and Wayland), macOS. Sign-in screen, UAC and Ctrl+Alt+Del.

## Picture that adapts

Sharp tiles for text; hardware H.264, VP9 or AV1 for motion; bitrate follows the link.

## Clipboard both ways

Copy there, paste here, and back again, live. Text and files.

## Files and sound

Drop files into the session or pull them out; remote audio plays in the browser.

## Consent your way

Unattended, attended, or "Ask the user" once. Every answer audited.

## Visible session

A NEXUS Session active balloon shows who is connected, on the machine and optionally in your view.

## Multi-monitor

Pick any screen; clicks land on the right monitor. Fit, 1:1 and full screen.

## Recorded

Recorded per policy, with playback and a session report.

### Your device

Browser or installed app. Ctrl+C here...



### NEXUS server

Relays screen, input, clipboard, files and audio; audits it all



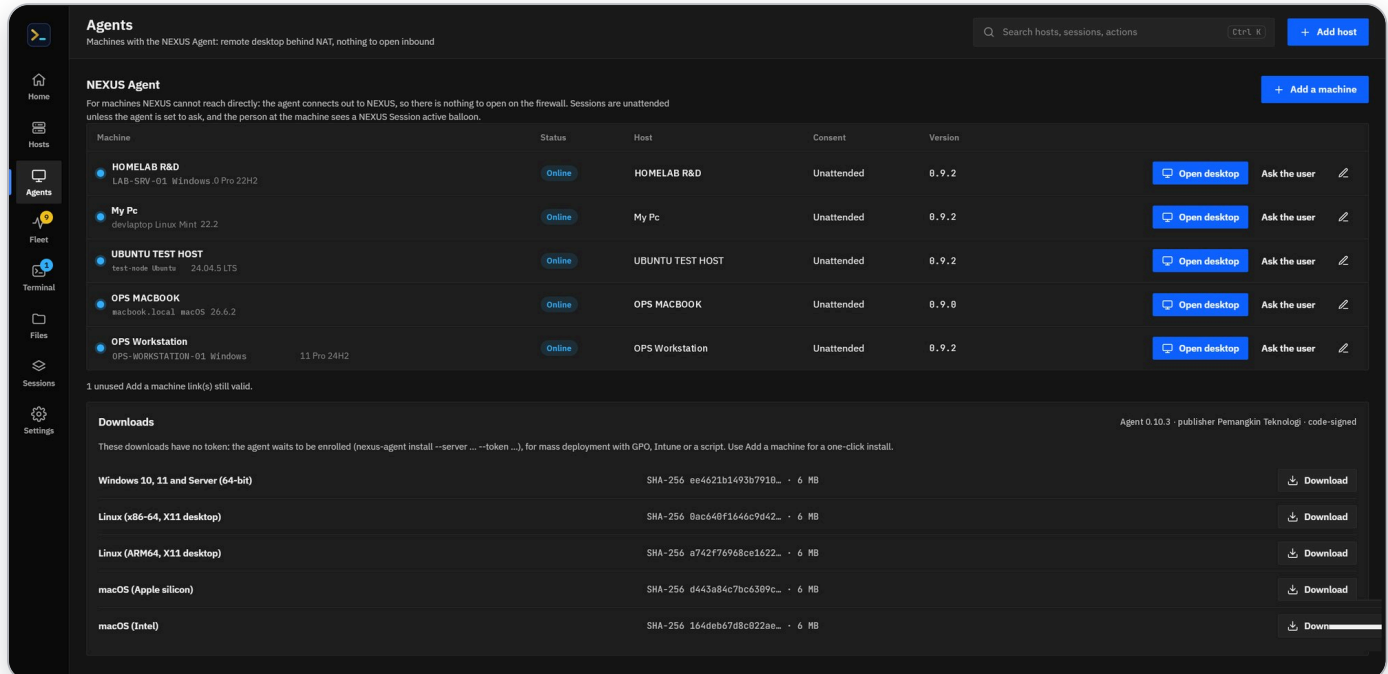
### Remote machine

...Ctrl+V there. And back again.

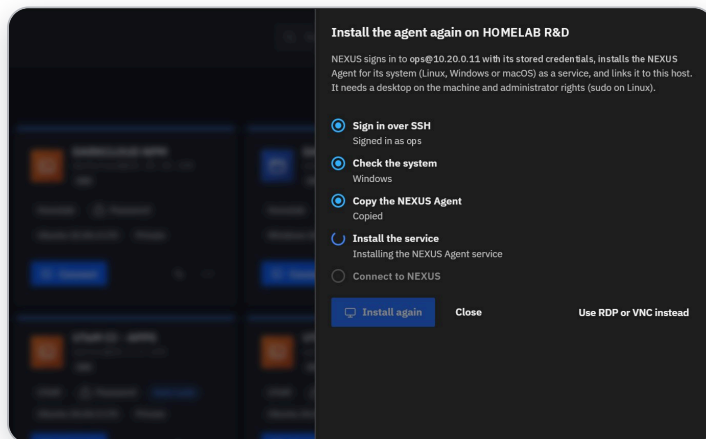
## 07 · THE NEXUS AGENT

# One small agent, installed in one press

The NEXUS Agent is one signed program with nothing else to install. It runs as a service, connects out to NEXUS over a WebSocket, and gives NEXUS the desktop and, on Windows, the machine's health for Fleet.



**Agents.** Status, linked host, consent and version per machine; downloads for every system with SHA-256 checksums, signed by the publisher.



**Add remote desktop** on a host NEXUS already reaches: it signs in, checks the system, copies the agent, installs the service and waits for it to connect.

## FIVE WAYS TO DEPLOY

- 1 Over SSH, in one press**  
For hosts already in NEXUS. Retries re-enrol cleanly, even after antivirus delays.
- 2 One-file Windows setup**  
An Add a machine link gives a setup that carries its own enrolment. Open it, choose Yes.
- 3 One line on Linux and macOS**  
`curl ... | sudo sh` finds the build and the desktop.
- 4 MSI and packages at scale**  
MSI for GPO and Intune, .deb and .rpm, notarised macOS app.
- 5 The NEXUS server's own host**  
Detected and pointed at NEXUS locally, so its link stays steady.

### Updates itself

Agents update from the NEXUS release through a signed manifest. No reinstall per version.

### Enrol only by invitation

No public IDs to dial. One-time, expiring tokens bound to one organisation; removal stops the agent.

### Policy per device

Multi-factor approval and per-device access rules for sensitive machines.

## 08 · NEXUS AI ON SERVERS

# An AI engineer that works **inside the terminal**

The NEXUS Intelligence Engine does not guess from pasted text. It sees the live terminal, remembers every command run in the session with its exit code, and runs commands in the same terminal you are watching, then reads the real result.

## Assist

Ask a question; press **Run** on the suggested command. It runs in your terminal, the output comes back, and the engine explains it. Explain output, Fix last error and Health check are one tap away.

## Agent

Give it a goal. It looks around with read-only commands, decides the next step from each result, and finishes with a report of what the commands showed. Anything that changes the server waits for you.

## IT ALWAYS KNOWS WHERE THINGS RUN

### 1 · The host

The only machine commands run on.

### 2 · The NEXUS server

Holds the connection; never inspected by the agent.

### 3 · The AI server

Its tools look up procedures and product facts, never the host.

### 4 · Your device

Where nothing runs. Commands are never meant for it.

## WHAT IT KNOWS

- **Live terminal output**, with passwords, keys and tokens removed first
- **Session memory**: every command, its exit code and folder
- **The system**: OS, kernel, shell and user; Windows hosts get Windows commands
- **Reference files**: plans and configs as PDF, Word, Excel, PowerPoint or text
- **Knowledge** on the AI server, through its own tools, never typed into the terminal
- **Host memory**: notes from earlier sessions on the same host
- **Fleet data**: "Ask NEXUS about this host" or about the whole fleet

## SAFETY RAILS

- **Read-only by default**. The agent runs a step by itself only when it just looks
- **Lock-out guard**. SSH, network, firewall, VPN, reboot, kernel and driver steps are marked red and need a separate confirmation
- **Checked on the server**, not only in the page; only real command blocks ever run
- **The goal sets the limit**: a check or report stays read-only
- **Contract enforced**: no "goal achieved" without evidence from commands
- Sudo off unless switched on, a step limit, every step audited with its safety level and approval

## Open by design: TERAS, S.A.L.T CI servers or any OpenAI-compatible engine

Servers are tried in order with automatic failover. Each person picks a model and calls TERAS with **their own key**, so TERAS decides which models and which knowledge each person reaches; sign-in through TERAS passes it along with no keys pasted at all. Answers are generated on the server and stream to every device, so they finish even if the page that asked is closed.

## 09 · NEXUS AI ON DESKTOPS

# Ask about the screen. Or let NEXUS AI do the clicking.

Switch Ask NEXUS from **Ask** to **Control** and give it a goal. NEXUS AI takes a snapshot, decides one action, shows exactly where it will act, does it, and looks again before the next step. It never assumes a click worked.

**Desktop**  
UBUNTU TEST HOST · NEXUS Agent · Ubuntu 24.04.5 LTS

**NEXUS AI** · on this screen

Ask **Control**

**GOAL**  
Close the Settings Editor, open Home and empty the Trash

**Step 1 · double-click "Settings"** ✓ done  
Opened the Settings Editor to check the display channel.

**Step 2 · click "Close"** ● running  
Safe step: closes a window with nothing unsaved.

**Step 3 · double-click "Home"** next  
Opens the file manager.

**Step 4 · "Empty Trash"** needs your OK  
Deletes files permanently.

**Run** **Skip** **Stop**

Step 2 of 25 · Stop any time

**Control mode** on an Ubuntu desktop through the NEXUS Agent. The ring shows the target before each click; the risky step waits with Run, Skip or Stop and a reason.

## Hybrid confirmation

Safe steps (a click, typing into a field, scrolling) run on their own with the target shown first. Deleting, sending, submitting, buying, closing unsaved work or changing security settings waits for you.

## Approve the plan once

Prefer to see it all first? NEXUS AI lays out the plan; approve it once, or step by step. Approvals for safe actions can be remembered per application.

## Every desktop

Control works on NEXUS Agent desktops and on agentless RDP and VNC sessions alike, with the same safety model and audit.

## Its own model

A dedicated **Model for desktop control**: a grounding model such as UI-TARS or Qwen2.5-VL, local on TERAS, while chat keeps its own model.

## Sees what it targets

A labelled grid and the screen's accessibility tree guide each click, so it finds the real button even when pixels are ambiguous.

## Hard limits

A step limit, a stuck-loop guard, a safety net for dangerous key combinations, and Stop that halts at once.

## 10 · REPORTS, MEMORY &amp; KNOWLEDGE

## Work that leaves a record

Ask for a report and NEXUS AI delivers a Word file and a PDF with your logo, name and colours. With host memory on, it keeps notes of what was found and done on each server and picks up from there next time.

 S.A.L.T NEXUS



### Health check: app-server-01

Host: app-server-01 · Prepared by NEXUS AI for operator1 · 24 October 2026, 09:37

**Summary**  
app-server-01 is healthy. One upstream timeout was logged at 04:10 and needs a look.

| CHECK           | RESULT     | NOTE                        |
|-----------------|------------|-----------------------------|
| Uptime and load | ✓ Normal   | No sign of overload         |
| Root disk       | ✓ 34% used | Plenty of room              |
| Memory          | ✓ 41% used | Most of the rest is cache   |
| Application log | ▲ 1 error  | upstream timed out at 04:10 |

**Recommendation**  
Raise proxy\_read\_timeout in the site file and reload nginx.

**A report, on request.** "Write a report on this server", or press Report under any answer. A card with PDF and Word appears on every device.

### Branded reports

.docx and .pdf with the organisation's logo, name and colours; S.A.L.T CI branding when none is set. Health checks, agent runs, sessions and the monthly fleet report.

### Host memory

Overview, changes and open issues per host, updated at session end or when an agent reaches its goal. People can edit or clear it; on shared hosts it keeps only what was seen on the server.

### Personal AI keys

Each person reaches TERAS with their own key, sealed in the vault. Background work uses the session owner's key, never an admin's, so knowledge stays with the people it was assigned to.

### Knowledge, kept in its place

Product facts on a shared model; internal operations on a restricted one; the rest never in tool knowledge. Retrieved passages stay on local models when the site is air-gapped.

## From one host to the whole estate

"Which servers will run out of disk this month?" NEXUS AI answers from Fleet's collected data, links each host, and offers the terminal or the desktop to act on it.

11 · WORK FROM ANYWHERE

# Start on the desktop. Carry on from the phone.

Sessions live on the server and every device signed in to the same account is in sync: tabs, terminal output, desktops and the NEXUS AI conversation as it streams. Approve an agent step from the phone while it runs on the office PC.

The screenshot shows the 'Sessions' interface with a sidebar on the left containing icons for Home, Hosts, Agents, Fleet, Terminal, Files, Sessions (active), and Settings. The main area is titled 'Sessions' and shows '1 running' session. A search bar at the top right allows searching for hosts, sessions, or actions. A '+ Add host' button is also present.

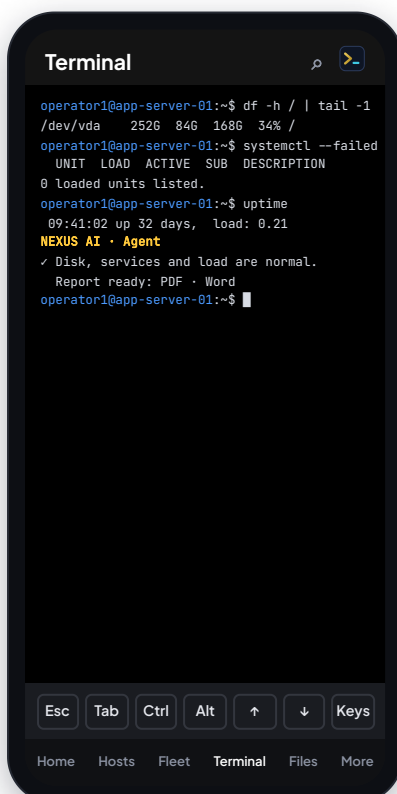
**Running sessions**

| Session                                        | Person           | Started    | Browsers | Idle  |          |
|------------------------------------------------|------------------|------------|----------|-------|----------|
| UBUNTU TEST HOST<br>operator1@host.salt.ci:101 | admin@yourorg.my | 16 min ago | 3        | 2 min | Show End |

**Recently closed**

| Session             | Started       | Ended         | Why it ended                      |
|---------------------|---------------|---------------|-----------------------------------|
| UBUNTU TEST HOST #2 | 23 Oct, 22:47 | 23 Oct, 22:47 | closed by user                    |
| UBUNTU TEST HOST    | 23 Oct, 21:24 | 23 Oct, 22:56 | connection error: Connection lost |
| SITE CI CORE        | 23 Oct, 20:27 | 23 Oct, 21:14 | closed by user                    |
| SITE APPS           | 23 Oct, 19:45 | 23 Oct, 20:14 | closed by user                    |
| OPS Workstation #2  | 23 Oct, 17:52 | 23 Oct, 19:27 | server stopping                   |
| OPS Workstation     | 23 Oct, 17:50 | 23 Oct, 19:27 | server stopping                   |
| HOMELAB R&D         | 23 Oct, 17:41 | 23 Oct, 17:49 | server restarted                  |
| OPS MACBOOK         | 23 Oct, 17:33 | 23 Oct, 17:49 | server stopping                   |
| OPS MACBOOK         | 23 Oct, 17:25 | 23 Oct, 17:27 | server restarted                  |
| HOMELAB R&D         | 23 Oct, 14:35 | 23 Oct, 17:27 | server restarted                  |
| OPS Workstation     | 23 Oct, 12:26 | 23 Oct, 13:00 | server stopping                   |
| OPS MACBOOK #2      | 23 Oct, 10:32 | 23 Oct, 10:32 | closed by user                    |
| OPS MACBOOK         | 23 Oct, 10:32 | 23 Oct, 12:22 | server stopping                   |
| HOMELAB NPM         | 23 Oct, 10:30 | 23 Oct, 12:22 | server stopping                   |
| HOMELAB R&D         | 23 Oct, 09:34 | 23 Oct, 10:29 | server restarted                  |
| HOMELAB NPM         | 23 Oct, 07:57 | 23 Oct, 10:29 | server stopping                   |
| HOMELAB VPS/VPN     | 23 Oct, 07:18 | 23 Oct, 10:29 | server stopping                   |

**Sessions.** What is running, who owns it, how many browsers are attached and how long it has been idle; why every recent session ended. Admins can see everyone in the organisation.



## Everything in sync

Open, background, end, rename or reconnect on one device and the others follow. If a proxy blocks live connections, NEXUS falls back to secure polling.

## Drops are not dead ends

When a host drops, the tab keeps its last screen and conversation, and Reconnect here continues in the same tab, on every device.

## Phone-ready

Bottom navigation, an extra key bar, smart keys, swipe scrolling and a scroll wheel that takes no space.

## Desktops on the phone

Pinch to zoom, a touch pointer, the keyboard on demand, and Ask NEXUS for what is on the screen.

## Install it as an app

Windows, macOS, Linux, Android and iPhone install NEXUS from the browser; window title "S.A.L.T NEXUS".

## Fleet on the go

Fleet view On, Summary or Off per device, so a slow connection never pays for charts it does not need.

12 · ARCHITECTURE

# One server in the middle, **nothing secret in the browser**

Browsers talk only to the NEXUS server over HTTPS and WebSockets. The server holds the vault, opens SSH, SFTP, RDP and VNC to hosts, relays agents, talks to the AI servers and keeps the record. One codebase serves the hosted multi-organisation service and a client's own installation.

## PEOPLE & DEVICES

### Desktop browser

Any modern browser

### Installed app

Windows, macOS, Linux

### Phone & tablet

Android, iPhone, iPad

### Local bridge

Optional helper for local folders

### Reverse proxy

TLS and WebSockets, e.g. Nginx Proxy Manager

## NEXUS SERVER

### Session engine

SSH terminals on the server, pooled connections, replay, recording

### Intelligence gateway

Context, redaction, failover, streaming, control loop, reports, host memory

### Fleet collector

Read-only SSH batches, agent health, history, forecasts, alerts

### Vault

AES-256-GCM: master key → organisation key → one key per secret

### Database

PostgreSQL (SQLite for small installs): people, hosts, sealed secrets, sessions, conversations, fleet data, reports, recordings index, audit

### Live sync hub

One live channel per page: tabs, presence, conversations; HTTPS fallback

### Files

SFTP browse, streams, zip, server-to-server jobs that resume

### Desktop relay

guacd for RDP/VNC; WebSocket relay for agents: screen, input, clipboard, files, audio

### Accounts & audit

Roles, MFA, SSO, licences, organisation settings, audit log

## HOSTS & ENGINES

### Linux · BSD · macOS

OpenSSH: terminal, SFTP, Fleet

### Windows

OpenSSH (cmd, PowerShell) and RDP

### NEXUS Agent

Connects out; desktop, health, clipboard

### VPN & bastions

Tunnels and jump hosts per host

### TERAS

S.A.L.T CI's own AI core; or any OpenAI-compatible API

Browser — HTTPS · WebSocket → NEXUS server — SSH · SFTP · RDP · VNC · WSS · AI API → Hosts & engines

| LAYER     | TECHNOLOGY                                                                                                                                                             |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Web app   | Installable PWA, xterm.js terminal, Guacamole client for RDP/VNC, WebCodecs video; no build step; strict Content Security Policy (scripts only from the server itself) |
| Server    | Python 3.12, FastAPI, asyncssh, SQLAlchemy; one container on port 2044, plus guacd                                                                                     |
| Agent     | Go, one binary per system; Windows service, systemd, LaunchAgent; hardware video encoders where present                                                                |
| Data      | PostgreSQL 16 in its own container (SQLite supported); volumes kept across upgrades                                                                                    |
| Documents | Reference files read on the server: PDF, Word, Excel, PowerPoint, OpenDocument, RTF and text; reports written as Word and PDF with the organisation's branding         |
| AI        | TERAS, S.A.L.T CI and OpenAI-compatible adapters; ordered failover; per-person model and key; separate model for desktop control                                       |

13 · SECURITY & GOVERNANCE

# Built for organisations that answer for every access

Credentials stay on the server, every person sees only what they should, and the organisation keeps a record of who connected where, what was run, what was clicked and who agreed to it.



## Sealed credentials

Passwords, keys, passphrases, sudo, desktop, VPN and AI keys sealed with AES-256-GCM in a three-level key hierarchy. Decrypted only at connect time; never reach a browser.



## Roles and private hosts

Admins, operators and viewers. New hosts are private to their owner and admins until shared; only the owner or an admin can change them.



## Strong sign-in

Multi-factor sign-in and single sign-on (OIDC, including sign-in through TERAS). Sessions expire when idle; a password change signs out other devices.



## Audit log

Sign-ins, host changes, sessions, sudo fills, AI commands and clicks with their safety level and approval, desktops and consent, transfers, reports and settings, with time, person and address.



## Safe AI context

Stored secrets and anything that looks like a key, token or IC number removed before output or screens reach the AI. Admins can switch off terminal context, screens or the engine.



## Organisation isolation

Every record carries its organisation and every query is scoped to it. That is what lets one service host many client organisations.

## HARDENING

|                       |                                                                                                                                                     |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hosts</b>          | A host's key is recorded on first contact; if it changes, connections stop until an admin compares and accepts the fingerprint                      |
| <b>Desktops</b>       | Agents enrol only with one-time, expiring, organisation-bound tokens; consent per machine; visible session balloon; recordings per policy           |
| <b>Agent binaries</b> | Code-signed on Windows (Authenticode) and notarised on macOS; SHA-256 published; self-update through a signed manifest                              |
| <b>Browser</b>        | Strict Content Security Policy, frame blocking, no-referrer; state-changing calls need a header a cross-site form cannot send                       |
| <b>WebSockets</b>     | Origin checked against the server's own address; signed-in cookie required; closed on sign-out                                                      |
| <b>Limits</b>         | Per organisation: sessions and desktops per person and host, idle timeout, maximum session age, replay size, sign-in limits per address and account |
| <b>Data</b>           | The master key lives only in the server's environment; a database backup without it cannot unlock any credential                                    |

**Sovereign by design.** NEXUS, its agents and its AI can run entirely inside the client's network, including air-gapped sites, with TERAS and local models. Nothing needs a foreign cloud.

14 · DEPLOYMENT & EDITIONS

# Hosted for you, or installed on your own ground

The same product runs as a hosted, multi-organisation service or inside a client's own network. It needs a Docker host and network reach to the machines it manages; nothing is tied to particular hardware.

## Hosted service

- Many client organisations on one service, each isolated
- Reaches client servers over the network, a VPN preset or the NEXUS Agent
- Updates delivered centrally, agents update themselves
- Organisation admins manage their own people, hosts and AI servers

## Own installation (white-label)

- Runs entirely inside the client's network, including air-gapped sites
- Uses the client's own AI servers: TERAS or any compatible engine
- The client's name, logo and colours on the app, reports and session balloon; a small framework credit stays
- Data, recordings and the master key stay with the client

## WHAT AN INSTALLATION NEEDS

|                |                                                                                                                                  |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Host</b>    | Any machine that runs Docker (Linux or Windows): the NEXUS server, guacd and PostgreSQL                                          |
| <b>Network</b> | SSH, RDP or VNC from the NEXUS server to managed hosts; agents need only outbound HTTPS to NEXUS; HTTPS for people               |
| <b>Proxy</b>   | A reverse proxy with TLS and WebSockets in front of port 2044; no upload size limit for large transfers                          |
| <b>AI</b>      | Optional: one or more AI servers (TERAS, S.A.L.T CI or OpenAI-compatible); terminals, files, Fleet and desktops work without one |
| <b>Setup</b>   | A setup script creates the configuration and master key, checks the port, builds and starts; upgrades keep data and settings     |
| <b>Licence</b> | A licence per organisation sets modules, seats, hosts and agents; checked by the server, offline-capable for air-gapped sites    |

## MAKE IT YOURS

### Six themes

From a light Daylight to Classic Terminal in monospace, brass and cyan. Each person picks theirs; admins set the default and which are allowed.

### Terminal behaviour

Colours, text size, right-click, paste check, cursor, font, scrollbar, scroll wheel, smart keys and bell, following each person to every device.

### Two-level white label

Client branding on top of S.A.L.T NEXUS; or a reseller's own brand, with its clients co-branding beneath it.

## Start small, grow without changing tools

One NEXUS server on a laptop or a spare VM covers a team. The same installation grows to hundreds of hosts and agents, more organisations, and a second node behind the proxy.

## 15 · WHY S.A.L.T NEXUS

# One platform where others need **three point tools**

How S.A.L.T NEXUS covers what organisations usually assemble from separate products. Typical capabilities by tool category; individual products vary.

| CAPABILITY                               | SSH CLIENT | REMOTE-DESKTOP TOOL | MONITORING TOOL  | S.A.L.T NEXUS |
|------------------------------------------|------------|---------------------|------------------|---------------|
| Terminals and file transfer              | ✓          | —                   | —                | ✓             |
| Remote desktop behind NAT                | —          | ✓                   | —                | ✓             |
| Fleet health with nothing installed      | —          | —                   | usually an agent | ✓             |
| AI that sees the terminal and the screen | —          | —                   | —                | ✓             |
| AI that acts, with your confirmation     | —          | —                   | —                | ✓             |
| One vault and one audit for all access   | partly     | partly              | —                | ✓             |
| Self-hosted, air-gap ready               | ✓          | varies              | varies           | ✓             |
| Same sessions on every device            | —          | varies              | —                | ✓             |

## HOW IT GOT HERE

- 0.1–0.3 Server, vault, roles, sessions that outlive the browser; real-server sign-in; AI servers with failover; six themes and Ctrl+K
- 0.4–0.5 Intelligence Engine in the terminal (Assist and Agent); file transfer; live sync across devices; Windows hosts
- 0.6 Branded reports, host memory, server-to-server copy; smart keys; macOS zsh; TERAS tools and knowledge
- 0.7 Renamed S.A.L.T NEXUS; NEXUS Fleet; the engine's where-things-run map
- 0.8 NEXUS Desktop: RDP, VNC and the NEXUS Agent; install over SSH in one press
- 0.9 Multi-monitor, quality and H.264; Ask NEXUS as a chat; Windows machines in Fleet
- 0.10 NEXUS AI desktop Control with hybrid confirmation; a model for control
- 0.11 Clipboard, files and audio in desktops; recording; Fleet history, alerts and reports; VPN presets and bastions; personal AI keys; MFA and SSO; signed, self-updating agents; licensing and white label

### Quality gate

More than 1,000 automated checks on every release: the server, the browser, two devices side by side, a touch phone, Windows and macOS hosts, and a live Linux agent streaming a real desktop; server suites repeated on PostgreSQL.

### Part of the S.A.L.T CI platform

S.A.L.T NEXUS is how S.A.L.T CI teams reach and run their machines, with TERAS as its engine, alongside TETAMU, TERUSAN, MOM Studio, PERISAI and REKA.



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