



WST Workstation Automation

DevOps Milestones in Branch Desktop Infrastructure

Ansible-driven workstation lifecycle management across 285+ branch locations

2022-10-22 -> 2026-07-07



Platform Overview

Metric	Value
Total Releases (since 2022-10-22)	21
Playbooks	<code>wst - *</code> series 50+ modules
Supported Browsers	Firefox 68 / Firefox 120 / Chrome
Base OS	Ubuntu Desktop (kernel v5.15+)



FreeIPA & Authentication Integration

Enabling secure, network-bound workstation identity across all branches:

- **wst-ipa playbook** (v1.7.0): Created join/unjoin lifecycle for FreeIPA domain membership
- **wst-nip playbook**: Automated network interface configuration alongside IPA enrollment
- **apt_pin role** (v1.7.4): Pinned critical packages to prevent version drift in IPA stack
- **wst-ipa-uninstall** (v1.7.5 → 1.7.7): Full unenrollment with DNS A-record cleanup automation
- **wst-sssd-service**: Ensures `After=network-online.target` ordering + automatic restart on failure

• **fix_owner fix** (v1.7.16): Skip backup when user folder in sre is empty prevents cascading failures

How to Provision, Install, Configure, and Keep Thousands of Debian and Debian-Based Systems Updated



Browser Strategy: Firefox + Chrome

Supporting parallel browser ecosystems for diverse branch requirements:

- **Firefox role integration** (v1.7.3): Policies, preferences, and extension management
- **Firefox 68 → 120 migration**: Dual-version support with isolated profiles per user
- **Chrome rollout**: Parallel deployment alongside Firefox for branches requiring Chromium-based features
- **wst-ffox-policies + wst-ffox-prefs**: Centralized browser policy enforcement via ADMX templates
- **Proxy configuration** (wst-ffox-check-proxy): Dynamic proxy detection and failover



Deployment Reliability & Resilience

Building fault-tolerant workstation deployment chain:

- **wst-wol-all**: Wake-On-Lan batch deployment delegated to spve of each group no manual intervention
- **WOL + Wait-for integration** (v1.7.19): Native sleep/reboot tasks in wst-update with configurable timeouts
- **Kernel upgrade** (v1.8.0): Base image moved to kernel v5.15 for modern hardware support
- **wst-reboot**: Smart reboot playbook with optional no-wait mode - supports unattended deployments
- **sftp-mount corrections** (v1.7.11): Reliable fileserver for branch shared resources



Security & Identity Health Monitoring

Continuous authentication verification and credential lifecycle management:

- **wst-ipa-health-check** (v1.7.18): Full health probe chain WoL → SSH wait → ipa-hlt-chk in lightdm greeter-script-setup
- **wst-krb-chk** (v1.4.6): Kerberos keytab validation to prevent auth failures
- **wst-adminws groups/password management**: Centralized admin workspace provisioning with mac address binding
- **apparmor + dconf roles**: Mandatory access control and desktop configuration hardening
- **loginhelper role** (v1.5.0): Secure login notification with pre/post session hooks
- **sudoers role**: Centralized privilege escalation policy enforcement



SREP Integration rollback safety and auditability & Control

- **wst-full playbook:** Complete workstation image rebuild all roles in serial batch strategy
- **etc-keeper backport** (`v1.6.0`): `/etc` configuration versioning via etckeeper + check-only mode
- **srep backup awareness:** `fix_owner` skips empty `srep` folders, preventing false-positive rollback triggers
- **Serial batch deployment:** `wst-v1.5.0` introduced `serial: 1` for controlled rollout across groups
- **v1.8.0 kernel base** + role bumps (admin, apparmor, cups_ng, etc.): Unified update chain



Timeline at a Glance

Period	Version Range	Key Achievements
Oct 2022	v1.7.0–v1.6.0	wst-ipa + wst-nip playbooks created, etc-keeper backport
Early 2023	v1.7.4–v1.7.11	SSSD service management, IPA uninstall, sftp-mount, apt_pin
Late 2023	v1.7.14–v1.8.0	Firefox/Chrome parallel, kernel v5.15, health checks, WoL+Wait
2024+	v1.7.18–v1.7.19	WOL+WFL native in wst-update, reliability hardening



Core Playbook Modules (wst-* series)

Playbook	Purpose
wst-update	Main workstation role deployment chain
wst-full	Complete image rebuild all roles serial batch
wst-ipa	FreeIPA domain join/unjoin lifecycle
wst-nip	Network interface configuration
wst-adminws	Admin workspace + desktop provisioning
wst-desktop-launchers	Desktop shortcut management



Core Playbook Modules (wst-* series)

Playbook	Purpose
<code>wst-sssd-service</code>	SSSD service state & networking ordering
<code>wst-sftp-mount</code>	Secure files server share integration
<code>wst-wol-all</code>	Wake-On-Lan batch deployment
<code>wst-ipa-health-check</code>	Authentication health probe chain
<code>wst-kernel-upg</code>	Kernel version updates
<code>wst-krb-chk</code>	Kerberos keytab validation



References & Resources

- Site: <https://filiales-gnu-linux.g.coop.ar/>
- Code: <https://gitlab.com/gcoop-libre> | <https://github.com/gcoop-libre>
- Story: <https://www.gcoop.coop/experiencia-exitosa/infraestructura-como-codigo-en-el-banco-credicoop>

2022-10-20 HowTo Migrate 6300 hosts to GNU/Linux using Ansible and AWX

- Video: <https://www.youtube.com/embed/3hjQwbqCUP4>
- Transcription: <https://osiux.com/2022-10-20-howto-migrate-6300-hosts-to-gnu-linux-using-ansible-and-awx.html>