

PLATFORM EXTENSION · RELEASE 10.2

PBX Integration

Extensions, groups and phone locations follow the PBX — one dial plan, one address book, emergency groups that assemble themselves.

The XOP Networks **PBX Integration** extension connects the Universal Service Node to the telephone system already on site. Stations, zones and address groups are read from the PBX on a schedule and become contacts and groups in the platform; emergency groups are kept aligned in both directions; and a scan of the network switches places every phone on its port so the right group carries the call.

1440

minute resync interval for a nightly sync — any interval, 0 for manual only

3

SNMP versions spoken to the switches — v1, v2c and v3

2

group types imported — PBX Paging and PBX Emergency

5

scan log files retained, so earlier runs stay comparable

What it does

At the configured start time and interval, the platform logs in to the PBX administration service, reads its address groups, stations and emergency groups, and rewrites its own PBX contacts and groups to match: every extension becomes a contact with name, extension, IP and MAC address and zone; paging groups and emergency groups appear as shared groups carrying their call-in number or emergency caller ID. Sync Now runs the same job on demand, and a scan log records every run.

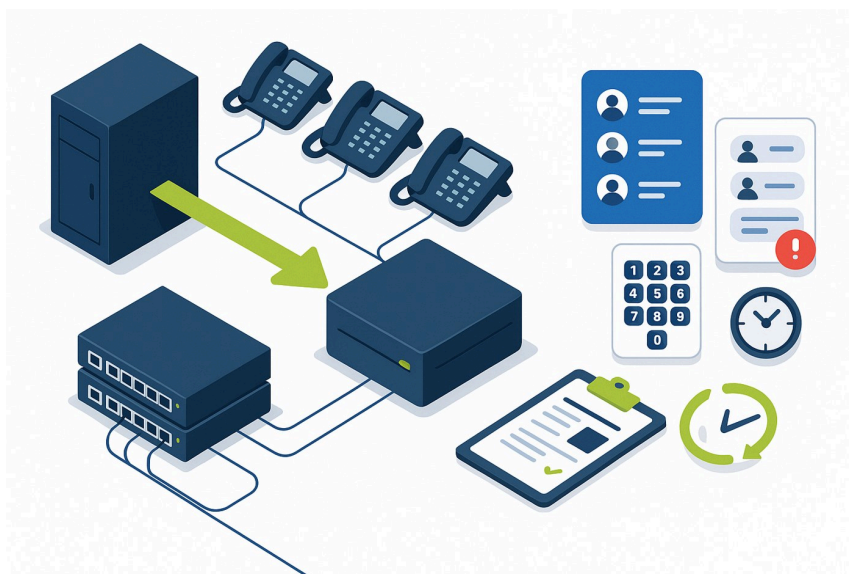
With the phone-location part of the licence, the platform also polls the site's network switches over SNMP, finds the port each phone's MAC address sits on, and moves the phone into the emergency group mapped to that port range — then pushes a corrected emergency group back to the PBX wherever the two disagree.

Why it matters

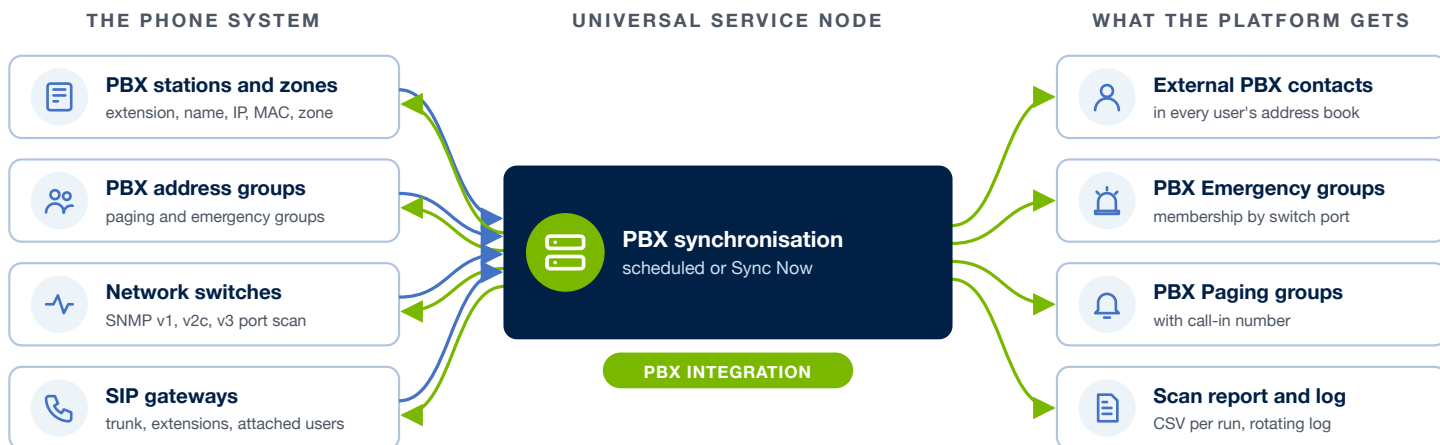
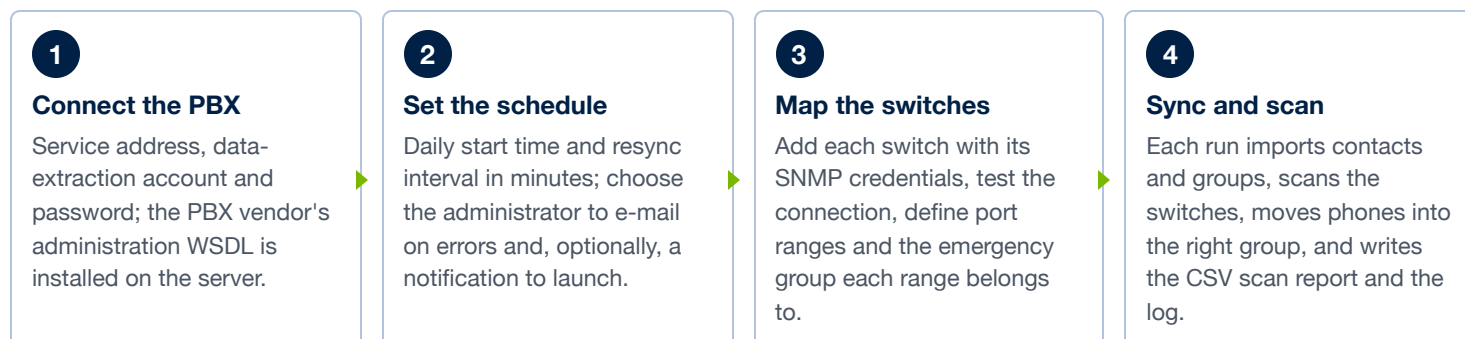
- ✓ The PBX directory is the address book — no second copy to maintain.
- ✓ Emergency groups follow the phone, not the paperwork.
- ✓ Paging groups arrive with their call-in number ready to use.
- ✓ Every run is logged, failed logins included; errors reach an administrator by e-mail or launch a notification.
- ✓ Group calls carry a fixed emergency caller ID or the station's own number, per group.
- ✓ SIP trunk, SIP extension and attached-user gateways bring the PBX's phones onto every service.

How it works

The PBX and the switches are configured once under Platform Extensions; from then on the schedule does the work.



Stations, groups and switch ports come in on every run; contacts, emergency groups and paging groups come out — and corrected emergency groups go back to the PBX.



Stations, groups and switch ports come in on every run; corrected emergency groups go back to the PBX.

Features and benefits

FEATURE	HOW IT WORKS	BENEFIT
Scheduled synchronisation	A daily start time and a resync interval in minutes drive the job — 1440 for once a day, 0 for manual only. Sync Now runs it immediately and the page shows when the last run finished. In a High Availability cluster the sync runs on the provisioning master only.	The directory is as fresh as you choose, with no operator in the loop.
Stations become contacts	Every PBX station with an extension is imported as an External PBX contact carrying first and last name, extension, IP address, MAC address and zone. Stations and groups are re-read in full on each run, so extensions removed from the PBX disappear from the platform.	Dial by extension from any service; no stale entries.
Paging and emergency groups	PBX address groups arrive as shared PBX Paging groups with their call-in number; emergency groups arrive as PBX Emergency groups with the PBX's emergency caller ID. Both are listed in Contact Groups with a coloured source chip and are refreshed by the phone system, not edited by hand.	Groups built on the PBX are usable in notifications and stations at once.
Phone location by switch port	Configured switches are polled over SNMP, VLAN by VLAN, for their MAC-to-port tables. Each contact with a MAC address is found on its port and placed in the emergency group mapped to that port range; phones not found and ports without a group are reported as errors.	A phone moved to another floor lands in that floor's emergency group by itself.
Two-way emergency groups	After the scan, any station whose emergency group on the PBX differs from the platform's is updated on the PBX. A station found in more than one emergency group is flagged as a system event naming the groups.	The PBX and the platform never disagree about who is where.
Network switch management	Each switch carries a name, an IP address and SNMP v1/v2c community or v3 user with security level, authentication and privacy protocols; Test Connection validates the credentials before saving. Port ranges have a name, an optional port prefix, a first and a last port, and the group they map to.	Any SNMP-capable switch, configured and proven from the portal.
Scan reports and log	Each run writes a CSV emergency-group member scan report — phone, name, MAC, switch, port, group, fixed caller ID or DID — downloadable from the portal, and a scan log with timestamps and severities, search with match navigation and a full download, rotated across five files.	Evidence of every run, failed logins included.
Error reporting	A connection failure is logged with the address tried and the error returned; a failed sync e-mails the chosen administrator, and a mass notification can be launched automatically on error.	A broken link to the PBX is noticed the same night.
PBX interworking over SIP	SIP Trunk gateways with extension ranges and presence monitoring, SIP Extensions gateways with number ranges, and Attached Users gateways register the PBX side to the platform, so hoot channels, ring-down tiles and conferences reach PBX extensions on one dial plan.	The PBX phones are endpoints of every service.

Technical specifications

Synchronisation

PBX interface	NEC Spherica administration web service (SOAP); the vendor's WSDL is installed on the server by the administrator
Credentials	Service address, data-extraction account name and password; TLS policy for the PBX connection
Schedule	Daily start time; interval in minutes (1440 = daily, 0 = manual only); Sync Now
Imported	Stations (extension, name, IP, MAC, zone), address groups, emergency groups with caller ID
Cluster	Runs on the provisioning master when High Availability is licensed

Network switches

SNMP	v1 and v2c with community string; v3 with user, NoAuthNoPriv / AuthNoPriv / AuthPriv, MD5 or SHA, DES or AES
Port ranges	Name, optional prefix, first and last port (or Last); one emergency group per range
Scan	Per-VLAN MAC-to-port tables; tracked phones are the contacts that carry a MAC address
Reports	CSV scan report per run; scan log with search and download, five-file rotation
Validation	Unique names and addresses; Test Connection before saving

Contacts and groups

Contact type	External PBX, shown in Contacts with a source chip
Group types	PBX Paging (call-in number) and PBX Emergency (emergency caller ID), shared
Caller ID	Per emergency group: a fixed caller ID, or the station's own DID when none is set
Consistency	A station in more than one emergency group raises a system event

Administration and licensing

Portal pages	Platform Extensions › PBX Integrations › PBX Synchronization and Network Switch; System Administrator privilege
Errors	E-mail to a chosen administrator; optional mass notification launched on failure
API	v2 system endpoints for PBX settings, sync now, scan log and reports, and for network switches
Licence	X2TXTMNG — PBX groups and emergency groups; X2PHLOCM — emergency groups with a licensed number of network switches

Sample use cases

Campus emergency groups

Phones across three buildings are assigned to per-building emergency groups by the switch port they sit on; a phone moved during a refit changes group on the next nightly scan.

Dispatch and paging

PBX paging groups arrive with their call-in number and are used as recipients of a notification or as the roster behind a hoot channel.

One directory

Every extension is an External PBX contact, so a conference moderator dials a colleague by extension from the address book rather than from a copied list.

One platform, every extension

PBX Integration is one of the platform extensions of the Universal Service Node. Extensions connect the platform to the infrastructure around it — the directory, the phone system, the network; each is licensed on its own.

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