MODULES

Alarms and notifications

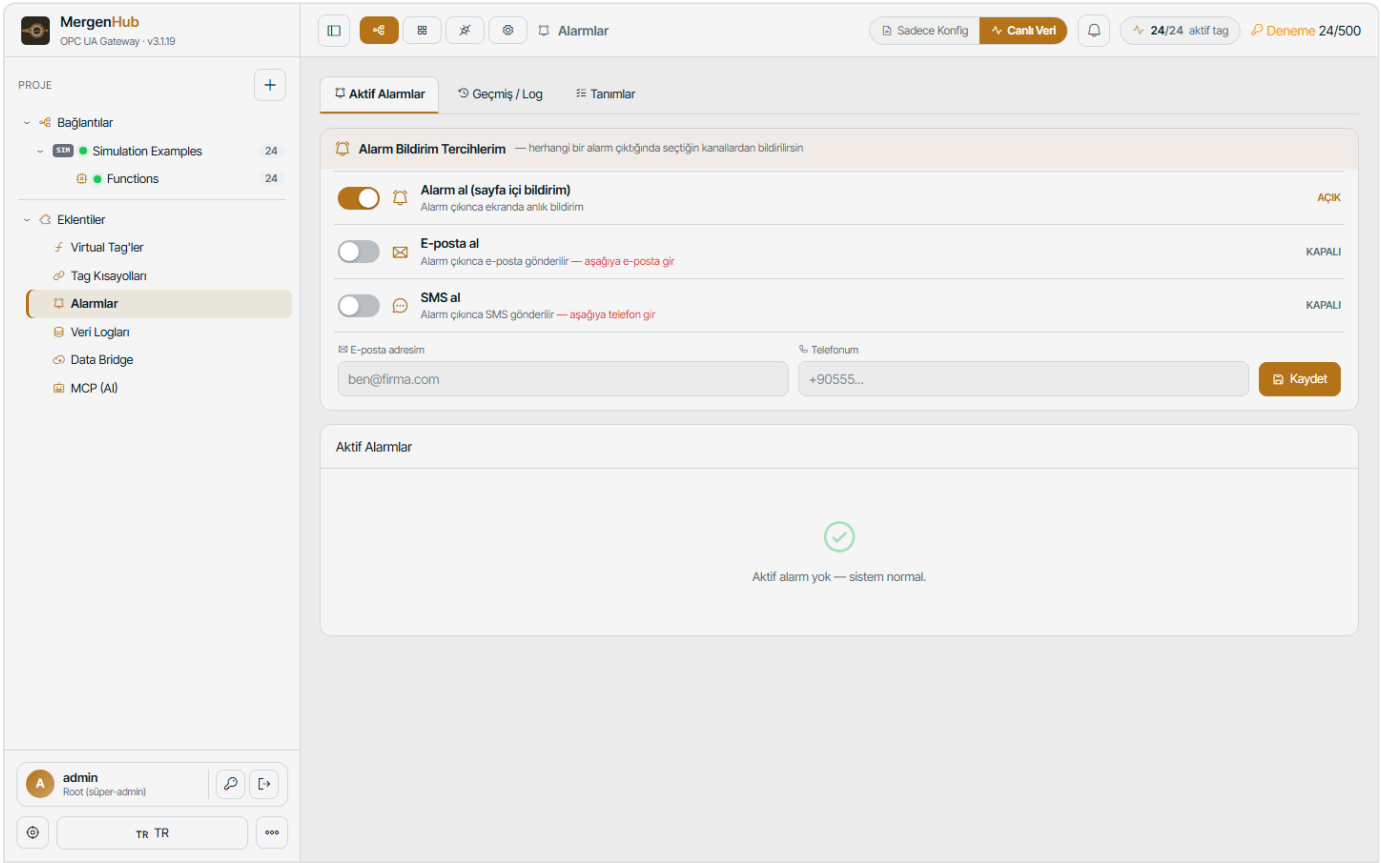
ISA-18.2 lifecycle, conditions, deadband, e-mail, SMS, Slack, Telegram and WhatsApp, per-user preferences, alarm history.

Online: mergenhub.envest.com.tr/docs/alarms

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The alarm module implements the **ISA-18.2** lifecycle (active → acknowledged → cleared), evaluates conditions on live tags, notifies people by e-mail, SMS, Slack, Telegram and WhatsApp, keeps history, and publishes alarms to OPC UA clients.



Alarms — active list, definitions and history tabs

Defining an alarm

Extensions › Alarms › + Alarm:

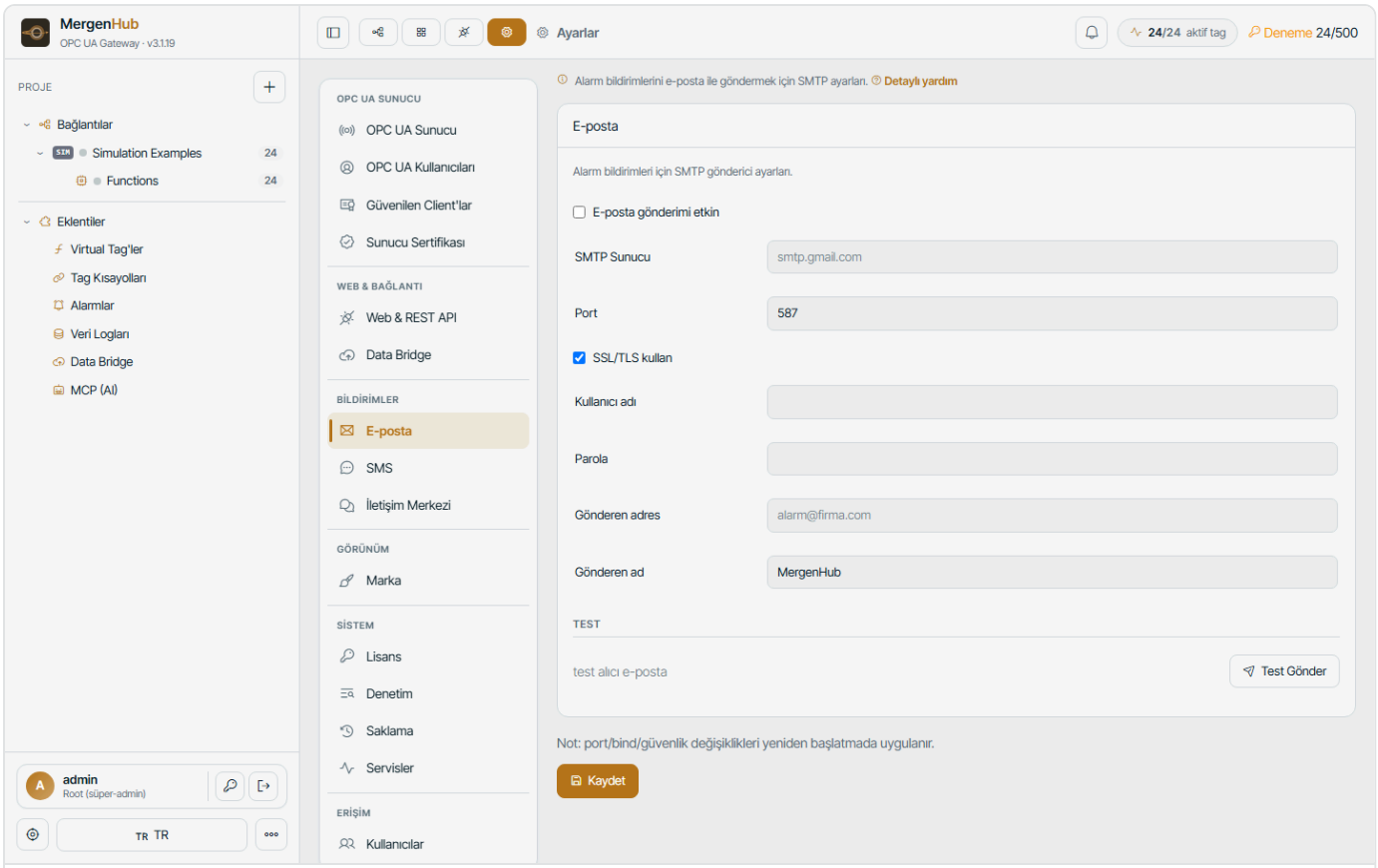
FIELD	MEANING
Source tag	the tag to evaluate (numeric or boolean)
Condition	`> >= < <= == !=` a limit, *between/outside* a range, boolean *true/false*, *rate of change*, *deviation from another tag*, *bad quality*
Deadband	hysteresis so a value hovering around the limit does not flap
On delay / off delay	seconds the condition must persist before raising / clearing
Severity / priority	Low, Medium, High, Critical (1–1000 for OPC UA)
Area › Source	organisation like WinCC (plant › unit › equipment) for filtering
Message	text with placeholders `{value} {limit} {tag} {unit}`
Auto-acknowledge	clear without operator ack
Notifications	which groups/users get e-mail and/or SMS, with optional escalation delay; Slack, Telegram and WhatsApp boxes (ticked by default; nothing is sent if the channel is off in the settings)

Operator view

The *Active* tab lists raised alarms with colour by severity, time, value and an **Acknowledge** button (comment optional). The bell in the top bar shows the active count everywhere in the application; SCADA screens show alarm badges on bound objects and an alarm banner widget.

Notifications

- **E-mail** — SMTP settings in *Settings › E-mail*; templates per severity.
- **SMS** — pluggable providers (NetGSM and generic HTTP) in *Settings › SMS*.
- **Per-user preferences** — each user chooses which severities and areas they want by e-mail/SMS and quiet hours.
- **Communication centre** — test messages, templates, invitations and bulk messages (*Settings › Communication*).
- **Slack** — the channel's incoming webhook address (Slack-compatible Mattermost / Rocket.Chat webhooks work too); *Settings › Notifications › Chat notifications*.
- **Telegram** — a bot created with BotFather and its chats; *Find chats* lists the people and groups that wrote to the bot. Messages go only to the chats saved in the settings.
- **WhatsApp** — Meta WhatsApp Cloud API: phone number ID, permanent access token and recipient numbers with country code. If the person has not written to the number in the last 24 hours, WhatsApp delivers the message only with an approved template; when a template name is set, the notification text is placed as one line in the template's single variable. Messages go only to the numbers listed in the settings.
- The webhook address, the bot token and the WhatsApp access token are stored like passwords (encrypted on disk, masked on screen, never written to logs). The server needs outbound HTTPS (443) to the internet. Each channel has a *Send a test message* button; step-by-step setup: Alarms manual.



`Settings › E-mail — SMTP server, sender and test message`

History

Every transition (raised, acknowledged, cleared, notification sent) is stored with timestamp, value, user and comment for the configured retention (default 90 days) and can be exported. See Logs.

OPC UA Alarms & Conditions

Enable *Publish alarms over OPC UA* in *Settings › OPC UA Server*. Each definition becomes an `AlarmConditionType` under `_Alarms`; UA clients receive events, refresh conditions and acknowledge. Acknowledgements from UA are audited with the UA user name.

Tips

- Use `_System._NoError` alarms per device to be notified about communication loss.
- Combine *bad quality* conditions with an off delay to avoid alerts on short GSM dropouts.
- For KPI alarms create a virtual tag first and alarm on that.
- While MergenHub VPN is on, the "VPN service down" (critical) alarm and a "Site VPN connection lost" (high) alarm per site are defined automatically; choose their notification channels by editing the definition.