How to be alerted when others are asleep

incl. SNAG-View Integration

SMSEagle

Your Gateway to Unbreakable Communication

Who am I ?

Radoslaw Janowski

Background in telecommunication & software engineering. Working on the front lines of complex IT project management, software development & systems integration.

Currently CEO of **SMS**Eagle.

Happy father & smart-home geek ☺

Case Study – De Dietrich

De Dietrich

Origin: Founded in 1684, with a history in the Jaegerthal forge.

Global Presence: Asia, Europe, and the USA.

Current Focus: Now specializes in process equipment, particularly for the chemical and pharmaceutical industries.

Case Study – De Dietrich

Challenges: Sending critical alerts for accelerated issue resolution

"That's great if you're sitting in front of the monitor but if the issue is serious, you need to be able to contact the relevant people as quickly as possible at any time of the day or night."

Pascal Muckensturm
Information System Architect
De Dietrich

Why we need to address after-hours alerting issue

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Outages & downtime

*According to the Uptime Institute's 2023 report, a significant number of IT and data center **outages occur outside of regular business hours**.*
This can lead to prolonged downtime, affecting critical services and leading to significant financial and reputational damage.
More than two-thirds of all outages cost over $100,000,
with some severe outages costing millions [1]

Source:
[1] Annual Outage Analysis 2023.pdf (uptimeinstitute.com)

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Cybersecurity Breaches

34% of businesses reported their most disruptive breach outside their organization's normal working hours [2].

Source:
[2] Cyber security breaches survey 2024 - GOV.UK (www.gov.uk)

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Challenges of After-Hours Alerting

Continuous alerts can lead to burnout.

Delays in response.

Difficulty in identifying critical vs. non-critical alerts.

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Best Practices for After-Hours Alerting

Priority Levels: Categorize alerts by severity

Automated Escalation: Ensure critical alerts are escalated automatically

On-Call Rotation: Establish a clear on-call schedule with backups

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Tools for After-Hours Alerting

Monitoring Systems: like SNAG-View

Unified XDR and SIEM: opensource Wazuh, commercial tools (Splunk, Logrythm, etc.)

Automated Alert Escalation (with priorities)

But what is
the most important?

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Right communication channels!

On average, people check their phones 96 times per day (once every 10 minutes), according to a 2021 survey by Asurion. This frequency suggests that people keep their phones within easy reach most of the time.

Emails

Phone!

Phone: SMS

*SMS messages have a read rate of **98%**, according to a study by MobileSquared.*

*90% of SMS messages are read **within 3 minutes** of being received**.***

Phone: Wake-up Calls

r/sysadmin "OnCall - how do you wake up?"

ThatsNASt · 1y ago

I put my phone in DND mode and only allow my immediate family and the number related to the on-call service to come through. Then, I set it to be max volume for ringing and set the most annoying alarm. I actually have PTSD and have nightmares about getting a call even when I'm not on call. It's great.

⬆ 110 ⬇   🎖 Award   ↗ Share   ···

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Phone: Voice Calls

Combine wake-up calls efficiency and carry an information about the critical incident

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Voice Call examples

🔊 The Node Pros-ARM-01 is currently down.
Priority = Critical. Site = Worthing HQ. Device Role = Infra Management

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🔊 Warnung für Gerät 172.30.4.20 - Sensor über Grenzwert - Gerätezustandseinstellungen bitte überprüfen.

NEW TTS engine!

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This is why
Global Leader De Dietrich decided to Utilize SMSEagle for Alarms Escalation in their Network Monitoring System, to achieve reliable, Internet independent communication.

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*"We've been using **SMSEagle** for more than two years, and it's definitely helped our support teams to be more responsive when alerted. It's also helped us streamline our alerting workflow and improve the overall control and security of the system "*

Pascal Muckensturm
Information System Architect
De Dietrich

How to implement SMSEagle

API

Direct connection
to cellular network
(no Internet or 3rd party apps)

IT Network Monitoring System (NMS)

SMSEagle Device

Cellular operator

SMS ALERT

Servers   Virtual servers   Routers   Web apps   Desktops

Admin(s) on shift
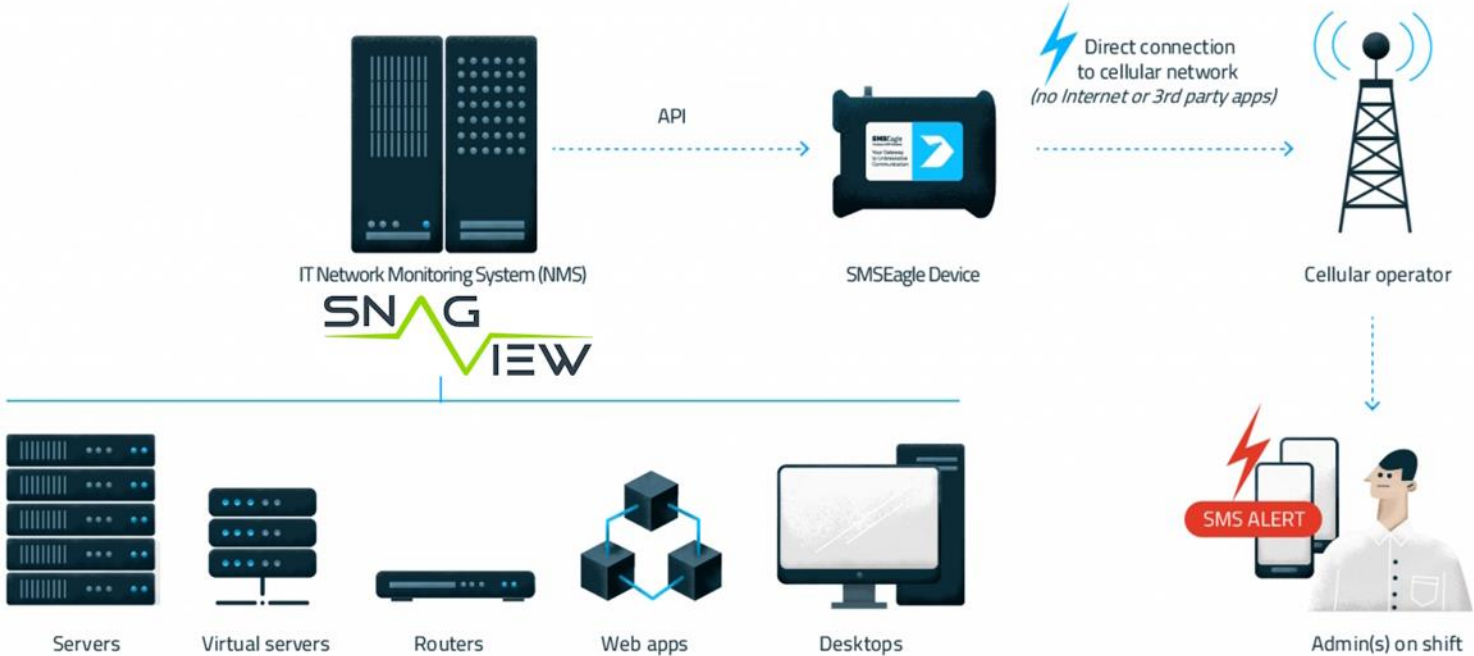
Example alerting configuration in SNAG-View

Example alerting configuration

And some more features

- Escalation
- Failover cluster
- Temperature/water leak monitoring

This is how
SMSEagle can solve the problem of afterwork hours alerting

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It works in offline/isolated environments

Notable clients

Other use cases

Send **SMS alerts** from Network Monitoring System in **secure offline (no-Internet) scenario**

Send SMS **OTP codes** from Authentication Systems

Send SMS **from cloud** applications securely using Email to SMS Poller

Send **SMS alerts** when the **temperature** threshold is exceeded

Built-in Features

Sending & Receiving SMS (managing messages with Inbox, Outbox, Sent Items)
Support of **different message types** (normal SMS/multipart SMS/flash SMS/MMS/binary SMS/USSD-code/WAP Push link)
Unicode support (support of national characters)
Sending to single users or groups of users
Sending SMS at specified date and time (SMS scheduling)
Limit sending to **specified hours** (for example between 08:00-18:00)
Smartphone-like conversation mode (messages are nicely grouped by phone number). You can easily track history of what you send and receive to each user
Message templates
Multiuser support (each user has access to a private Outbox, Sent Items) and different user access levels
Phonebook (single users, groups)
LDAP integration of phonebook
LDAP Authentication
Importing contacts and groups from CSV file
Monitoring services (eg Web server, Mail server, SNMP) **and SMS alerting**
Auto-reply to incoming SMS (multiple autoreply rules)
Email to SMS forwarding
SMS to Email forwarding
Email2SMS Poller for converting incoming email to SMS messages
Voice Calls (wake-up calls and text-to-speech calls) – available with VOICE add-on
Subscriptions for newsletter-style subscriptions via SMS
Periodic SMS to send SMS messages at a desired time interval
Callback URL to forward incoming message to a defined URL address/webservice

Blacklist feature to exclude numbers
Shift management to assign Phonebook contacts to working shifts
Forward incoming SMS to remote script (callback URL)
Outlook Plugin to send SMS directly from the app (install)
Network Monitor for servers and services
Digital input and output controlled via SMS (for products in NXS-line of devices)
MQTT messaging protocol for IoT
Signal (beta) secure messaging app
SMPP protocol
Multi-Factor Authentication (MFA)
Message Escalation feature
Periodic folders cleanup
Automatic backup to FTP
Temperature & humidity SMS alerts (for products in NXS-line of devices)
Multilanguage (English, French, German, Polish, Spanish) web-interface
HTTP/HTTPS API for sending SMS from external applications & systems
NTP client installed
SNMP agent installed
HTTPS support
Delivery reports support
Watchdog mechanisms for 3G/4G modem (automatic modem health control)
Modem failover mechanisms (for products with 2 or more modems)
Device failover support – HA cluster of 2 devices possible
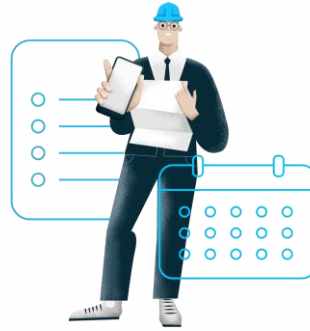
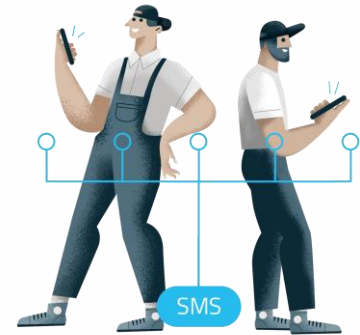SMSEagle | Your Gateway to Unbreakable Communication

Summary

After-hours alerting is something we can't ignore.

Having right practices, tools, and the right communication channels makes a world of difference.

And don't forget, **spreading the load across your team** can prevent burnout.

Thank you

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