



8.2 – Email Alert Design (Conceptual)

Objective

Before implementing cloud logging, Phase 8 explored using **email as the notification channel**. Email is immediately intuitive for demos and aligns with existing automotive telematics workflows (service networks, warranty, fleet management).

Root Problem

Direct email from the UNO Q is non-trivial:

- Requires SMTP creds
- Requires TLS trust
- Requires secrets management
- Not demo-friendly
- Not customer-shareable
- Often blocked by corporate security policies

So instead, email was reduced to an **integration pattern**:

Device → Event → Cloud → Email (optional)

Where cloud components (Google, AWS, etc.) handle the heavy lifting.

Candidate Cloud Paths

1. Google Apps Script → Gmail

- Zero infra
- Works for demos
- Rate-limited + personal
- Suitable for notifications

2. AWS SES

- Industrial-grade
- Used in fleet deployments
- Requires IAM + secret mgmt

3. Webhook → Zapier → Email

- No code
- Flexible routing
- Costs scale with volume

4. Webhook → Slack/Teams/Mobile push

- Used in commercial fleet operations

Outcome

Given the demo nature of Phase 8, email was deferred in favor of **cloud logging first**, with the Apps Script approach intentionally designed so that:

`Sheet → Script → Gmail`

can be added as a trivial incremental step later.

