

Worker spawning reliability and resolving issues

Spawning loop vs GH workflow labelling

<https://github.com/AmwayACS/lynx-iac/blob/master/terraform-eu/github-actions/scale-agent-v2/src/queued.py>

Start with machine type requested by workflow labelling. If unable to spawn, try better one. And so on.

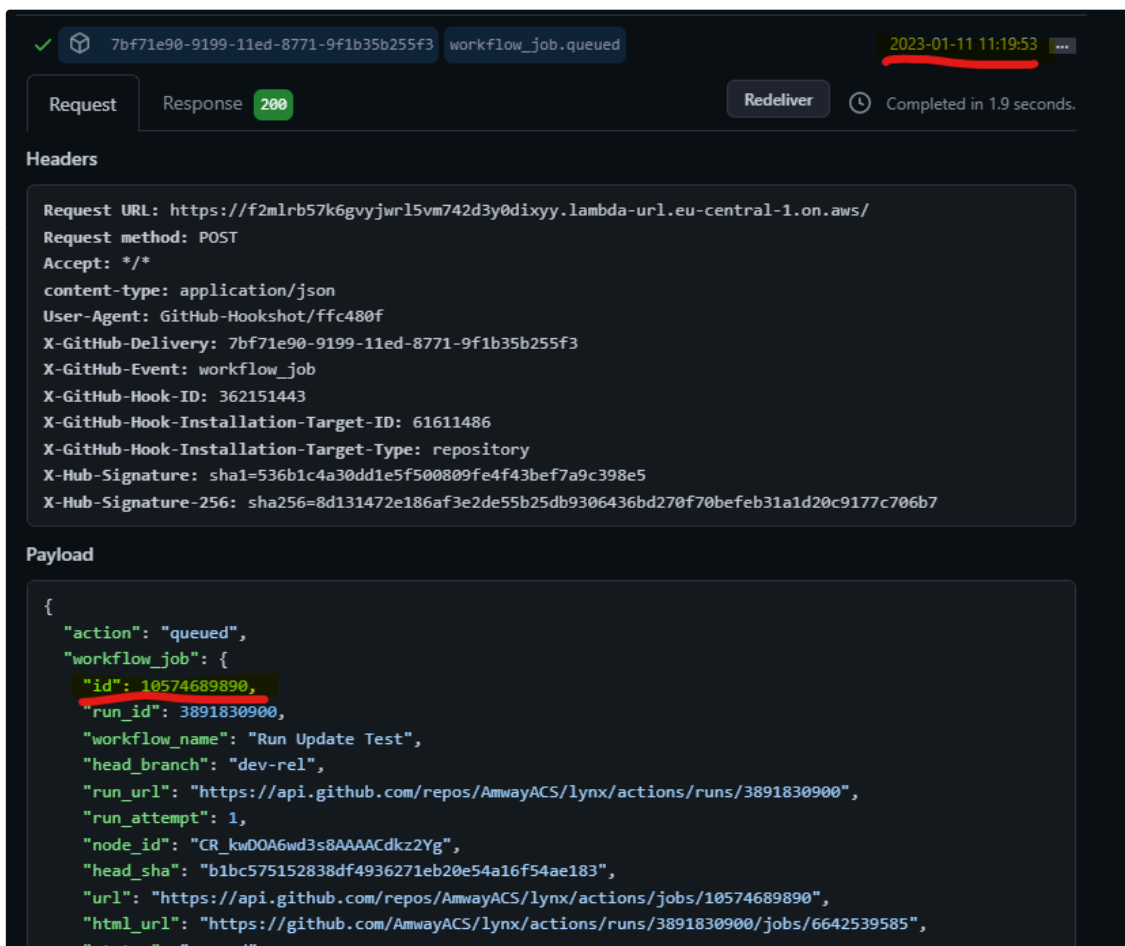
Notify us when something goes wrong

Teams notifiicator, but others are also possible.

Browsing logs

- We navigate to AWS Lambda Web console
- Depending on the webhook, we choose right lambda (“sqs” for inprogress or completed, “non-sqs” for queued)
- We go to Monitor->Logs tab, and click ‘View Cloudwatch logs’, or we browse logs from last invocation

While browsing logs, please note that entries are prefixed by repo name and job id:



The screenshot shows a GitHub Actions interface for a workflow job named 'workflow_job.queued'. At the top, there's a status bar with a green checkmark, a repository icon, the job ID '7bf71e90-9199-11ed-8771-9f1b35b255f3', and a timestamp '2023-01-11 11:19:53'. Below this, there are tabs for 'Request' and 'Response', with 'Response' selected and showing a status of '200'. A 'Redeliver' button and a clock icon indicating 'Completed in 1.9 seconds' are also present. The 'Headers' section lists various request headers, including 'Request URL', 'Request method', 'Accept', 'content-type', 'User-Agent', and several GitHub-specific headers like 'X-GitHub-Delivery', 'X-GitHub-Event', 'X-GitHub-Hook-ID', 'X-GitHub-Hook-Installation-Target-ID', 'X-GitHub-Hook-Installation-Target-Type', 'X-Hub-Signature', and 'X-Hub-Signature-256'. The 'Payload' section shows a JSON object with fields like 'action', 'workflow_job', 'id', 'run_id', 'workflow_name', 'head_branch', 'run_url', 'run_attempt', 'node_id', 'head_sha', 'url', 'html_url', and 'status'.

```
{
  "action": "queued",
  "workflow_job": {
    "id": 10574689890,
    "run_id": 3891830900,
    "workflow_name": "Run Update Test",
    "head_branch": "dev-rel",
    "run_url": "https://api.github.com/repos/AmwayACS/lynx/actions/runs/3891830900",
    "run_attempt": 1,
    "node_id": "CR_kwDOA6wd3s8AAAAcdkz2Yg",
    "head_sha": "b1bc575152838df4936271eb20e54a16f54ae183",
    "url": "https://api.github.com/repos/AmwayACS/lynx/actions/jobs/10574689890",
    "html_url": "https://github.com/AmwayACS/lynx/actions/runs/3891830900/jobs/6642539585",
    "status": "queued"
  }
}
```

That's how it looks like in GitHub

```

2023-01-11T11:19:54.795+01:00 2023-01-11T10:19:54.795 INFO RECEIVING FROM SQS
2023-01-11T11:19:54.795+01:00 [INFO] 2023-01-11T10:19:54.795Z 056dcae3-7a58-559f-a447-96dbf52e1
2023-01-11T11:19:54.845+01:00 2023-01-11T10:19:54.845 INFO {"action":"queued","workflow_job":{"
2023-01-11T10:19:54.845 INFO
{
  "action": "queued",
  "workflow_job": {
    "id": 10574689890,
    "run_id": 3891830900,
    "workflow_name": "Run Update Test",
    "head_branch": "dev-rel",
    "run_url": "https://api.github.com/repos/AmwayACS/lynx/actions/runs/3891830900",
    "run_attempt": 1,
    "node_id": "CR_kwDOA6wd3s8AAACdkz2Yg",
    "head_sha": "b1bc575152838df4936271eb20e54a16f54ae183",
    "url": "https://api.github.com/repos/AmwayACS/lynx/actions/jobs/10574689890",
    "html_url": "https://github.com/AmwayACS/lynx/actions/runs/3891830900/jobs/6642539585",
    "status": "queued",
    "conclusion": null,
    "started_at": "2023-01-11T10:19:51Z",
    "completed_at": null,
    "name": "Update Test Job (t3a.xlarge)",
    "steps": [],
    "check_run_url": "https://api.github.com/repos/AmwayACS/lynx/check-runs/10574689890",
    "labels": [
      "self-hosted",
      "t3a.xlarge"
    ],
    "runner_id": null,
    "runner_name": null,
    "runner_group_id": null,
    "runner_group_name": null
  }
}

```

Full payload logged in CloudWatch. Pay attention to times logged.

```

2023-01-11T11:19:55.047+01:00 2023-01-11T10:19:55.047Z 056dcae3-7a58-559f-a447-96dbf52e1c00 @lynx@10574689890 Check runner package url...
2023-01-11T11:19:55.360+01:00 [INFO] 2023-01-11T10:19:55.360Z 056dcae3-7a58-559f-a447-96dbf52e1c00 @lynx@10574689890 Found runner package url: https://github.com/actions/runner/releases/download/v2.299.1/actions-runner-linux-x64-2.299.1.tar.gz
2023-01-11T11:19:55.360+01:00 [DEBUG] 2023-01-11T10:19:55.360Z 056dcae3-7a58-559f-a447-96dbf52e1c00 @lynx@10574689890 Found runner package url: https://github.com/actions/runner/releases/download/v2.299.1/actions-runner-linux-x64-2.299.1.tar.gz
2023-01-11T11:19:55.411+01:00 2023-01-11T10:19:55.411Z 056dcae3-7a58-559f-a447-96dbf52e1c00 @lynx@10574689890 obtaining join token. URL to obtain is: https://api.github.com/repos/AmwayACS/lynx/actions/runners/registration-token
2023-01-11T11:19:55.411+01:00 [INFO] 2023-01-11T10:19:55.411Z 056dcae3-7a58-559f-a447-96dbf52e1c00 @lynx@10574689890 obtaining join token. URL to obtain is: https://api.github.com/repos/AmwayACS/lynx/actions/runners/registration-token

```

Prefixed log entries

Troubleshoot when something fails

First line: SQS will reattempt to spawn worker.

Second line: just resend the webhook.

Using spots: risks and benefits

It's cheaper 😊

Spot runners can be taken from us, and if it happens, we have to manually restart the job.