

## Utopia: Directly enforce resource naming in IAM based on OIDC claims



```

{
  "run_number": "10",
  "run_attempt": "2",
  "actor": "octocat",
  "workflow": "example-wf",
  "head_ref": "",
  "base_ref": "",
  "event_name": "workflow",
  "ref_type": "branch",
  "job_workflow_ref": "https://..."
}
  
```

### GitHub Docs

[How the token works with reusable workflows](#)



- cryptographically signed
- includes details for the calling action & its repo

```

{
  "resources": [
    {
      "provider": "aws",
      "app": "iam",
      "user": "role",
      "trust_policy": "arn:aws:iam::123456789012:role/ExampleRole",
      "name": "ExampleRole",
      "type": "Role",
      "arn": "arn:aws:iam::123456789012:role/ExampleRole",
      "sub": "ExampleRole"
    }
  ]
}
  
```

### AWS Docs

[Available keys for AWS web identity federation](#)

- can only access OIDC claims for:
- :aud
  - :azp
  - :amr
  - :sub



can't access repo information as a templated variable due to custom claims :(

```

{
  "session_id": "arn:aws:sts::123456789012:session/ExampleSession",
  "session_time": 1566583200,
  "principal_tags": {
    "Project": ["Automated"],
    "CostCenter": ["987654321"],
    "Department": ["Engineering"]
  },
  "transitive_tag_keys": [
    "Project",
    "CostCenter",
    "Department"
  ]
}
  
```

### AWS Docs

[Passing session tags using AssumeRoleWithWebIdentity](#)

The Actions OIDC IdP isn't capable of writing repo information in AWS' custom session tags format, it can only change the format for `sub` claims



we still can't access the repo information as a templated variable since GitHub can't emit AWS' session tag format :(

### Externally Managed Resource

with load-bearing security responsibilities