Introducing AWX - "An upstream of Ansible Tower"

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what it is ? and why you should be excited about it ?

AWX is a community based project sponsored by Red Hat.

Q: WHY IS RED HAT DOING THIS?

Because this is what Red Hat does.

When Ansible, Inc. was acquired by Red Hat, we told our users that we would open the source code for Ansible Tower. The AWX Project is a fulfillment of that intent.

https://www.ansible.com/products/awx-project/faq

AWX project

> web-based user interface, REST API, and task engine built on top of Ansible
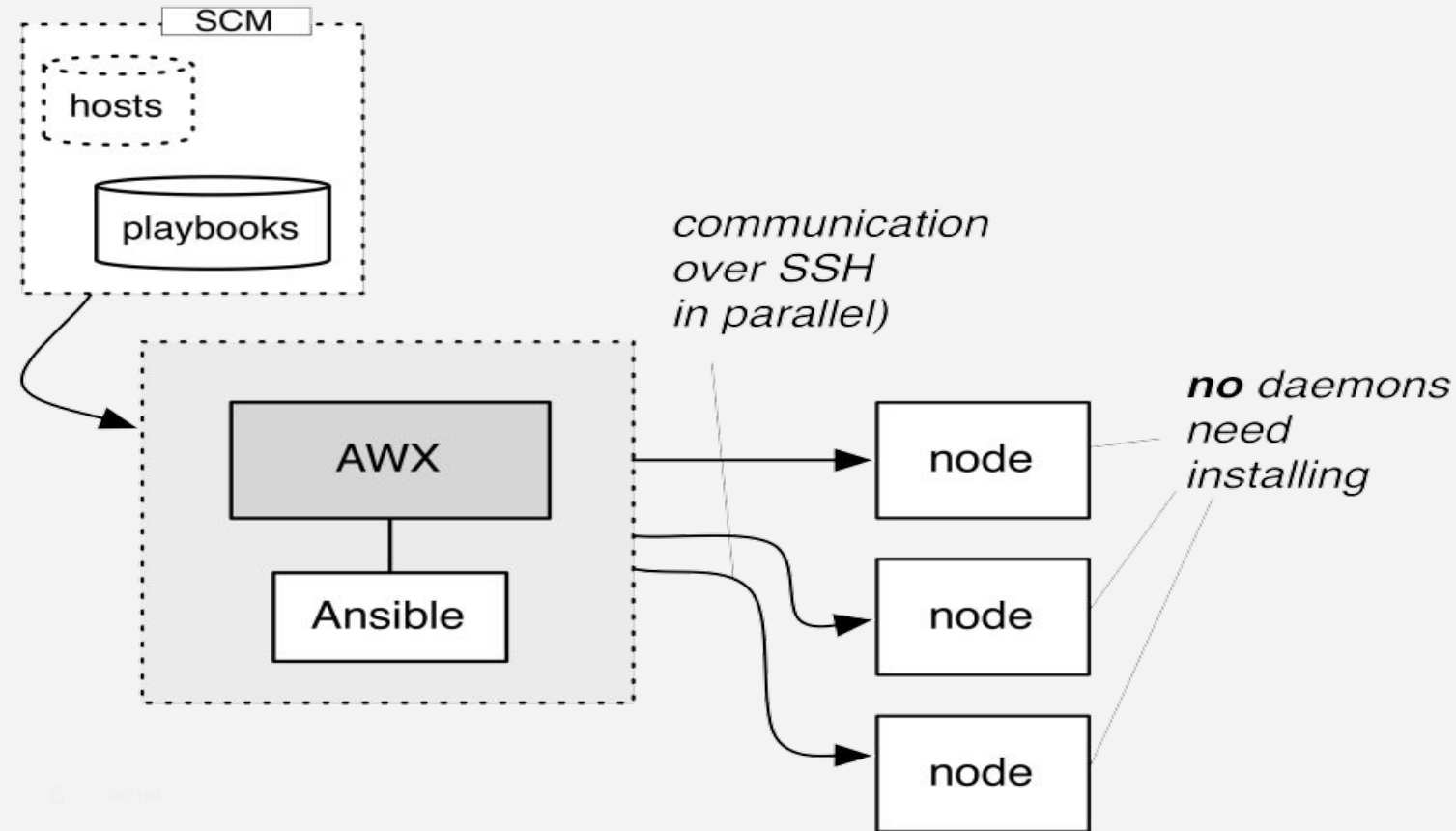
https://github.com/ansible/awx

Installing AWX

AWX by default installs in to the following platforms:

- Docker
- Kubernetes
- OpenShift

You can run a separate postgres database….. or use the default in built one.

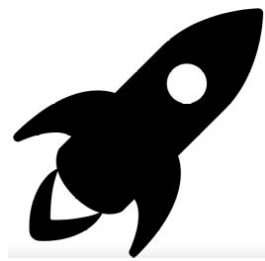https://github.com/ansible/awx/blob/devel/INSTALL.md

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Ansible AWX

FEATURES

- Real-time playbook output,
- Push-button deployment,
- Galaxy integration,
- Authentication,
- Projects/Jobs/Workflows,
- Security,
- Notifications,
- Logging,
- Scheduling

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admin

DASHBOARD

≡ DASHBOARD

JOBS

SCHEDULES

PORTAL MODE

PROJECTS

CREDENTIALS

CREDENTIAL TYPES

INVENTORIES

TEMPLATES

ORGANIZATIONS

USERS

TEAMS

15	0	9	0	4	0
HOSTS	FAILED HOSTS	INVENTORIES	INVENTORY SYNC FAILURES	PROJECTS	PROJECT SYNC FAILURES

JOB STATUS

PERIOD PAST MONTH   JOB TYPE ALL   VIEW ALL
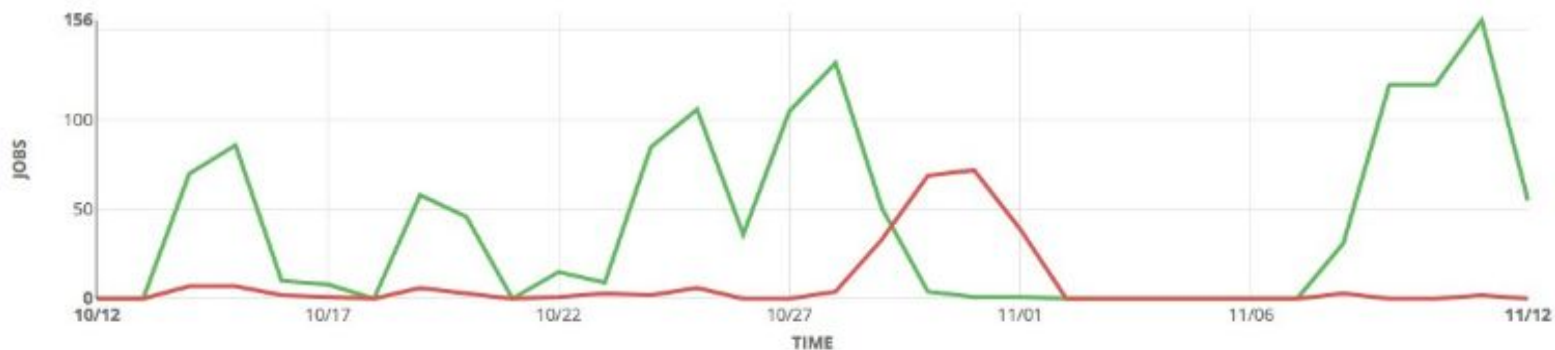
RECENTLY USED TEMPLATES   VIEW ALL

NAME	ACTIVITY	ACTIONS
1pi	●●●	🚀 ✏️
pi1	●●●●●●●●●●	🚀 ✏️
t-job1	●❶●●❶❶❶❶❶	🚀 ✏️

RECENT JOB RUNS   VIEW ALL

NAME	TIME
● 1pi	11/12/2017 10:18:21 AM
● pi1	11/12/2017 10:15:53 AM
● pi1	11/12/2017 9:16:19 AM

Authentication

Multiple authentication methods are available.

- AWX Username / Password,
- Azure AD,
- Github,
- Google OAuth2,
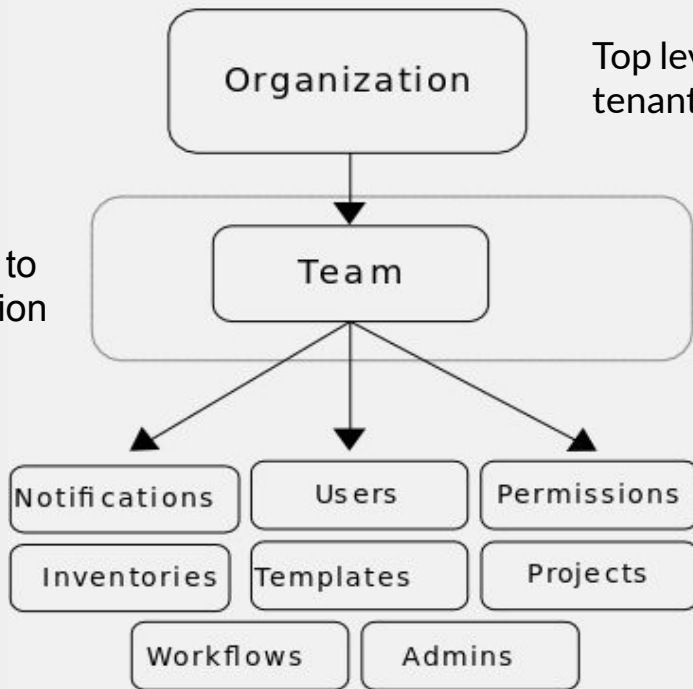- LDAP, RADIUS, SAML, TACACS+

SECURITY

Playbooks are executed in a CHROOT environment as the AWX user. Cannot access other data.

Full RBAC security model for every item within AWX. This means you can tie yourself in knots if you're not careful.

RBAC

Organization

Team

Notifications   Users   Permissions

Inventories   Templates   Projects

Workflows   Admins

Top level construct allows for multi tenant topologies

Teams are an optional construct to allow groups within an organization to collaborate

Each of the items at this level can be assigned to a team or an organization

When assigned, a role specific to the item can be chosen (i.e. execute only or view only)

RBAC : Execute

1 Please select Users / Teams from the lists below.

USERS **TEAMS**

SEARCH 🔍 KEY

USERNAME ▲	FIRST NAME ⇕	LAST NAME ⇕
☑ janej	Jane	Jolie

ITEMS 1 - 1

2 Please assign roles to the selected users/teams **KEY**

ADMIN
Can manage all aspects of the job template

EXECUTE
May run the job template

Jane Jolie USER ✕ **Execute** ✕

INVENTORIES

- Comparable to Ansible inventory files.
- Can have multiple inventories.
- Dynamic sync with AWS, GCE, Azure, Rackspace etc.
- Write your own custom inventory scripts (just in case you have AS/400)

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INVENTORIES

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CREDENTIALS

AWS, Google, Machine, SCM, Vault, VMware, Custom Creds

NEW CREDENTIAL

DETAILS   PERMISSIONS

* NAME ❓

Lunch access

DESCRIPTION ❓

Credentials for lunchtime

ORGANIZATION ❓

Q   JPMe

* CREDENTIAL TYPE ❓

Q   Pasta

TYPE DETAILS

* UID

janej

* PASSWORD

SHOW   •••••

WHICH TYPE OF PASTA WOULD YOU LIKE?

rice

'rice' is not one of ['spaghetti', 'fettucine', 'girandole']

CANCEL   SAVE

JOB TEMPLATE/JOB

- Template is the definition of a playbook (i.e. which playbook to use, which credentials to use, which inventory to use, variables etc)

- A Job is the output of a template run. Job output is saved so that you can review it later.

- A Workflow is a way to string together multiple playbooks.

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JOB'S OUTPUT

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JOB'S HISTORY

Job history is saved – both success and failure.

All of the attributes used to run the job are available.
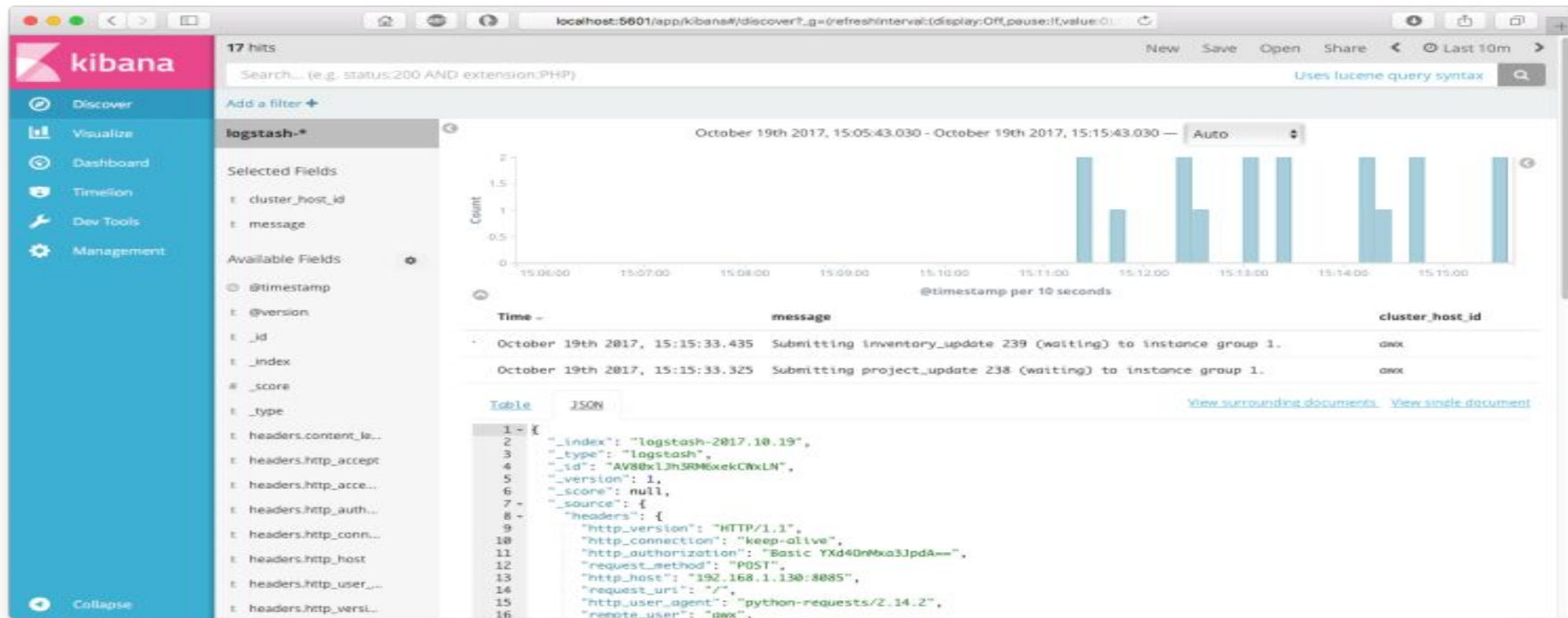
WORKFLOW

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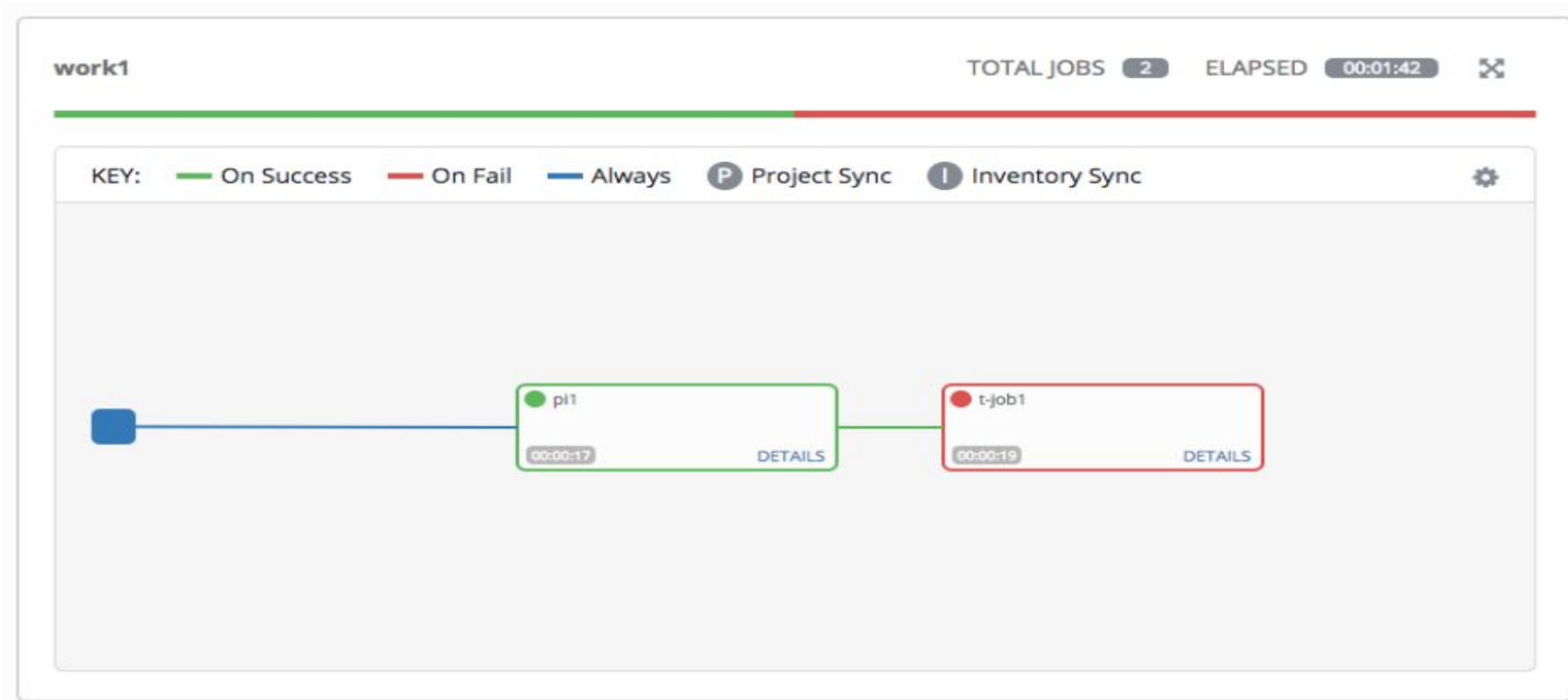
LOGGING

detailed logging, management jobs

```
{
  "cluster_host_id": "awx",
   "level": "INFO",
  "@timestamp": "2017-10-
  14T14:42:43.060Z",
  "host": "awx",
  "logger_name":
  "awx.main.scheduler",
  "message": "Submitting project_update 70 (waiting) to instance group 1.",
   "type": "logstash"
}
```
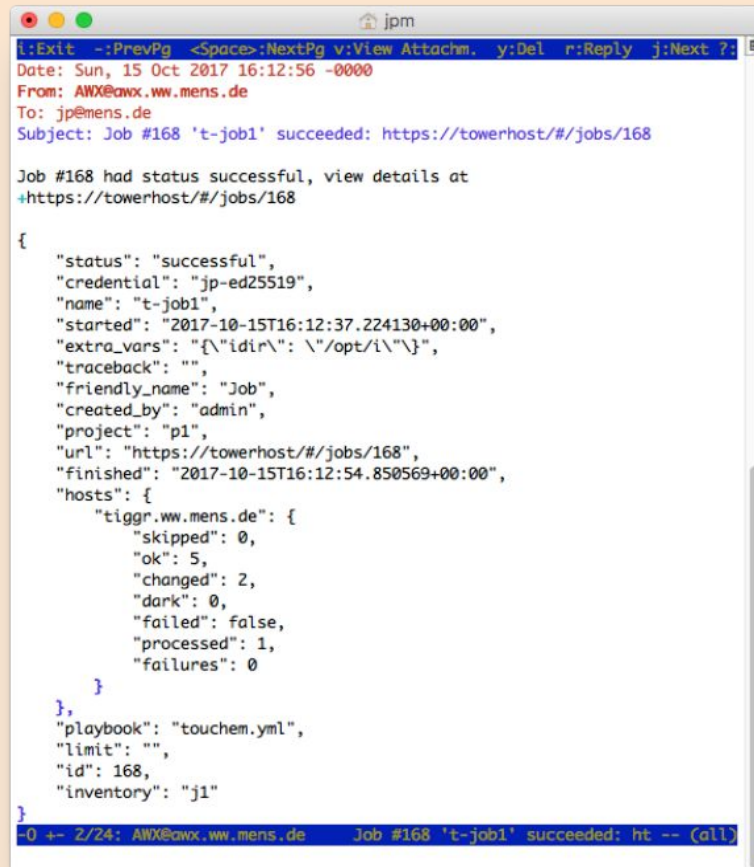
LOGSTASH

aggregator services (Splunk, Loggly, Sumologic, Elastic),

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NOTIFICATION

- E-mail
- Slack
- Twilio
- IRC
- PagerDuty
- Hipchat
- Webhook

i:Exit -:PrevPg <Space>:NextPg v:View Attachm. y:Del r:Reply j:Next ?:
Date: Sun, 15 Oct 2017 16:12:56 -0000
From: AWX@awx.ww.mens.de
To: jp@mens.de
Subject: Job #168 't-job1' succeeded: https://towerhost/#/jobs/168

Job #168 had status successful, view details at
+https://towerhost/#/jobs/168

{
    "status": "successful",
    "credential": "jp-ed25519",
    "name": "t-job1",
    "started": "2017-10-15T16:12:37.224130+00:00",
    "extra_vars": "{\"idir\": \"/opt/i\"}",
    "traceback": "",
    "friendly_name": "Job",
    "created_by": "admin",
    "project": "p1",
    "url": "https://towerhost/#/jobs/168",
    "finished": "2017-10-15T16:12:54.850569+00:00",
    "hosts": {
        "tiggr.ww.mens.de": {
            "skipped": 0,
            "ok": 5,
            "changed": 2,
            "dark": 0,
            "failed": false,
            "processed": 1,
            "failures": 0
        }
    },
    "playbook": "touchem.yml",
    "limit": "",
    "id": 168,
    "inventory": "j1"
}
-0 +- 2/24: AWX@awx.ww.mens.de   Job #168 't-job1' succeeded: ht -- (all)

"Every new thing creates two new questions and two new opportunities."

THANK YOU

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