



# Implementation of projects for acron

*CERN openlab summer student Lightning talks 2021*

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7/9/2021

# Acron

*Authenticated cron*

## **Motivation:**

Periodically execute specific tasks (cron)

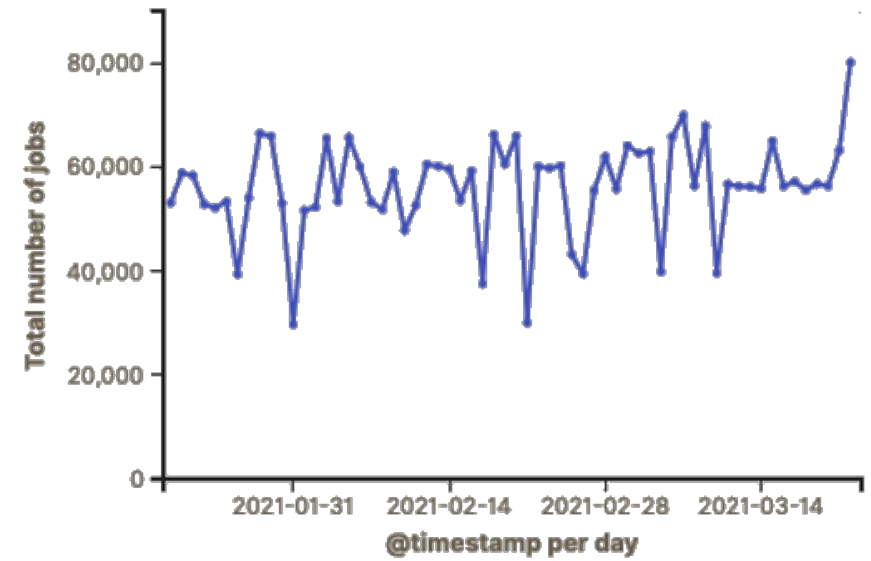
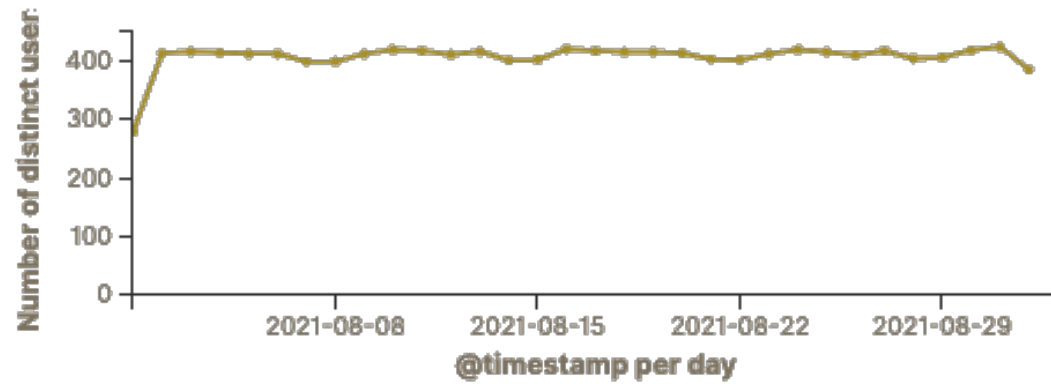
## **Desiderata:**

- Multi-machine execution
- Secure authentication
- High availability
- Scalability

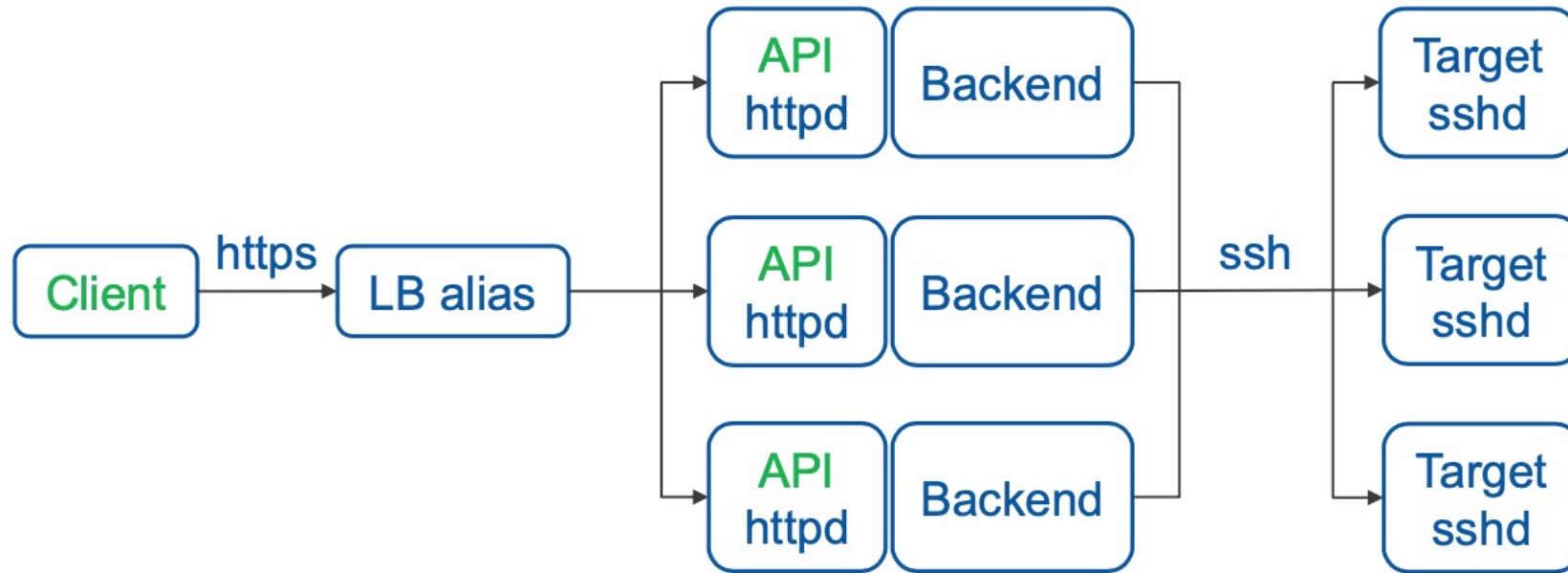
## **Examples:**

- Process data from CERN experiments
- Perform server monitoring tasks—e.g., health checks

# Importance of acron at CERN



# Architecture



# Acron Projects

## Summer Student Project



```
acron projects --help
# usage: acron projects [-h] <command> ...
#
# Acron projects management utility.
#
# optional arguments:
#   -h, --help  show this help message and exit
#
# Commands:
#   <command>  description
#   share      share project with another user
#   show       show project definition
#   delete     delete personal project
#
# For more information, please check the man page, acron-projects(1).
```

Usage of acron projects in CLI

# Acron Projects

## Summer Student Project



```
# List own project and users who have access to it.  
acron projects show  
  
# List all projects user has access to.  
acron projects show --all  
  
# Grant user read-only permissions to own project.  
acron projects share --user_id USER_ID  
  
# Grant user read and write permissions to own project.  
acron projects share --user_id USER_ID --write  
  
# Revoke project share for user.  
acron projects share --user_id USER_ID --delete  
  
# Delete the user's project.  
acron projects delete
```

Example usage of acron projects in CLI



```
# Foo project ACL  
alice: rw  
bob: ro  
eve: rw
```

Example file contents of project ACL

# Conclusion

Selected personal contributions:

- **Completed implementation 4 weeks faster than expected**
- Implemented test suite
- Extended service documentation and implemented additional features

Outlook:

- Pilot phase for acron projects
- Service hardening
- Extend test suite



# QUESTIONS?

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