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Reportnet operations

Notifications

- Reportnet sends notifications to users when significant events happen:
  - Delivery made to CDR
  - Manual feedback posted
  - Change to data definition
  - Upcoming deadline
- Users can subscribe to some or all events

Notifications

- The applications sends the notification to UNS, which then disseminates to the subscribers

Metadata glue

- Core reference and event data is harvested by Content Registry
  - Obligations
  - Deliveries
  - QA results
  - User records
- Enables managers to query the state of the dataflows in various ways

Eionet helpdesk

- Open 9-17 on business days
- All requests arrive as email and are collected in a helpdesk application called OTRS
  - Open source
  - Facilitates followup, reminders etc.

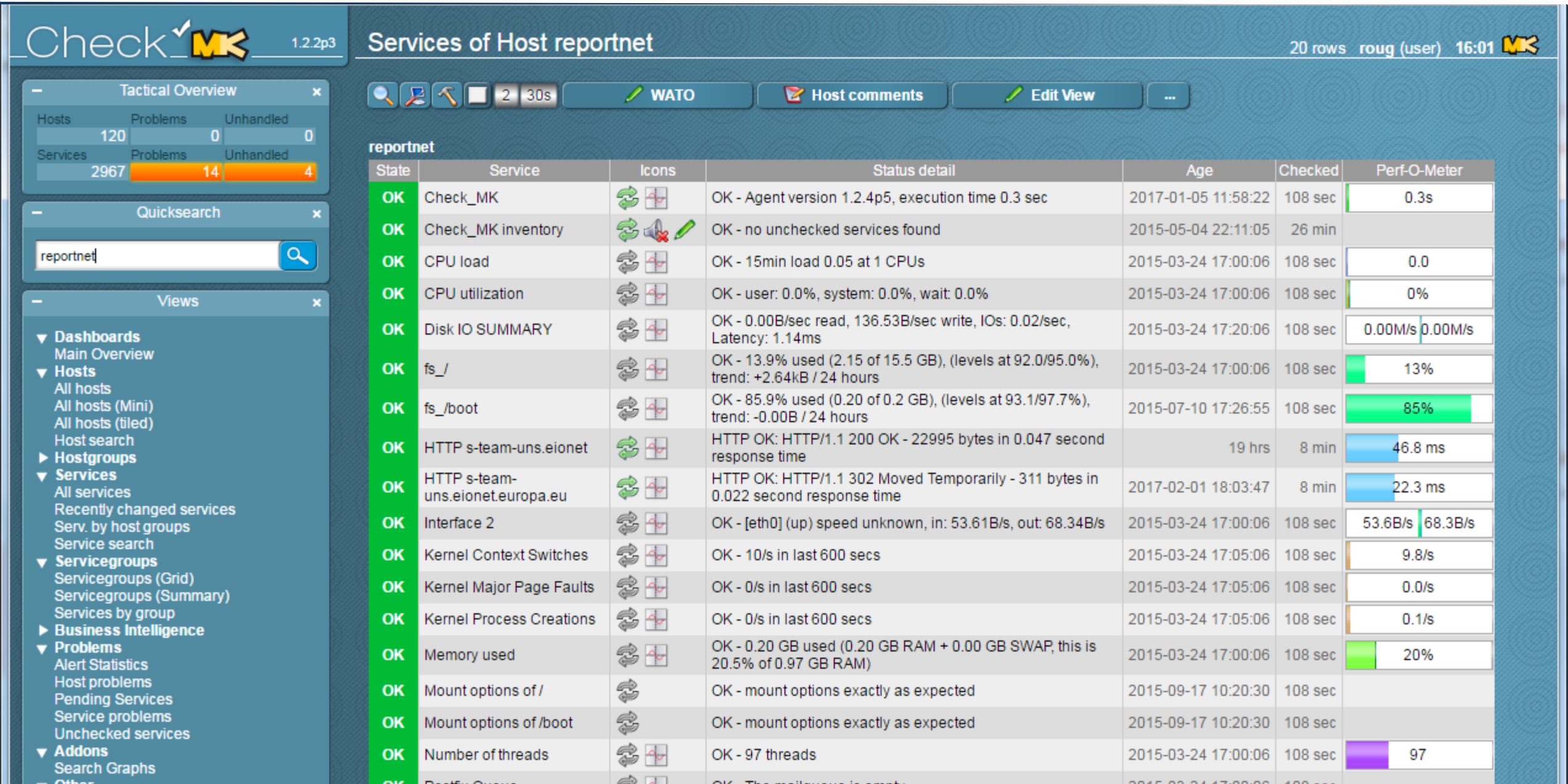
Helpdesk organisation

- We have one generic and several specialised helpdesks
- Operated by 1-2 first level responders
  - First response within one hour
- Can escalate to experts or software developers

Monitoring

- The purpose of monitoring is to detect issues and fix them before they affect users
- Using Check_MK

Monitoring


Check_MK 1.2.2p3
Tactical Overview
Hosts Problems Unhandled
120 0 0
Services Problems Unhandled
2967 14 4
Quicksearch
reportnet
Views
Dashboards
Main Overview
Hosts
All hosts
All hosts (Mini)
All hosts (tiled)
Host search
Hostgroups
Services
All services
Recently changed services
Serv. by host groups
Service search
Servicegroups
Servicegroups (Grid)
Servicegroups (Summary)
Services by group
Business Intelligence
Problems
Alert Statistics
Host problems
Pending Services
Service problems
Unchecked services
Addons
Search Graphs
Services of Host reportnet
20 rows roug (user) 16:01
2 30s
WATO
Host comments
Edit View
reportnet
State Service Icons Status detail Age Checked Perf-O-Meter
OK Check_MK OK - Agent version 1.2.4p5, execution time 0.3 sec 2017-01-05 11:58:22 108 sec 0.3s
OK Check_MK inventory OK - no unchecked services found 2015-05-04 22:11:05 26 min
OK CPU load OK - 15min load 0.05 at 1 CPUs 2015-03-24 17:00:06 108 sec 0.0
OK CPU utilization OK - user: 0.0%, system: 0.0%, wait: 0.0% 2015-03-24 17:00:06 108 sec 0%
OK Disk IO SUMMARY OK - 0.00B/sec read, 136.53B/sec write, IOs: 0.02/sec, Latency: 1.14ms 2015-03-24 17:20:06 108 sec 0.00M/s 0.00M/s
OK fs_/ OK - 13.9% used (2.15 of 15.5 GB), (levels at 92.0/95.0%), trend: +2.64kB / 24 hours 2015-03-24 17:00:06 108 sec 13%
OK fs_/boot OK - 85.9% used (0.20 of 0.2 GB), (levels at 93.1/97.7%), trend: -0.00B / 24 hours 2015-07-10 17:26:55 108 sec 85%
OK HTTP s-team-uns.eionet HTTP OK: HTTP/1.1 200 OK - 22995 bytes in 0.047 second response time 19 hrs 8 min 46.8 ms
OK HTTP s-team-uns.eionet.europa.eu HTTP OK: HTTP/1.1 302 Moved Temporarily - 311 bytes in 0.022 second response time 2017-02-01 18:03:47 8 min 22.3 ms
OK Interface 2 OK - [eth0] (up) speed unknown, in: 53.61B/s, out: 68.34B/s 2015-03-24 17:00:06 108 sec 53.6B/s 68.3B/s
OK Kernel Context Switches OK - 10/s in last 600 secs 2015-03-24 17:05:06 108 sec 9.8/s
OK Kernel Major Page Faults OK - 0/s in last 600 secs 2015-03-24 17:05:06 108 sec 0.0/s
OK Kernel Process Creations OK - 0/s in last 600 secs 2015-03-24 17:05:06 108 sec 0.1/s
OK Memory used OK - 0.20 GB used (0.20 GB RAM + 0.00 GB SWAP, this is 20.5% of 0.97 GB RAM) 2015-03-24 17:00:06 108 sec 20%
OK Mount options of / OK - mount options exactly as expected 2015-09-17 10:20:30 108 sec
OK Mount options of /boot OK - mount options exactly as expected 2015-09-17 10:20:30 108 sec
OK Number of threads OK - 97 threads 2015-03-24 17:00:06 108 sec 97

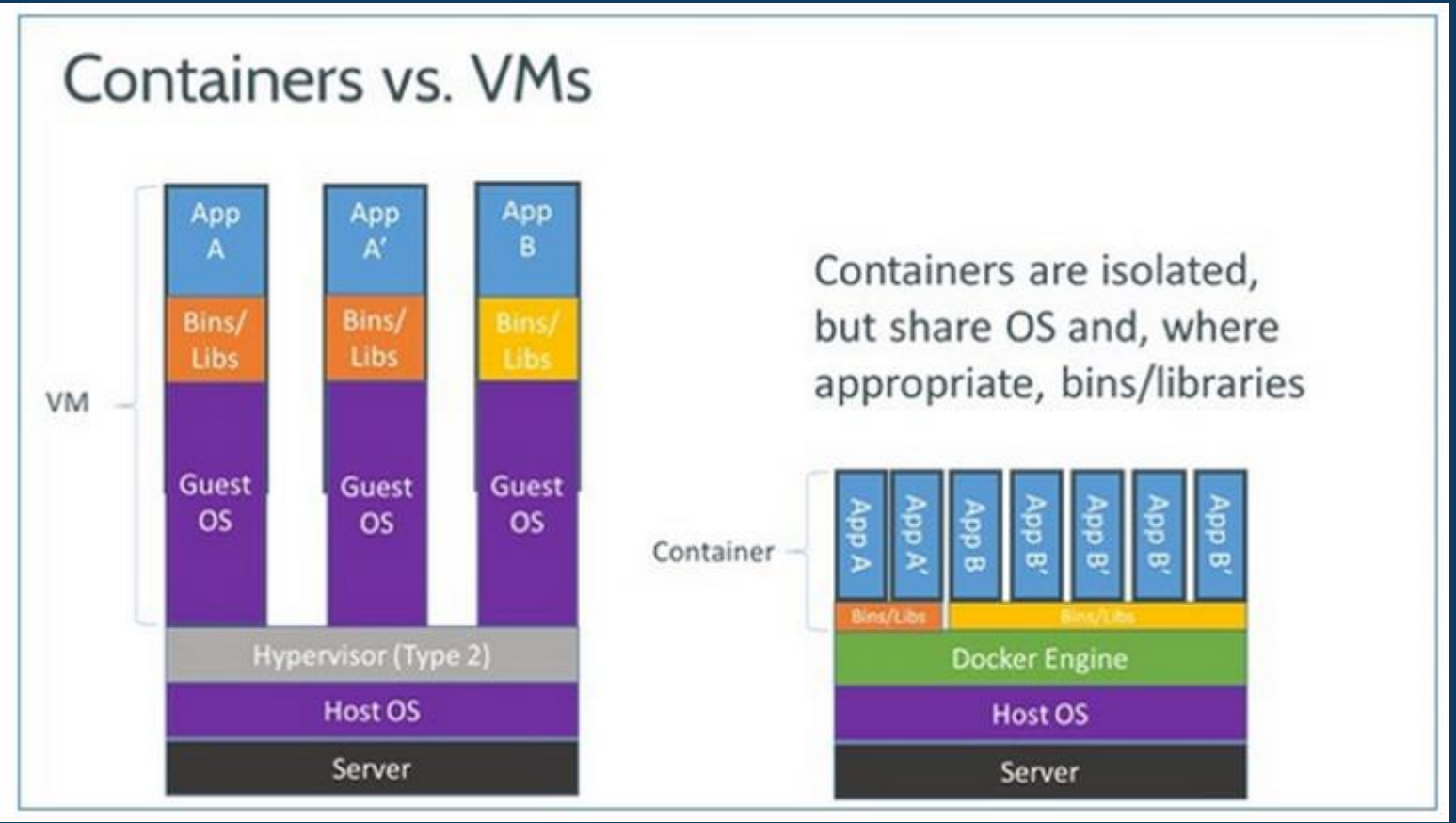
User authentication/authorisation

- All users are registered in Eionet site directory
  - LDAP database implemented with OpenLDAP
- Web UI to facilitate change of passwords, address, phone etc.
- Web UI to assign membership to LDAP groups
  - For authorisation and mailing lists

Deployment of Reportnet software

- There are frequent improvements to the software
- The individual services are delivered as Docker images from the consultants
  - All dependencies on Operating System and libraries are solved and tested together

Container principles



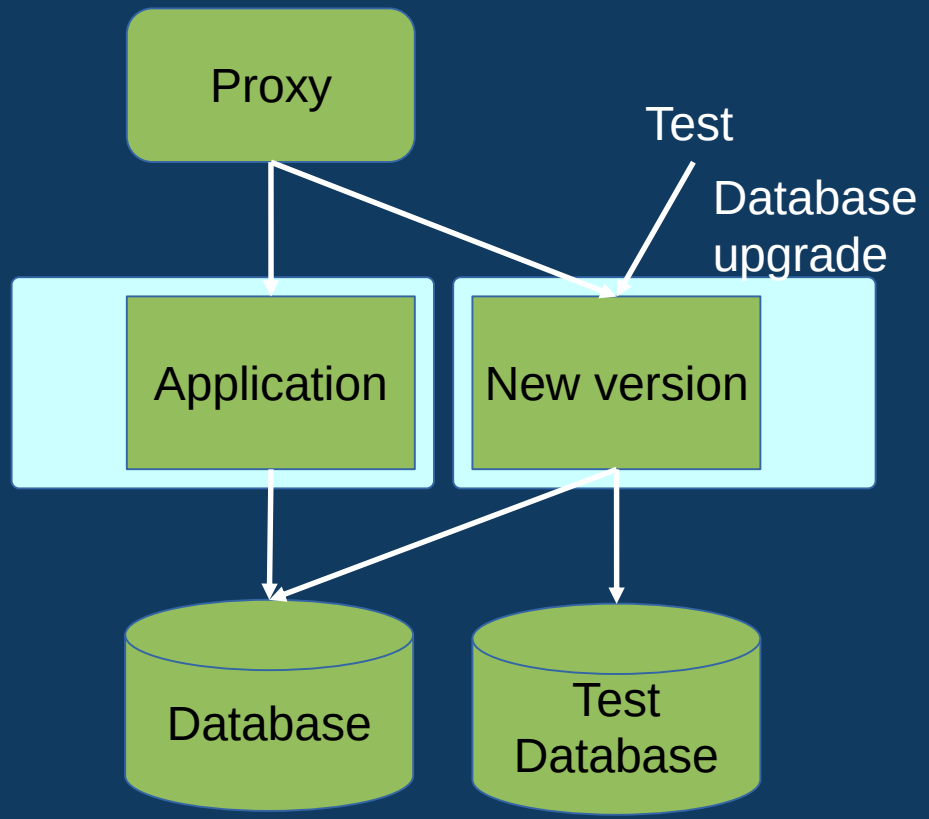
Dockerfile

```
FROM tomcat:7
COPY eprtr.war /usr/local/tomcat/webapps
EXPOSE 8080
CMD catalina.sh run
```

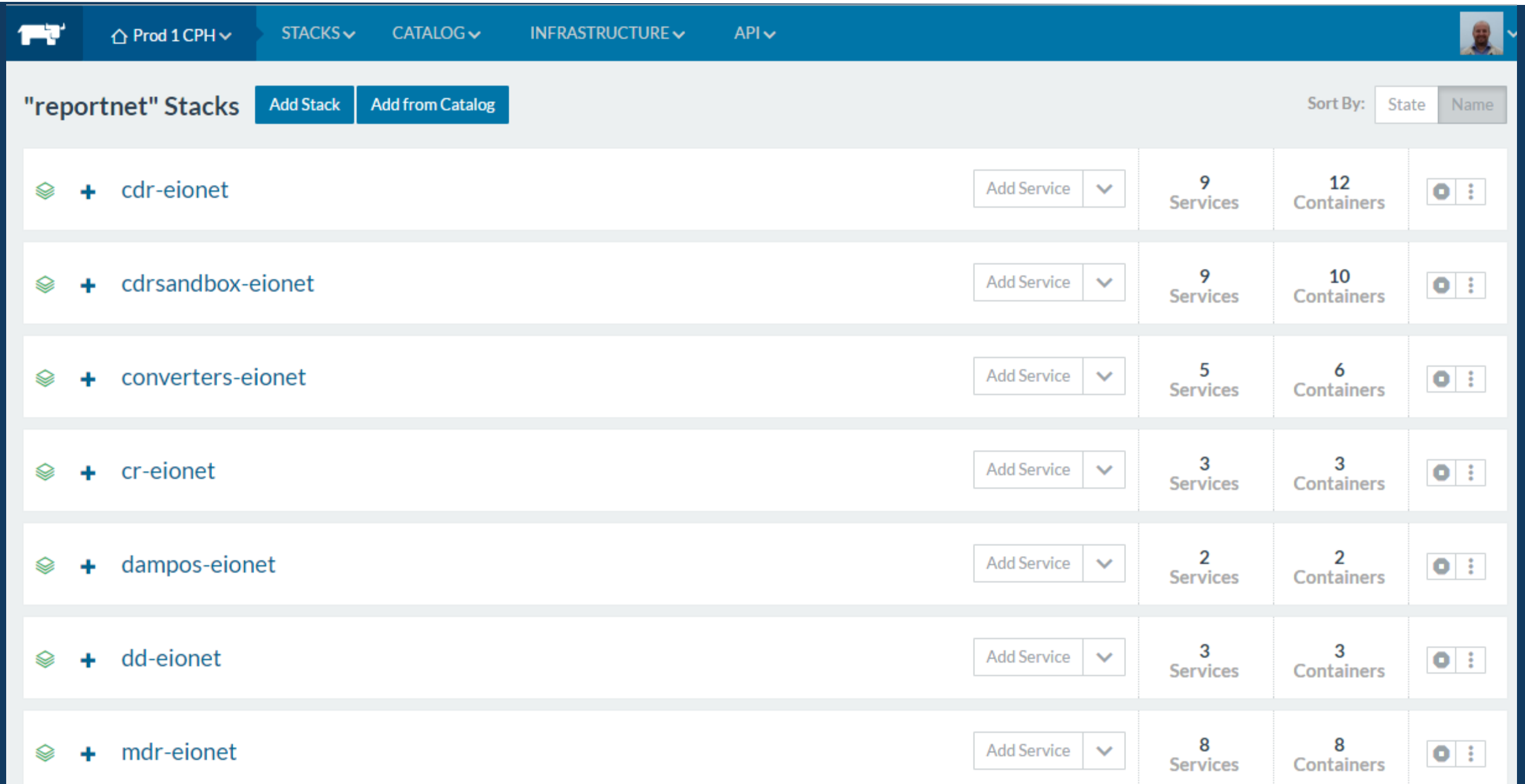
Deployment pipeline

1. Code check-in to GitHub
2. Build the application
3. Run unit tests
4. Populate database
5. Run integration tests
6. Upload image to repository
7. Deploy from repository

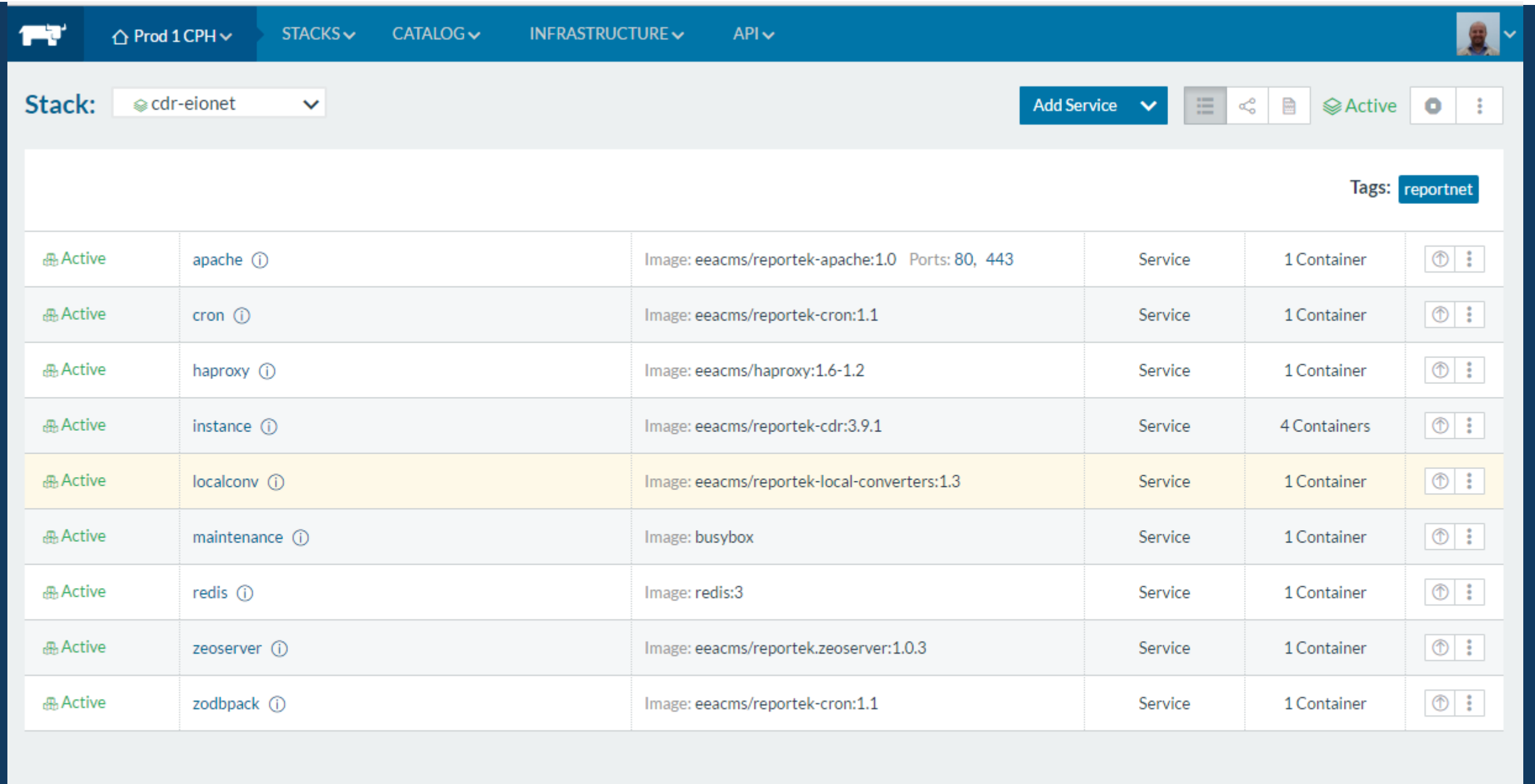
Blue/green deployments



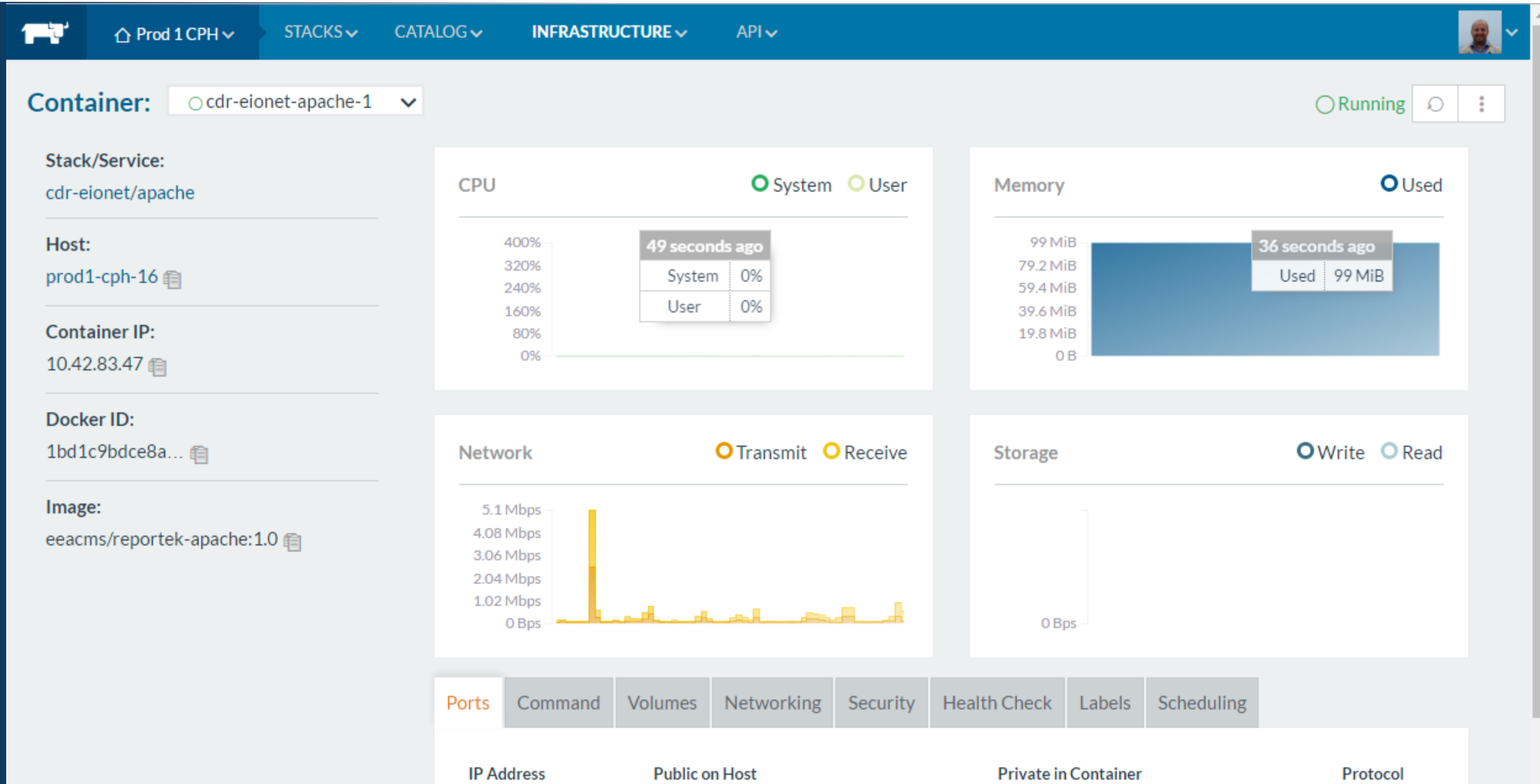
Container management tool



Stack overview



Container statistics



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