

RBC Global Asset Management

Fall 2024 Co-op Term Wrap-up

GAM Digital

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December 11, 2024

For internal use only



At a Glance

Key Highlights



Vulnerability
reduction



Angular version
updates



Documentation &
knowledge sharing

At a Glance

Advancements

IAP-frontend:
Ready for
production

Institutional-
frontend:
Vulnerability
free

Helios on
Actions
Migration

Contributions to ICP0 team



Help progress the migration of application from PCF to OCP4



Learned, documented and shared the iap-frontend and iap-backend local setup and deployment



Learned, documented and ran the iap and icp frontend manual and automated tests



Authored multiple confluence documents to help new team members with onboarding and share gained knowledge

[IAP local setup](#)

[ICP0 frontend testing](#)

[ICP0 PCF token renewal](#)

[ICP0 - Restarting IAP PCF Instance](#)

Problems & Solutions

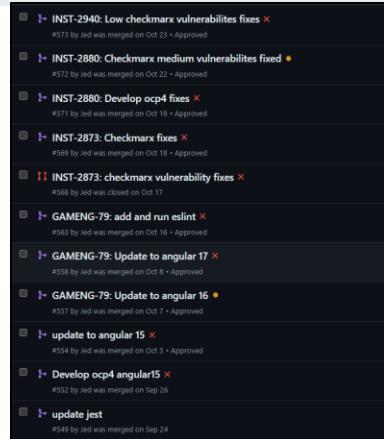
Problems

- Lots of information regarding ICP0 bottled necked with offshore developers
- Startup: Roman Buta, Anna Myropolska
- Testing: Rhiddhi Gupta

Solutions

- Adjusted schedule to account for time zone difference
- Created confluence pages to allow information to be easily shared with others

Contributions to iap-frontend



ICPO / iap-frontend / develop-ocp4 / Run #18

Run Details

Select Org: ICP0 / Select Project: iap-frontend / Select Branch: develop-ocp4 / Rebuild / Repackage... / Rollback

Run #: Failed to deploy to DEV, QAT, UAT, PRBD

Started by: undefined undefined / Commit: empty line to trigger helios build 980905a / Artifact: 0.1.0-develop-ocp4-18-980905a

Scans: Nexus IQ (43), Checkmarx (44), Aqua(1) (584), iap-fr... (23), DAST (34)

Fri Sep 13 2024, 2:54 PM EDT / Duration: 11 min 30 sec / Platform: OpenShift Container Platform 4

ICPO / iap-frontend / release-ocp4 / Run #5

Run Details

Select Org: ICP0 / Select Project: iap-frontend / Select Branch: release-ocp4 / Rebuild / Repackage... / Rollback

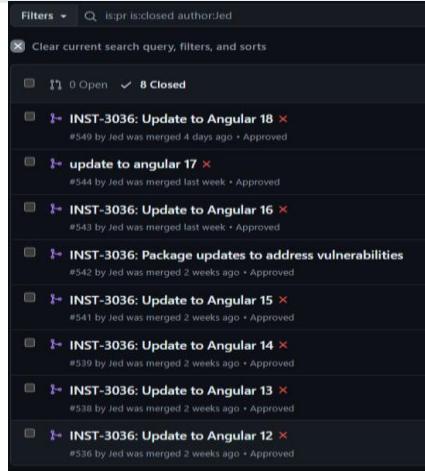
Run #: Success! Deployed to DEV, QAT, UAT, PRBD

Started by: Zakhar Sorokun / Commit: Merge branch 'pre-release-ocp4' into release-ocp4 d395475 / Artifact: 0.1.0-release-ocp4-3-d395475

Scans: Nexus IQ (0), Aqua(1) (0), iap-fr... (0), DAST (0)

- Contributed to the version update of Angular, going from **v10 → v17**
 - Version by version update
 - Resolved build issues for each version
 - Updated/removed incompatible packages
- Removed and replaced deprecated API's
- Removed critical **40+ critical/high**, and over **500+ low** NexusIQ vulnerabilities
- Migrated deprecated TSLint to ESLint, enforcing clean & readable coding practices

Contributions to institutional-frontend



ICP0 / institutional-frontend / develop / Run #11

Run Details

Select Org ICP0 / Select Project institutional-frontend / Select Branch develop / Rebuild / Rollback

Run # 11 Did not deploy to Nexus

Started by PICP0SRVDEVOPS Start time Fri Aug 30 2024, 6:42 PM EDT

Commit revert what Anna misconfigured in https://rbcgithub.fg.rbc.com/ICP0/institutional-frontend/commit/b5801792bc33f2bca29afe662835d392af05ee19 d6291a0

Artifact

Scans Nexus IQ 57 93 1201 Checkmark 4 23 86

Run Details

Select Org ICP0 / Select Project institutional-frontend / Select Branch ocp4 / Rebuild / Rollback

Run # 29 Did not deploy to Nexus

Started by PICP0SRVDEVOPS Start time Thu Nov 21 2024, 7:44 AM EST

Commit Merge pull request #558 from rbc-gam/INST-3036-2 70f57cb

Artifact

Scans Nexus IQ 0 3 233

- Updated Angular version; going from **v10 → v18**
 - Version by version update
 - Resolved build issues for each version
 - Updated/removed incompatible packages
- Removed and replaced deprecated API's
- Resulted in a decrease of **57 critical, 90 medium & over 900+ low** Nexus IQ vulnerabilities
- Added ESLint scripts allowing project to be linted; resulting in clean and readable code
- Migrated repo to GitHub Actions
 - Resolving artifactory issues on Jenkins
 - Allowing faster build & scan process

How does this help?



Advanced the migration of ICP0 frontend applications to OCP4



Now on a LTS Angular version (v2 to v15 are no longer supported)



More secure applications

Less susceptible to attacks that can compromise user data

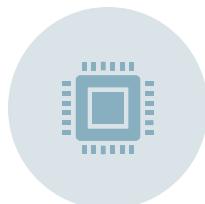
What did I learn?



The full software development process
(not just development)



Code quality & security



Devops (Helios,
Jenkins, GitHub
Actions)



Automated and
regression testing



Importance of
documentation

Thank You!