Information Technology
& Data Analytics

DevSecOps & Automation – EP&S

Monthly Report Out - July 2023

CONTENTS

VISION

Implement Lean practices through DSO maturity coverage and IT Automation.

Increased operating speed and flexibility, release-on-demand, and first-time quality of secure-by-design applications.

Reduced hours and improved efficiency through automation

2023 DEVSECOPS PROGRESS

DEVSECOPS 2023

OKR

- Implement Lean practices through DSO maturity coverage for **70% of High ROI products**

Target

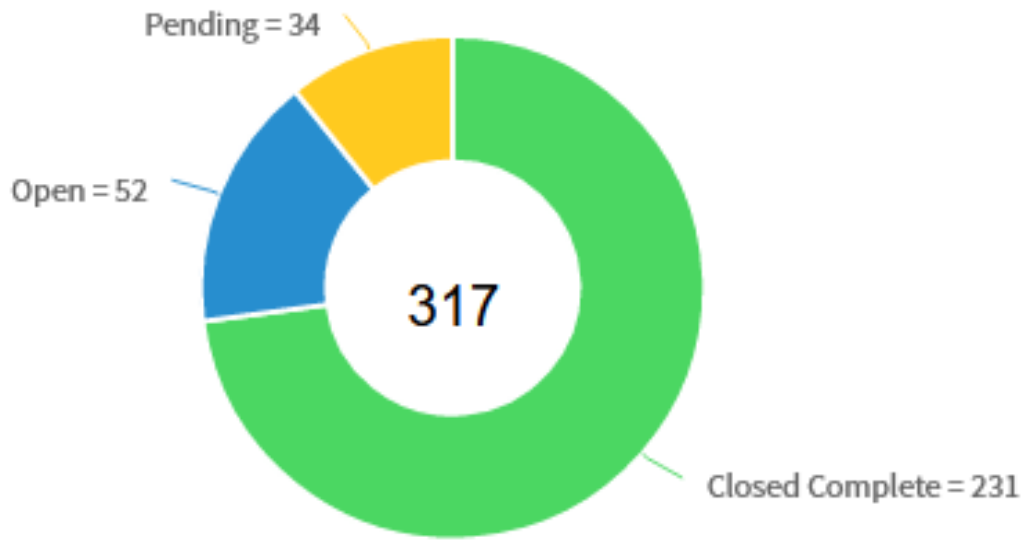
- Complete DSO Assessments for new applications **120 Apps**
  [Overall – 280 apps (~30%)]
- Re-Assessments - **40 apps**
- Implementation roadmap for 40% Applications - **120 apps**
  [Overall – 200 (~20%)]
- Improved overall maturity to **3.0** from **2.8.** Focus on High ROI and business critical Applications.
- ROI Calculation - 50 Apps

PROGRESS

On Track
Watch Item
Off Track

2023 OKR Targets	Q1 Target	Q1 Completed	Q2 Target	Q2 Completed	Q3 Target	Q3 Completed
Complete DSO Assessments for new applications **120 Apps**	30	34	30	25 + 60 AMaaS	30	2
Implementation roadmap for Applications that have completed assessments- **90 Apps**	30	28	30	21 + 57 AMaaS	30	1
Roadmap implementation , Re-Assessment & ROI calculation for 15% Apps with roadmap created: - **40 apps**	10	0 *DSO Improvements pending	10	4 *40 app reassessment in pipeline	10	11 *19 app reassessment in pipeline
Maturity improvement and maintain Score **3.0+**	Maturity Score 3		Maturity Score 3		Maturity Score 3.0 (Non-AMaaS) Overall Score with AMaaS 2.8	

OVERALL ASSESSMENT PROGRESS



Open (Blue): Assessment has been sent to the Application Manager but has not been completed.

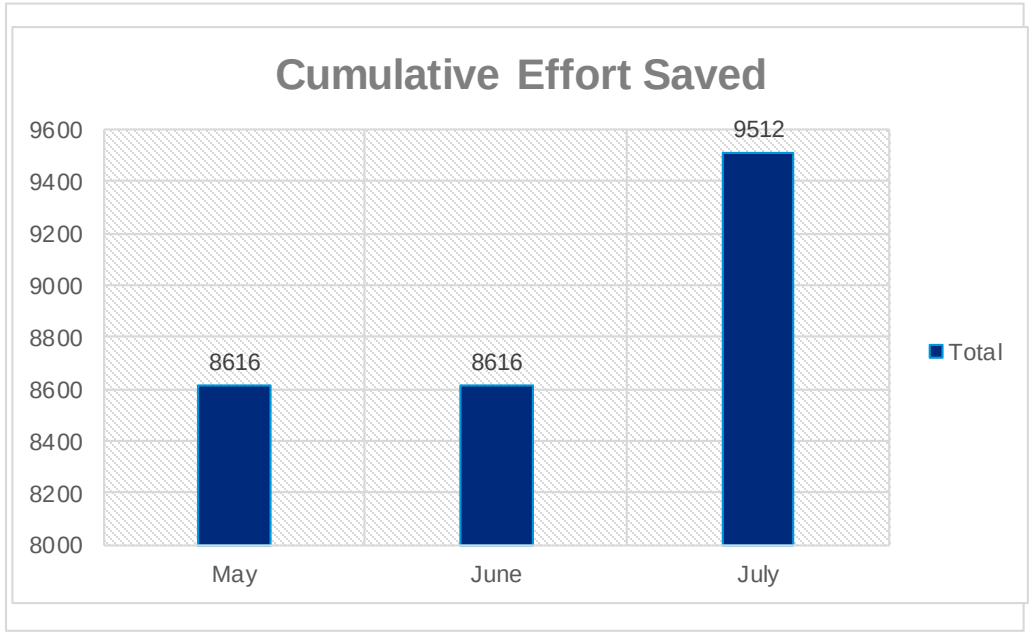
Pending (Yellow): Assessment has been sent to the Application Manager and has been completed without a roadmap..

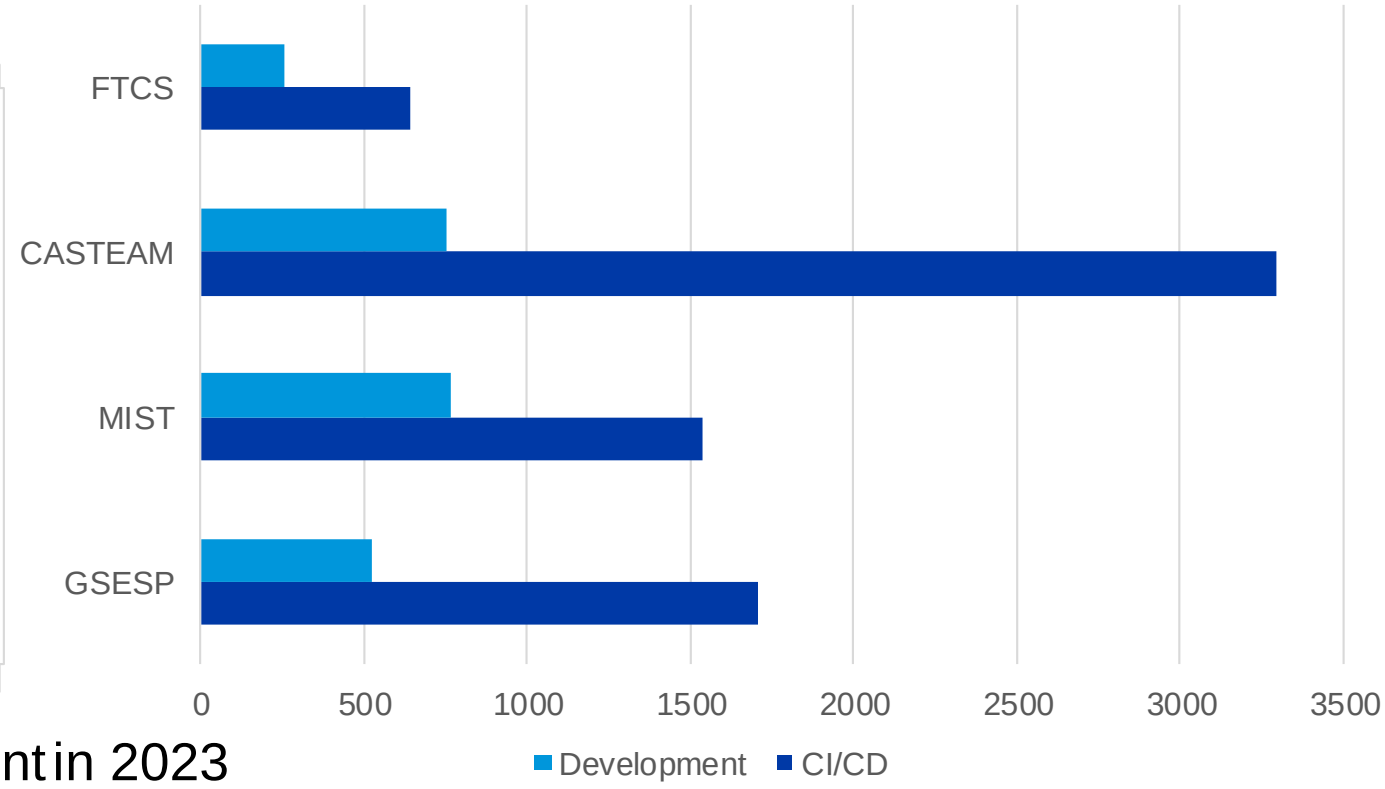
Closed Complete (Green): Assessment has been sent to the Application Manager and has been completed and the roadmap added.

SUCCESS STORIES AFTER REASSESSMENT

SAVINGS IDENTIFIED AFTER REASSESSMENT 2023

9512 Hrs. (As of July 2023)

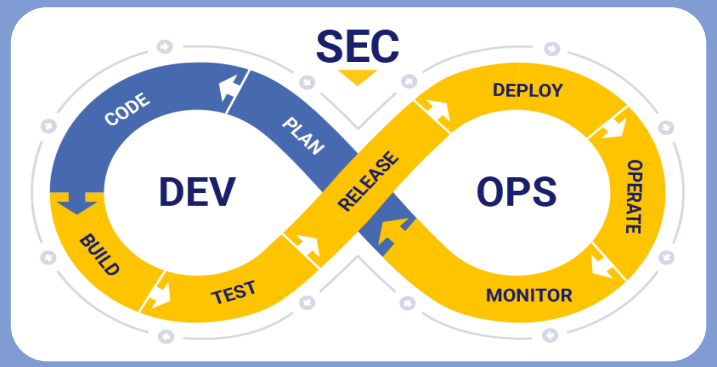




33 Applications in pipeline for reassessment in 2023

FTCS – (FLIGHT TEST CONFIGURATION SYSTEM) SUCCESS STORIES L2 (34% TO 46%)

TOTAL SAVINGS IN A YEAR **896** HOURS = (640 CI/CD + 256 DEVELOPMENT)



coverity®

CI/CD

- 4 Non-Production Deployment
- Manual Effort = 2 hr/build
- Automated = 0.75 hr/build
- Savings Per Sprint = 4env * 8build *1.25hrs = 40 hrs
- Sprints/year= 16
- Savings/year= 640 hrs

Development

- SAST tool in pipeline helps to ensure no new security vulnerabilities go to Production and quality defects early in the software development.
- Coverity Pipeline Savings: 2 (coverity scans) X 8 hrs = 16 hrs/sprint

Configuration Management Practice followed which increases agility, both on the part of individual developers and the application as a whole.

Features:

- Externalized
- Environment Specific
- Consistent
- Version History
- Jar Signing

AUTOMATION PROGRESS

AUTOMATION 2023

OKR

Implement automation capabilities through out the applications and achieve 80000 automation hours

Objective

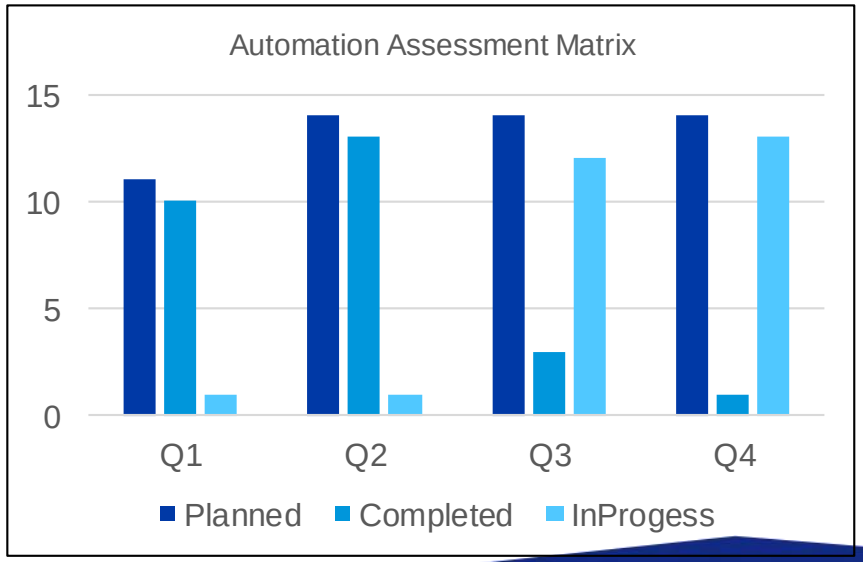
Automate repetitive processes

Capture automation to Return On Investment.

Knowledge sharing and bring culture of Automation

Accomplishments:

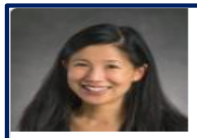
Automation hours of 153046 has been accounted in the CoP.



AUTOMATION STATUS - 2023

Target: 80k hrs

Current status: 153k hrs



Lucia Chung

Engineering and Product Support

Total : 153,046 hours

Buba Turner

Engineering and Product Support

Status	Saved	Efficiency	Avoided
Complete	-	14,648	13,016
In-Work	-	27,869	-
Backlog	-	-	-
Totals	-	42,517	13,016
		55,533	

Jeffrey Stein

Engineering and Product Support

Status	Saved	Efficiency	Avoided
Complete	-	12,110	-
In-Work	50	600	-
Backlog	-	-	-
Totals	50	12,710	-
		12,760	

Jennifer Davis

Engineering and Product Support

Status	Saved	Efficiency	Avoided
Complete	-	30,049	28,800
In-Work	-	4,804	5,000
Backlog	-	-	-
Totals	-	34,853	33,800
		68,653	

Premeela Chacko

Engineering and Product Support

Status	Saved	Efficiency	Avoided
Complete	-	15,784	316
In-Work	-	-	-
Backlog	-	-	-
Totals	-	15,784	316
		16,100	

AUTOMATION STATUS

URL	Project Name	Record Status	Efficiency
1	DESE 3.3 Release Automation Savings	Complete	2238
2	Customer Engineering Production Release	Complete	2003
3	Boeing Predictive Assembly Technologies	Complete	2417
4	Functional Test Automation 3DExperience	Complete	2780
5	MBSI Software Express Deployment Automation	Complete	320
6	Flight Engineering and Propulsion Product Q1 Automation	Complete	66
7	SRP Gen Schedule and SRP Gen Template modules of BWS-CM	Complete	120
8	Automation of WIRS Application for Development and testing functionalities	Complete	1360

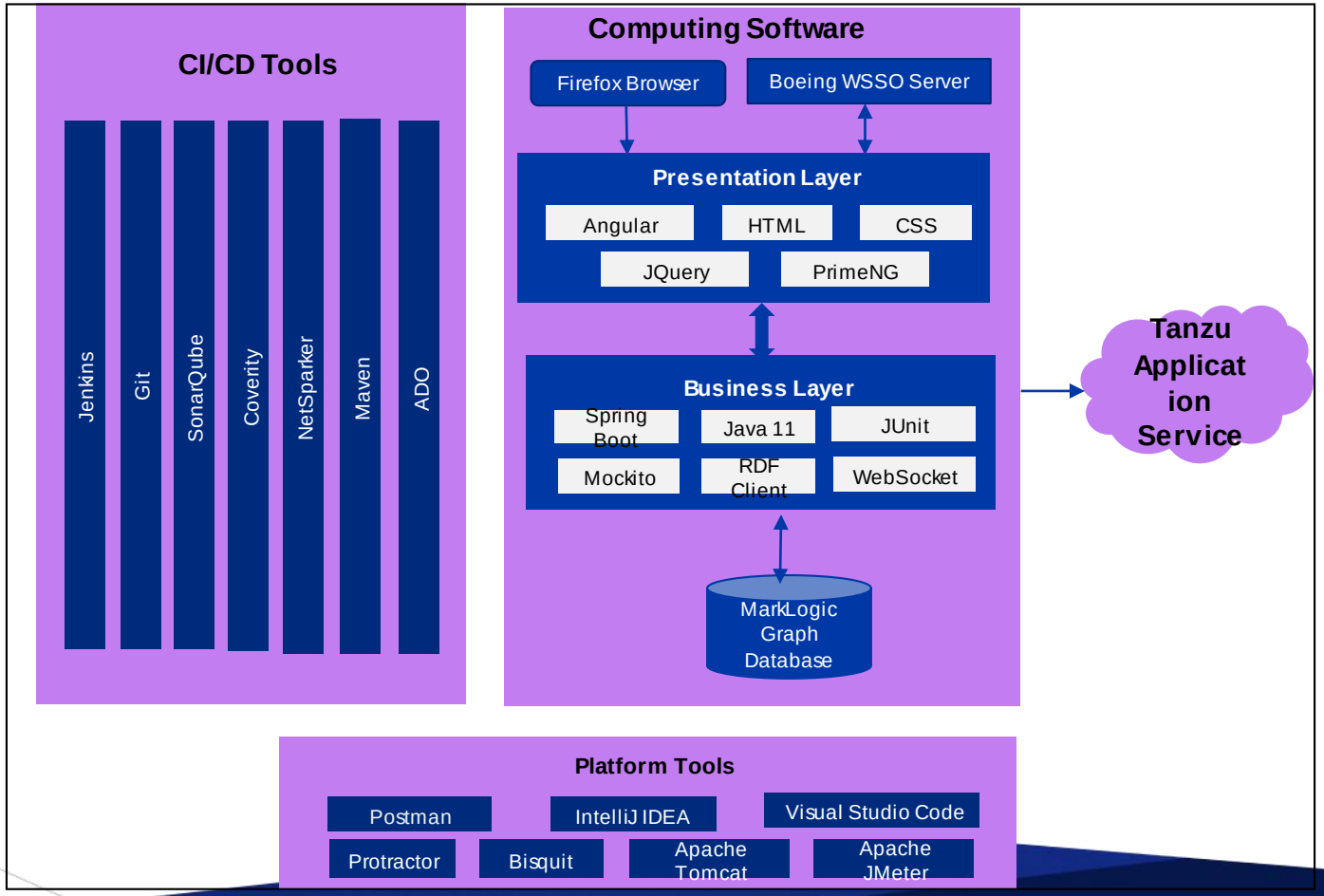
AUTOMATION SUCCESS STORIES

AUTOMATION CASE STUDY

Project Name: NIMT (Network Interface Modelling Tool)

- **NIMT :** An Enterprise capable ICD solution that support both legacy and future Boeing Programs and to develop the future network interface modeling tools and capabilities that connects the present with the end state
- **Solution:** NIMT learned that they can reduce the manual build by CI/CD pipeline. This permits them to perform daily builds with automated FT which increased the output
- **Automation Hours Calculation:**

  The calculations for the of saved Automation hours:
  - Savings is 4 hours per build
  - NIMT has 15 engineers actively working on code development on a daily basis by running the tests and making fixes to either the code and/or test procedures.
  - Hours saved formula: 270 build + 320 UT + 96 deployment + 176 coverity + 200 FT = 1062 hours saved



TRAINING AND REFERENCES

TRAINING AND SUPPORT

Automation COP
https://devsecops.web.boeing.com/index.html [**DevSecOps Enterprise Website**]

Training:

https://devsecops.web.boeing.com/trainings.html
https://insite.web.boeing.com/culture/viewMedia.do?mediaId=428840
Insite: DevSecOps related video series
Degreed: https://degreed.com/pathway/mpl66o5r9d/pathway
Oreilly: https://learning.oreilly.com/library/view/the-devops-handbook/9781457191381/

Enterprise Support

In case of any queries interested teams can register themselves through EMC (check for the session with the name "DevSecOps Office Hours (India)").
For Product Teams in US, Click Here to block your slot
For Product Teams in India, Click Here to block your slot

DSO Support Systems	Description	URL
ATOMS	Platform to onboard to some of the commonly used tools like Coverity, Netsparker, SonarQube	https://atoms.web.boeing.com/home
ATOMS-CI	Saves your team time by generating an automated continuous integration pipeline and integrating different tools	https://atoms-ci.web.boeing.com/ci
DevSecOps	Official DevSecOps website	https://devsecops.web.boeing.com/index.html
AppDynamics	Monitoring tool documentation	https://itms.pages.boeing.com/wiki/appdynamics/
Enablement kit	Architecture Checklist to improve maturity	https://devsecops.web.boeing.com/assessment/enablementKit.html
DSO Mattermost channel	Join this channel for any questions/updates	https://mattermost.web.boeing.com/dso/channels/town-square
DSO Consultation	Connect with the experts	DL DSO Consulting
DSO COE InSite Group	Join this group for any questions/updates	https://insite.web.boeing.com/culture/viewGroup.do?groupId=168061
DevSecOps Video Library	Videos on different implementation	https://insite.web.boeing.com/culture/displayGroupMedia.do?groupId=168061

ASSESSMENT PROCESS

DevSecOps Assessment Process Flow (Swimlane)

Please refer to the attached PDF.

GSEP Process for Dashboard Access

Please use the link to get access to the assessment dashboard. This is an auto approval process. Please select the first option for Business Stakeholder group.

Try to access this Dashboard Link after few minutes.

CONTACT US

	DRI	Project Management	Core Team Focal	Enterprise collaboration
DevSecOps	Abhishek Singh Kenneth C Shew	**Pramithi R Karimpanakkal**	**1. Singh, Abhishek K** **2. Valiyarayil, Siby** **3. Pattanaik, Anup K** 4. Ammata, Sudhakar 5. Bakhedi, Bharati Bahubali 6. Balraj, Bharath K 7. Ghosh, Saikat 8. Ghosh, Subhabrata 9. Gundupalli, Rajesh Reddy 10. H D, Sarika 11. K L, Bharath 12. Karri, Ram Sai 13. K-R, Rahul 14. Kuriakose, Tintu M 15. Kurian, Abhijith 16. Kuruba Chandra Kumar 17. Mistry, Ashok 18. Nagaraju, Ganesh 19. Nagziriya, Anshika 20. Nair, Aathira Manikandan 21. Padmanaban Shunmugam, Nihila 22. Abhishek Kumar 23. Prabhat, Kumar 24. Radhakrishnan, Chinjumol 25. Reddy, V Sanjeev 26. Rompicherla, Rakesh 27. Sawant, Swapnil Ravindra 28. Varghese, Jessy 29. Vinukonda, Basha 30. Jayanta Mondal **DL Product Systems - DevSecOps Core Team**	1. Karthik Tirukkoylur Sekhar 2. Dolly Bhaskara 3. Arun Prakash Jeyaprakash 4. Anandapadmanabhan Gopalakrishnan 5. Sushil Mishra 6. Donald R Wellington DL DSO DRIs
Automation	Kenneth C Shew Naga Harsha Kaggallu	**Priyanka Dhanpal Chougule**		

THANK YOU