



DYZAR  PERFORMANCE

Performance Monitoring for High- impact Business Solutions

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DevOps

July 2017

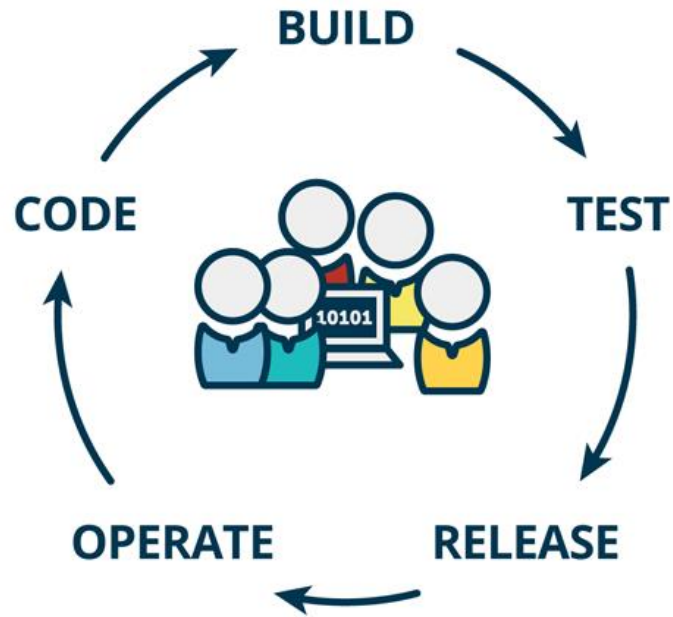
Disclaimer for references: some of the details attached are references are from the internet. I can provide more info based on the request

IT process

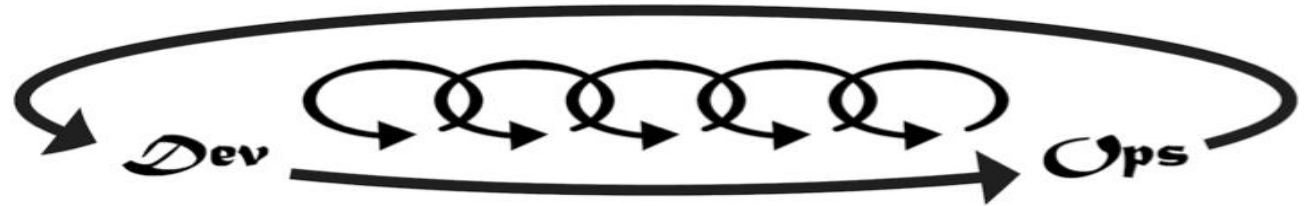


DevOps – Case study leading client

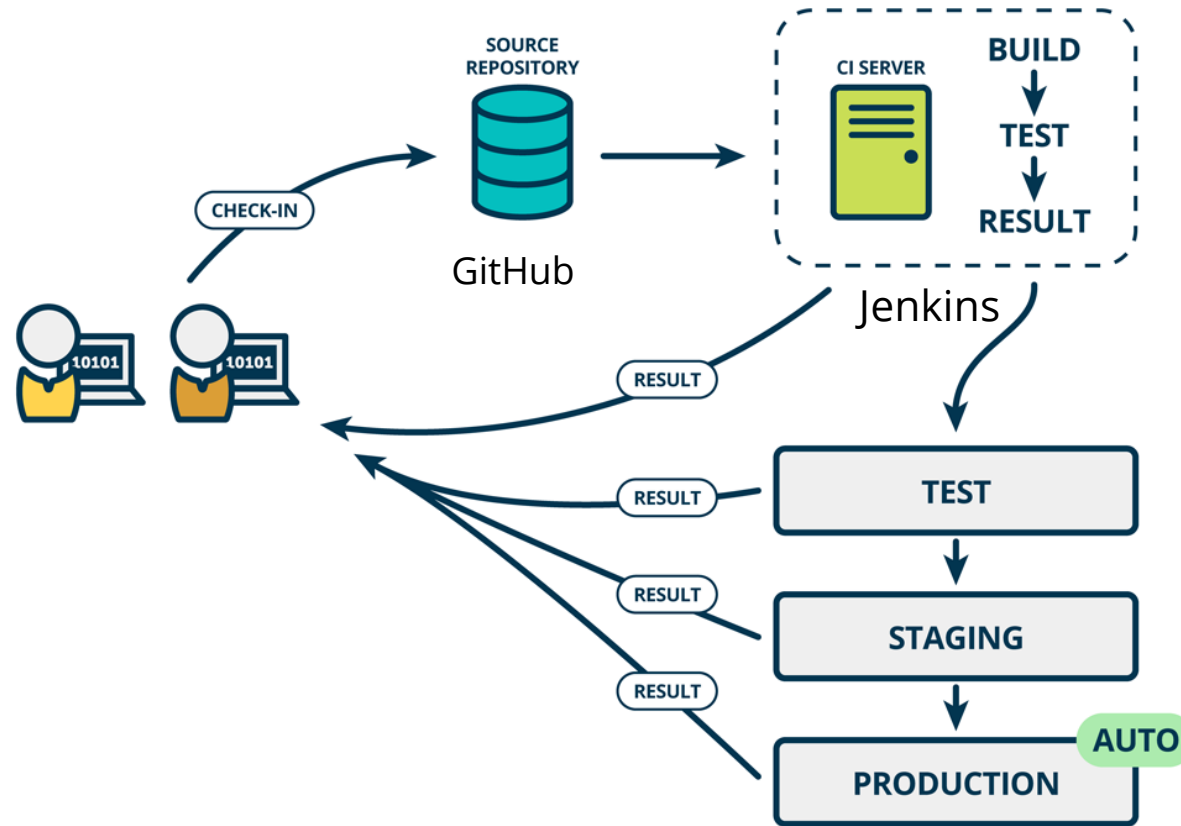
NEW WAY:



Create culture of continual experimentation and learning



Continuous Integration/Continuous Delivery



DevOps and its charter

- Create Continuous Integration/ Continuous delivery framework for Application development teams
- Provide metrics at every stage, from the time an idea is conceived to its delivery
- Maintain and secure cloud platform

Current status

- Manage releases
- Support and provision environments
- Maintaining production environment

Road map

- Develop CI/CD framework
- Standardize alerts and monitoring on one vendor platform and fill the gaps in coverage
- Setting up performance tests
- Hiring/building team

DevOps team's progress

- Automated provisioning of creation of VMs through Azure scripts
- Evaluated Puppet, Microsoft automation of deployment of software
- Standardizing alerts/monitoring on one Vendor platform

Continuous integration and Continuous deployment with Jenkins

What is Continuous integration

- A development methodology
- Of daily developer integrations
- Verified by automated builds
- Every commit triggers a build
 - As soon as you have completed an independent functionality
 - A full build on another, empty machine

Self-testing build

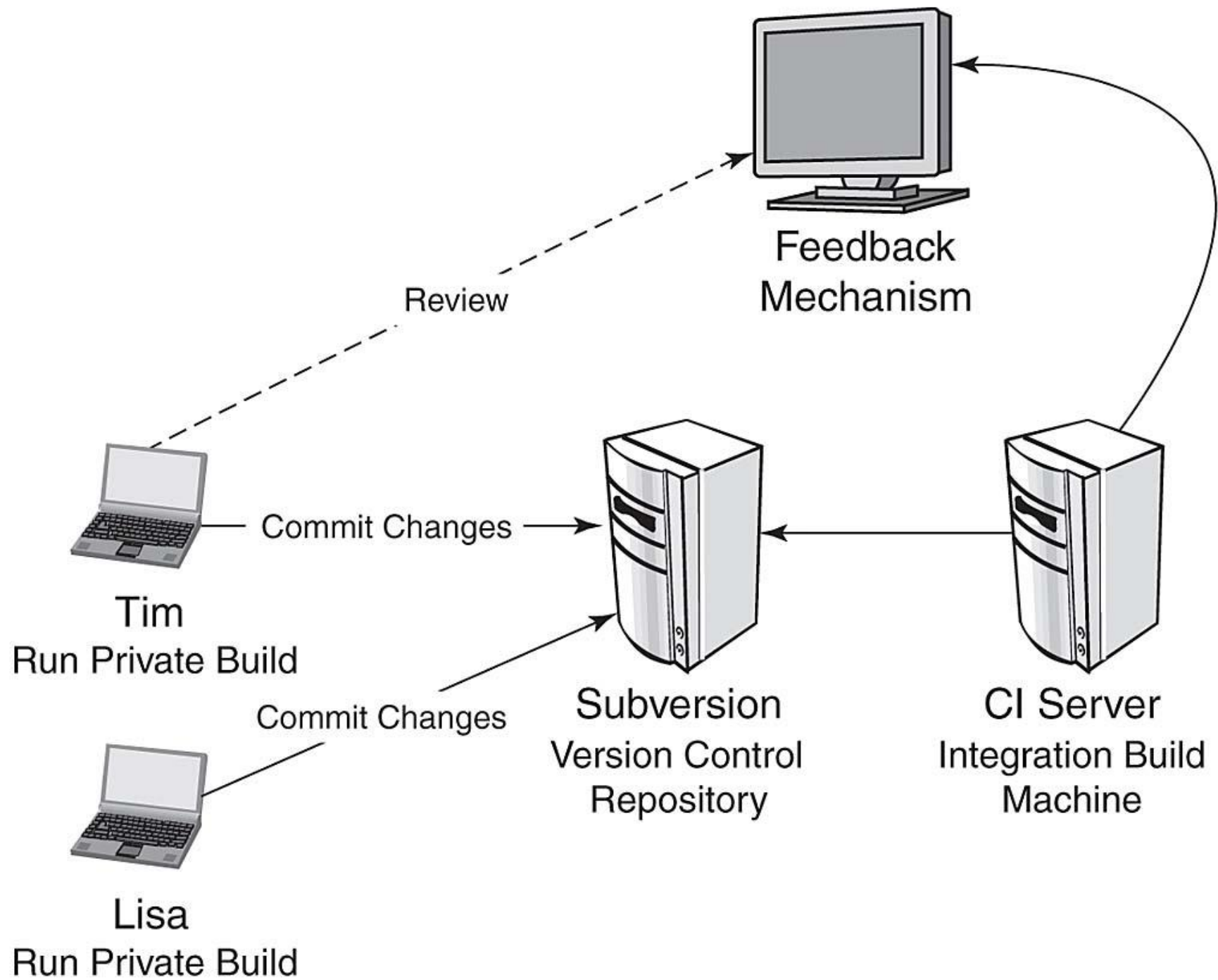
- Directly go from source to running build
 - No manual copying
 - No click on dialog boxes
 - No configuration file editing
- Test with
 - Unit tests
 - Functional tests (web tests)
 - Performance tests
- Responsible persons should be notified when anything fails
- Tests web in more browsers

What is it not

- Nightly builds
- Developer branches
- Scheduled integration points
- Building via IDEs

Why use continuous integration

- Automate the build
- Make the build self testing
- Keep the build fast
- Test in a clone of the production environment
- Everyone can see what's happening
- Automate deployment

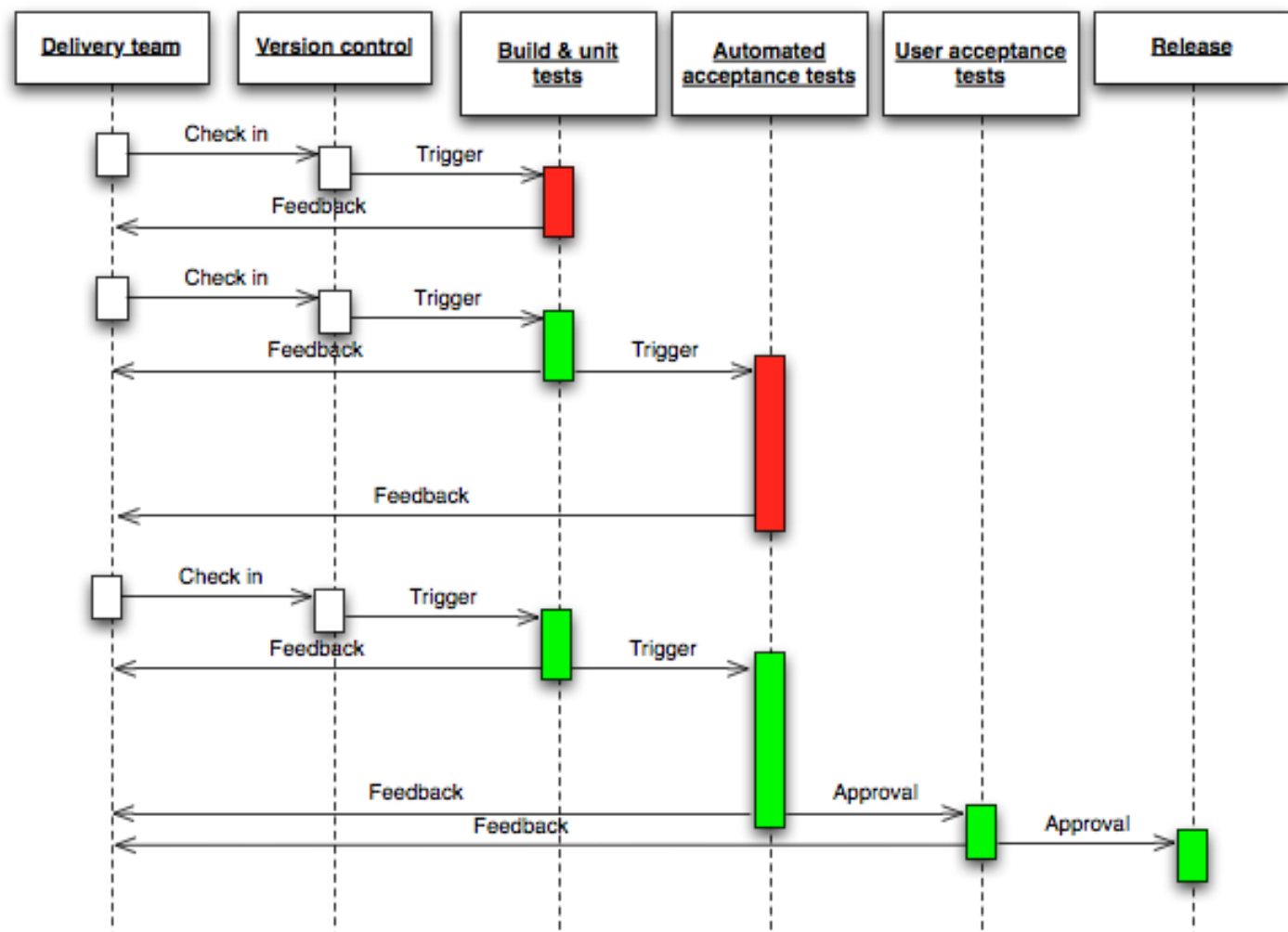


Continuous Delivery

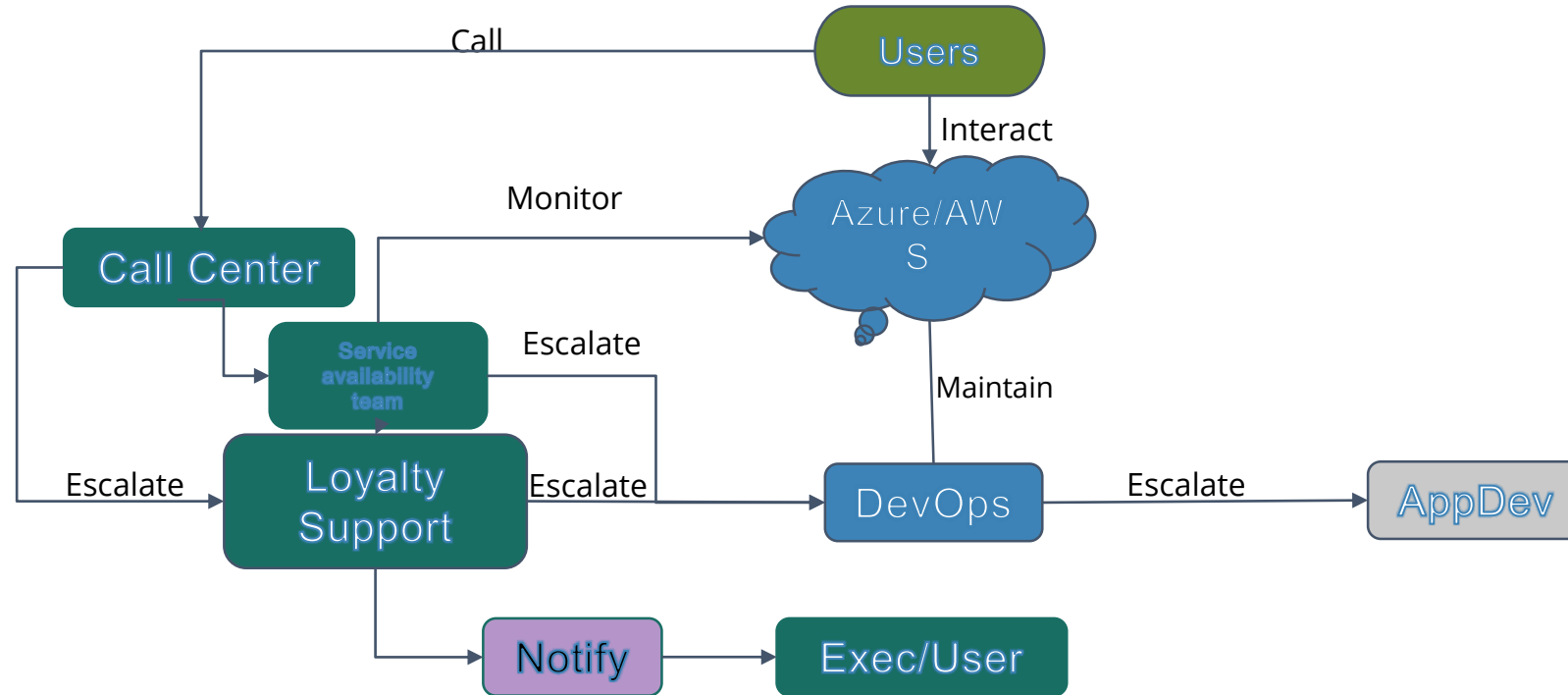
- Continuous delivery/Continuous deployment
- Continuous, successful and repeatable methodology to deploying code
- Automated the steps of taking checked in code and making it run on production servers, used by customers

Principles of Continuous Delivery

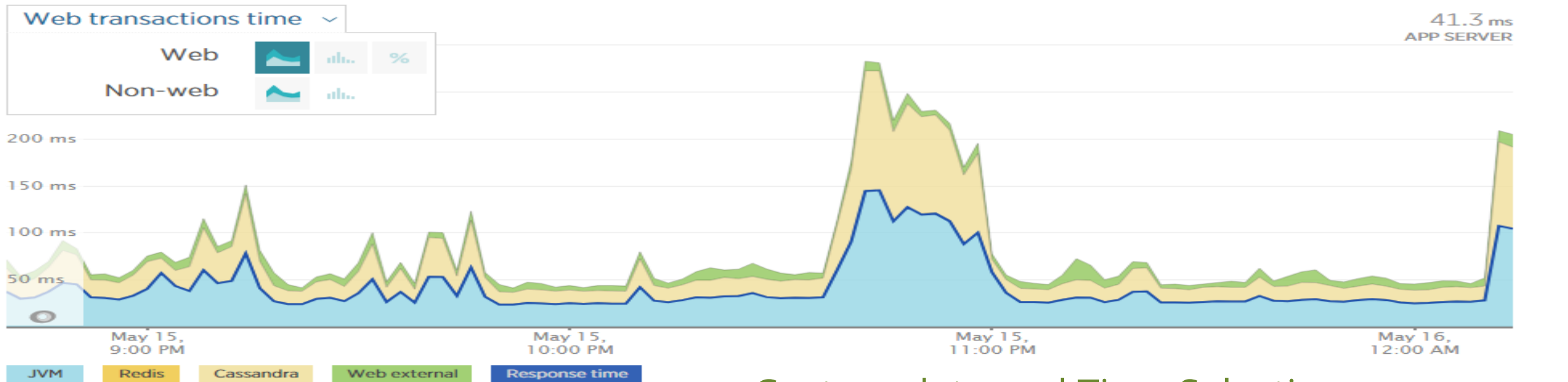
- The process for releasing/deploying software MUST be repeatable and reliable
- Automate everything
- If something is difficult or painful, do it more often
- Keep everything in source control
- Done means “released”
- Build quality in
- Everybody has responsibility for the release process
- Improve continuously



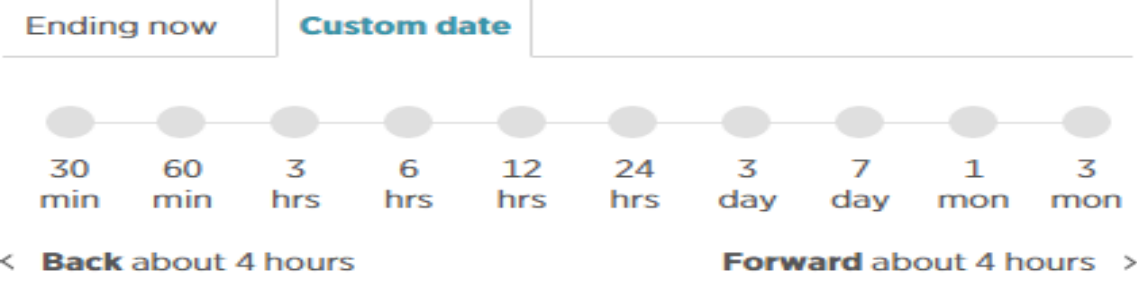
Teams structure



Response Times – Web and Non Web



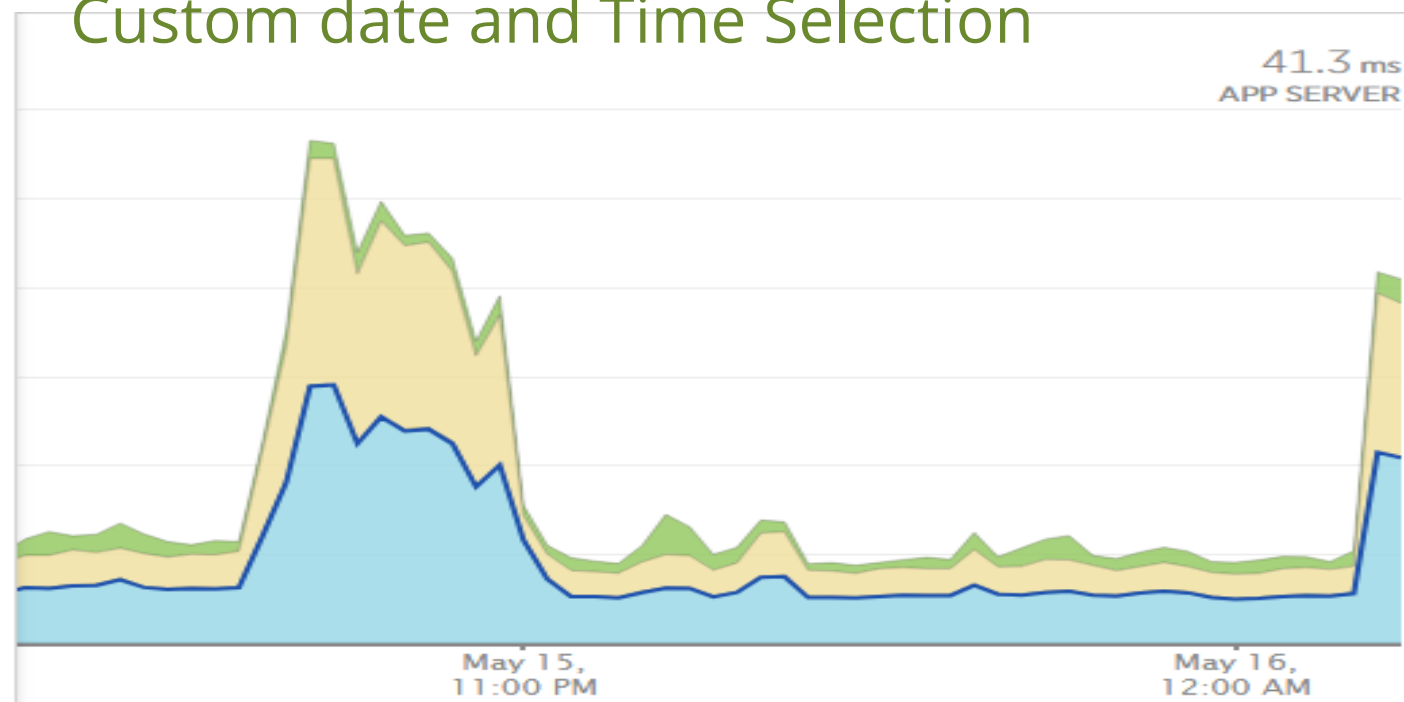
Custom date and Time Selection



Ending at

12:15 AM

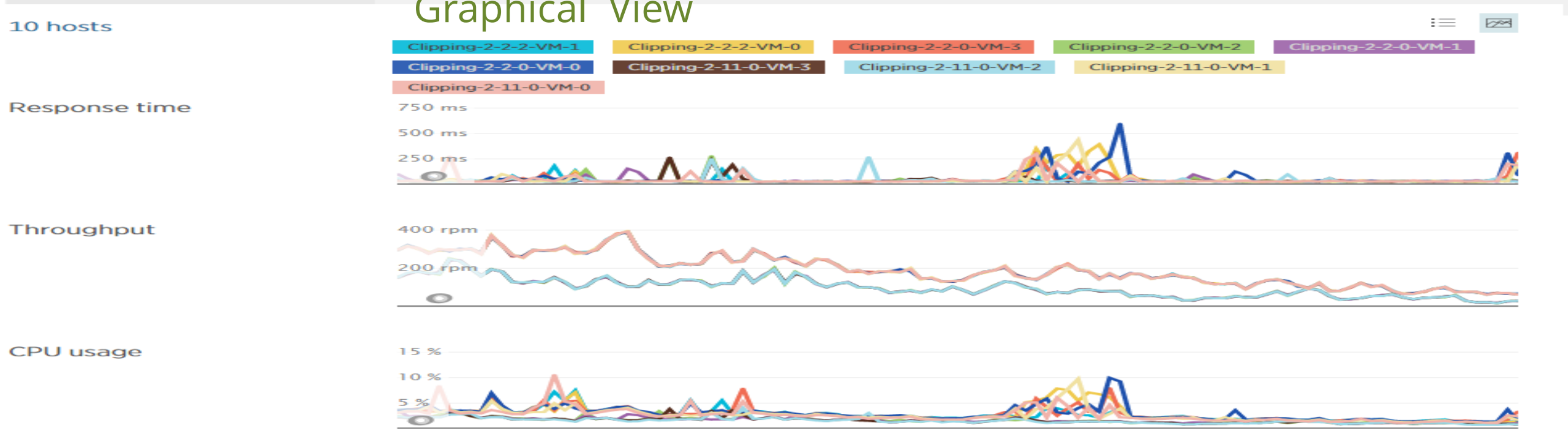
May 2017						
Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13



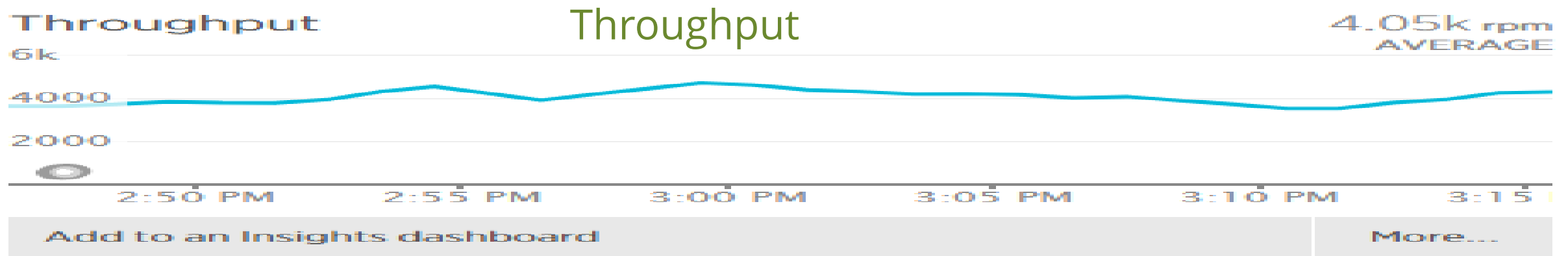
10 hosts

Host name	Apdex	Resp. time	Throughput	Error Rate	CPU usage	Memory
1 app instance	1.00 _{0.5}	44.4 ms	189 rpm	0.0275 %	3 %	4.2 GB
Clipping-2-11-0-VM-1 1 app instance	1.00 _{0.5}	41.8 ms	190 rpm	0.0438 %	3 %	4.2 GB
1 app instance	1.00 _{0.5}	36.7 ms	95 rpm	0.0318 %	1 %	4.2 GB

Graphical View

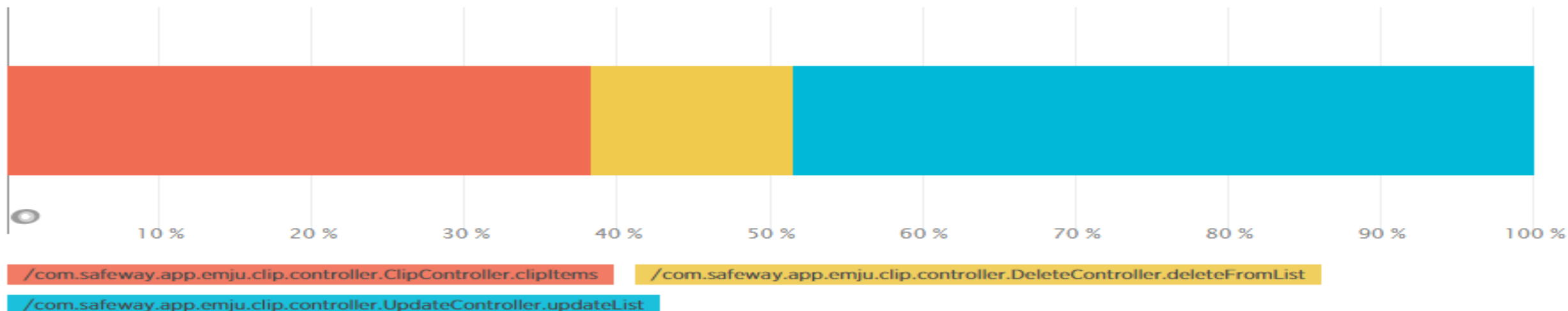


Transactions										
Databases	Transaction	Apdex	Count	Avg (ms)	SD (ms)	Min (ms)	Max (ms)	Total (ms)	Total (% time)	Dissat (%)
External services	All transactions in this table	1.00 _{0.5}	120,490	47.2	856	0.348	111,000	5,690,000	100.0	100.0
JVMs	/com.s	1.00 _{0.5}	117,030	31.1	103	0.425	3,350	3,640,000	63.9	54.8
EVENTS	/com	0.92 _{0.5}	1,816	829	5,250	0.348	67,800	1,500,000	26.4	30.5
	/com	0.96 _{0.5}	1,644	336	4,660	6.79	111,000	552,000	09.7	14.6



First	Last	Tickets	URL and type	Message	Count
2:48 pm	3:17 pm			Forbidden	43
2:49 pm	3:16 pm			Unauthorized	28
3:11 pm				Forbidden	1

Time consumption by caller



Filter slow queries

Slow queries

Query time Date

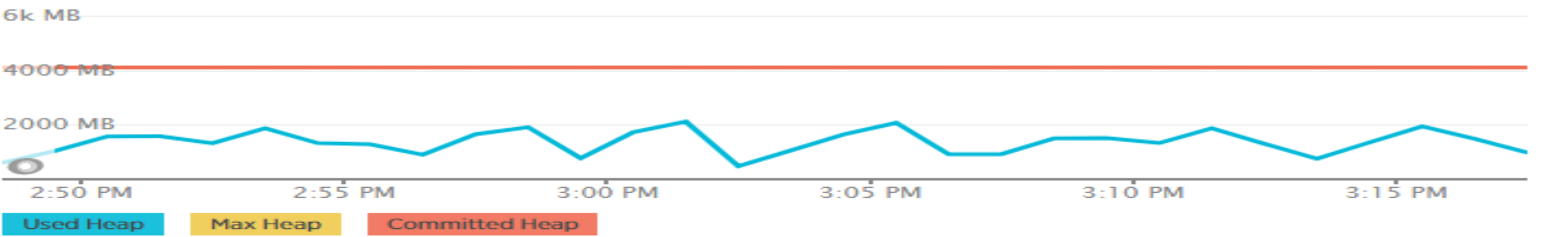
SELECT retail_customer_id, household_id, shopping_list_nm, item_type_cd, store_id, item_id, category_id, checked_ind, clip_id, clip_ts, club_card_nbr, delete_ts, item_desc, item_end_dt, item_image, item_price_value, item_promo_price, item_quantity, item_ref_id, item_start_dt, item_title, last_upd_ts, last_upd_usr_id, shopping_list_desc, source_a... 5 s 05/16 15:21

SELECT retail_customer_id, household_id, shopping_list_nm, item_type_cd, store_id, item_id, category_id, checked_ind, clip_id, clip_ts, club_card_nbr, delete_ts, item_desc, item_end_dt, item_image, item_price_value, item_promo_price, item_quantity, item_ref_id, item_start_dt, item_title, last_upd_ts, last_upd_usr_id, shopping_list_desc, source_a... 4.29 s 05/16 15:22

SELECT retail_customer_id, household_id, shopping_list_nm, item_type_cd, store_id, item_id, category_id, checked_ind, clip_id, clip_ts, club_card_nbr, delete_ts, item_desc, item_end_dt, item_image, item_price_value, item_promo_price, item_quantity, item_ref_id, item_start_dt, item_title, last_upd_ts, last_upd_usr_id, shopping_list_desc, source_a... 1.49 s 05/16 15:18

SELECT retail_customer_id, household_id, shopping_list_nm, item_type_cd, store_id, item_id, category_id, checked_ind, clip_id, clip_ts, club_card_nbr, delete_ts, item_desc, item_end_dt, item_image, item_price_value, item_promo_price, item_quantity, item_ref_id, item_start_dt, item_title, last_upd_ts, last_upd_usr_id, shopping_list_desc, source_a... 1.49 s 05/16 15:19

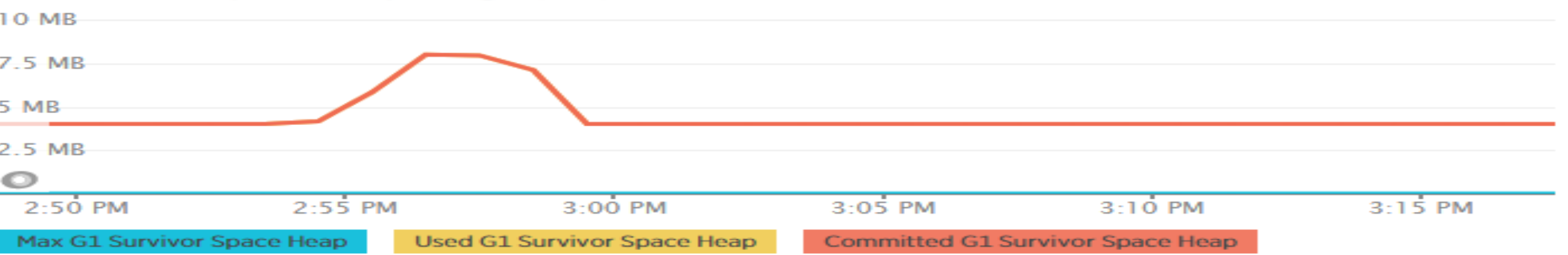
Heap memory usage (MB)

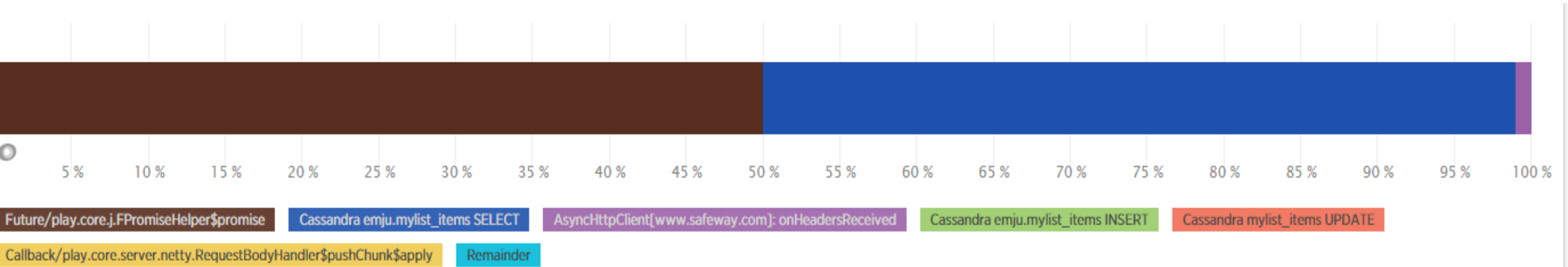


G1 Eden Space heap usage (MB)



G1 Survivor Space heap usage (MB)





Category	Slowest components	Count	Duration	%
Scala	Future	1	76,300 ms	50%
Database	Cassandra	46	74,700 ms	49%
External	AsyncHttpClient	1	2,680 ms	2%
Database	Cassandra	44	123 ms	0%
Database	Cassandra	1	6.16 ms	0%
Scala	Callback	5	0.181 ms	0%
Remainder	Remainder	1	5.2 ms	0%
Total time			154,000 ms	100%

URL /Clipping1/services/update/items



DYZAR  PERFORMANCE

Our team



Seeth Gudetee
Founder and CEO
of Dyzaro



Midhun Gandhi
DBA /Architect



Satish
Dev OPS Engineer