

Continuous Testing at a Global Scale



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tnc24

RENDEZVOUS À RENNES
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SUNET is the Swedish University Computer Network

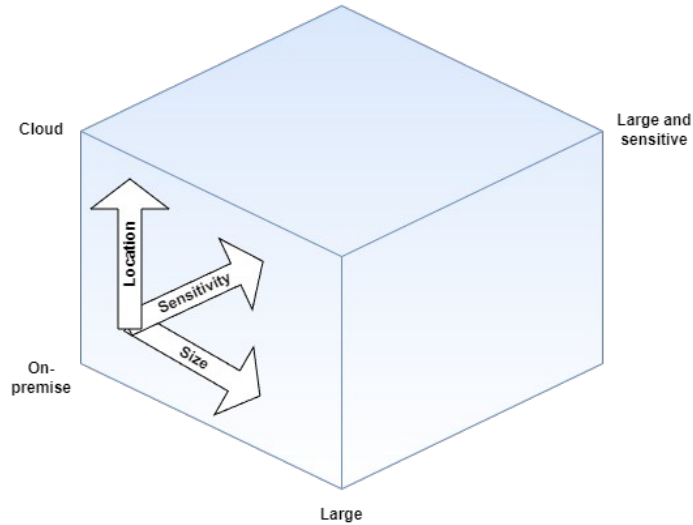
You accept a challenge

Thanks for the detaljer information! I will be ending my employment this Saturday, so am looking for some solution where the data will not be deleted due to the deactivation of my akka id and where it would be accessible by my PI in the future.

Wednesday – 10:51 a.m.

You model your system

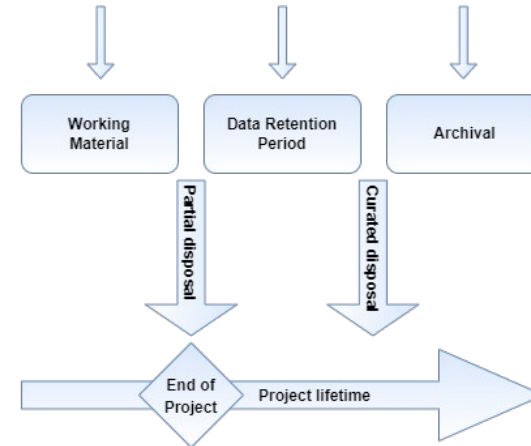
Data Classification



Access



Lifecycle



You face reality

Data Classification



This is where the money ends!*

*for many projects

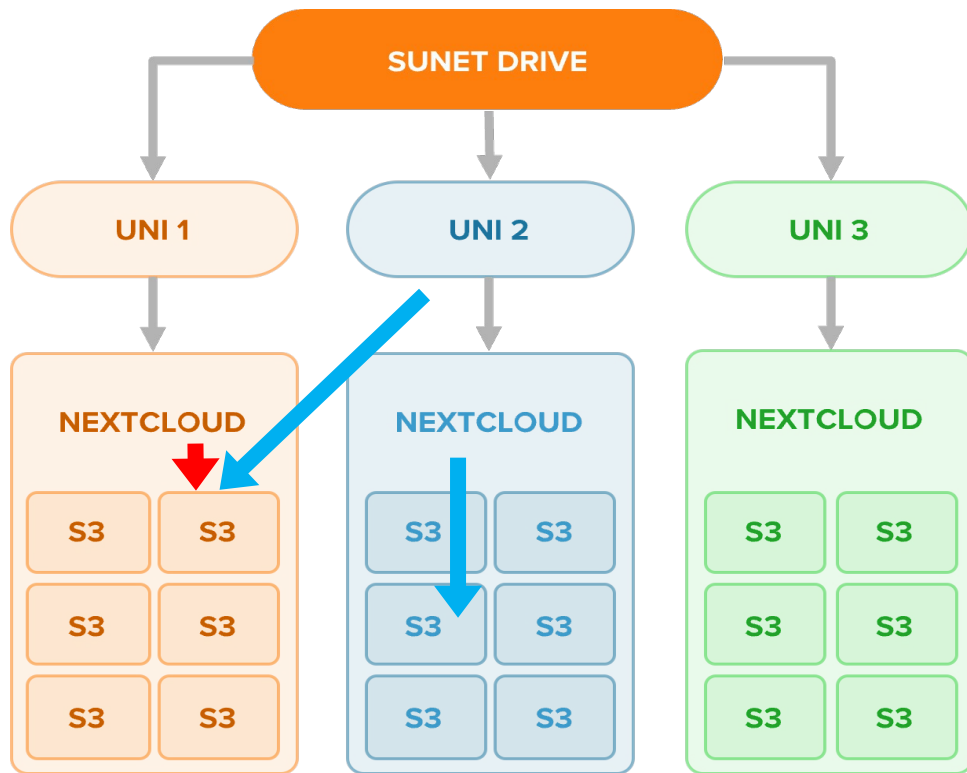
Access



Lifecycle

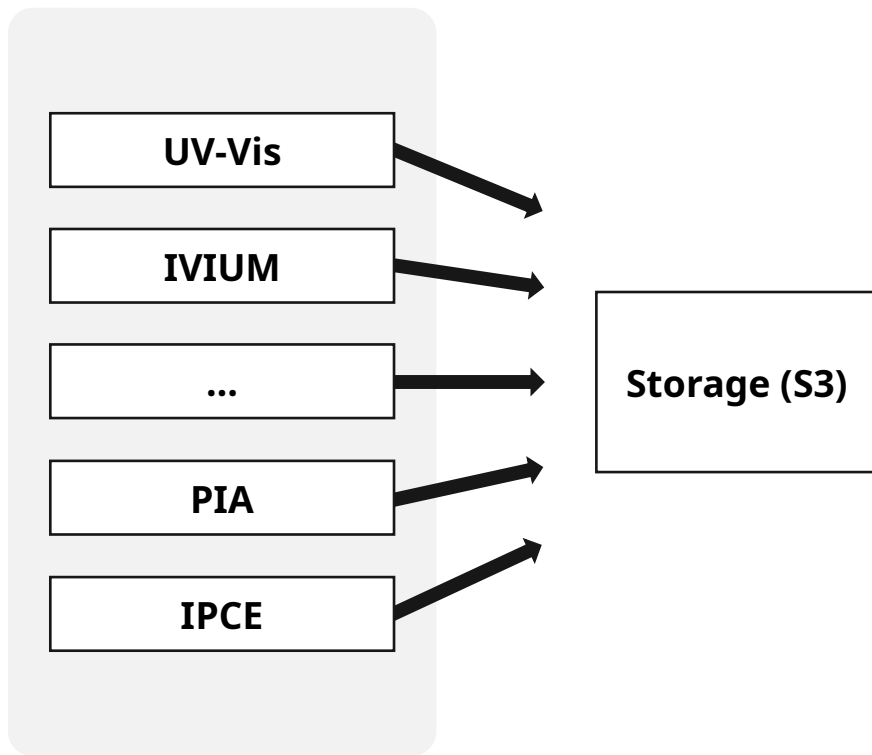


You build at a global scale

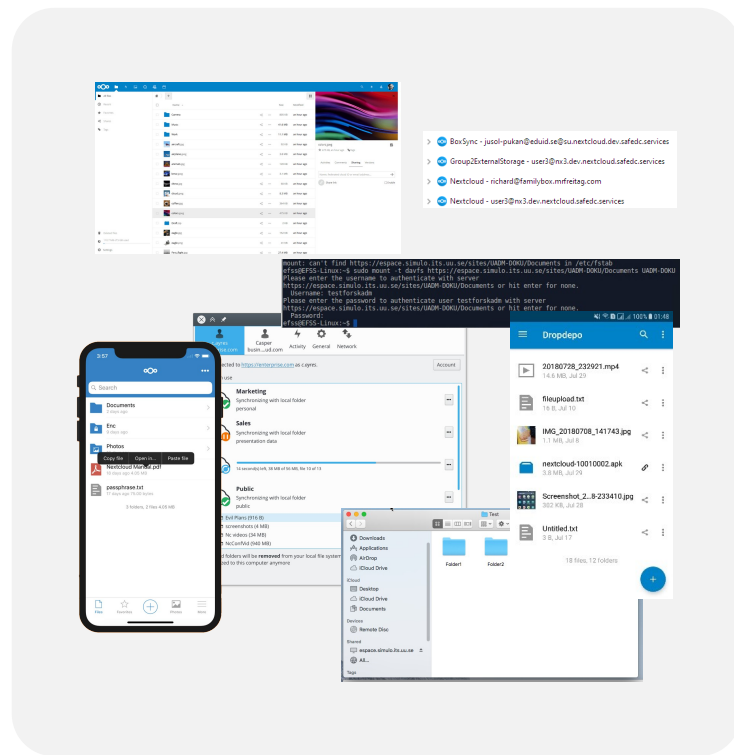


You integrate

Primary data sources



Secure Storage



Analyze and Publish



**You ask yourself
'Does it really work
all the time?'**

You write tests

```
! expected.yaml test_login_selenium.py M test_ocs.py x test_collabora_selenium.py sunetdrive.py
test_ocs.py
67 def test_gssusers(self):
68     drv = sunetdrive.TestTarget()
69     fullnode = 'gss'
70     url = drv.get_add_user_url(fullnode)
71     self.logger.info(f'{self._testMethodName} {url}')
72     nodeuser = drv.get_ocsuser(fullnode)
73     nodepwd = drv.get_ocsuserapppassword(fullnode)
74     url = url.replace("$USERNAME$", nodeuser)
75     url = url.replace("$PASSWORD$", nodepwd)
76
77     r = requests.get(url, headers=ocsheaders)
78     try:
79         j = json.loads(r.text)
80         self.logger.info(json.dumps(j, indent=4, sort_keys=True))
81         users = j["ocs"]["data"]["users"]
82     except:
83         self.logger.info("No JSON reply received")
84         self.logger.info(r.text)
85
86 def test_nodeusers(self):
87     drv = sunetdrive.TestTarget()
88     for fullnode in drv.fullnodes:
89         with self.subTest(mynode=fullnode):
90             url = drv.get_add_user_url(fullnode)
91             self.logger.info(f'{self._testMethodName} {url}')
92             nodeuser = drv.get_ocsuser(fullnode)
93             nodepwd = drv.get_ocsuserapppassword(fullnode)
94             url = url.replace("$USERNAME$", nodeuser)
95             url = url.replace("$PASSWORD$", nodepwd)
96
97             r = requests.get(url, headers=ocsheaders)
98             try:
99                 j = json.loads(r.text)
100                 self.logger.info(json.dumps(j, indent=4, sort_keys=True))
101                 users = j["ocs"]["data"]["users"]
102             except:
103                 self.logger.info("No JSON reply received")
104                 self.logger.info(r.text)
```



















You test systematically

- Testing on top of monitoring
Manual – Automatic – On-Demand
- Acceptance Testing – Capabilities, Status and Versions, User life-cycle, File handling, Apps, ...

✓	☀	ScienceMesh Smoketest	23 hr	#26	N/A	13 min	▶	
✓	☁	Sunet Drive Acceptance - Prod	48 min	#1172	1 hr 53 min	#1169	4 min 3 sec	▶
✓	☁	Sunet Drive Acceptance - Test	51 min	#1199	1 hr 57 min	#1198	4 min 20 sec	▶
✓	☁	Sunet Drive Selenium - Prod	44 min	#18308	2 hr 3 min	#18305	9 min 23 sec	▶
✓	☁	Sunet Drive Selenium - Test	26 min	#17947	1 hr 13 min	#17945	11 min	▶
✓	☁	Sunet Drive Selenium Collabora - Prod	28 min	#3407	1 hr 35 min	#3405	19 min	▶
✗	☁	Sunet Drive Selenium Collabora - Test	3 days 5 hr	#3182	1 hr 18 min	#3243	11 min	▶
✓	☀	Sunet Drive Selenium RDS - Test	4 hr 46 min	#1115	2 days 4 hr	#1101	43 sec	▶

- Selenium
 - Node-login
 - Local and non-MFA SSO accounts
- Collabora
 - Document handling and collaboration
- Load
 - 20 VMs, 300 users per VM
 - 120-150 full load users
 - 750-1000 resyncs within 5 minutes
 - 6000 resyncs within 40 minutes

You test automatically

S	Name ↓	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	Built-In Node	Linux (amd64)	In sync	37.85 GB	 0 B	37.85 GB	0ms 
	node1.testautomation.drive.sunet.dev	Linux (amd64)	In sync	76.59 GB	 0 B	76.59 GB	7ms 
	node2.testautomation.drive.sunet.dev	Linux (amd64)	In sync	76.47 GB	 0 B	76.47 GB	8ms 
	node3.testautomation.drive.sunet.dev	Linux (amd64)	In sync	75.30 GB	 0 B	75.30 GB	8ms 
	node4.testautomation.drive.sunet.dev	Linux (amd64)	In sync	83.21 GB	 0 B	83.21 GB	8ms 
	node6.testautomation.drive.sunet.dev	Linux (amd64)	In sync	84.43 GB	 0 B	84.43 GB	6ms 

[All](#)
[Config](#)
[Drive - Prod](#)
[Drive - Test](#)
[External](#)
[Nodes - Prod](#)
[Nodes - Prod - NoMFA](#)
[Nodes - Test](#)
[Nodes - Test - NoMFA](#)
[+](#)

S	W	Name ↓	Last Success	Last Failure	Last Duration
		Sunet Drive Acceptance - Prod	18 min #1942	1 day 7 hr #1915	5 min 42 sec 
		Sunet Drive Selenium - Prod	1 hr 8 min #21905	24 days #21658	7 min 16 sec 
		Sunet Drive Selenium Collabora - Prod	2 hr 22 min #5045	4 hr 22 min #5044	1 hr 30 min 
		Sunet Drive Selenium TOTP - Prod	49 min #611	5 days 4 hr #559	5 min 57 sec 

You use pipelines

	Test - NoMFA all	BTH Test - NoMFA	Extern Test - NoMFA	GIH Test - NoMFA	HB Test - NoMFA	HH Test - NoMFA	HIS Test - NoMFA	HKR Test - NoMFA	HV Test - NoMFA	KAU Test - NoMFA	KMH Test - NoMFA	LNU Test - NoMFA	LTU Test - NoMFA	MAU Test - NoMFA	MDU Test - NoMFA	SciLifeLab Test - NoMFA	SHH Test - NoMFA	SU Test - NoMFA	SUNET Test - NoMFA	SUNI Test - NoMFA	UU Test - NoMFA
Average stage times:	214ms	6min 33s	7min 12s	13min 31s	4min 31s	5min 10s	4min 41s	12min 27s	17min 8s	20min 12s	8min 54s	9min 15s	9min 33s	13min 17s	15min 30s	14min 31s	21min 55s	22min 56s	26min 14s	18min 13s	27min 6s
#240 Aug 22 00:28 No Changes	311ms	6min 34s	6min 58s	13min 34s	4min 34s	5min 16s	4min 46s	12min 13s	16min 52s	20min 12s	9min 0s	9min 21s	9min 43s	13min 27s	15min 45s	14min 49s	21min 39s	16ms	0ms (paused for 0ms)	18min 21s	0ms (paused for 0ms)
#339 Aug 21 00:28 No Changes	138ms	6min 33s	7min 24s	13min 36s	4min 34s	5min 10s	4min 40s	12min 41s	17min 24s	20min 18s	8min 56s	9min 16s	9min 37s	13min 21s	15min 33s	14min 35s	22min 14s	25min 40s	29min 32s	18min 23s	30min 17s
#338 Aug 21 00:28 No Changes	257ms	6min 31s	7min 12s	13min 36s	4min 36s	5min 13s	4min 50s	12min 23s	17min 2s	20min 3s	9min 1s	9min 22s	9min 37s	13min 23s	15min 35s	14min 34s	21min 47s	25min 21s	29min 0s	18min 19s	30min 2s
#337 Aug 20 06:28 No Changes	193ms	6min 34s	7min 18s	13min 42s	4min 32s	5min 7s	4min 39s	12min 43s	17min 26s	20min 22s	8min 53s	9min 16s	9min 28s	13min 13s	15min 29s	14min 24s	22min 15s	25min 43s	29min 21s	18min 8s	30min 24s
#336 Aug 20 00:28 No Changes	174ms	6min 28s	7min 9s	13min 21s	4min 31s	5min 5s	4min 39s	12min 20s	17min 4s	20min 1s	8min 54s	9min 12s	9min 28s	13min 15s	15min 19s	14min 23s	21min 48s	25min 7s	29min 8s	18min 5s	29min 50s
#335 Aug 19 00:28 No Changes	222ms	6min 38s	7min 18s	13min 38s	4min 30s	5min 8s	4min 41s	12min 37s	17min 17s	20min 25s	8min 52s	9min 22s	9min 32s	13min 19s	15min 39s	14min 33s	22min 3s	25min 40s	29min 10s	18min 26s	30min 21s
#334 Aug 19 00:28 No Changes	223ms	6min 26s	7min 0s	13min 22s	4min 27s	5min 6s	4min 37s	12min 9s	16min 47s	20min 0s	8min 49s	9min 13s	9min 23s	13min 13s	15min 23s	14min 21s	21min 30s	25min 13s	28min 37s	18min 7s	29min 50s
#333 Aug 18 06:28 No Changes	209ms	6min 36s	7min 23s	13min 27s	4min 27s	5min 13s	4min 39s	12min 39s	17min 16s	20min 1s	8min 51s	9min 11s	9min 37s	13min 12s	15min 27s	14min 36s	22min 3s	25min 23s	29min 20s	18min 15s	29min 59s
#332 Aug 18 00:28 No Changes	227ms	6min 31s	7min 6s	13min 26s	4min 30s	5min 11s	4min 38s	12min 19s	17min 4s	20min 9s	8min 50s	9min 9s	9min 35s	13min 13s	15min 28s	14min 30s	21min 55s	25min 22s	29min 10s	18min 9s	29min 59s
#331 Aug 17 06:28 No Changes	191ms	6min 36s	7min 12s	13min 42s	4min 28s	5min 11s	4min 36s	12min 27s	17min 10s	20min 26s	8min 52s	9min 6s	9min 35s	13min 14s	15min 21s	14min 27s	21min 55s	25min 47s	29min 6s	18min 1s	30min 22s

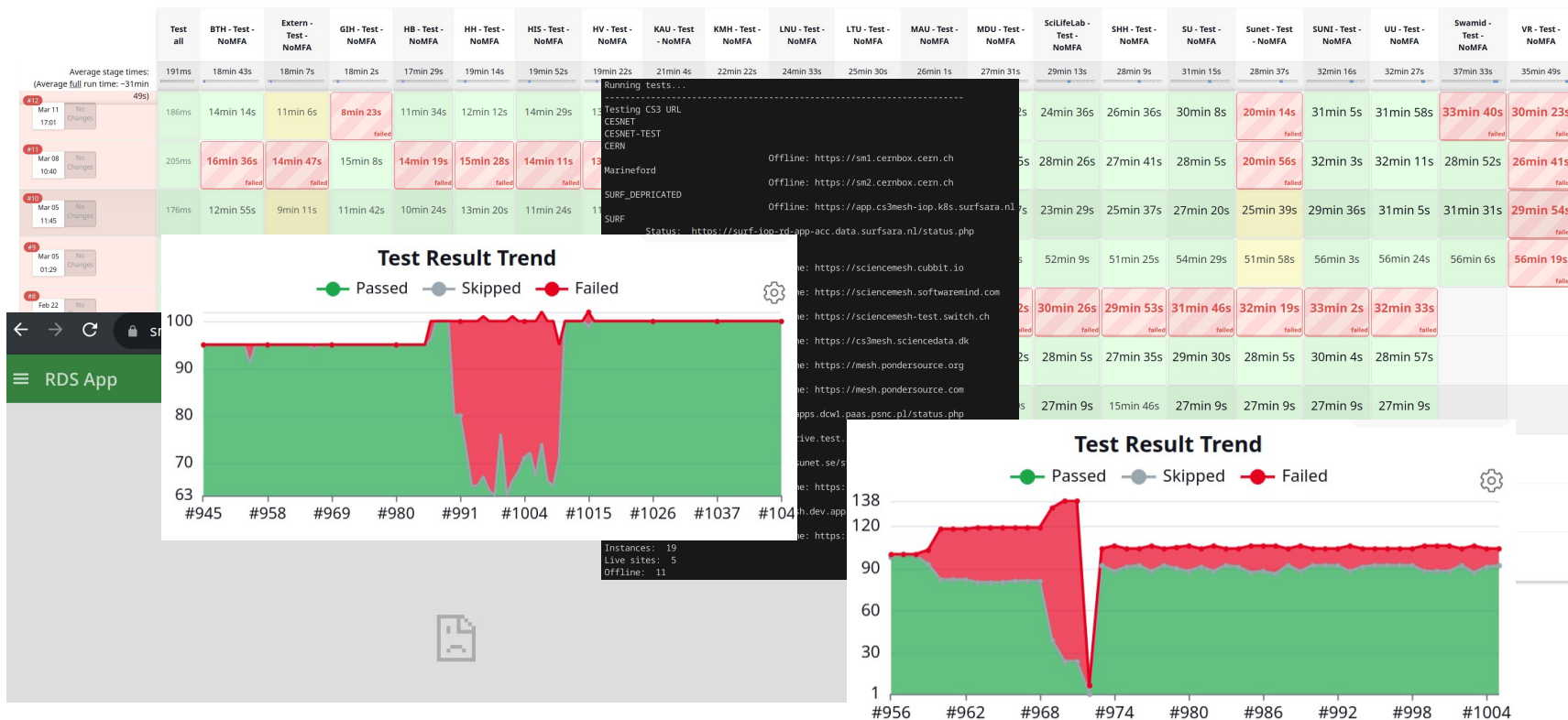
You test a lot – all the time

• Test Coverage

- 52 Tests
- Prod & Test
- Different views and scenarios
- >27k test points per day
- ca. 1350 test points per tenant per day

Test	File	Test(s)	Nodes	Prod	Test	Per day	Total per day
Sciebo Smoketest	test_sciebo_connect.py	1	1	1	0	1	20
	test_sciebo.py	2	1	1	0	2	40
	test_sciebo_clean.py	1	1	1	0	1	20
	test_sciebo_disconnect.py	1	1	1	0	1	20
ScienceMesh Smoketest	test_sciencemesh.py	1	1	1	0	1	24
Sunet Drive Acceptance	test_tests.py	3	1	1	1	6	120
	test_status_cli.py	4	1	1	1	8	160
		2	53	1	1	212	4240
	test_ocs.py	6	20	1	1	240	4800
		1	1	1	1	2	40
	test_webdav.py	11	20	1	1	440	8800
		1	1	1	1	2	40
	test_webdav_token.py	1	20	1	1	40	800
		1	1	1	1	2	40
	test_apps_ocs	4	20	1	1	160	3200
Sunet Drive Selenium	test_login_selenium.py	4	1	1	1	8	80
		1	20	1	1	40	400
Sunet Drive Collabora	test_collabora_selenium.py	1	1	1	1	2	20
		4	20	1	1	160	1600
	test_collabora_cli.py	1	1	1	1	2	20
Selenium RDS	test_rds_selenium.py	1	1	0	1	1	7
Selenium TOTP	test_login_selenium_totp.py	2	1	1	1	4	40
		1	20	1	1	40	400
			52			1331	24491
Node	File	Test(s)	Nodes	Prod	Test	Per day	Total per day
	test_tests.py	2	20	1	1	80	160
	test_status_cli.py	6	20	1	1	240	480
	test_ocs.py	6	20	1	1	240	480
	test_webdav.py	11	20	1	1	440	880
	test_webdav_token.py	1	20	1	1	40	80
	test_login_selenium.py	2	20	1	1	80	160
	test_login_selenium_totp.py	2	20	1	1	80	160
	test_login_multi_selenium.py	2	20	1	1	80	160
	test_collabora_selenium.py	5	20	1	1	200	400
	test_apps_ocs.py	4	20	1	1	160	320
							3280
							27771

You break it – You fix it



You help building better solutions



Thank you



SUNET

github.com/sunet/drive-tests

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