Continuously Delivering a ZFS based OS

STORAGE • OS

Vadim Comănescu

VP OF ENGINEERING

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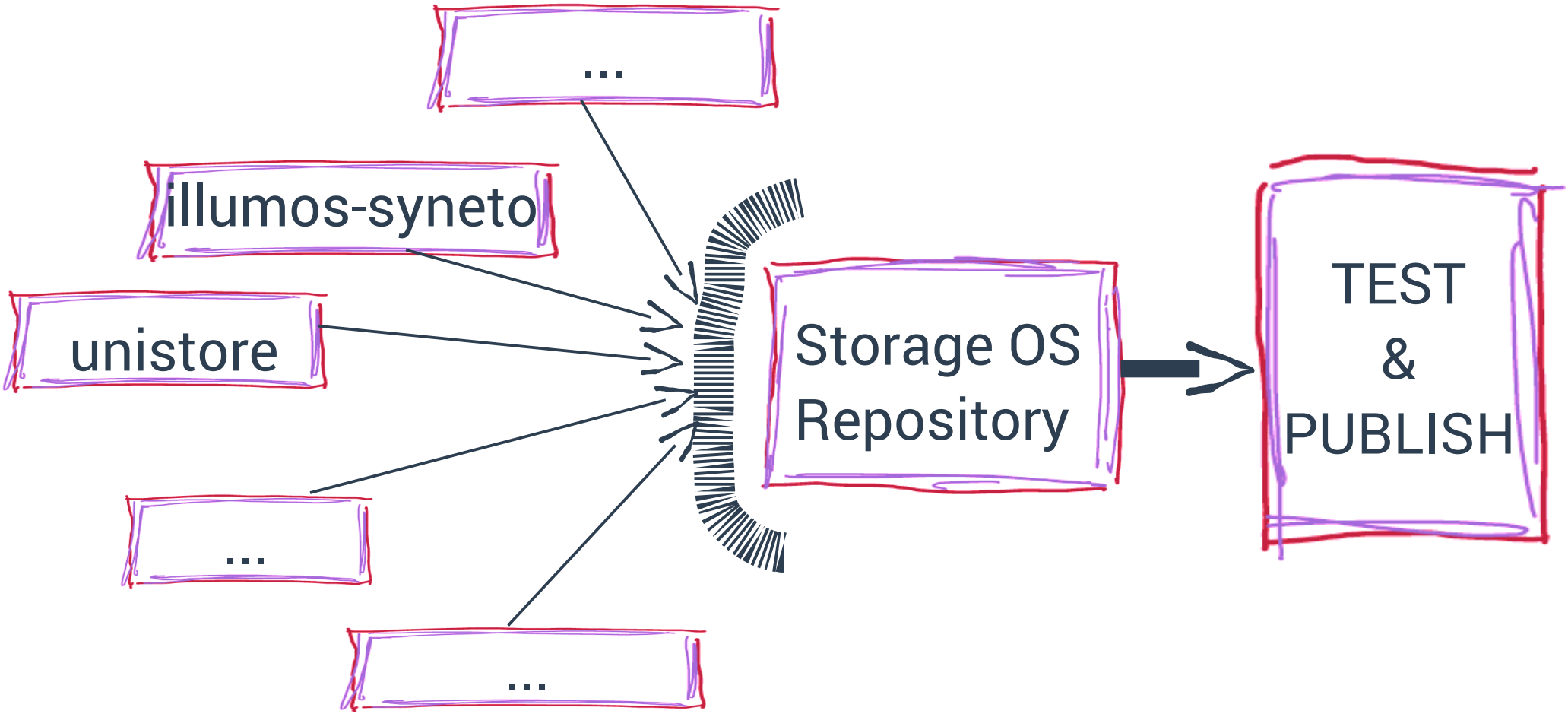
syneto

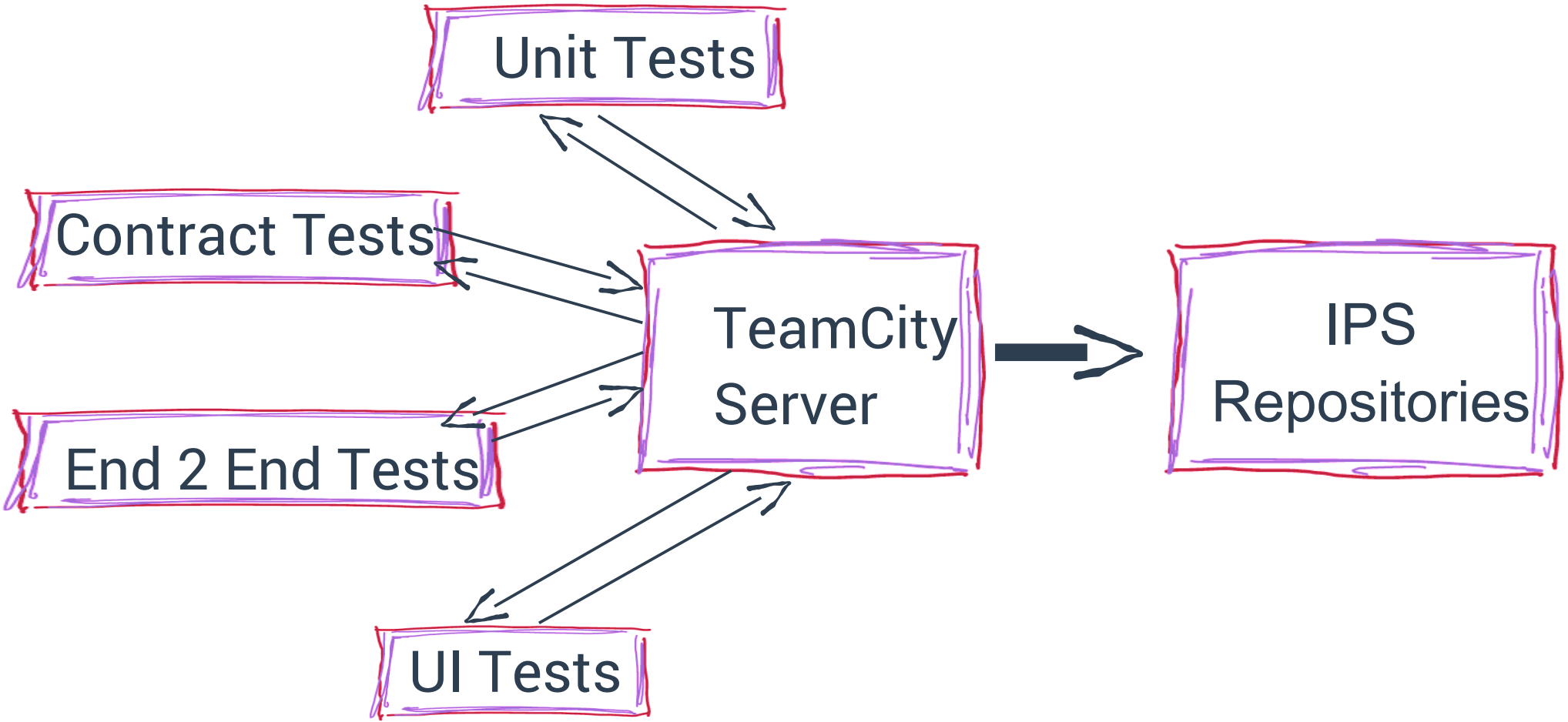
YOUR DATA • OUR BUSINESS

Dan Vâtca

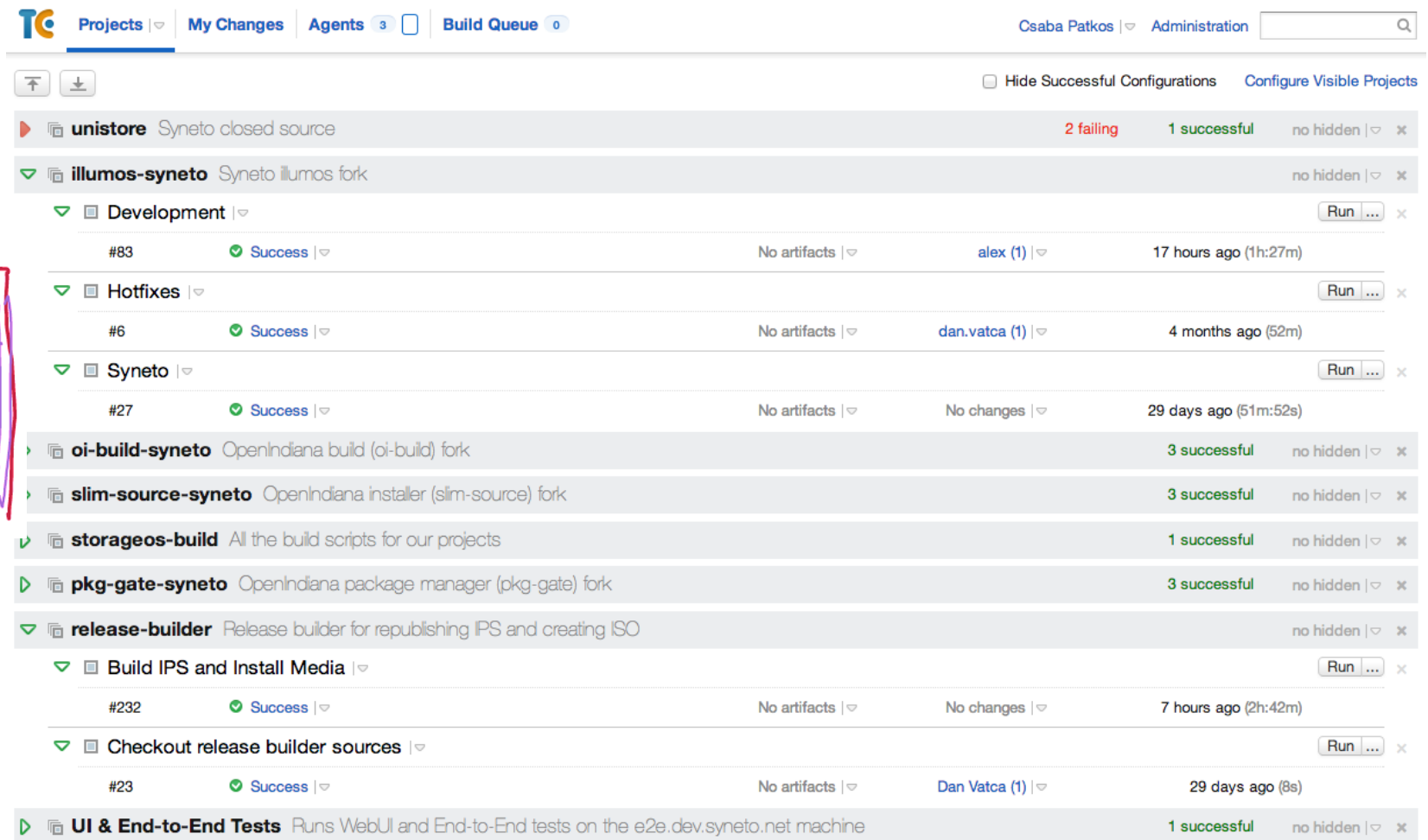
CTO

@danvatca


...
illumos-syneto
unistore
...
...
Storage OS
Repository
TEST
&
PUBLISH


Unit Tests
Contract Tests
TeamCity Server
IPS Repositories
End 2 End Tests
UI Tests

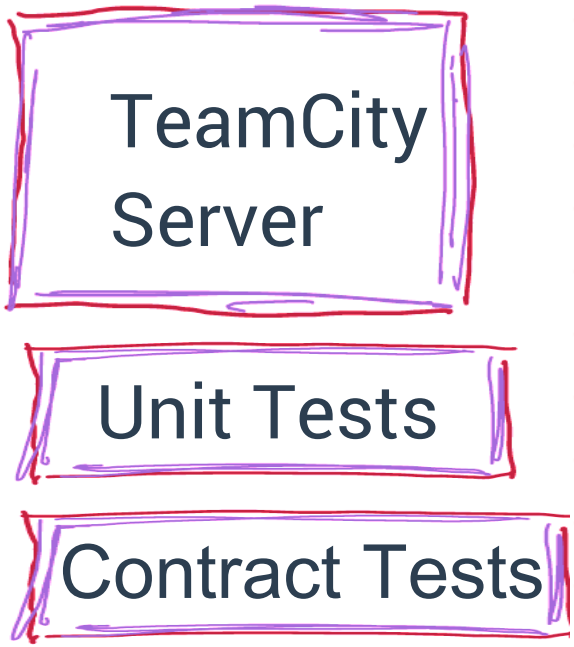
TeamCity Server



TeamCity Server

Unit Tests

```
[11:33:29]     [Step 1/1] ..........................................................  61 / 1331 (  4%)
[11:33:34]     [Step 1/1] .......................................................... 122 / 1331 (  9%)
[11:33:38]     [Step 1/1] .......................................................... 183 / 1331 ( 13%)
[11:33:41]     [Step 1/1] .......................................................... 244 / 1331 ( 18%)
[11:33:41]     [Step 1/1] .......................................................... 305 / 1331 ( 22%)
[11:33:44]     [Step 1/1] .......................................................... 366 / 1331 ( 27%)
[11:33:46]     [Step 1/1] .......................................................... 427 / 1331 ( 32%)
[11:33:48]     [Step 1/1] .......................................................... 488 / 1331 ( 36%)
[11:33:51]     [Step 1/1] .......................................................... 549 / 1331 ( 41%)
[11:33:54]     [Step 1/1] .......................................................... 610 / 1331 ( 45%)
[11:33:56]     [Step 1/1] .......................................................... 671 / 1331 ( 50%)
[11:33:57]     [Step 1/1] .......................................................... 732 / 1331 ( 54%)
[11:33:58]     [Step 1/1] .......................................................... 793 / 1331 ( 59%)
[11:34:04]     [Step 1/1] .......................................................... 854 / 1331 ( 64%)
[11:34:05]     [Step 1/1] .......................................................... 915 / 1331 ( 68%)
[11:34:06]     [Step 1/1] .......................................................... 976 / 1331 ( 73%)
[11:34:08]     [Step 1/1] ..........................................................1037 / 1331 ( 77%)
[11:34:09]     [Step 1/1] ..........................................................1098 / 1331 ( 82%)
[11:34:17]     [Step 1/1] ..........................................................1159 / 1331 ( 87%)
[11:35:39]     [Step 1/1] ..........................................................1220 / 1331 ( 91%)
[11:36:07]     [Step 1/1] ..........................................................1281 / 1331 ( 96%)
[11:36:09]     [Step 1/1] ..................................................
[11:36:09]     [Step 1/1]
[11:36:09]     [Step 1/1] Time: 2.75 minutes, Memory: 306.00Mb
[11:36:09]     [Step 1/1]
[11:36:09]     [Step 1/1] OK (1331 tests, 6108 assertions)
```




```
function testCreateAStripeDiskpoolConfigurationShouldCreateANonRedundancyDiskpool() {...}
function testCreateARaidz1DiskpoolConfigurationWithOneTopLevelVdev() {...}
function testCreateARaidz1DiskpoolConfigurationWithTwoTopLevelVirtualDevices() {...}
function testCreateARaidz2DiskpoolConfigurationWithOneTopLevelVdev() {...}
function testCreateAMirrorDiskpoolConfigurationWithOneVirtualDevice() {...}
function testCreateAMirrorDiskpoolConfigurationWithTwoTopLevelVirtualDevices() {...}
function testCreateAStripeDiskpoolConfigurationWithSpareDisk() {...}
function testCreateAStripeDiskpoolConfigurationWithASpareAndALogDisk() {...}
function testDestroyRemovesADiskpoolThatWasCreated() {...}
function testAddTopLevelVdevAddsALogDiskToAStripeDiskpoolConfiguration() {...}
function testAddTopLevelVdevAddsMultipleLogDisksAutoMirrorConfiguredToADiskpool() {...}
function testAddTopLevelVdevAddARaidz1VdevToARaidz1DiskpoolConfiguration() {...}
function testaddTopLevelDevicesAddsTopLevelDevicesToAStripeDiskpoolConfiguration() {...}
function testremoveNontopLevelDeviceRemovesALogDisk() {...}
function testremoveNontopLevelDeviceRemovesASpareDisk() {...}
function testremoveNonTopLevelDeviceRemovesASpareAndALogDisk() {...}
```

TeamCity Server

Unit Tests

Contract Tests

E2E Tests

```
Test: /opt/zfs-tests/tests/functional/cli_root/zfs_upgrade/zfs_upgrade_005_pos (run as root) [01:10] [PASS]
Test: /opt/zfs-tests/tests/functional/cli_root/zfs_upgrade/zfs_upgrade_006_neg (run as root) [00:00] [PASS]
Test: /opt/zfs-tests/tests/functional/cli_root/zfs_upgrade/zfs_upgrade_007_neg (run as root) [00:00] [PASS]
Test: /opt/zfs-tests/tests/functional/cli_root/zfs_upgrade/cleanup (run as root) [00:01] [PASS]
Test: /opt/zfs-tests/tests/functional/cli_root/zpool/setup (run as root) [00:01] [PASS]
Test: /opt/zfs-tests/tests/functional/cli_root/zpool/zpool_001_neg (run as root) [00:01] [PASS]
Test: /opt/zfs-tests/tests/functional/cli_root/zpool/zpool_002_pos (run as root) [00:02] [FAIL]
Test: /opt/zfs-tests/tests/functional/cli_root/zpool/zpool_003_pos (run as root) [00:00] [FAIL]
Test: /opt/zfs-tests/tests/functional/cli_root/zpool/cleanup (run as root) [00:01] [PASS]
Test: /opt/zfs-tests/tests/functional/cli_root/zpool_add/setup (run as root) [00:46] [PASS]
Test: /opt/zfs-tests/tests/functional/cli_root/zpool_add/zpool_add_001_pos (run as root) [00:52] [PASS]
Test: /opt/zfs-tests/tests/functional/cli_root/zpool_add/zpool_add_002_pos (run as root) [00:34] [PASS]
Test: /opt/zfs-tests/tests/functional/cli_root/zpool_add/zpool_add_003_pos (run as root) [00:33] [PASS]
Test: /opt/zfs-tests/tests/functional/cli_root/zpool_add/zpool_add_004_pos (run as root) [00:38] [PASS]
Test: /opt/zfs-tests/tests/functional/cli_root/zpool_add/zpool_add_005_pos (run as root) [01:02] [PASS]
Test: /opt/zfs-tests/tests/functional/cli_root/zpool_add/zpool_add_006_pos (run as root) [06:15] [FAIL]
```

TEST SU

Full Nam

Documentation: A test suite for various disk and pool scenarios.

Source: /tank/storage-os/build/unistore/dev/Lego/Test/FunctionalTests/test_files/diskpool_test.txt

Start / End / Elapsed: 20140516 12:26:04.624 / 20140516 12:27:17.775 / 00:01:13.151

Status: 1 critical test, 1 passed, 0 failed
1 test total, 1 passed, 0 failed

TEST CASE: **Disk Pool Status** Expand All

Full Name: Test Files.Diskpool Test.Disk Pool Status

Start / End / Elapsed: 20140516 12:26:04.787 / 20140516 12:27:17.774 / 00:01:12.987

Status: PASS (critical)

KEYWORD: **resource.GIVEN A POOL WITH 1 DISKS** Expand All

KEYWORD: **resource.WHEN I ASK THE STATE OF THE DISKS** Expand All

KEYWORD: **resource.THEN I SHOULD SEE 1 DISKS WITH STATUS IN-POOL** Expand All

TEARDOWN: **Selenium2Library.Close Browser** Expand All

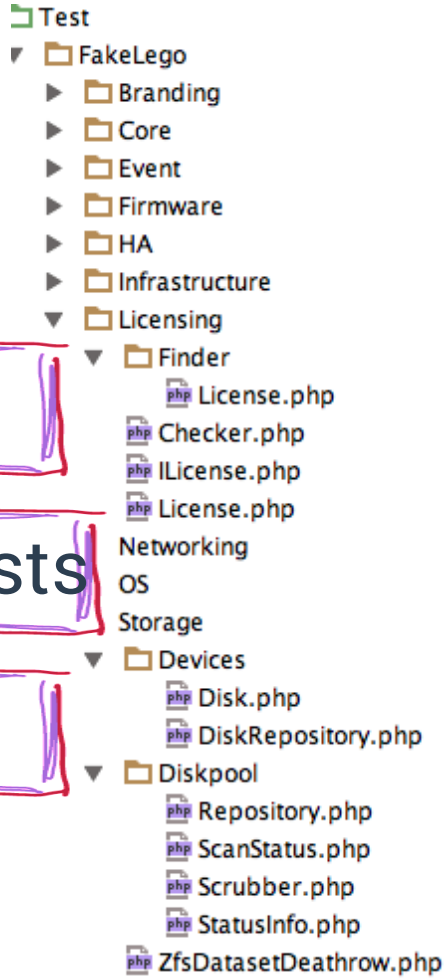
TeamCity Server

Unit Tests

Contract Tests

E2E Tests

UI Tests



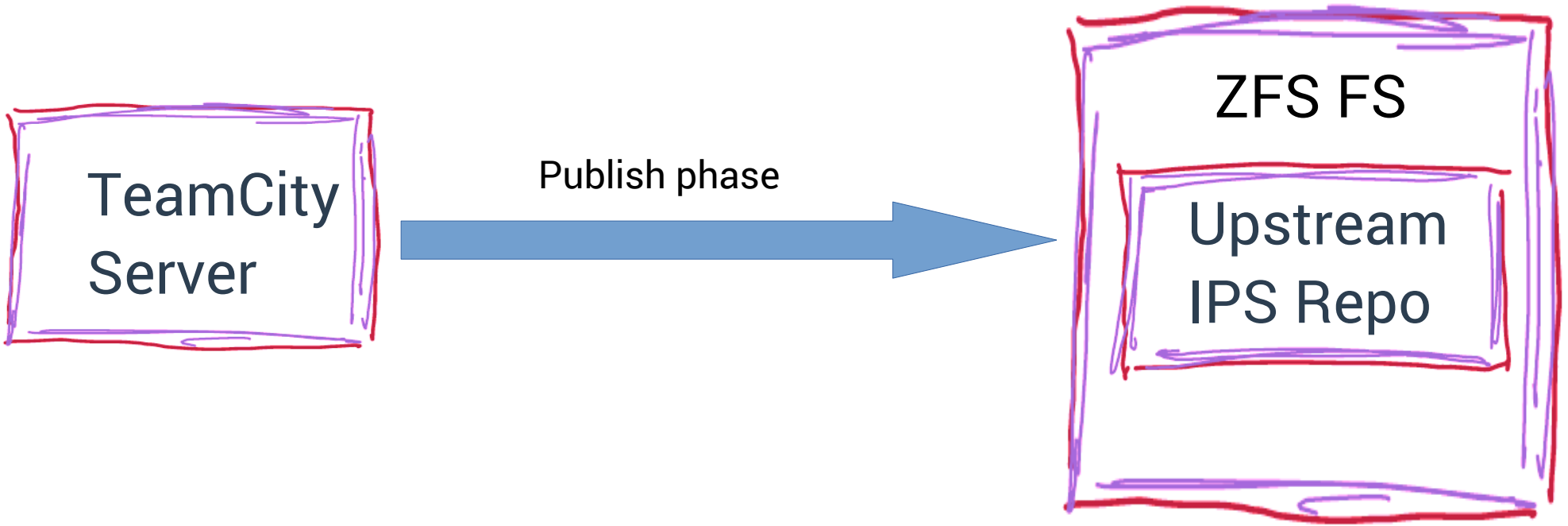

```
 [36mWelcome to CakePHP v2.4.1 Console [0m
---------------------------------------------------------------
App : app
Path: /tank/storage-os/build/unistore/dev/WebInterface/app/
---------------------------------------------------------------
CakePHP Test Shell
---------------------------------------------------------------
PHPUnit 3.7.31 by Sebastian Bergmann.

..........

Time: 686 ms, Memory: 6.00Mb

 [30;42m [2KOK (10 tests, 11 assertions)
```

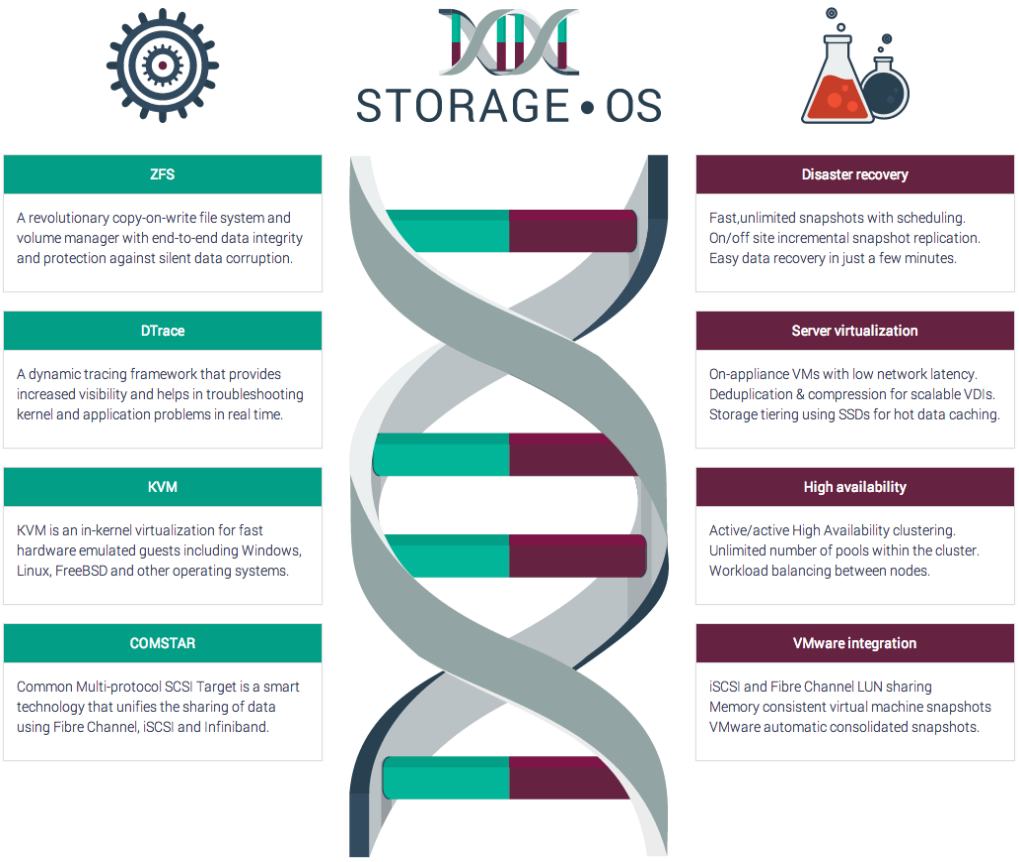
Test Statistics

Total Statistics	Total	Pass	Fail	Elapsed	Pass / Fail
Critical Tests	1	1	0	00:01:13	
All Tests	1	1	0	00:01:13	

Statistics by Tag	Total	Pass	Fail	Elapsed	Pass / Fail
No Tags					

Statistics by Suite	Total	Pass	Fail	Elapsed	Pass / Fail
Test Files	1	1	0	00:01:13	
Test Files . Diskpool Test	1	1	0	00:01:13	


TeamCity Server
Publish phase
ZFS FS
Upstream IPS Repo



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