

# Operations and plans - RDIG

Andrey Zarochentsev, SPbSU

Gleb Stiforov, JINR

# RDIG Structure 2017

	NRC KI	WLCG (REBUS)	Works now
RRC-KI-T1	+	+	+
1. RRC-KI	+	+	+
2. JINR	+	+	+
3. IHEP	+	+	+
4. ITEP	+	+	+
5. PNPI	+	+	+
6. SPbSU		+	+
7. Troitsk		+	+
8. MEPhI			+
9. SARFTI			-

# RDIG Structure 2018

	NRC KI	WLCG (REBUS)	Works now
RRC-KI-T1	+	+	+
1. RRC-KI	+	+	+
2. JINR	+	+	+
3. IHEP	+	+	+
4. ITEP	+	+	+
5. PNPI	+	+	+
6. SPbSU		+	+
7. Troitsk		+	+
8. MEPhI		-	-
9. SARFTI		+- (on near time)	+

# RDIG Network structure 2018

	LHCONE	IPv6
RRC-KI-T1	+	technically supports
1. RRC-KI	+	technically supports
2. JINR	+	technically supports
3. IHEP	+	technically supports
4. ITEP	+	In plan
5. PNPI	+	In plan
6. SPbSU	Plan on 2018 year	In plan
7. Troitsk	+	-
8. MEPHI		-
9. SARFTI	+	technically supports

# RDIG resource 2017-2018

	SE(2017)TB	CE(2017) HEPSPEC	SE(2018)TB	CE(2018) HEPSPEC
RRC-KI-T1	2520+2960 Type	32800	2520+2960 Type	32800
1. RRC-KI	316	4488	316 (173)*	4488
2. JINR	438	6500	680 (603+109)*	8460
3. IHEP	297	2631	297	2631
4. ITEP	200	2124	300 (179)*	2124
5. PNPI	44	2640	44	2640
6. SPbSU	128	4155	128 (110)*	4155
7. Troitsk	116	641	116	641
8. MEPhI	40	769	40(0)*	769
9. SARFTI	0	0	250 (117)*	7466
Total(T2)	1539(rebus)+40	23179(rebus)+769	1878(rebus)+170	25140(rebus)+8235

\* - information form MonAlisa monitoring

# Sarov – GRID cluster

- 2011-2012 : VNIIEF buys resources

- 2011 - 2017:

Solve problems

- Data center
- Network connection

- 2017: Beginning

of work. We hope to finish assembling of the hardware by June and install software by August



# Sarov site - SARFTI

Select site: SARFTI

**MonALISA information** Version: 13.11.04 (JDK 1.8.0\_92) **Service health** NTP: **SYNC**, offset: 0.087s  
Running on: gridvobox1.sarfti.ru  
Administrator: <Andrey.Zarochencev@cern.ch>

---

**Services status** AliEn: v2-19.395  
ClusterMonitor: **OK**  
PackMan: n/a  
CE: **OK**  
CE info: **We could start 40 agents**  
Max running jobs: 400  
Max queued jobs: 40

**Proxies status** AliEn proxy: **OK** (1 day, 23:41)  
Delegated proxy: **OK** (1 day, 23:59)  
Proxy server: **OK** (189 days, 23:56)  
Proxy of the machine: **OK** (18:47)

---

**Current jobs status** Assigned: 0  
Running: **657**  
Saving: 1

**Accounting** (last 24h) Success jobs: **1788** (profile)  
Error jobs: **99 + 388** expired  
kSI2k units: **1837** / pledged

**Site averages** (last 24h) Active nodes: 30.1  
Average kSI2k/core: 2.961

---

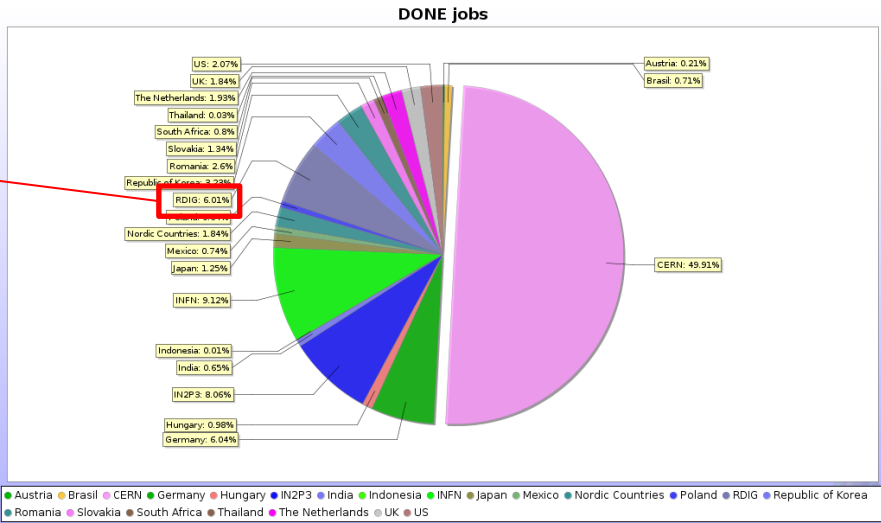
**Storages status**

Name	Status	Size	Used	Free	Usage	No of files	Type	ADD test
ALICE::SARFTI::EOS	OK	117.2 TB	58.24%	48.94 TB	68.26 TB	6.944 M	FILE	<b>OK</b>

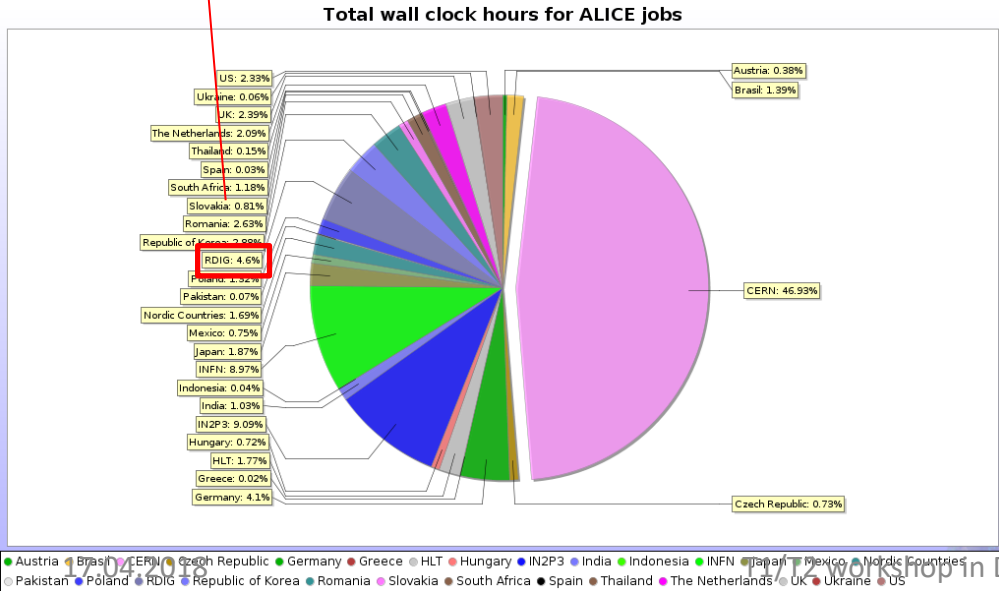
WNs, VOBOX, APEL, Torque server and MySQL DB on CentOS7, but Cream-CE on kvm virtual machine on CentOS6.

# RDIG production in the last year (till April)

RDIG 6,1% vs 5,74% on 2017



RDIG 4,6% vs 6,82% on 2018



Higher percent of “Done jobs” – more efficiency

But lower percent of “CPU time” - maybe less dedicated resources for ALICE.



# RDIG SE structure 2018

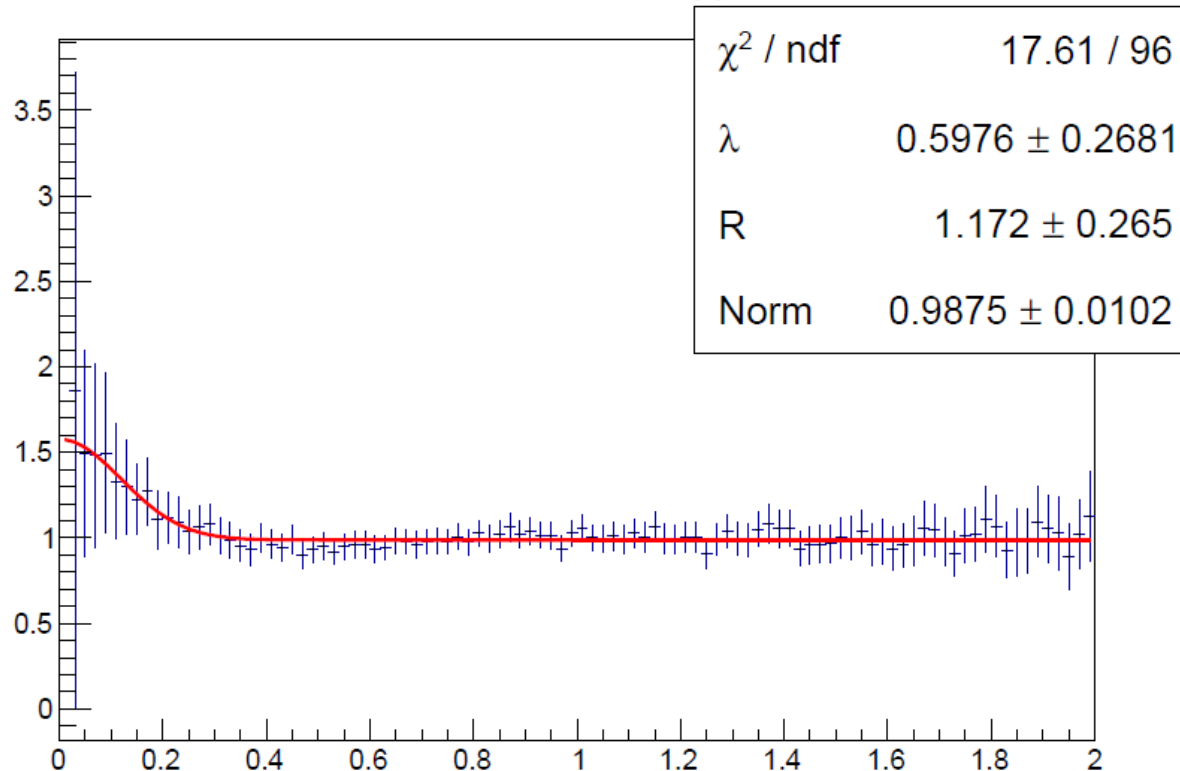
	Type	xrootd
1. RRC-KI	SE	4.50
2. JINR	EOS	3.3.6 (Plan of update in 2018)
3. IHEP	SE	4.2.3
4. ITEP	SE	4.2.3
5. PNPI	SE (Plan of update in 2018)	4.8.1
6. SPbSU	EOS+SE	3.3.6 (Plan of update in 2018) +4.8.1
7. Troitsk	SE	4.8.1
8. MEPhI	EOS	4.3.0
9. Sarov	EOS	4.8.1

# Summary

- Appearance of a new site - SARFTI
- JINR SE has finished migration to EOS
- We look forward to:
  - starting all SARFI resources and counting these in REBUS.
  - coming back to the production in MEPHI (in next month).
- Plans for 2018:
  - connect 8 of 9 sites to the LHCONE.
  - 4 sites will support IPv6.

# The JINR test local production

K+K+, EPOS pp at  $\sqrt{s}=13$  TeV



- Direct access to: 96 cores, 16 Tb Disk-SE  
Generator of events: EPOS 3111 (+ ALICE packages).  
The load: 10100 root files generated = 20 millions events for March 2018.
- **The main task of this cluster a pocket calculations and tests before big calculations.**

Thank you for your attention!

Questions