



# Integration of IT-DB Monitoring tools into General Notification Infrastructure

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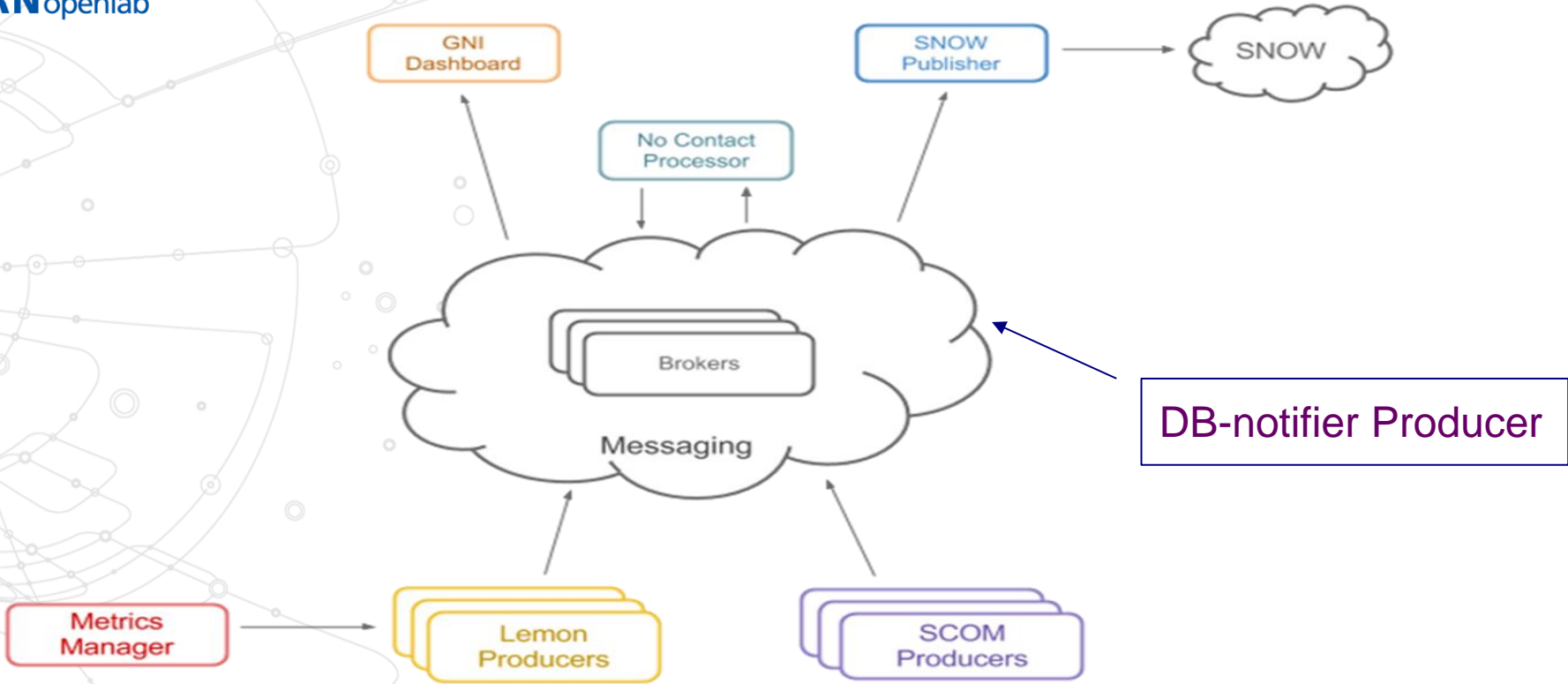
# IT Monitoring

- › Provide monitoring solutions in different areas
  - Notifications
  - Archive
  - Dashboards
- › Continuously monitor and deliver the monitoring results
- › Execute complex queries across monitoring data
- › Unnecessary duplication of effort
- › Difficulties in sharing monitoring data

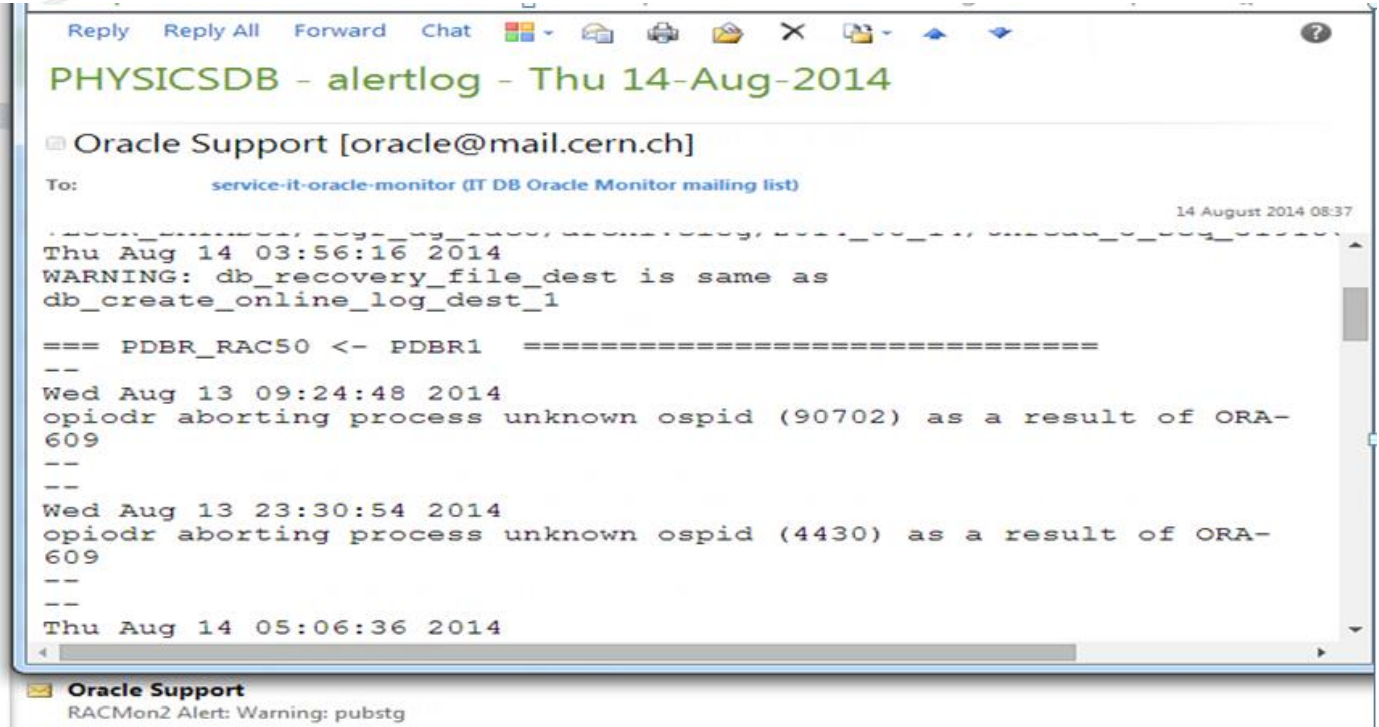
# What we intend to achieve

- › In IT-DB, independent monitoring tools/data:
  - OEM, RACMon, Syscontrol, Backup & Recovery, Storage, etc.
- › Consolidation of IT-DB monitoring tools/functionality
  - One single mechanism to generate notifications and alarms
- › Standardise procedures for service notification and alarming
  - One single interface (Kibana) to visualize notifications
  - Stop email notifications as much as possible
  - Automate opening SNOW tickets and sending SMSs

# GNI Architecture



# Previous Notification System



Last November around 6638 emails...221 emails per day..

# GNI Dashboards

GNI 12 hours ago to 3 minutes ago

QUERY: dbnotifier\_syscontrol

FILTERING: time must, field: @timestamp, from: now-12h, to: now; field mustNot, field: body.metadata.state, query: active\*

GRAPHS

**TOP PRODUCERS**

Term	Count	Action
dbnotifier_syscontrol	11126	Q
lemon	586	Q
scom	6	Q

Showing 3 out of 3 values

**TOP HOSTGROUPS**

Term	Count	Action
eos	127	Q
castor	92	Q
backup	81	Q
bi	64	Q

Showing 4 out of 25 values

**TOP ENTITIES**

Term	Count	Action
pcitdb07.cern.ch	11126	Q
bxtsm518	43	Q
bxtsm519	27	Q
lbtestvobox	18	Q

Showing 4 out of 139 values

**TOP METRICS**

Term	Count	Action
Syscontrol_logger_local	8183	Q
no_contact	128	Q
exception SCSI_blockdevice_d	81	Q
river_error_reported		Q
exception adaptec_bbu_error	39	Q

Showing 4 out of 42 values

TABLE 0 to 100 of 500 available for paging

Fields	@timestamp	header.m_producer	body.metadata.entity	_id	body.metadata.metric_name	body.metadata.environment
	2014-08-14T08:58:12.000+02:00	dbnotifier_syscontrol	pcitdb07.cern.ch	pRxD-SN3RN2PJVaXJFsdxQ	Syscontrol_logger_local	
	2014-08-14T08:58:12.000+02:00	dbnotifier_syscontrol	pcitdb07.cern.ch	RnscLEtS-irQMBHfr7ag	Syscontrol_logger_local	
	2014-08-14T08:58:12.000+02:00	dbnotifier_syscontrol	pcitdb07.cern.ch	GjYw6i8GRUWbd0h4Fb6zIA	Syscontrol_logger_local	
	2014-08-14T08:58:12.000+02:00	dbnotifier_syscontrol	pcitdb07.cern.ch	TucXcCMnQ2a9955Tb55Dpw	Syscontrol_logger_local	
	2014-08-14T08:58:12.000+02:00	dbnotifier_syscontrol	pcitdb07.cern.ch	U9ohq1WS6CIU94F4Yz4A	Syscontrol_logger_local	

# GNI Dashboards

2 days ago to a few seconds ago

QUERY
FILTERING

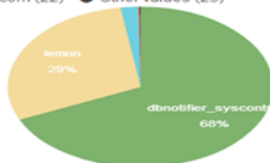
```
time must
field : @timestamp
from : now-2d
to : now

field mustNot
field : body.metadata.state
query : active*
```

### GRAPHS

#### TOP PRODUCERS

- dbnotifier\_syscontrol (11126)
- lemon (4761)
- dbnotifier\_oem (352)
- scom (22)
- Other values (25)



#### TOP HOSTGROUPS

Term	Count	Action
bi	1737	Q
castor	642	Q
eos	507	Q
backup	404	Q

Showing 4 out of 54 values

#### TOP ENTITIES

Term	Count	Action
pcitdb07.cern.ch	11478	Q
lxtsm518	344	Q
lxtsm519	114	Q
lxfsra14a03	110	Q

Showing 4 out of 1821 values

#### TOP METRICS

Term	Count	Action
Syscontrol_logger_local	8183	Q
exception.Operating_System	1297	Q
exception.scsi_blockdevice_d	402	Q
river_error_reported		Q
puppetd_run_errors	311	Q

Showing 4 out of 64 values

### TABLE

0 to 100 of 500 available for paging

@timestamp	header.m_producer	body.metadata.environment	header.m_toplevel_hostgroup	body.metadata.hostgroup	body.metadata.entity	body.metadata.notification_type
2014-08-15T11:52:08.000+02:00	lemon	production	bi	bi/batch/gridworker/mpil/spa...	lxbsu2410	os
2014-08-15T11:52:07.000+02:00	lemon	production	bi	bi/batch/gridworker/aishare...	b62a3123fd	os
2014-08-15T11:51:23.000+02:00	lemon	production	bi	bi/batch/gridworker/aishare...	lxbsp1227	os
2014-08-15T11:50:31.000+02:00	lemon	production	bi	bi/batch/gridworker/aishare...	lxbsp1314	os
2014-08-	lemon	production	bi	bi/batch/gridworker/ams/ams...	b6407d4286	os

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7

Background image: Shutterstock

# Impact

- › Single IT-DB producer to generate notifications for our monitoring data
- › Single location to visualize and query monitoring data
- › Easy to configure and display what interests the user
- › Stop global email notifications
- › Automatic SNOW ticket generation



# Future Steps

- › Put GNI Producer in our production monitoring machines (db-manager, oem.cern.ch, etc.) when in SL6
- › Identify which messages should generate SNOW tickets and put that in production
- › Add more IT-DB monitoring tools into GNI

# Thank you

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