



运维监控平台
InsightON



埃尼亚克软件系统（上海）有限公司



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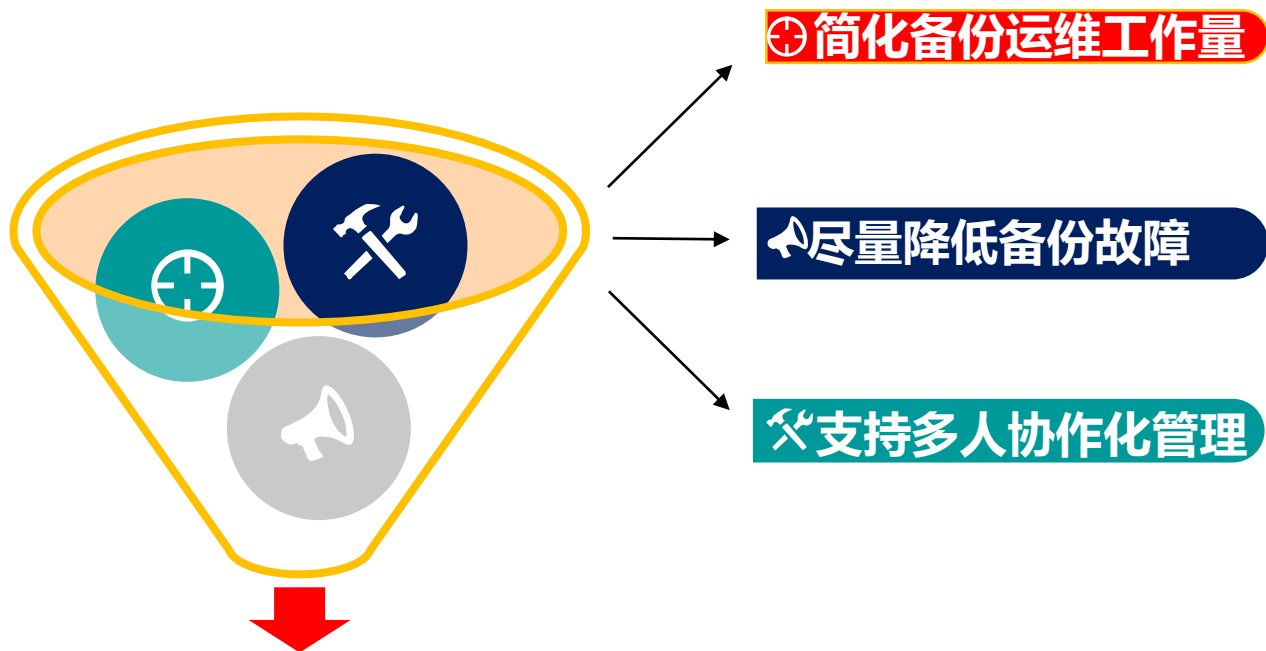
价值特点

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应用实例



备份运维需求



解决之道

2055 Jobs (112 Queued 128 Active 0 Waiting for Retry 0 Suspended 0 Incomplete 181)

Job Id	Type	State	Job Policy	Client	Media Server
87536	Backup	Done	0 pd_pq_jcny_fs	full pdcsh047v03	pc-zjdaytj11
87535	Backup	Done	0 zjdabg02_data	full zjdabg02	pc-zjdaytj11
87569	Backup	Done	71 zjdaov03_04_fs	full zjdaov04	pc-zjdaytj11
87568	Backup	Done	71 zjdaov03_04_fs	full zjdaov03	pc-zjdaytj11
87567	Backup	Done	71 vd13qdg_jiaoben_fs	full vd13qdg06	pc-zjdaytj11
87566	Backup	Done	71 vd13qdg_jiaoben_fs	full vd13qdg06	pc-zjdaytj11
87565	Backup	Done	71 pq-pdcsh-fs	full pqcsh004v03	pc-zjdaytj11
87612	Backup	Done	0 p-dtxt-fs	full pqcsh012v03	pc-zjdaytj11
87611	Backup	Done	0 pq_hjzj_fs	full pqcsh006v03	pc-zjdaytj11
87610	Backup	Done	0 sjyjt_fs	full pqcsh004v03	pc-zjdaytj11
87609	Backup	Done	0 p-dtxt-fs	full pqcsh002v03	pc-zjdaytj11
87608	Backup	Done	0 sjyjt_fs	full pdcsi036v02	pc-zjdaytj11
87607	Backup	Done	0 pdcsi026v02_fs	full pdcsi036v02	pc-zjdaytj11

传统NBU界面

- 所有报错不分层，不分类
- 显示全部job，报错job重复多，无法快速定位错误

STARTUP

(减少80%以上完全无必要工作)

1	失败多次的jobs	jobid	status	policy	master	client	redo_status
		2602859	64	oa-07-notes2-dm	zjbak_svc	oa-07-va24	查看错误
		85263	13	pc-zsdacr01-20_fs	zsdamaster1	pc-zsdacr05	查看错误
2	未处理的jobs	jobid	status	policy	master	client	redo_status
		2603605	57	oadamo01_fs	zjbak_svc	oadamo01	查看错误
		2603944	21	pc-zsdacr01-03_fs	zjbak_svc	pc-zsdacr01	查看错误
3	重新处理中的jobs						
	没有正在处理的job						
4	重新处理成功的jobs	jobid	status	policy	master	client	redo_status
		2576107	5	bi460c-05_fs	zjbak_svc	bi460c-05	手动处理成功
5	无需处理的jobs	jobid	status	policy	master	client	redo_status

维护人员只需要关注这里

5个分层

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维护人员只需关注处理失败多次的jobs，大大减少查看、处理jobs的次数

解决之道

2055 Jobs (112 Queued 128 Active 0 Waiting for Retry 0 Suspended 0 Incomplete)							
Job Id	Type	State	Job Policy	Client	Media	Serial	Size
87536	Backup	Done	0 pd-pe-jerry_fs	full pdcsh047v03	pc-zjdaytj11		
87535	Backup	Done	0 zjdabg02_data	full zjdabg02	pc-zjdaytj11		
87569	Backup	Done	71 zjdaov03_04_fs	full zjdaov04	pc-zjdaytj11		
87568	Backup	Done	71 zjdaov03_04_fs	full zjdaov03	pc-zjdaytj11		
87567	Backup	Done	71 vd13qdg_jiaoben_fs	full yq13qdg106	pc-zjdaytj11		
87566	Backup	Done	71 vd13qdg_jiaoben_fs	full vd13qdg106	pc-zjdaytj11		
87565	Backup	Done	71 pq-pdcsh-fs	full pqcsh004v03	pc-zjdaytj11		
87612	Backup	Done	0 p-dbt-fs	full pqcsh012v03	pc-zjdaytj11		
87611	Backup	Done	0 pq-hjzc_fs	full pqcsh006v03	pc-zjdaytj11		
87610	Backup	Done	0 sljyt_fs	full pqcsh004v03	pc-zjdaytj11		

2055 Jobs (112 Queued 128 Active 0 Waiting for Retry 0 Suspended 0 Incomplete)							
Job Id	Type	State	Job Policy	Client	Media	Serial	Size
87536	Backup	Done	0 pd-pe-jerry_fs	full pdcsh047v03	pc-zjdaytj11		
87535	Backup	Done	0 zjdabg02_data	full zjdabg02	pc-zjdaytj11		
87569	Backup	Done	71 zjdaov03_04_fs	full zjdaov04	pc-zjdaytj11		
87568	Backup	Done	71 zjdaov03_04_fs	full zjdaov03	pc-zjdaytj11		
87567	Backup	Done	71 vd13qdg_jiaoben_fs	full yq13qdg106	pc-zjdaytj11		
87566	Backup	Done	71 vd13qdg_jiaoben_fs	full vd13qdg106	pc-zjdaytj11		
87565	Backup	Done	71 pq-pdcsh-fs	full pqcsh004v03	pc-zjdaytj11		
87612	Backup	Done	0 p-dbt-fs	full pqcsh012v03	pc-zjdaytj11		
87611	Backup	Done	0 pq-hjzc_fs	full pqcsh006v03	pc-zjdaytj11		
87610	Backup	Done	0 sljyt_fs	full pqcsh004v03	pc-zjdaytj11		

传统NBU界面

只能显示当前备份域内备份信息，不能跨备份域显示

失败多次的jobs					
jobid	status	policy	master	client	操作
2602859	84	oa-07-notes2-dmx	zjbak_svc	oa-07-va24	查看详情
85263	13	pc-zjdacrm01-20_fs	zjdmaster1	pc-zjdacrm05	查看详情

未处理的jobs					
jobid	status	policy	master	client	操作
2603605	57	oadamo01_fs	zjbak_svc	oadamo01	查看详情
2603944	219	pc-zjdar01-03_fs	zjbak_svc	pc-zjdar01	查看详情

跨备份域显示所有报错job

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- 统计多个备份域的备份信息
- 当运维环境中存在多个备份域(master)时，统一关联查看将会极大提高工作效率

解决之道

4104 Jobs (0 Queued 8 Active 0 Waiting for Retry 0 Suspended 2 Incomplete 4094 Done - 1 selected)									
State	S...	Job Id	Type	State...	Start Tl...	De...	Elapsed...	KB pe...	Job Policy
Done	84	2606758	Backup	06/29/2...	00:49:00	21193	zjddrpt3_oracle		
Done	84	2606579	Backup	06/29/2...	00:42:34	14499	zjddrpt3_oracle		
Done	84	2606400	Backup	06/29/2...	21:46:59	16258	pc-zjdamp01		
Done	84	2606344	Backup	06/29/2...	00:15:58	35561	zjddkt11_oracle		
Done	84	2606322	Backup	06/29/2...	07:24:15	6715	zjdajs04_fs_wj		
Done	84	2606038	Backup	06/29/2...	00:25:22	33107	zjddkt11_oracle		
Done	84	2605986	Backup	06/29/2...	00:37:32	28540	zjddkt11_oracle		
Done	84	2604246	Backup	06/27/2...	10:09:15	20695	oa-07-notes2-dmx		
Done	84	2603655	Backup	06/26/2...	00:10:24	13264	zjddzw05_oracle_arch		

```
Script /usr/openw/rman/backup_db.sh
==== started on Mon Jun 29 17:00:05 BEIST 2015 ====

RMAN: /u03/oracle/app/oracle/product/11.2/bin/rman
ORACLE_SID: zjrp1
ORACLE_USER: oracle
ORACLE_HOME: /u03/oracle/app/oracle/product/11.2

NB_ORA_FULL: 1
NB_ORA_INCR: 0
NB_ORA_CINC: 0
NB_ORA_SERV: zbjbak_svc
NB_ORA_POLICY: zjddrpt3_oracle

Full backup requested

Recovery Manager: Release 11.2.0.3.0 - Production on Mon Jun 29 17:00:05 2015
Copyright (c) 1982, 2011, oracle and/or its affiliates. All rights reserved.
connected to target database: ZJRP1 (DBID=966208795)
connected to recovery catalog database
```

传统NBU界面

Oracle备份报错无法直接查看
RMAN log，必须登录客户端查看

无需处理的jobs

jobid	status	policy	master	client	redo_status
2604258	6	zjdcx01_oracle	zjbjbak_svc	zjbjbak_svc	查看错误
2606670	50	zjddjs03_oracle_arch	zjbjbak_svc	zjddjs03	查看错误
2605980	6	zjddkt11_oracle	zjbjbak_svc	zjddkt11	查看错误
2604259	6	zjdcx01_oracle	zjbjbak_svc	zjdcx02	查看错误

错误信息：jobid: 2606670

```
RMAN-00571: =====
RMAN-00569: ===== ERROR MESSAGE STACK FOLLOWS
===== RMAN-00571:
===== RMAN-00601:
fatal error in recovery manager RMAN-03004: fatal error during execution of command
ORA-01092: ORACLE instance terminated. Disconnection forced ORACLE error from
target database: ORA-03135: connection lost contact ===== ended in error on Mon Jun 29
18:34:34 EAT 2015 =====
```

关闭

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- Oracle 备份报错，可以直接点击查看 RMAN log，不需要登录客户端查找log
- 不用登主机，不用敲命令

解决之道

2055 Jobs (112 Queued 128 Active 0 Waiting for Retry 0 Suspended 0 Incomplete)

Job Id	Type	State	Job Policy	Client	Media Server
87536	Backup	Done	0 pd-pq-jenw_fs	full pdcsh047v03	pc-zjdaytj11
87535	Backup	Done	0 zjdabg02_data	full zjdabg02	pc-zjdaytj11
87568	Backup	Done	71 zdaov03_04_fs	full zdaov04	pc-zjdaytj11
87568	Backup	Done	71 zdaov03_04_fs	full zdaov03	pc-zjdaytj11
87567	Backup	Done	71 vd13qdg_jiaoben_fs	full vd13qdg106	pc-zjdaytj11
87566	Backup	Done	71 vd13qdg_jiaoben_fs	full vd13qdg106	pc-zjdaytj11
87565	Backup	Done	71 pq-pdcsh-fs	full pqcsh004v03	pc-zjdaytj11
87612	Backup	Done	0 p-dbt-fs	full pqcsh012v03	pc-zjdaytj11
87611	Backup	Done	0 pq-hjpx_fs	full pqcsh006v03	pc-zjdaytj11
87610	Backup	Done	0 sjyxt_fs	full pqcsh004v03	pc-zjdaytj11

2389 Jobs (12 Queued 43 Active 1 Waiting for Retry 0 Suspended 0 Incomplete 2333)

Job Id	Type	State	Job Policy	Client	Media Server
89510	Done	0			pc-zjdaytj21
89509	Done	0			
89508	Done	0			pc-zjdaytj21
89507	Done	0			
89506	Done	0			pc-zjdaytj21
89505	Done	0			pc-zjdaytj21
89504	Backup	Done	0 zjdlt23_oracle	De... zjdlt23	pc-zjdaytj21
89503	Backup	Done	0 zjdlt23_oracle	De... zjdlt23	pc-zjdaytj21
89502	Done	0			
89501	Done	0			pc-zjdaytj21

失败多次的jobs

jobid	status	policy	master	client
2602859	84	oa-07-notes2-dmx	zjbak_svc	oa-07-va24
85263	13	pc-zjdcrm01-20_fs	zjdmaster1	pc-zjdcrm05

未处理的jobs

jobid	status	policy	master	client
2603605	57	oadam001_fs	zjbak_svc	oadam001
2603944	219	pc-zjda801-03_fs	zjbak_svc	pc-zjda8-01

重新处理中的jobs
没有正在处理的job

重新处理完成的jobs

jobid	status	policy	master	client
2578107	59	bi450x-05_fs	zjbak_svc	bi450x-05

无需处理的jobs

jobid	status	policy	master	client
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未自动处理故障，需要人工介入

人工处理故障后，手动更新状态

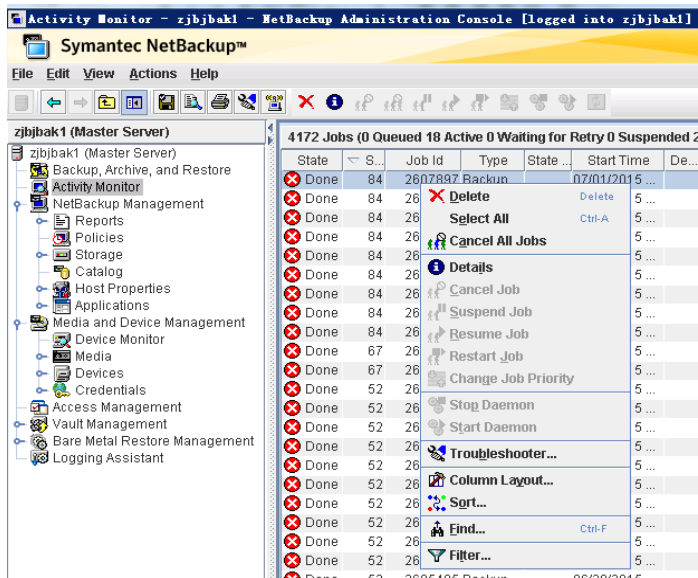
传统NBU界面

- 无故障处理记录，无法多人协作维护
- 那谁，处理过了么？
- 处理成功了么？

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- 无法自动修复的错误，会显示需要人工介入
- 人工处理完故障后，可以显示处理结果

解决之道



SUCCESS



手工发起备份

客户端名称: zjdpb01_perip

client	policy	master	active
zjdpb01_perip	BJ_unix_os	zbjbak_svc	yes

发起备份

手动重做中的jobs

jobid	client	policy	master	status
2608663	zjdpb01_perip	BJ_unix_os	zbjbak_svc	redoing
2608663	zjdpb01_perip	BJ_unix_os	zbjbak_svc	redoing

手动重做完成的jobs

没有手动重做完成的job

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- 策略太多找不到？
- 备份域太多，找不到？
- 策略名谁起的，看不懂？

- 平台可实现通过主机名查询备份策略，发起备份策略并能对手工发起的进行跟踪
- 人工发起备份后，可以显示处理结果

价值特点



重新处理完成的jobs

jobid	status	policy	master	client	redo_status	
2602476	85	zjdajs04_fs_wj	zjbjbak_svc	zjdajs04	自动处理成功	查看错误
	239	2_3D_unix_os_2	zjdmaster1	zjdabg03	手动处理成功	查看错误
85		2_3D_unix_os_2	zjdmaster1	zjdabg04	手动处理成功	查看错误
85741	25	2_3D_unix_os_2	zjdmaster1	zjdabg05	手动处理成功	查看错误
2603856	196	oadacs	zjbjbak_svc	oadacs01	自动处理成功	查看错误
2603857	196	oadacs_dctm	zjbjbak_svc	oadacs02	自动处理成功	查看错误
2605122	85	pd-kdyw-fs	zjbjbak_svc	h015v03	自动处理成功	查看错误
2604930	50	BJ_unix_os_1	zjbjbak_svc	zjajsc	自动处理成功	查看错误
2605132	50	zjncsc1_app	zjbjbak_svc	zjncsc1	自动处理成功	查看错误
88351		_os_2	zjdmaster1	zjddjs03	自动处理成功	查看错误

减少运维工作量

针对85.48,58,59,25等错误代码进行自动修复

价值特点



运维监控平台
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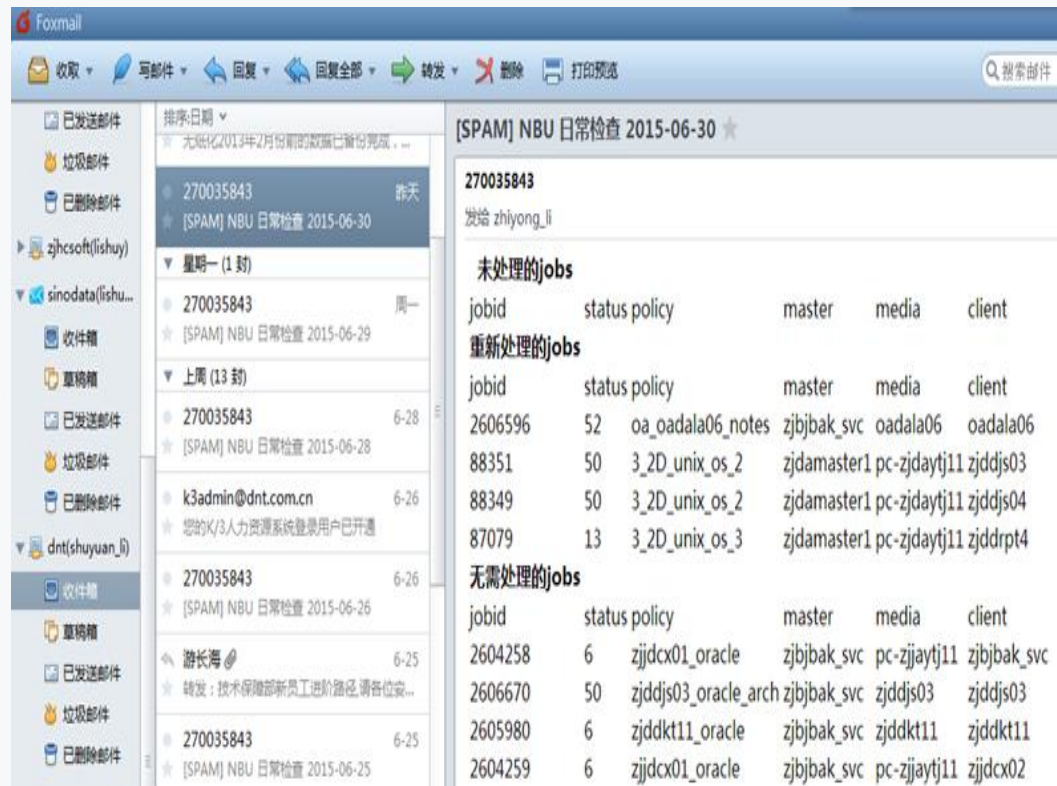
- 跨备份域统计所有报错信息
- 自动录入错误信息并永久保存，并可以根据时间进行历史错误作业查询

终于不用为历史信息纠结了，要数据的放马过来

价值特点

运维监控平台
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以邮件方式发送维护
人员处理结果



邮件通知终于简单了



价值特点

- 1 | 监控展示**
整合备份域，智能筛选告警
- 2 | 故障自动处理**
常见故障自动修复
- 3 | 个性定制**
数据库日志，WEB查询，历史信息查询
- 4 | 邮件通知**
所有备份域智能邮件告警
- 5 | 多人协作**
跨备份域，按主机名归类执行备份策略

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辽宁移动

每日NBU相关时间从
5小时减少到1小时



浙江移动

初级系统管理员可以独
立维护



江苏电信

第一个月使用情况：备份
成功率从91%提高到98%



黑龙江移动

实现运维人员的协同管理

