

2022.04.02-SPX- TH地区Pickup plan下发报错"lb: No useable instance, key: SPX-PICKUPAPI-LIVE-TH() (ins 3 filtered 0)"

故障标题	TH地区Pickup plan下发报错"lb: No useable instance, key: SPX-PICKUPAPI-LIVE-TH() (ins 3 filtered 0)"	
故障等级		
故障时间	发生时间	2022.04.01 下午2点11分
	发现时间	2022.04.02 下午2点52分
	恢复时间	2022.04.02 下午3点48分
	故障历时	25小时37分
故障处理人	xingdong.yin、shaohua.xia、lingfei.wang、yanlu.li、zhiming.hu、yuanjing.lin	
责任主体		
故障报告来源	业务反馈	
故障类别		
故障描述	调度中心下发Pickup plan存在1/3概率失败，报错"lb: No useable instance, key: SPX-PICKUPAPI-LIVE-TH() (ins 3 filtered 0)"	
影响评估	<p>1. Pickup plan下发：调度中心有重试机制，针对下发失败的plan 36小时内会持续重推，plan下发至Pickup模块时效性有损失，从下单到揽收时间加长，总计28119单，这些订单在pickup环节有两类可能</p> <p>a. 无揽收计划，不上门揽收：没有收到pickup plan时,会导致不会分配揽收任务，但理论上经过9轮重试（4小时2分钟）后会推送成功，经过FPM确认，延迟4小时不会导致商家取消订单；此场景不会对业务造成影响</p> <p>b. 上门揽收：没有收到pickup plan，骑手上门揽收时，系统有兜底方案查询订单数据，揽收操作平滑无感；此场景不会对业务造成影响</p> <p>2. 分拣机分拣，需要转入人工分拣，此时对业务有影响，影响单量共8单</p>	

处理过程

- 4月2号早上11点dongyang找yuanjing反馈分拣机分拣报错
- 下午2点左右yuanjing排查确定是查询pickup报错没有pickup order，找shaohua确定，反馈至hongtao
- 下午2点52分hongtao反馈有订单下发plan失败，xingdong和lingfei 介入排查
- 查看cat监控发现报错如下图，请求Pickup报错"lb: No useable instance, key: SPX-PICKUPAPI-LIVE-TH() (ins 3 filtered 0)"

Global Application Tracking			
全部 常用 Q SPX-DISPATCHAPI-LIVE-TH Go			
Text Graph			
t15:00:11.148	plan_push_service	[goroutine]_addPush	
t15:00:11.148	plan_push_grpc_service	[async]pushGrpc	
t15:00:11.148	plan_push_pickup_grpc_service	[async]pushGrpcPlan	
t15:00:11.148	API-SPX-PICKUPAPI-LIVE-TH	FollowUpPickupPlan	
t15:00:11.148	RemoteCall		
[: show -]			
T15:00:11.148	RemoteCall	FollowUpPickupPlan	0.00ms null
T15:00:11.148	API-SPX-PICKUPAPI-LIVE-TH	FollowUpPickupPlan	1.4 0.07ms lb: No useable instance, key: SPX-PICKUPAPI-LIVE-TH() (ins 3 filtered 0)
T15:00:11.148	plan_push_grpc_result_process_service	pushGrpcErrorProcess	
A15:00:11.148	plan_push_grpc_result_process_service	sendSuccess	1.81ms null
T15:00:11.149	plan_push_grpc_result_process_service	pushGrpcErrorProcess	1.81ms null
T15:00:11.149	plan_push_pickup_grpc_service	[async]pushGrpcPlan	1.93ms null
T15:00:11.149	plan_push_grpc_service	[async]pushGrpc	1.93ms null
T15:00:11.149	plan_push_service	[goroutine]_addPush	1.94ms null

- 查看Pickup注册中心和容器情况，发现容器没有重启，但是注册中心的服务注册时间有变化

S

SPX-PICKUPAPI-LIVE-TH
Application: default
Version: 0.0.1
CreatedAt: 2022-3-2 16:12
Jump to:

SERVICE INSTANCES(3)

SERVICE PROVIDERS(0)

SERVICE CONSUMERS(1)

SCHEMA

META-DATA

Name	Status	CreatedAt	Address
spx-pickupapi-live-th-green-6bf4597fb7-ngfdx	UP	2022-4-2 14:48	<ul style="list-style-type: none">rest://10.154.97.112:8080grpc://10.154.97.112:7071
spx-pickupapi-live-th-green-6bf4597fb7-4x2bj	UP	2022-4-1 15:30	<ul style="list-style-type: none">grpc://10.155.130.220:7071rest://10.155.130.220:8080
spx-pickupapi-live-th-green-6bf4597fb7-lm8dh	UP	2022-4-2 13:54	<ul style="list-style-type: none">grpc://10.154.23.161:7071rest://10.154.23.161:8080

Tenant:Supply Chain Group / Project:spx / Application:spx-pickupapi / Deployment:spx-pickupapi-live-th

Deployment: spx-pickupapi-live-th

ComponentType: pipeline-deployment Env: live CID: th AZ: sg5

Scale Rollback More

Overview Basic Info Profiling History

Pod Status

100% Normal

Abnormal Running | Unhealthy: 0 Error: 0 CrashLoopBackOff: 0 Other: 0 Normal Running | Healthy: 3

Pod List

Search Pod Name/IP... Batch Kill

Pod	Phase	Restarts	CPU Usage	MEM Usage	Status	Create Time	Action
spx-pickupapi-live-th-green-6bf4597fb7-4x2bj	RELEASE tag:spx-pickup-220330-v1	0	0.01/4 Cores	0.27/8 GiB	Normal	2022-03-30 16:39:58	Terminal More
spx-pickupapi-live-th-green-6bf4597fb7-lm8dh	RELEASE tag:spx-pickup-220330-v1	0	0.01/4 Cores	0.32/8 GiB	Normal	2022-03-30 16:39:30	Terminal More
spx-pickupapi-live-th-green-6bf4597fb7-ngfdx	RELEASE tag:spx-pickup-220330-v1	0	0.01/4 Cores	0.24/8 GiB	Normal	2022-03-30 16:38:56	Terminal More

- 排查确定Pickup新重构的代码导致容器内应用进程挂掉后被重启，注册中心有注册成功的实例，按理可以下发，不会有报错
- Pickup关闭新重构内容开关，逻辑走老链路
- 与中间件同学确定此种情况会触发注册中心客户端的一个bug：<https://git.garena.com/shopee/bg-logistics/go/chassis/-/issues/23>
- 与中间件同学确定临时处理方案，重启调度中心容器，触发重新获取注册中心信息，使用plan控制台重推机制重推下发失败的plan

原因分析

- Pickup服务崩溃进程重启但容器正常触发注册中心的一个bug，导致调度中心下发plan时存在1/3概率失败
- 调度中心告警配置存在考虑不足的情况，导致Plan下发失败没有第一时间发现
- 调度中心告警配置有误，导致没有第一时间发现问题

改进方案

- Pickup针对重构服务做一轮修复之后再上线打开开关，切流过程需要灰度，避免一次全量引发其他问题
- 调度中心与中间件团队对齐chassis依赖组件的版本做更新，此项需要SPX全部golang应用自查-- zhuohuang.yu@shopee.com
- 新增应用监控体系完善，针对重要接口及时告警-- xingdong.yin@shopee.com lingfei.wang@shopee.com 待同步进度和deadline，后续辛苦

贴一下Jira task



SPXFM-29018 - Jira 问题不存在或者您没有权限查看。

， deadline：4月13号go-live

后续待跟进事项

Pickup plan下发失败后重试推演

调度中心针对下发失败的plan在36小时之内会不断进行推送，推送机制：前四次按配置推送（[4]uint32{60, 2 * 60, 4 * 60, 10 * 60}），后面每45分钟推送一次，直至到达36小时

根据cat监控，每次推送有1/3下发失败概率进行统计

```
SQL: select count(DISTINCT(target_number)) FROM spx_plan_dashboard_tab WHERE plan_create_time >= 1648793880 and plan_create_time <= 1648861200 and push_status = 3 and plan_update_time >= 1648861200 and plan_status = 1 LIMIT 1000  
耗时: 341 ms
```

No errors, Total: 1

count(DISTINCT(target_number))

28119

推送次数	plan下发延迟时间	失败概率	备注
1	1min	1/3	
2	1min + 2min = 3min	1/9	
3	3min + 4min = 7min	1/27	
4	7min + 10min = 17min	1/81	
5	17min + 45min = 62min = 1h2min	1/243	至此开始，每45分钟推送一次
6	1h47min	1/729	
7	2h32min	1/2187	
8	3h17min	1/6561	
9	4h2min	1/19683	
10	4h47min	1/59049	
11	5h32min	1/177147	

Chassis框架依赖版本监控

针对chassis框架使用的依赖组件做一个监控统计，识别使用危险版本的应用告警更改

新增golang应用监控告警完善

针对新增golang应用监控和告警做一个统一的规范，查缺补漏

监控演练