



TEMENOS REGIONAL FORUM

Chengdu, China – 18-19 July 2019



TEMENOS
THE BANKING SOFTWARE COMPANY



| 迈向云技术

Frankie Wai

18th July 2019



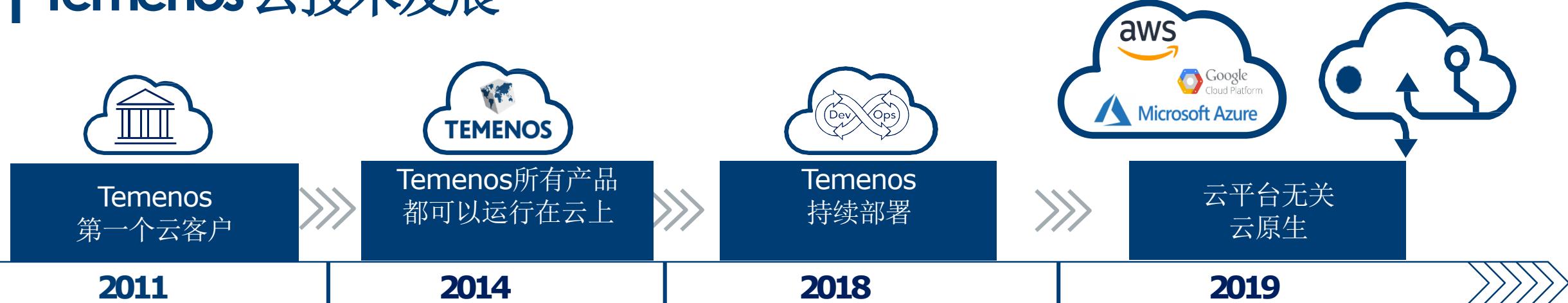
| 为什么要云?

简单

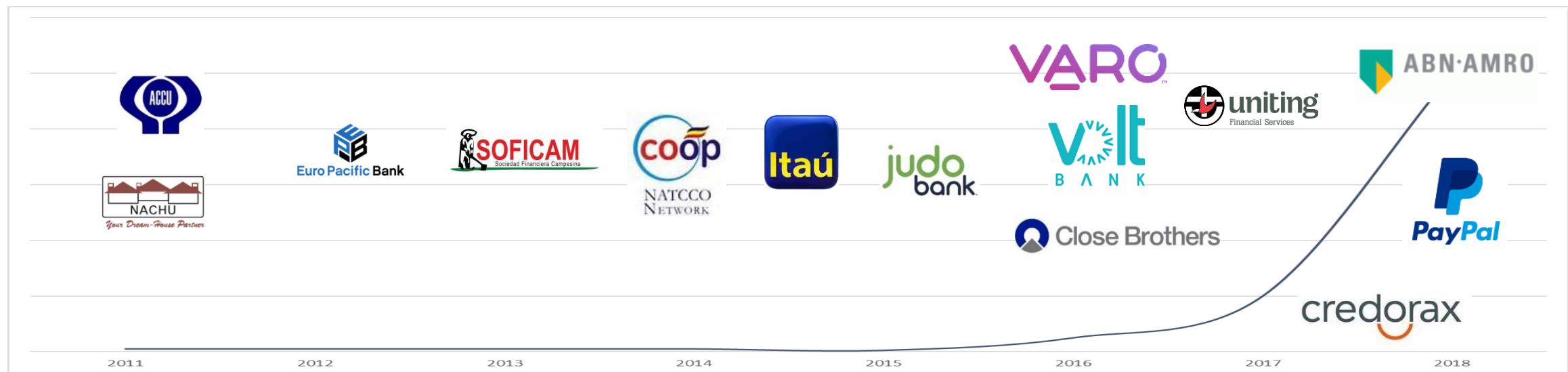
Away - More appears like less by simply moving it
far, far away

The Laws of Simplicity, John Maeda

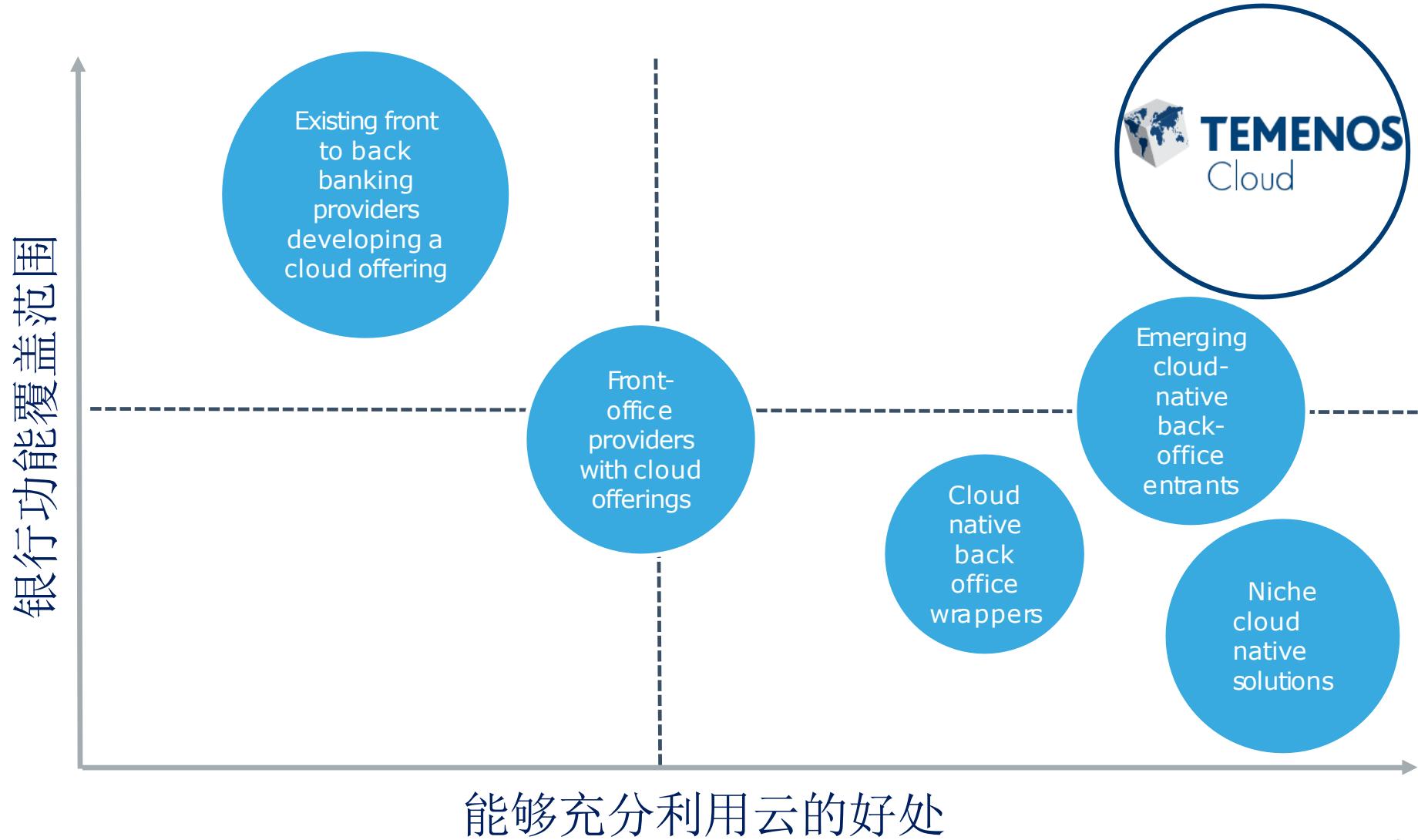
Temenos 云技术发展



Temenos积累了比其他银行软件供应商更多的云专业知识和经验



Temenos在云技术之定位



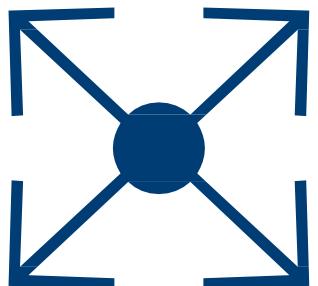
| 实际案例需求 - 香港虚拟银行



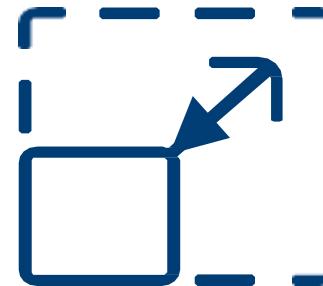
Active-Active
双活



Resilience
高可用性

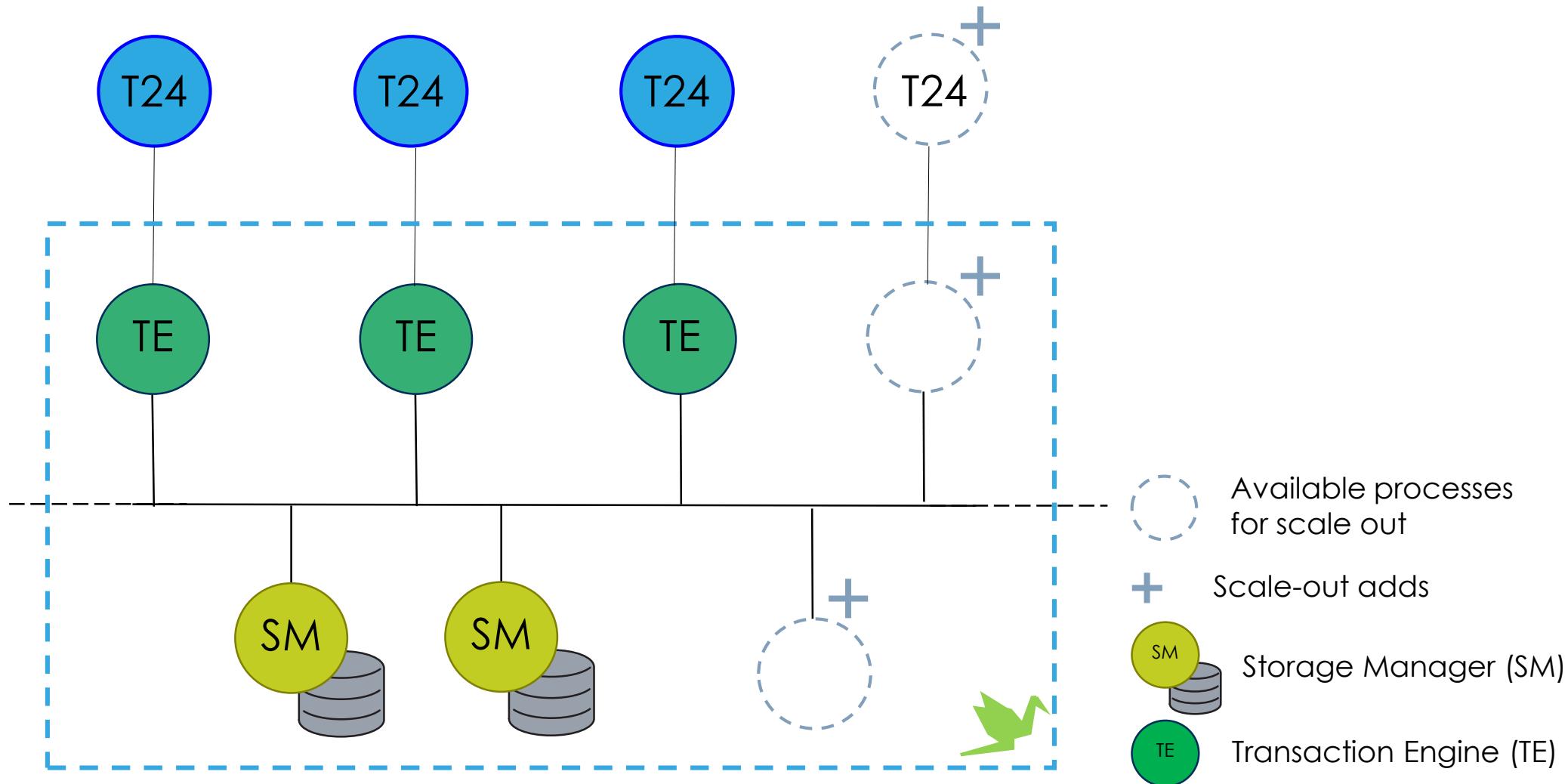


Diversified risk
分散风险

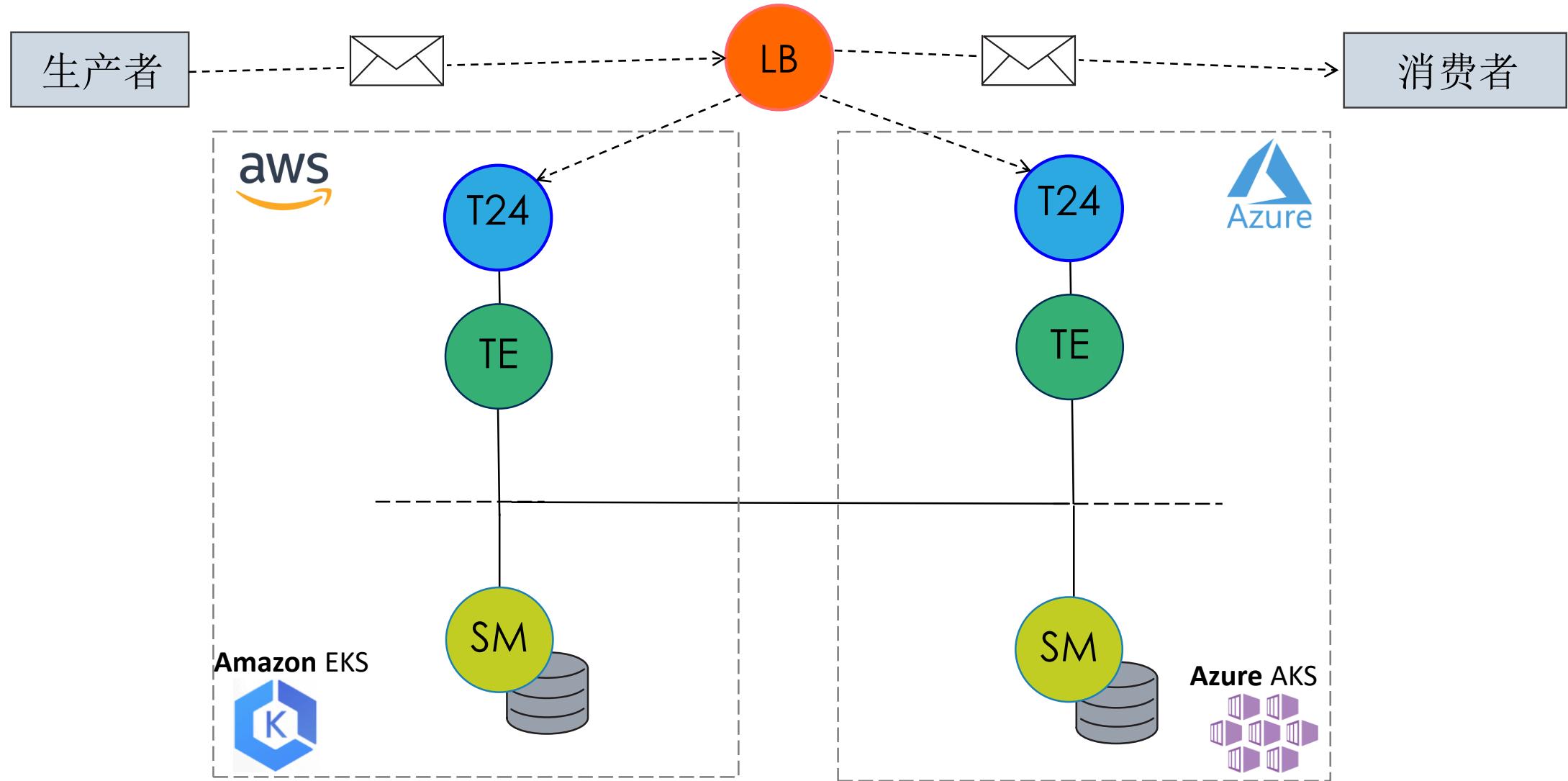


Scale on-demand
按需扩展

T24 Transact + NuoDB – 强强联合



跨不同云的部署架构



Azure 云控制台

Microsoft Azure

Search resources, services

Home > Virtual machines

Create a resource

Home Dashboard All services FAVORITES All resources Resource groups App Services Function Apps SQL databases Azure Cosmos DB Virtual machines Load balancers Storage accounts Virtual networks

Virtual machines

Temenos

Add Reservations Edit columns Refresh Assign tags Start Restart

Subscriptions: TechnologyArchitecture

Filter by name... MC_active-aks-rg_active-azure-poc_uksouth ▾ All types

7 items

<input type="checkbox"/>	NAME ↑	TYPE ↑	STATUS
<input type="checkbox"/>	aks-nodepool1-39448453-0	Virtual machine	Running
<input type="checkbox"/>	aks-nodepool1-39448453-3	Virtual machine	Running
<input type="checkbox"/>	aks-nodepool1-39448453-4	Virtual machine	Running
<input type="checkbox"/>	aks-nodepool1-39448453-5	Virtual machine	Running
<input type="checkbox"/>	aks-nodepool1-39448453-6	Virtual machine	Running
<input type="checkbox"/>	aks-nodepool1-39448453-7	Virtual machine	Running
<input type="checkbox"/>	aks-nodepool1-39448453-8	Virtual machine	Running

AWS云控制台

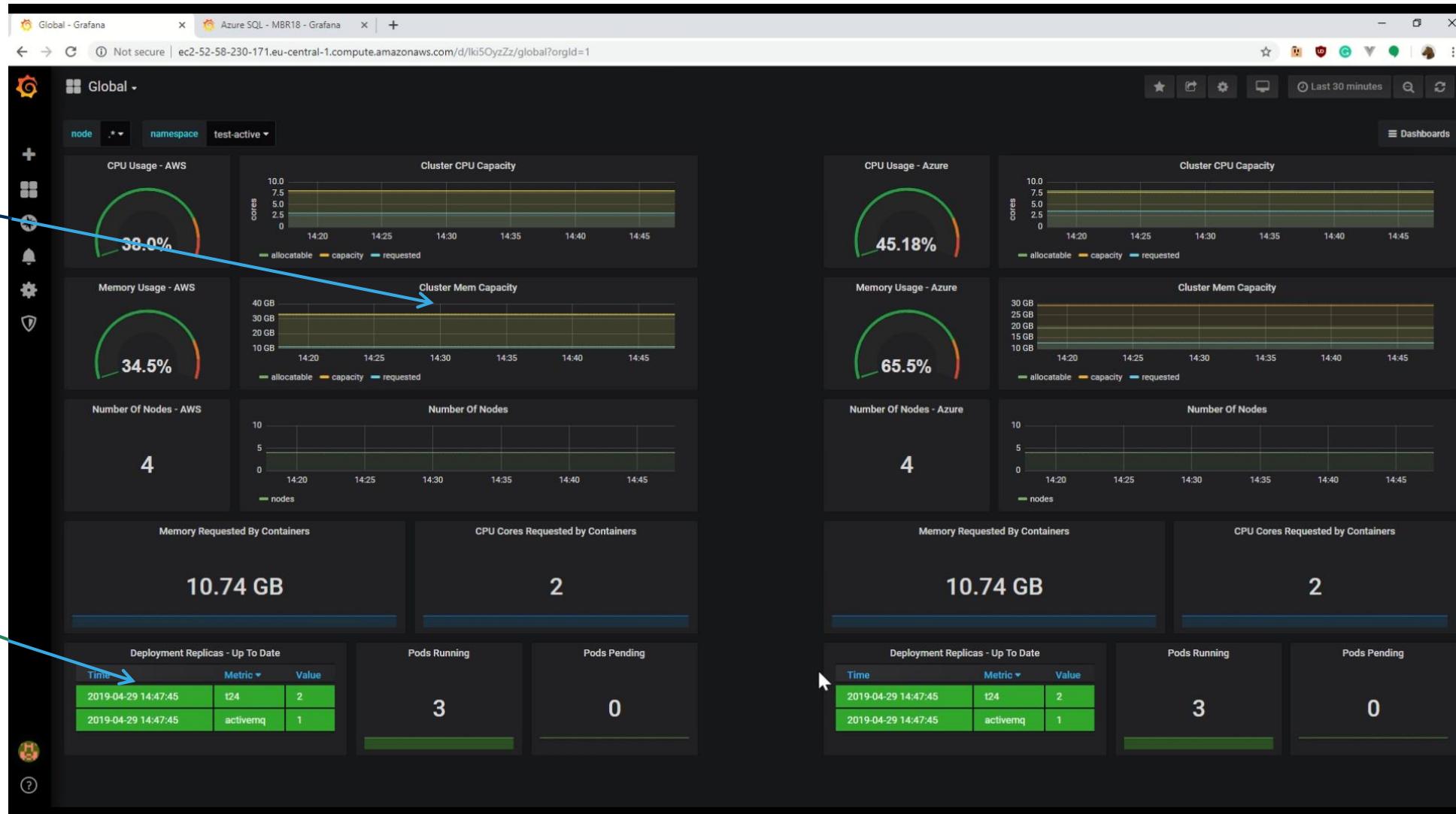
The screenshot shows the AWS Cloud Console interface. The top navigation bar includes the AWS logo, Services dropdown, Resource Groups dropdown, and a star icon. The left sidebar contains a tree view of services: Spot Requests, Reserved Instances, Dedicated Hosts, Capacity Reservations, IMAGES (AMIs, Bundle Tasks), ELASTIC BLOCK STORE (Volumes, Snapshots, Lifecycle Manager), NETWORK & SECURITY (Security Groups, Elastic IPs, Placement Groups, Key Pairs, Network Interfaces), LOAD BALANCING (Load Balancers, Target Groups), and AUTO SCALING (Launch). The main content area displays a promotional message about saving on compute costs by creating an Auto Scaling group with a launch template. Below this is a button to "Create Auto Scaling group" and an "Actions" dropdown. A search bar labeled "Filter: Filter Auto Scaling groups..." is present. A table lists an Auto Scaling Group named "active-aws-poc-worker-nodes-NodeGroup-1W75TT8UEKT9N". The table columns include Name, Launch Configuration /..., Instances, Desired, Min, and Max. The instance count is 3, desired is 3, min is 3, and max is 10. Below the table, a section titled "Auto Scaling Group: active-aws-poc-worker-nodes-NodeGroup-1W75TT8UEKT9N" shows tabs for Details, Activity History, Scaling Policies, Instances (which is selected and highlighted in orange), Monitoring, Notifications, Tags, and Scheduled Actions. An "Actions" dropdown is also present here. A second table below shows instances with columns Instance ID, Lifecycle, and Launch Configuration / Template. Three instances are listed: i-050c6d36214bfcb06, i-0c81c4c00794b89c4, and i-0e8ed2e290972596, all in the InService lifecycle state and associated with the launch configuration "active-aws-poc-worker-nodes-NodeLaunchConfig-XNPTZS0M4TAH".

Name	Launch Configuration /...	Instances	Desired	Min	Max
active-aws-poc-worker-nodes-NodeGroup-1W75TT8UEKT9N	active-aws-poc-worker-...	3	3	3	10

Instance ID	Lifecycle	Launch Configuration / Template
i-050c6d36214bfcb06	InService	active-aws-poc-worker-nodes-NodeLaunchConfig-XNPTZS0M4TAH
i-0c81c4c00794b89c4	InService	active-aws-poc-worker-nodes-NodeLaunchConfig-XNPTZS0M4TAH
i-0e8ed2e290972596	InService	active-aws-poc-worker-nodes-NodeLaunchConfig-XNPTZS0M4TAH

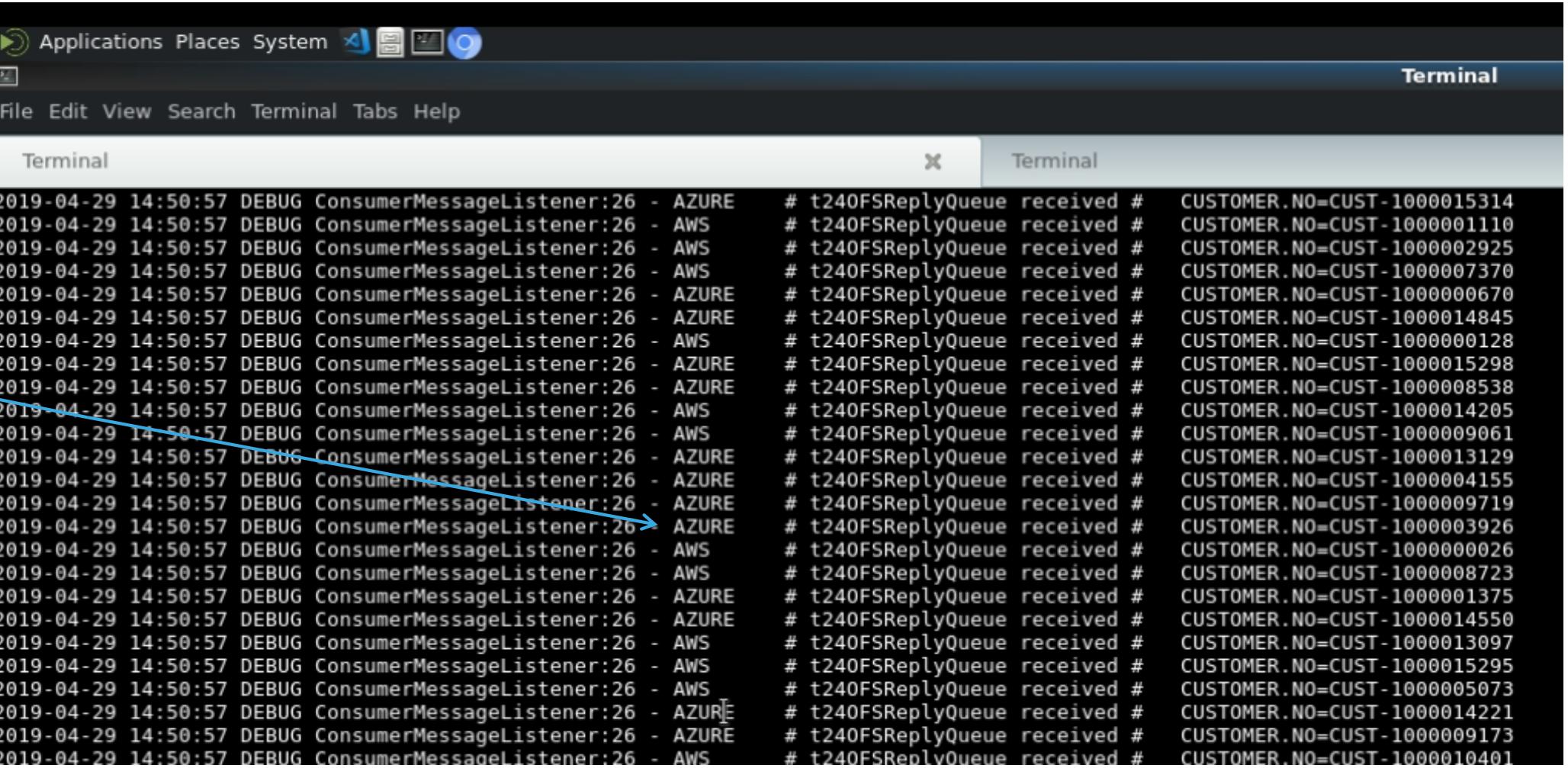
AWS和Azure集群集中管理仪表盘

集群能力



集群健康状态

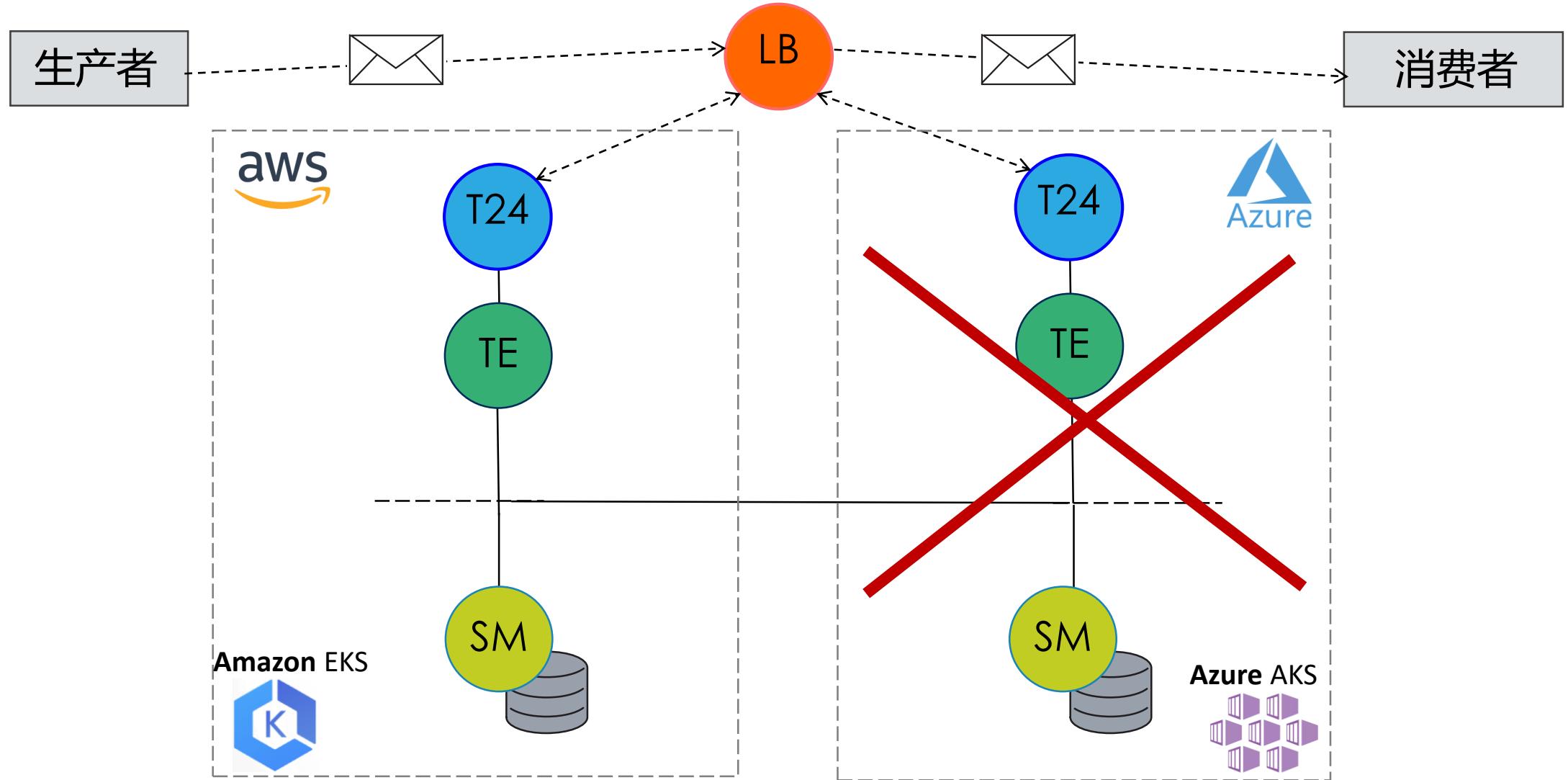
多集群运行在AWS和Azure上



```
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AZURE # t240FSReplyQueue received # CUSTOMER.NO=CUST-1000015314
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AWS # t240FSReplyQueue received # CUSTOMER.NO=CUST-100001110
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AWS # t240FSReplyQueue received # CUSTOMER.NO=CUST-100002925
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AWS # t240FSReplyQueue received # CUSTOMER.NO=CUST-100007370
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AZURE # t240FSReplyQueue received # CUSTOMER.NO=CUST-100000670
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AZURE # t240FSReplyQueue received # CUSTOMER.NO=CUST-1000014845
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AWS # t240FSReplyQueue received # CUSTOMER.NO=CUST-100000128
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AZURE # t240FSReplyQueue received # CUSTOMER.NO=CUST-1000015298
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AZURE # t240FSReplyQueue received # CUSTOMER.NO=CUST-1000008538
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AWS # t240FSReplyQueue received # CUSTOMER.NO=CUST-1000014205
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AWS # t240FSReplyQueue received # CUSTOMER.NO=CUST-1000009061
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AZURE # t240FSReplyQueue received # CUSTOMER.NO=CUST-1000013129
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AZURE # t240FSReplyQueue received # CUSTOMER.NO=CUST-1000004155
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AZURE # t240FSReplyQueue received # CUSTOMER.NO=CUST-1000009719
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AZURE # t240FSReplyQueue received # CUSTOMER.NO=CUST-1000003926
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AWS # t240FSReplyQueue received # CUSTOMER.NO=CUST-1000000026
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AWS # t240FSReplyQueue received # CUSTOMER.NO=CUST-1000008723
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AZURE # t240FSReplyQueue received # CUSTOMER.NO=CUST-1000001375
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AZURE # t240FSReplyQueue received # CUSTOMER.NO=CUST-1000014550
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AWS # t240FSReplyQueue received # CUSTOMER.NO=CUST-1000013097
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AWS # t240FSReplyQueue received # CUSTOMER.NO=CUST-1000015295
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AWS # t240FSReplyQueue received # CUSTOMER.NO=CUST-1000005073
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AZURE # t240FSReplyQueue received # CUSTOMER.NO=CUST-1000014221
2019-04-29 14:50:57 DEBUG ConsumerMessageListener:26 - AZURE # t240FSReplyQueue received # CUSTOMER.NO=CUST-1000009173
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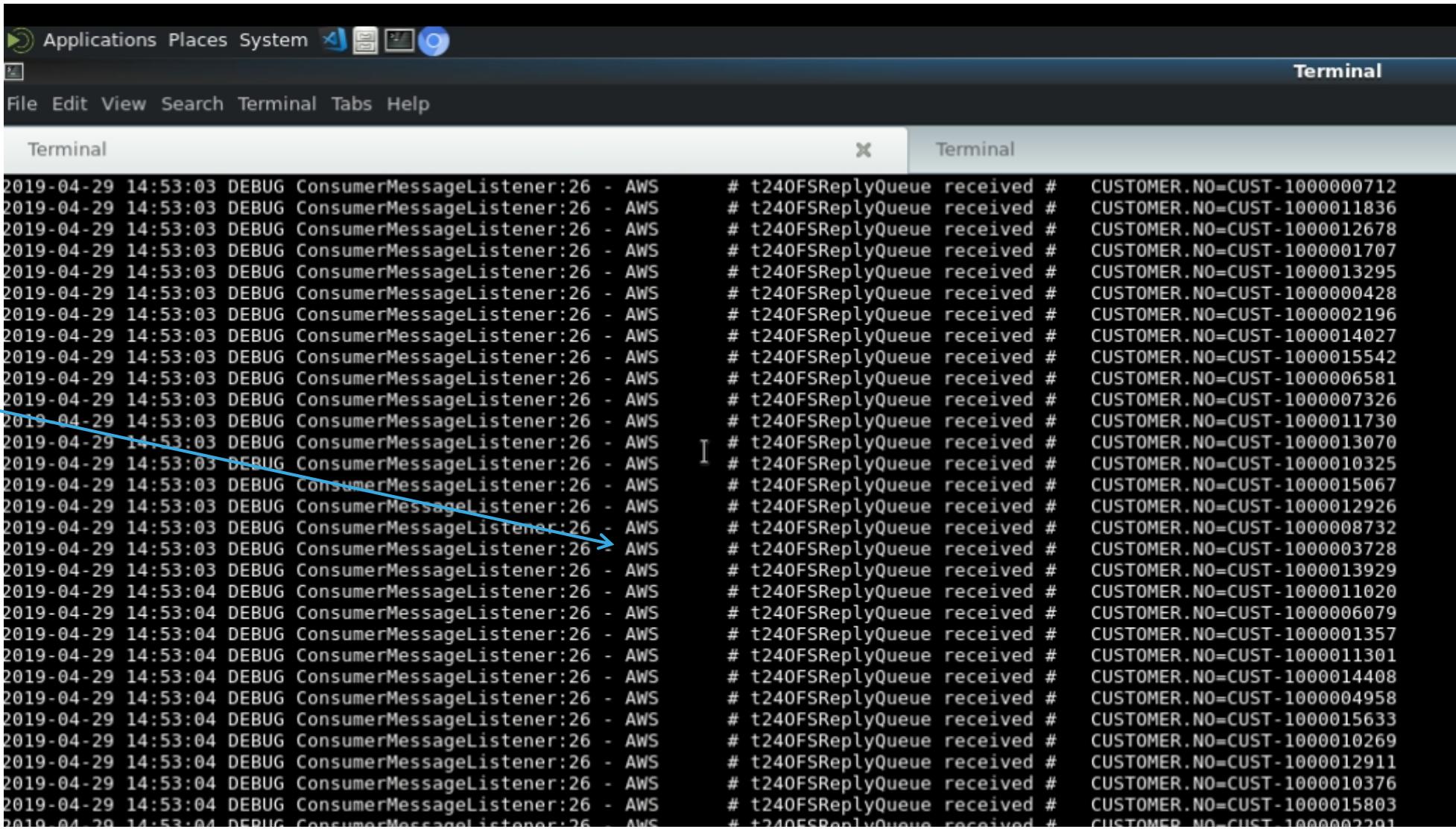
所有的集群
都在工作

集群故障 - 关掉Azure节点

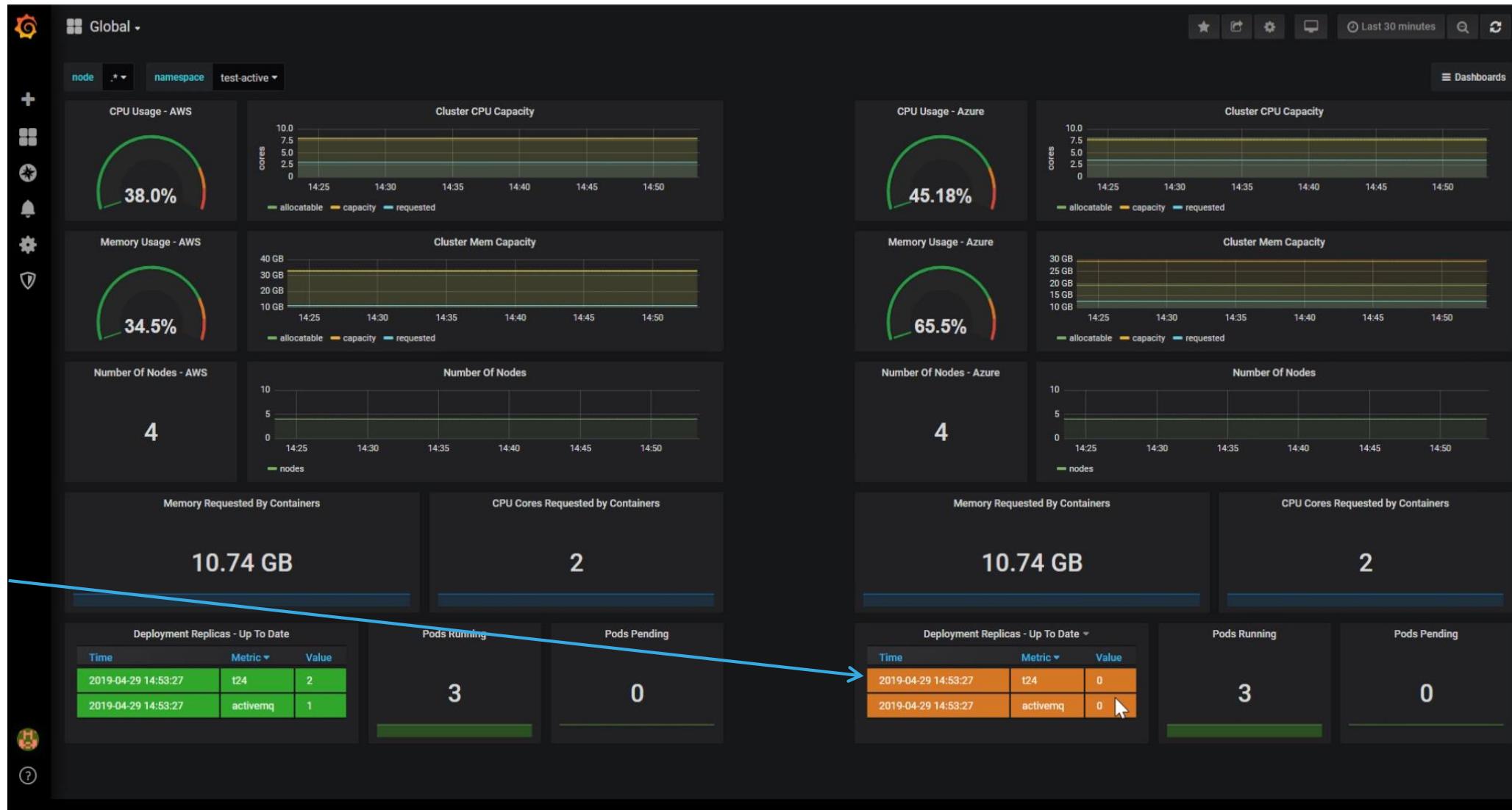


只有一个集群在运行

只有AWS 集群在运行

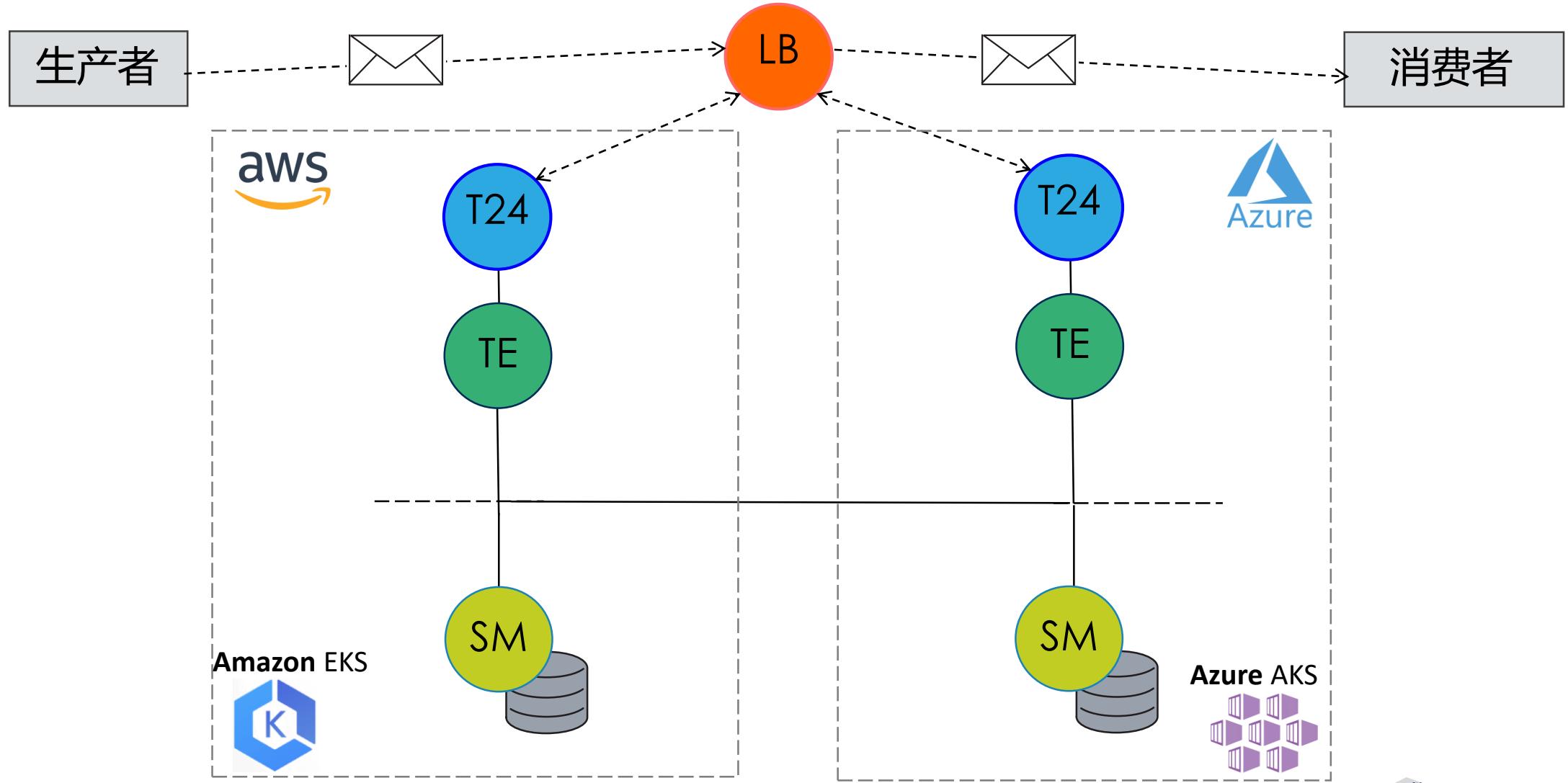


检查仪表盘



Azure
集群状态是
停机

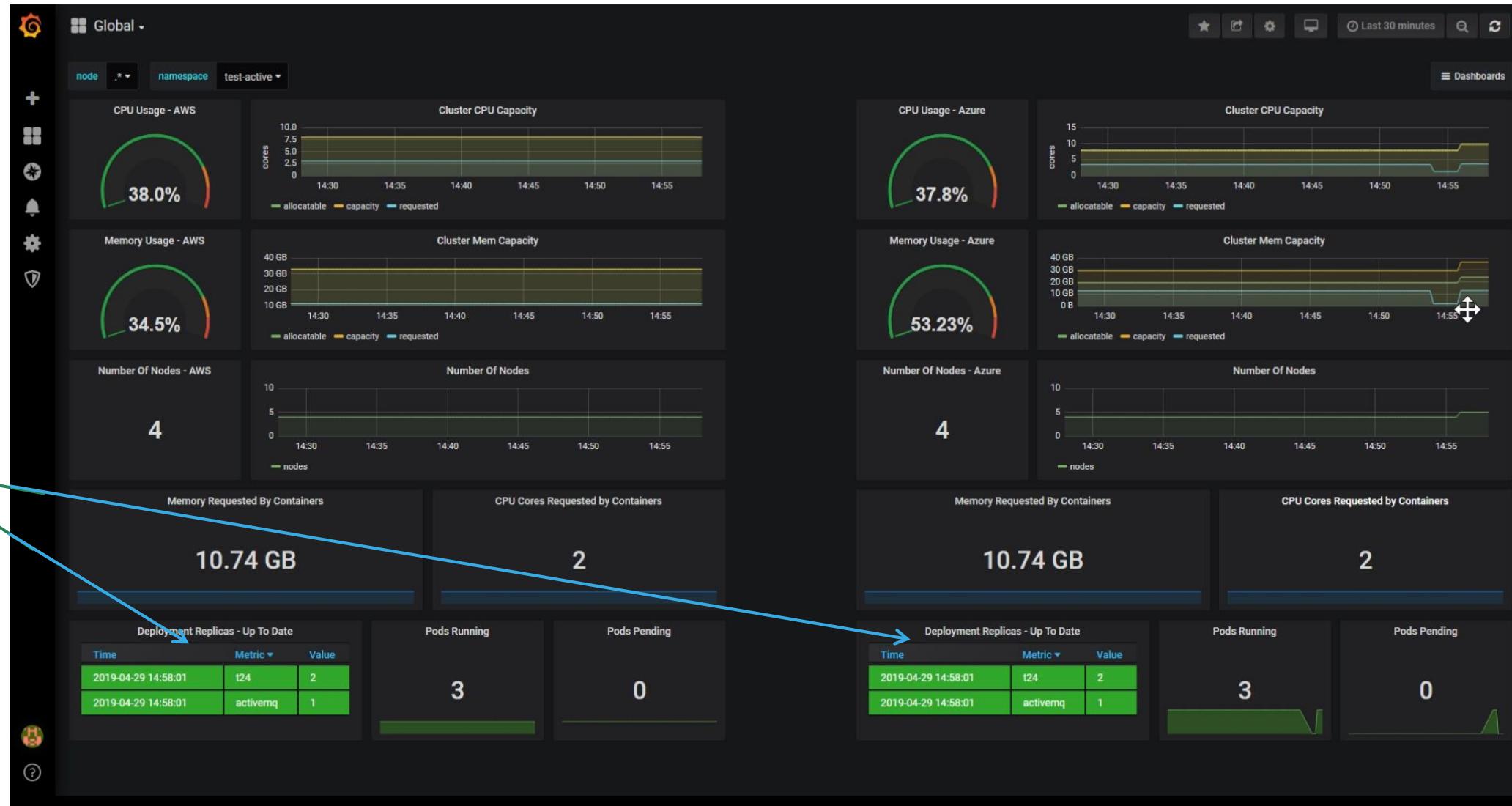
| 恢复 - 重起Azure节点



集群完全恢复

所有的集群都
在运行状态

系统恢复



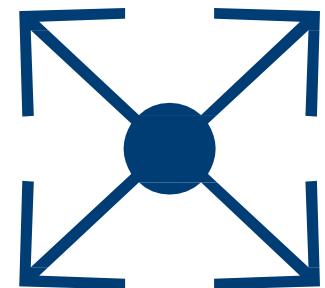
所有集群都
在运行

如何实现需求



Active-Active
双活

Distributed database
分布式数据库



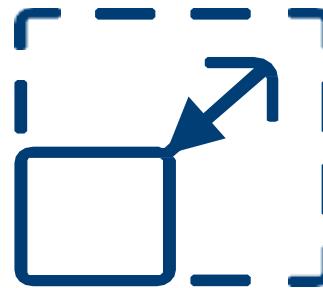
Diversified risk
分散风险

Multi-clouds
同时使用多个云厂商



Resilience 高可用性

Automated recovery
自动恢复



Scale on-demand
按需扩展

Optimized utilization
高效的利用率

Thank You

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