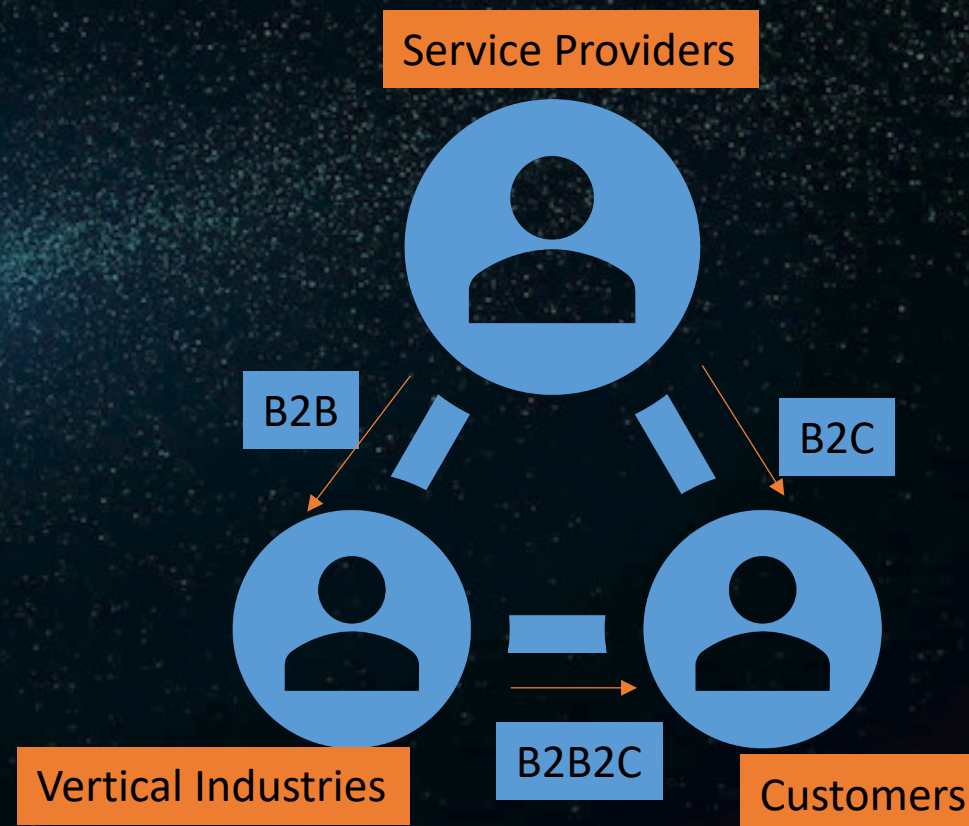
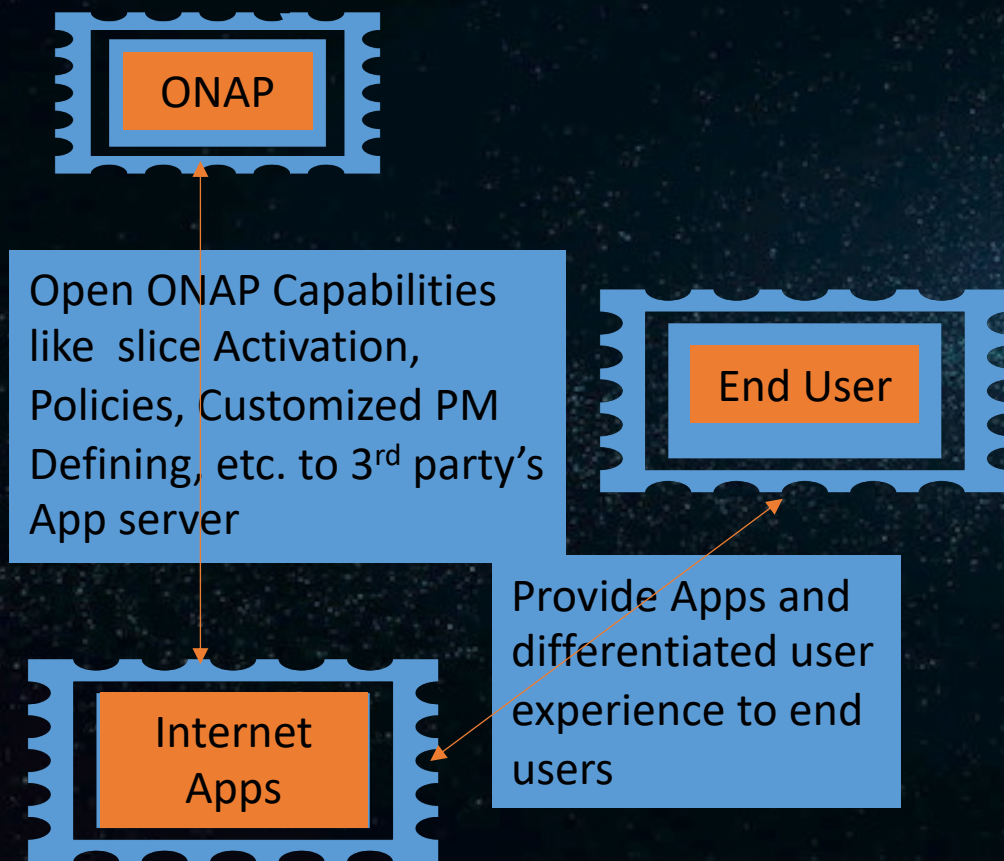


Application Oriented On-demand 5G Slice Service Provisioning by ONAP

Business Pattern



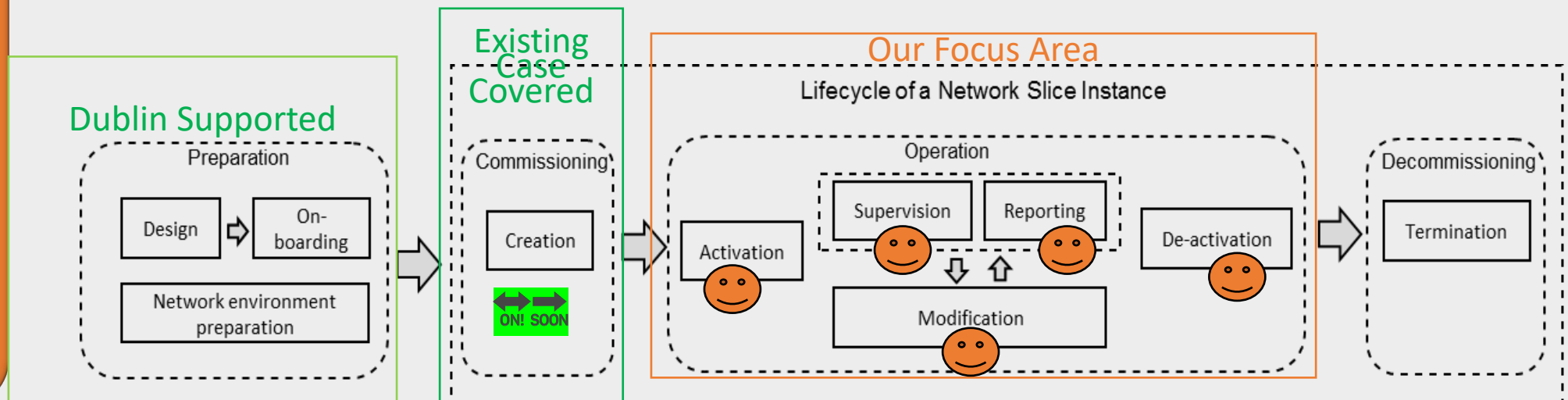


User Story

The internet companies, eg: Tencent, have the need to buy **on-demand 5G service**.

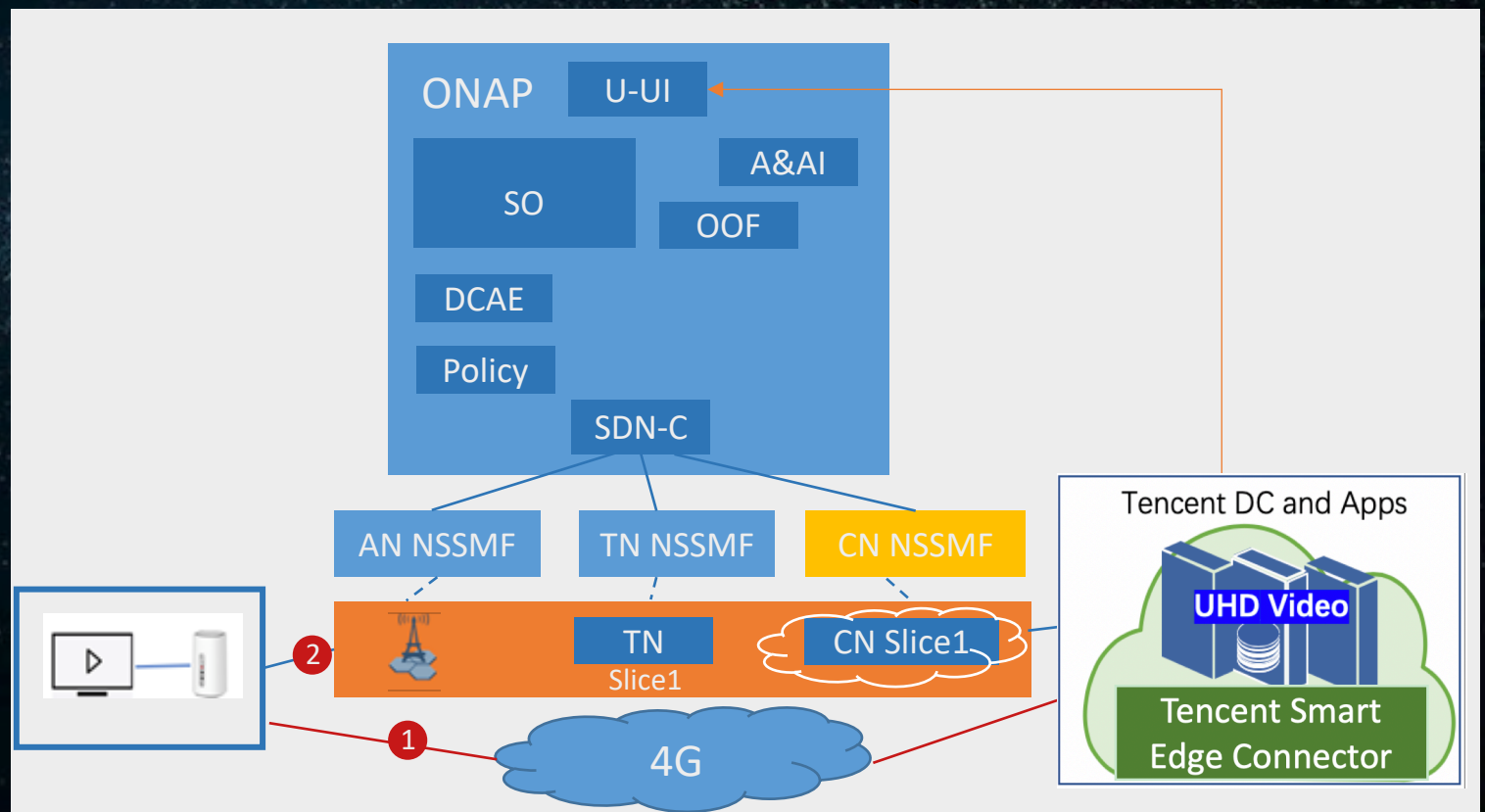
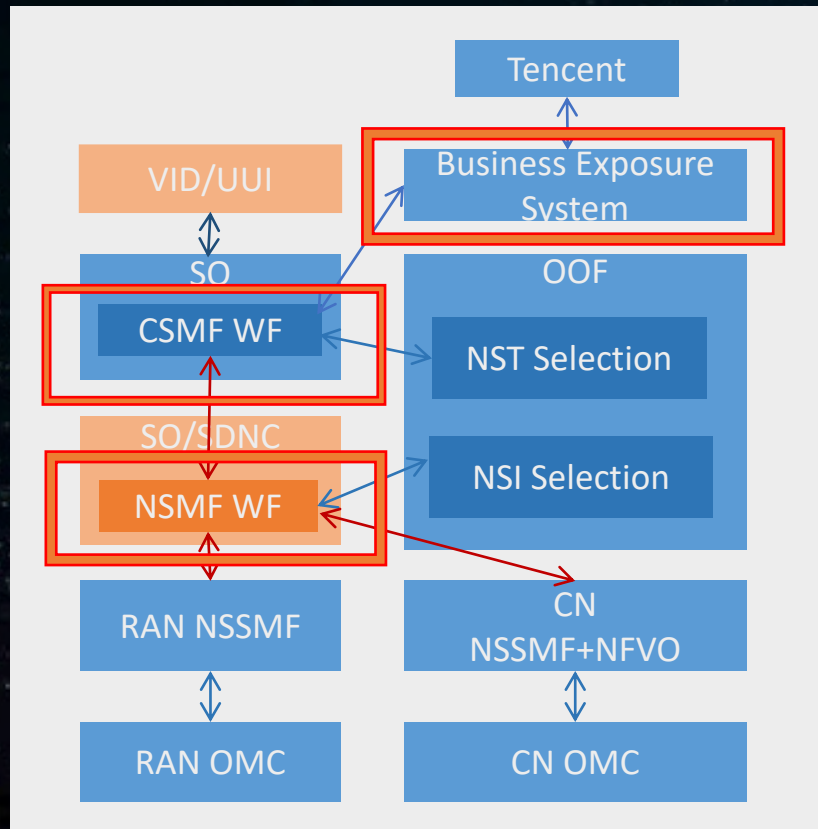
1. They only want 5G service to be provided *in hot spot and some specific time period* instead of keeping it alive all the time.
2. They have the demand to *divide their App users to different slices* according to their VIP level and the slice SLA.
3. They want to *monitor and measure the slice performance* based on their rules.

User Case Realization



Architecture

1. Provide an implementation reference of CSMF and Business Exposure Platform within ONAP
2. Provide an implementation reference of NSMF within ONAP and a decouple solution of NSMF and NSSMF by ONAP connecting NSSMF from different vendor and different domain.
3. Open ONAP abilities to 3rd Parties.





1. 3rd Party Order Slice Service



2. End Users Use App under 4G



4. End Users Use App under **5G**



5. 3rd Party Monitor
Slice Service KPI



3. 3rd Party Provide
Time-based Slice
Activation Policy



1. 3rd Party Order Slice Service



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Activation Policy



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Slice Service KPI

命令提示符 - ping 192.168.11.114 -t

```
来自 192.168.11.114 的回复: 字节=32 时间=171ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=286ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=404ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=539ms TTL=61  
请求超时。  
来自 192.168.11.114 的回复: 字节=32 时间=1695ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=788ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=599ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=576ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=678ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=179ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=529ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=151ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=521ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=667ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=169ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=476ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=250ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=189ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=163ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=175ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=180ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=156ms TTL=61  
来自 192.168.11.114 的回复: 字节=32 时间=164ms TTL=61
```



65°C
CPU温度

100%

13:06
2019-09-18



1. 3rd Party Order Slice Service



2. End Users Use App under 4G



4. End Users Use App under **5G**



5. 3rd Party Monitor
Slice Service KPI



3. 3rd Party Provide
Time-based Slice
Activation Policy

[Create Slice](#)[Slice Update](#)[Create Slice User](#)[Slice User Update](#)

SliceActive

Id	Name	Level	Type	Area	User	App			
4	testService	STANDARD	EMBB	beijing tianjin	18810326514	testapp1	activate	status	delete



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Time-based Slice
Activation Policy

localhost

Create Slice | **Slice Update** | Create Slice User | Slice User Update | Sign out

Create Slice

Slice Update

Create Slice User

Slice User Update

示菜单

SliceActive		
Id	Name	Level
2	testService	STANDARD

Slice Status

User Number

0

Usage of Bandwith

0

Health Status

Healthy

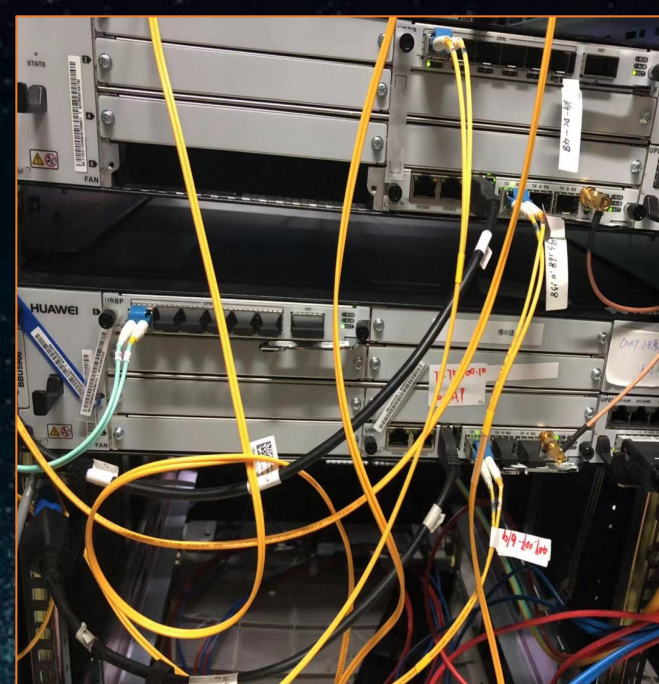
Total Flow of the Slice

0

Close

App	
339001	app1

activate status delete



Lab Environment

1. Customized E2E Slice Service Monitoring

Provide the customized slice PM function as a **Micro service**:
Provide a general manner for slice consumers to define customized Slice performance measurement and generate the KPI result according to user's definition.
(Business Exposure Platform + NSMF)

2. Slice Service Change

3rd party modify service order when demands change, eg:
maxNumberOfUEs, coverageAreaTAL. (CSMF)
ONAP will update the slice service by updating NSI according to the new Service Profile. (NSMF)

3. User-Slice Allocation Policy Configuration

App server provides the mapping relation between the end users and the slices to ONAP via Business Exposure Platform according to their VIP level and slice SLA, ONAP then will process the mapping relation and configure the allocation policy via PCF. (Business Exposure Platform)

Follow-ups In ONAP

Thanks!