

# Use Case and Requirement for SRv6 enhancement techniques in cloud

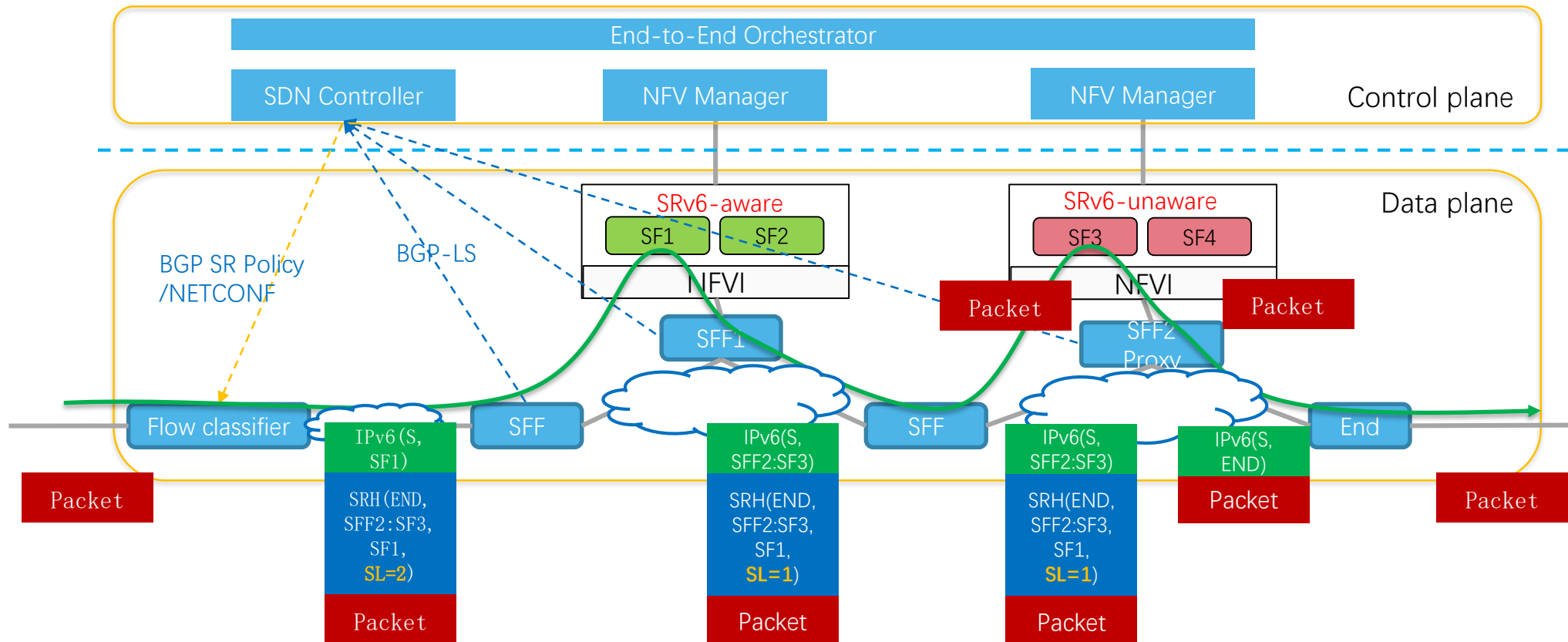
draft-he-yi-srv6ops-ipv6-enhancemnet-in-cloud-uc-00

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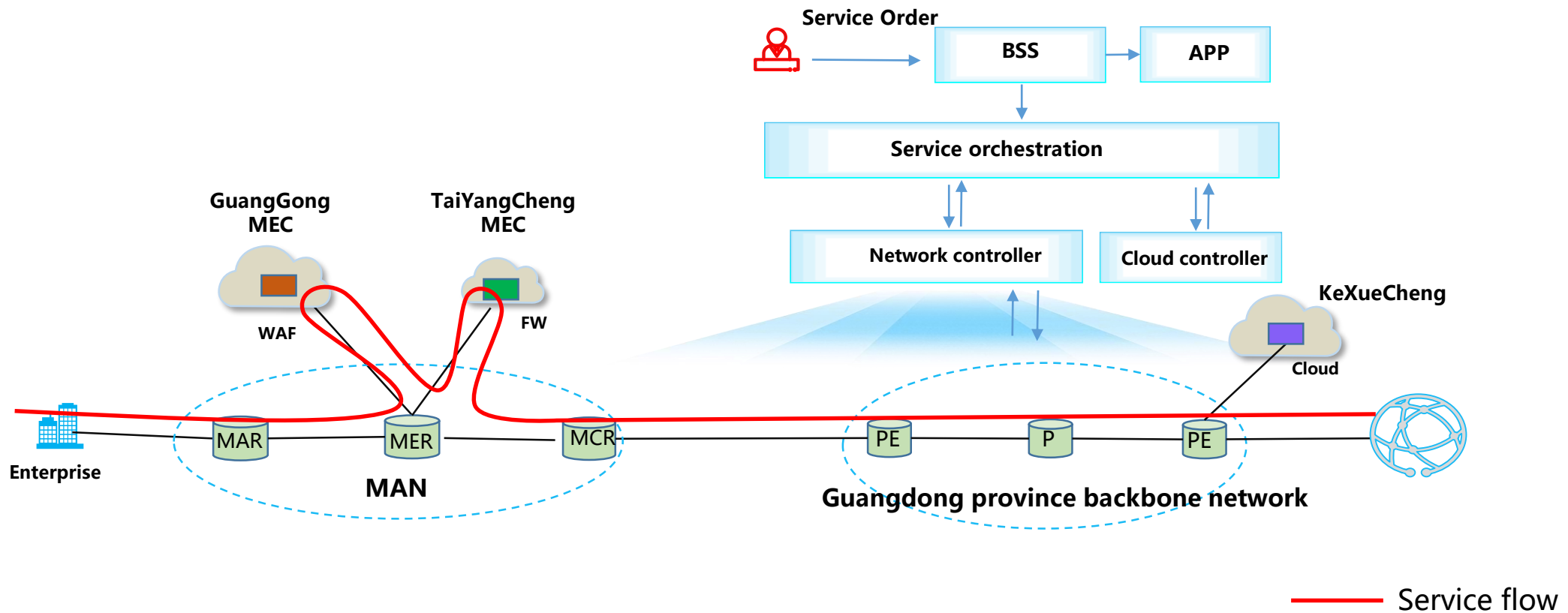
# Typical Scenario

- On the basis of SRv6 private line, add value-added service functions.



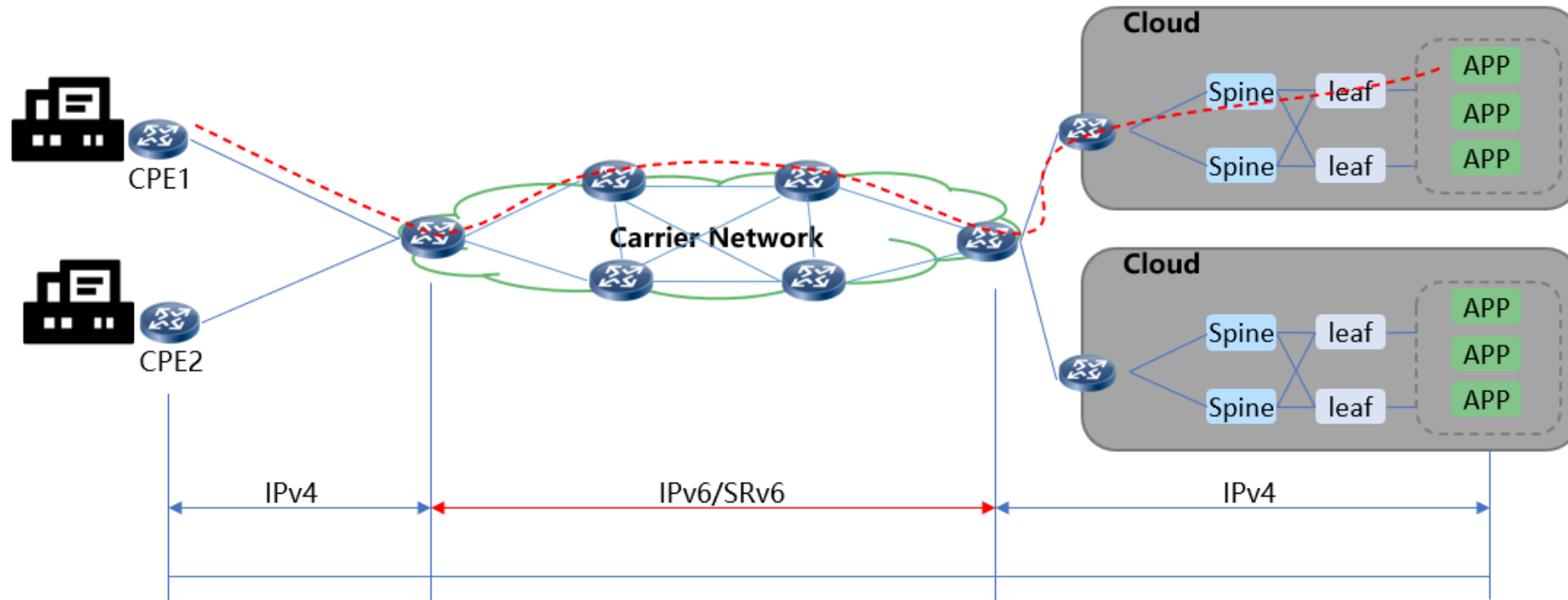
# China Unicom has completed network deployment operations

- Example: Using SRv6-based service function chain to deploy a secure private line product in Guangdong Province, China



# Problems with SRv6 cloud access line

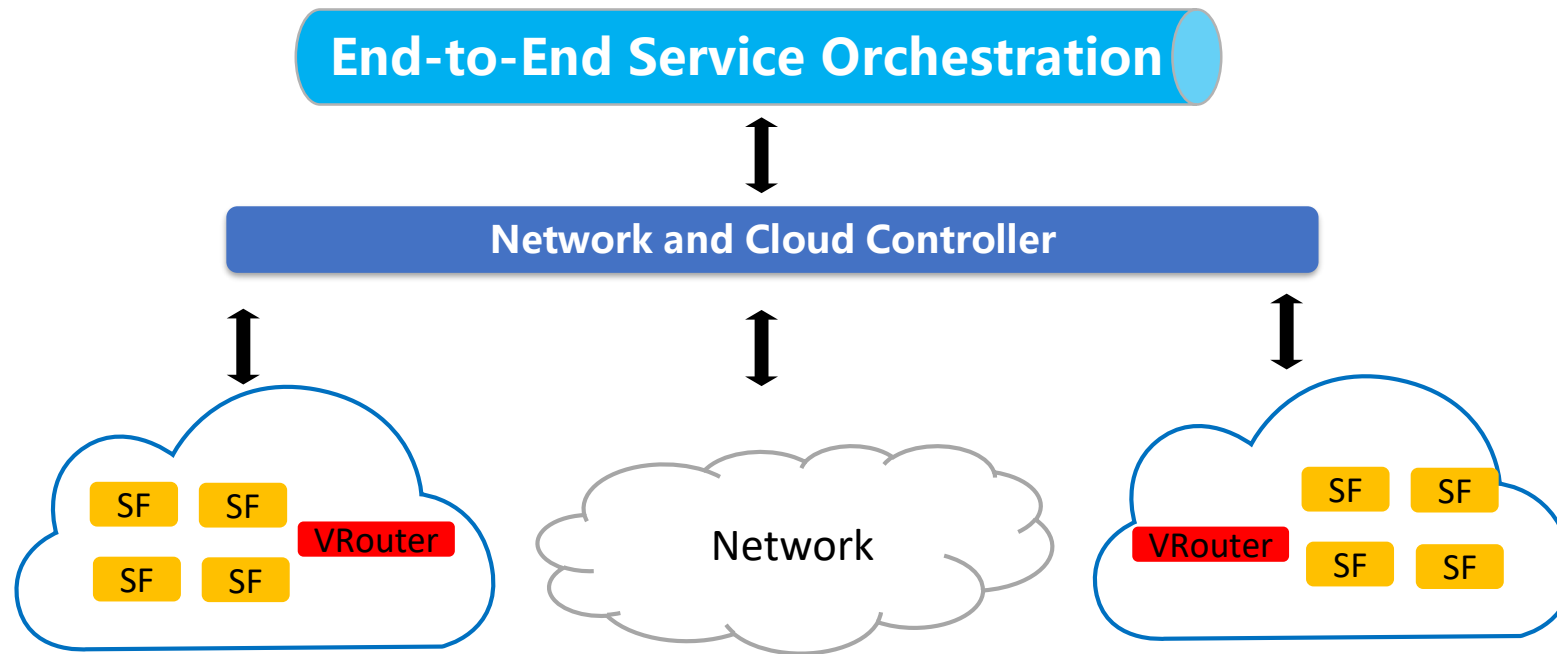
- IPv6/SRv6 protocol has not been achieved to end-to-end deployment



# End-to-end service deployment is difficult

1. Private line services based on SRv6 service function chain, and out-of-cloud agents will affect service efficiency
2. The private line service based on SRv6 cannot realize the flow detection between the cloud and the network, which affects the accuracy of the performance detection results

# Consider providing virtual router in cloud



# Scenario 1: SRv6-based Service Function Chain

## Problems

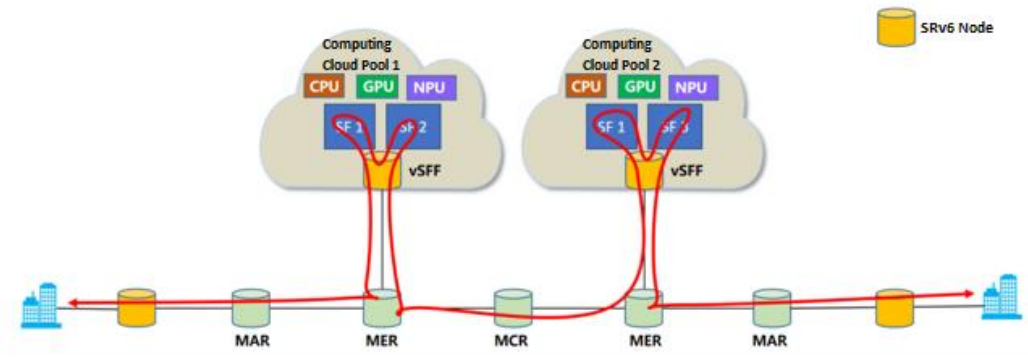
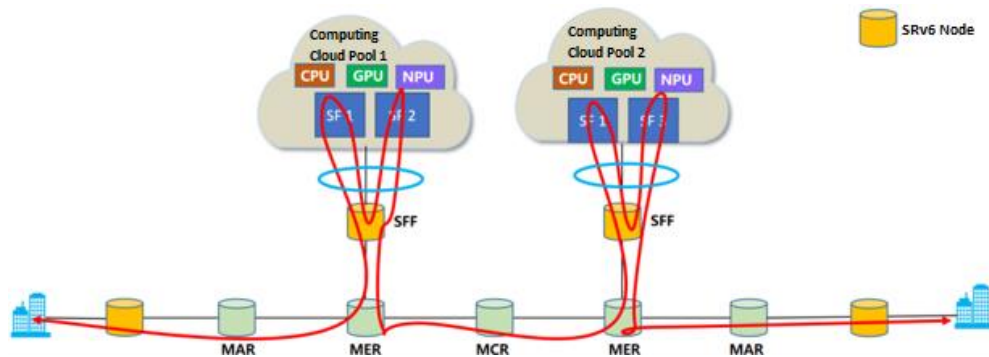
In the scenario of enterprise private line superimposed value-added services, when SF in the cloud does not support SRv6, SFC capability needs to be realized through SFC Proxy. In the traditional solution, there are two bottlenecks:

- ❑ The intercloud traffic increases exponentially with the increase of SF on the SFC.
- ❑ The live network hardware does not have the SFC Proxy capability, and the upgrading period is too long.

## Solutions

The virtual deployment of vSFF with SFC Proxy capability in the cloud enables SRv6 to enter the cloud to solve specific problems:

- ❑ Significantly reduce the intercloud network flow under multi-SF condition;
- ❑ Rapid deployment in SFC Unaware mode, shortens the transformation period;



# Scenario 2: End-to-end On-stream Detection Based IPv6/SRv6

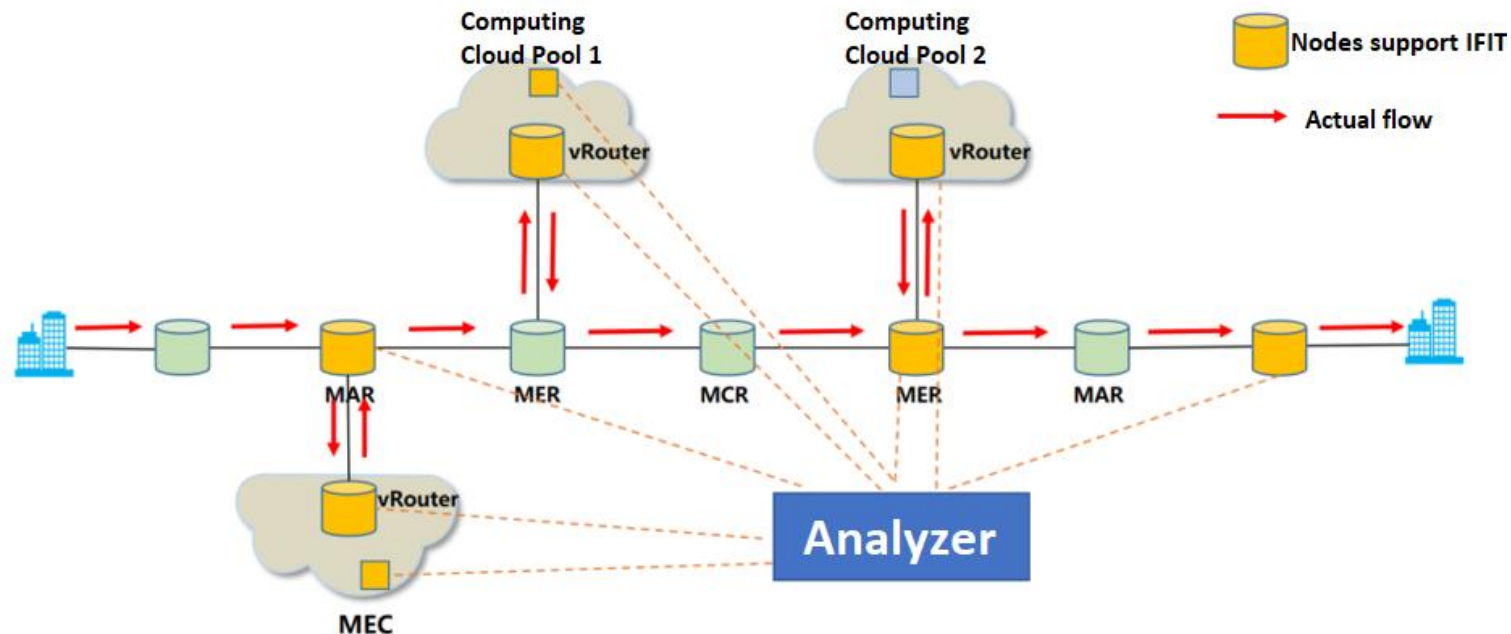
## Problems

The traditional network performance detection can only realize the monitoring of the bearer network. With the gradual development of cloud network integration, the application in the cloud increases, and the performance between cloud networks also has an important impact on the choice of network path.

## Solutions

A virtual service gateway with the on-stream detection capability is deployed in the cloud to implement the following functions:

- ❑ Performance detection of intercloud traffic;
- ❑ Report the performance test data to the analyzer;





# Consider providing virtual router in cloud

- ❑ **Scheduling of cloud network collaboration:** A vRouter with the SFC Proxy capability is virtualized in the cloud to implement SRv6 into the cloud and improve scheduling capabilities and cloud value-added service capabilities in cloud network collaborative scenarios
- ❑ **Measurement of cloud network collaboration:** Through the development and deployment of "IPv6+" vRouter, and the innovation of IOAM technology, the end-to-end high-precision performance measurement of cloud network collaboration services can be achieved to solve the key problems of cross-domain demarcation

- We will strive to make SRv6 applications more and more widely deployed and create more value
- Thank you for listening