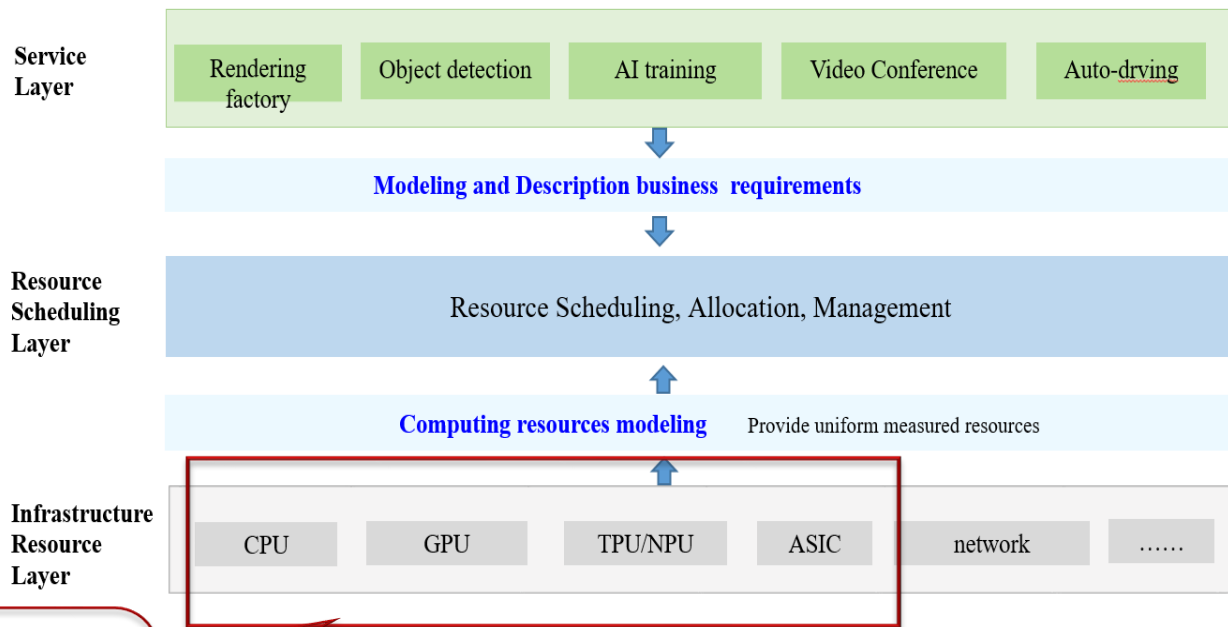


Computing and Networking Metrics

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Computing and Networking Metrics



Computing resource

- Various types
- Useful for different operations

Typical computing and networking metrics

■ Computing metrics

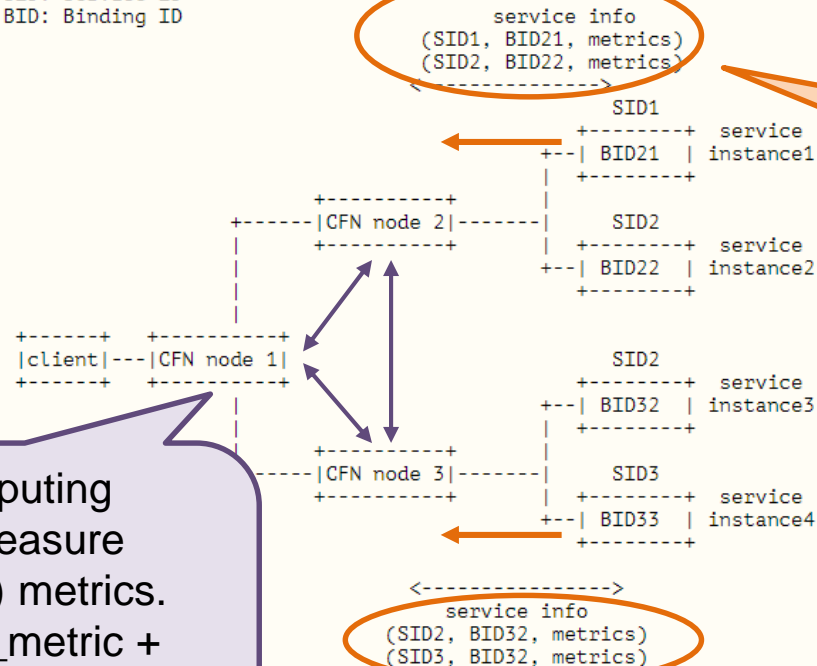
- CPU utilization
- GPU utilization
- Job completion time
- Number of connections / capacity

■ Networking metrics

- Path latency
- Path bandwidth

An example to represent the computing load information

SID: Service ID
BID: Binding ID



Use the job completion time at 75th percentile as computing metrics. Update to CFN node

Exchange computing metrics, and measure network (delay) metrics. $W_1 * \text{computing_metric} + W_2 * \text{network_metric}$ to select the best edge

Requirements to CFN-dyncast on metrics representation

- Able to carry an integrated computing metric, could be single value
 - $W_1 * \text{computing_metric} + W_2 * \text{network_metric}$
- Preferably flexible to be extended to carry multi-dimensional computing metrics, could be key-value pairs

key	value
CPU utilization	
GPU utilization	
# of connection/max	
Job completion time	

THANK YOU!