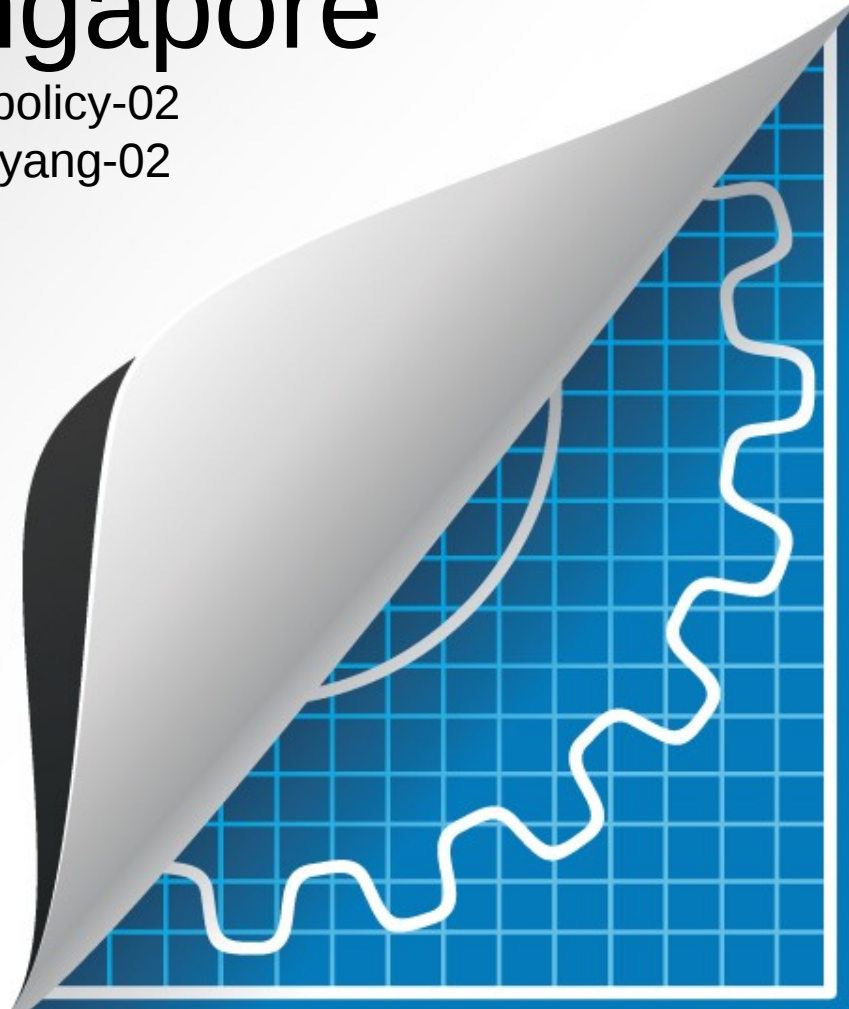


# DetNet QoS

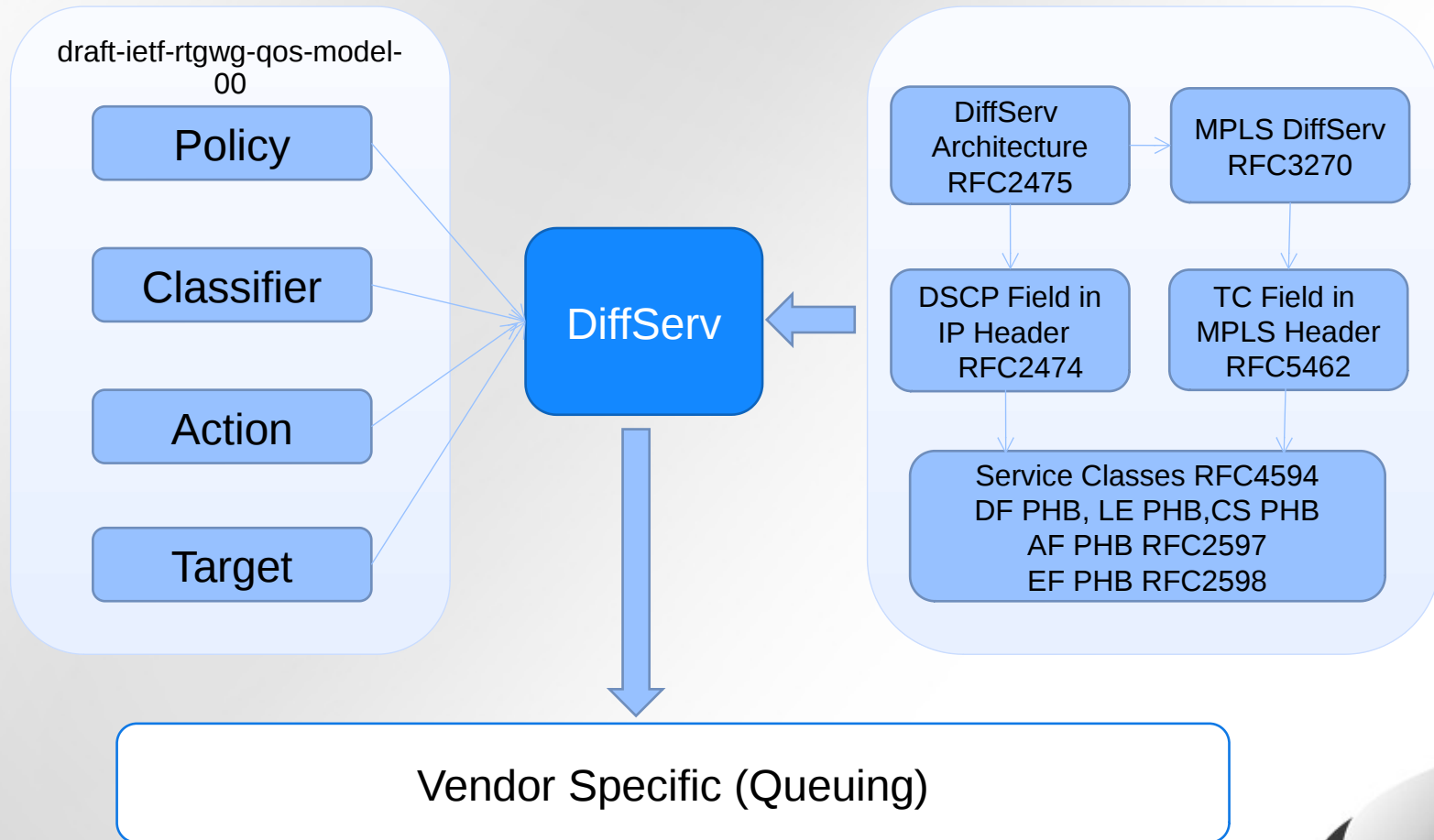
## IETF 106, Singapore

draft-xiong-detnet-qos-policy-02  
draft-xiong-detnet-qos-yang-02

Quan Xiong, ZTE  
Peng liu, CMCC  
Fengwei Qin, CMCC

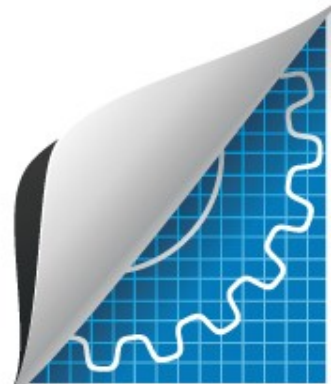


# IETF QoS



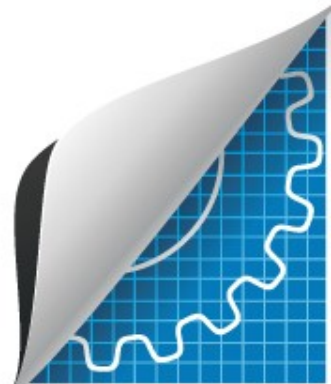
# DetNet QoS Requirements

- RFC8655
  - DetNet and non-DetNet flows could coexist with existing Class of Service schemes
  - DetNet flows **MUST** be differentiated from non-DetNet traffic
  - Non-DetNet traffic can not disrupt the DetNet flows
  - DetNet flows can be shaped or scheduled
  - The aggregation of DetNet flows must be supported
  - More others ...



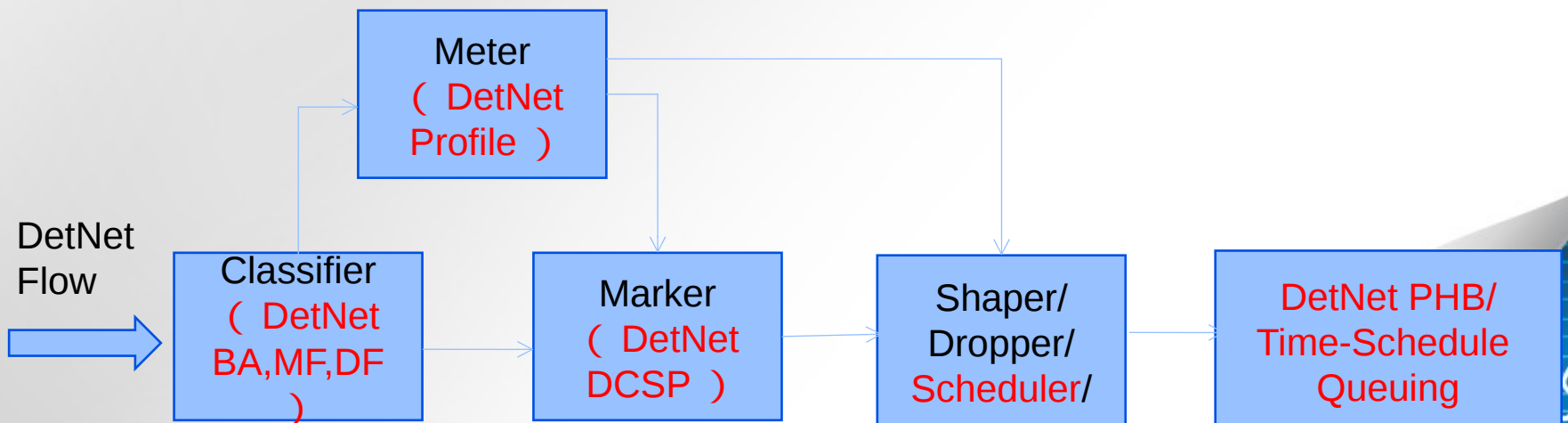
# Recap of DetNet QoS

- **draft-xiong-detnet-qos-policy-02**
- Apply Differentiated Services (DiffServ) and QoS model in DetNet and define a DetNet DiffServ mechanism including DetNet IP and MPLS encapsulation.
  
- **draft-xiong-detnet-qos-yang-02**
- Define a YANG data model for DetNet DiffServ Qos.
  - DetNet QoS Tree Structure
  - DetNet QoS Module



# DetNet DiffServ Model

- DetNet Classifiers
  - Behavior Aggregate (BA) /Multi-Field (MF) /DetNet Flow (DF)
- DetNet DSCP:
  - DetNet IP DSCP
  - DetNet MPLS DSCP
- DetNet Traffic Conditioners
  - Meter(DetNet Profile)/Marker/Shaper/Dropper/Scheduler
- DetNet Per-hop Behavior (PHB)
  - DetNet PHB(DN service class)
- DetNet Queuing
  - Time-Schedule Queuing



# DetNet QoS Tree Structure

module: ietf-detnet-qos

+--rw detnet-qos-policies

+--rw detnet-policy-template\* [detnet-policy-name]

+--rw detnet-policy-name string

+--rw detnet-policy-type? detnet-policy-type

+--rw detnet-classifier-template\* [detnet-classifier-name]

+--rw detnet-classifier-name string

+--rw detnet-classifier-type? detnet-classifier-type

+--rw (classifier-type)?

| +--:(ba)

| | +--rw (encapsulation-type)?

| | +--:(MPLS)

| | +--:(IP)

| +--:(mf)

| +--rw (encapsulation-type)?

| +--:(MPLS)

| +--:(IPv4)

| +--:(IPv6)

+--rw detnet-action\* [detnet-action-type]

+--rw detnet-action-type detnet-action-type

+--rw (actions)?

+--:(meter)

+--:(marker)

+--:(shaper)

+--:(dropper)

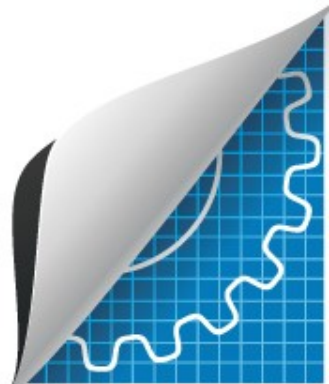
+--:(Scheduler)

|  |  |                  |                |
|--|--|------------------|----------------|
|  |  | +--rw phb-class? | qos-phb-classC |
|  |  | +--rw tc-value   | uint8          |
|  |  | +--rw s-label?   | uint32         |

|  |  |                                 |                   |
|--|--|---------------------------------|-------------------|
|  |  | +--rw phb-class?                | qos-phb-class     |
|  |  | +--rw dscp-value                | uint8             |
|  |  | +--rw ipv4-source-address?      | inet:ipv4-address |
|  |  | +--rw ipv4-destination-address? | inet:ipv4-address |
|  |  | +--rw protocol-ID?              | uint8             |
|  |  | +--rw source-port-numbers?      | inet:port-number  |
|  |  | +--rw destination-port-numbers? | inet:port-number  |

# Next Steps

- More work and contributions
- Comments and discussions



# Thanks!

BIER Resilience

