

QoE Assurance for Enterprise Video Conferencing

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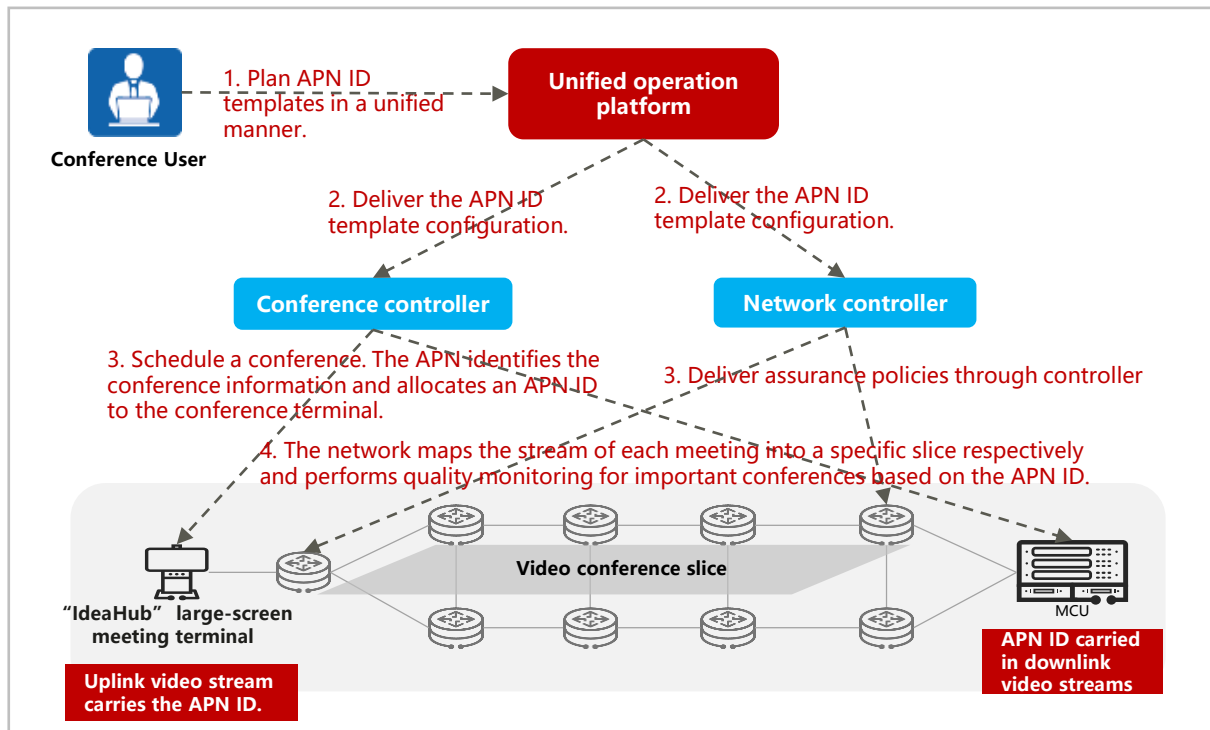
Background: video conference QoE assurance is a key requirement for modern enterprises

- Video conference often meets quality issues
 - High latency
 - Stuttering
 - Interruption
- Important meetings need strong QoE assurance
 - Recognition: VIP meeting traffic automatically recognized by network
 - Strong assurance: aiming for low latency, zero stuttering
 - Fault detection: automatically detects on-going failures



APN-based commercial deployment case in production network

Endpoint-Network collaborative video conference QoE assurance



Problems:

- The separation between the network and the conference system causes **frame freezing and blurring in 40% video conferences**.
- Conference traffic is invisible, and O&M is difficult. The average **fault locating time is hours**.

Solution:

- Unified operation platform plans APN ID templates and delivers them to conference/network controllers
- Video conference controller sets the service level, stream type, and conference ID (after hash) according to the APN ID templates.
- Network controller deploys policies based on the APN ID, including OAM behaviors
- Network devices (routers) enforce policies and monitor the quality of important conferences.

Future Work

- More commercial deployment in various industries
- Extended APN use cases
 - QoE assurance for other applications (collaborative working etc.)
 - Fine-granularity network access control

Thank you!