



Huawei AtomEngine

Lights Up The Network

1 AtomEngine Overview

As information explosion in the cloud era is changing the way we live, data applications and services are constantly emerging. The traffic volume of Internet videos and over-the-top (OTT) applications will go far beyond the bearer capability of the live network infrastructure, which brings the following challenges to network O&M:

- Difficult bandwidth verification, so that whether the bandwidth meets service provisioning requirements cannot be measured.
- Difficult fault demarcation and locating, which takes a long time and requires high maintenance skills.
- Invisible network quality, resulting in unavailable quality deterioration trend and unpredictable network bandwidth bottlenecks.

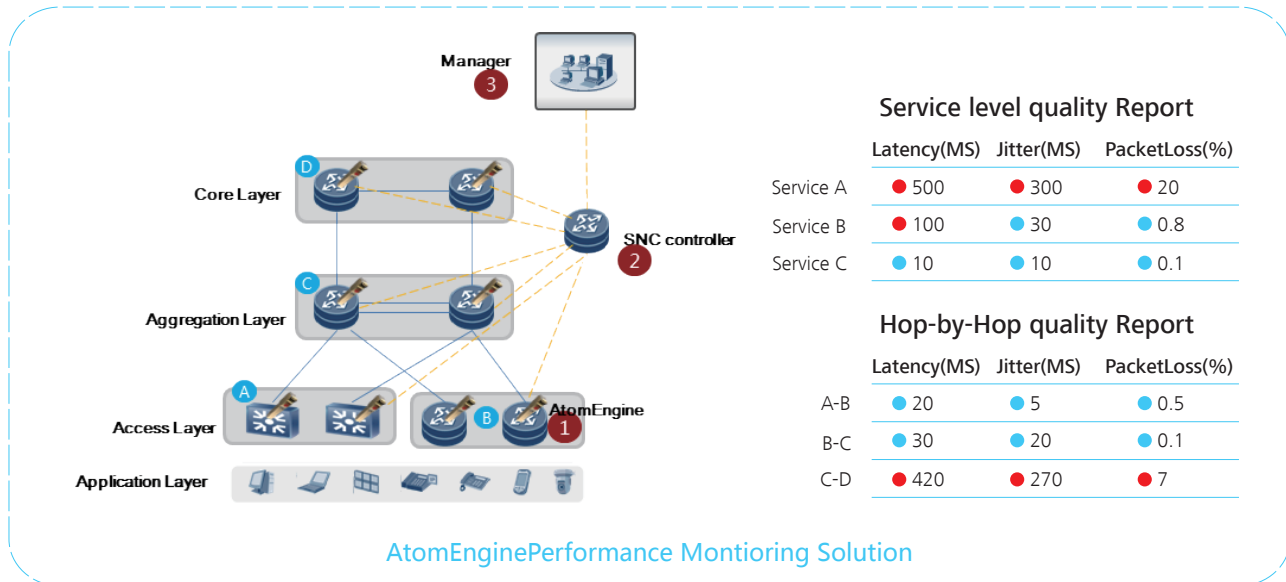
To cope with these challenges, Huawei has developed the AtomEngine end-to-end performance monitoring solution, which provides intelligent service awareness, 7x24 real-time detection that complies with the IP service level agreement (SLA), and an accurate network-wide service quality report, helping locate network faults rapidly. Legacy IP networks that were once invisible subsequently become visible and manageable. The AtomEngine lights up networks.

2 AtomEngine products highlight



- 28nm programmable NP chipset and independent operating system
- Rich OAM features: RFC2544、Y.1731、TWAMP、IP FPM
- Support standard interface: any box, any scenario
- Power: 1.4W, no specific power module
- Plug and play, with zero O&M costs

3 AtomeEngine Solution Overview



The AtomEngine end-to-end/hop-by-hop performance monitoring solution involves thress stages: AtomEngine discovery, connection establishment and performance measurement. Three roles are involved :

- **AtomEngine:**
Performs OAM function, such as Two-Way Active Measurement Protocol(TWAMP), RFC2544 and IP Flow Performance Measurement(IP FPM).
- **Smart network controller (SNC):**
Discovers and manages AtomEngines.
- **Manager:**
Manages AtomEngine configurations, logs, alarms, and performance monitoring

4 Product Specifications

Item	AE901MP	AE901MX-LR
Dimensions (H x W x D)	8.5mm x 13.4 mm x 73.5mm	8.5mm x 13.4 mm x 78.5mm
Maximum power consumption	1.4w	1.8w
Plugin third party device	Support	Support
Functions	TWAMP、RFC2544	IP FPM、TWAMP、RFC2544
Upgrade mode	Online upgrade	Online upgrade
Difference	The AE901MP is used in by-pss scenarios which does not affect existing online services	The AE901MX-LR is used in in-line scenarios. Measure online service quality in real time, and provides an accurate assessment of network performance