Guavus Pipeline Meter & Gate

Guavus Pipeline Meter & Gate provide a robust, usage rating/policy system and programmable Policy Server (PS) that enables cable operators to dynamically provision individual subscriber service flows and enforce network rules such as FairShare to maximize QoE and minimize congestion.

Optimally allocate DOCSIS network resources

Guavus Pipeline Meter's policy-based management capability provides you with a new way to allocate DOCSIS network resources according to pre-defined business rules. These rules represent your service delivery goals and operational best practices for sustaining your network while assuring each subscriber's quality of experience (QoE). Bandwidth rules take the form of "if condition, then action."

Pipeline Meter & Gate allow operators to implement a FairShare policy where, during times of network congestion, the top n% of users can have their rate limits reduced by x% until the congestion is mitigated or until non-conformant subscribers are no longer on the "top talkers" list.

Take immediate action based on bandwidth policy rules

IPDR data streams from the DOCSIS network are analyzed to evaluate network utilization and subscriber consumption. Network facts based on Pipeline metrics are derived and compared to your bandwidth policy rules. Pipeline's unique in-memory-analysis provides immediate results uncovering events as they occur. In this way, immediate corrective action can be taken to remedy bandwidth policy violations or network congestion.

You as the operator can determine the type of action based on internal policies and policy enforcement infrastructure capabilities. Actions are expressed in terms of detailed Machine-to-Machine (M2M) notifications, which are forwarded from the Pipeline Meter to the Pipeline Gate.

Highlights

- Provides usage rating against acceptable-use policy rules
- Maximizes QoE while minimizing network congestion by only impacting top talkers
- Rapidly detects policy violations to mitigate abuse and automates policy enforcement & notification
- Real-time policy engine provides immediate visibility and corrective action
- Enables dynamic provisioning of individual subscriber service flows
- Complies with PCMM and Common Open Policy Service (COPS) specs
- Mitigates the risk of subscriber impacting outages through 1:1 redundancy

Easily apply usage policy control and enforcement

In conjunction with the Gate's PacketCable Multimedia-based Policy Enforcement Point (PEP), the Meter provides a powerful Policy Decision Point (PDP) for subscriber traffic conditioning and congestion mitigation.

Control bandwidth resources with policy enforcement

Pipeline Meter & Gate empower cable operators to easily enforce policy decisions based on the operator's own business and network rules. Policy actions are defined by the operator and applied to subscribers and DOCSIS service flows without infringing on subscriber privacy.

Dynamically provision subscriber service flows

Achieve true service agility and go beyond the traditional DOCSIS static provisioning model by controlling subscribers and services without complicated and costly back office changes or service impacting disruptions. Pipeline Gate enables operators to dynamically modify each subscriber's configuration by governing access to bandwidth resources based on DOCSIS service flow awareness.

"We required a way to immediately detect and act upon subscriber overconsumption causing congestion events occurring in our DOCSIS networks. Pipeline Meter & Gate enabled us to automate bandwidth policy goals to meet our service delivery objectives with flexible business rules and the lowest mean time to detect."

Network Security Engineer,
Tier-1 MSO

Pipeline's role within Cable's OSS/BSS

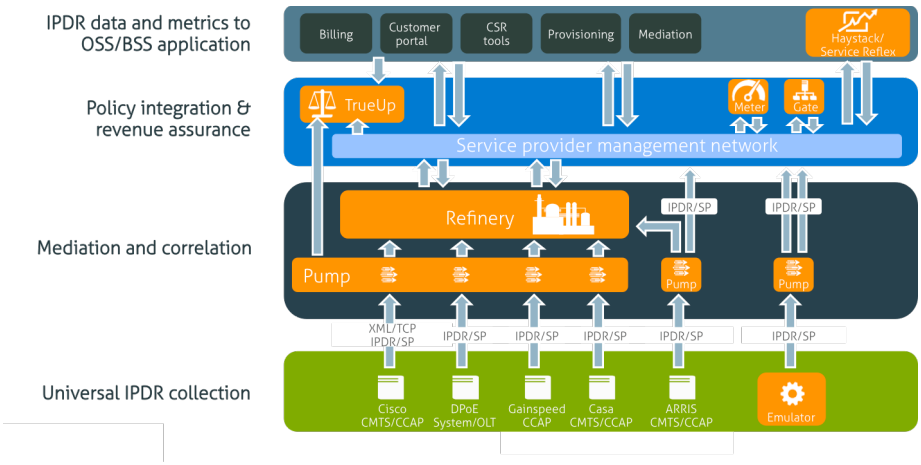

Figure 1. Pipeline's modular architecture allows you to deploy only what you need

Guavus Pipeline products

- Pipeline Pump
- Pipeline Refinery
- Pipeline TrueUp
- Pipeline Meter & Gate
- Pipeline Emulator

Pipeline Meter & Gate minimum system requirements

- Operating system – Redhat EL6.3/CentOS 6.3 or later (x86_64)
- Hardware – 64-bit quad-core 1.6GHz
- Disk space – 500GB (2x250GB 10K RPM, SATA or SAS)
- Memory – 2GB per CPU core

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