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Pipeline Meter™ - Policy-Based Subscriber Usage Management

The Meter module provides Pipeline's bandwidth policy management capability. Working within the Pipeline system, the Meter analyzes streams of network data from the DOCSIS network to apply operator's business rules for subscriber consumption and bandwidth policy. The meter, in conjunction with the operator's policy enforcement systems, enables complete control over DOCSIS bandwidth resources and subscriber usage.

Customer Endorsement

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

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Key Features & Benefits:

Programmable DOCSIS Bandwidth Policy

The Meter's policy-based management capability provides Cable operators with a new way to allocate DOCSIS network resources according to pre-defined business rules. These rules represent the provider's service delivery goals and operational best practices for sustaining their network while assuring each subscriber's quality of service experience. Bandwidth rules take the form "if condition, then action." A Meter policy condition is composed of one or more of the following operator defined parameters:

- Network utilization thresholds or congestion criteria
- Acceptable use policy (AUP) per subscriber tier
- Day of week or time of day

DOCSIS Bandwidth Policy Engine

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 the operator's bandwidth policy rules. If the network facts calculated indicate that a specific condition is met, then corrective action is taken. The operator determines 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 to policy enforcement systems within the operator's OSS/BSS.

Real-Time Policy Engine

The Meter's policy engine uses Pipeline's IPDR stream processing to evaluate bandwidth policy conditions based on current facts derived from the DOCSIS network. Pipeline's unique in-memory-analysis provides immediate results uncovering events as they occur. In this way, immediate corrective action is taken to remedy bandwidth policy violations or conditions of network congestion.

Usage Policy Control & Enforcement

In conjunction with Policy Enforcement Point (PEP) systems based on protocols such as PacketCable™ Multimedia, the Meter provides a powerful Policy Decision Point (PDP) for subscriber traffic conditioning and congestion mitigation. Pipeline interoperates directly 'out of the box' with all major PCMM Policy Servers and Application Managers.

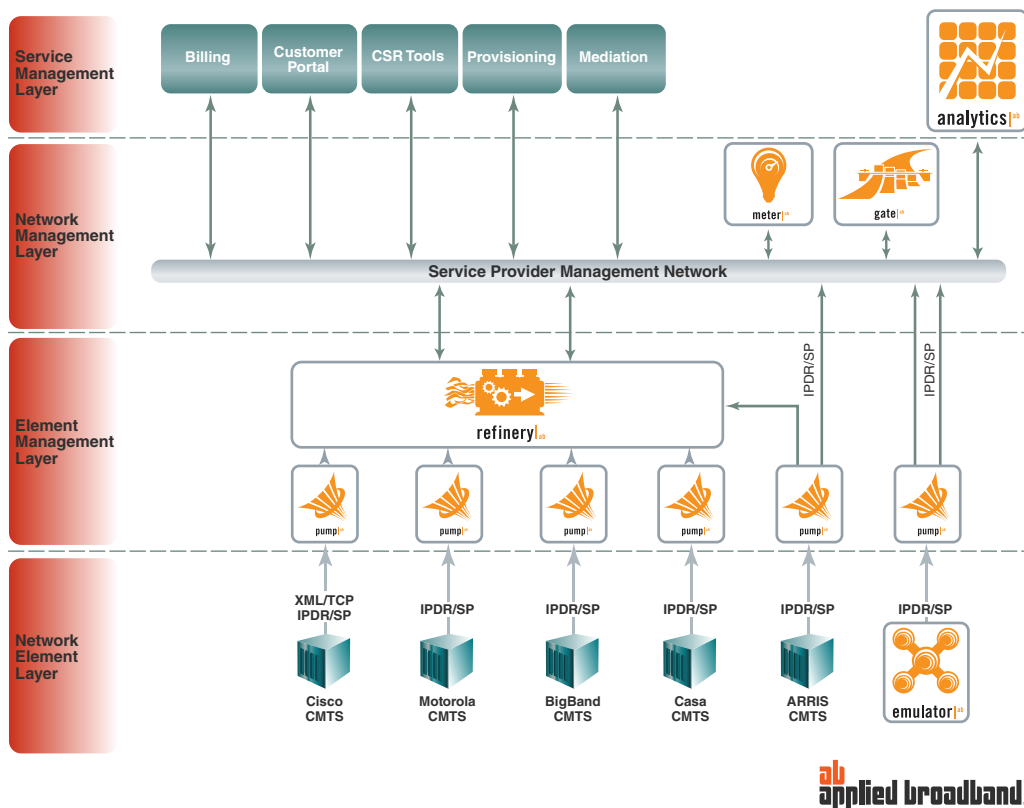
Unrivaled Performance & Scalability

The Meter's proven best-in-class performance is unrivaled by any other IPDR stream collection and processing technology in the marketplace today. Designed from the ground up, to address the unique needs of Cables' scale and data network architecture, the Meter fits perfectly into the Cable OSS/BSS infrastructure.

High Availability for Critical Data

With important use-cases, such as metered billing, subscriber usage monitoring, and policy enforcement, it is critical that IPDR data is not lost. The Pipeline's Meter implements a robust high availability architecture that protects important information.

Pipeline's role within Cable's OSS/BSS



Pipeline Related Products:

- Pipeline Pump™
- Pipeline Refinery™
- Pipeline Meter™
- Pipeline Gate™
- Pipeline Analytics Toolkit™
- Pipeline Emulator™

Pipeline Meter Minimum Systems Requirements:

- Operating System – Redhat EL 5; Solaris 10 (x86-64)
- Hardware – 64-bit quad-core 1.6GHz
- Disk Space – 500GB (2x250GB 10K RPM, SATA or SAS)
- Memory – 2GB per CPU core

Pipeline Meter Part Number:

PIPE-MET4.0-SW

Contact Us:

To learn more about the Pipeline and its modular components including the Meter, visit our website at www.appliedbroadband.com or email us at sales@appliedbroadband.com

Pipeline's flexible modular design allows for implementation of stand-alone applications such as the Meter, or bundled solutions that offer a robust range of functionality, security, and business intelligence to the Cable industry