

# P SERIES MANAGEMENT PLATFORM

DATA SHEET

**Tracking and monitoring network traffic is crucial. But to gain the full benefit from a modern Traffic and Policy Management (TPM) system, service providers must also gain intelligence and insight into traffic patterns and flows.**

**The GENBAND PM2™ statistics server performs robust data collection and aggregation functions for the GENBAND P Series TPM product family. By gathering, storing and reporting granular and accurate traffic statistics, the PM2 provides a key intelligent component for broadband service networks.**

## SEE AND MANAGE NETWORK TRAFFIC

Now you can better track, understand and manage traffic in your broadband network. The GENBAND PM2 statistical server collects, aggregates and stores traffic data from the GENBAND P Series of Traffic and Policy Management solutions.

This full-featured software module can be a valuable intelligence tool for any broadband service provider. The PM2 statistics server provides valuable insight into network utilization and online user activities. It provides powerful intelligence for marketing and product management.

The PM2 facilitates automation of the corporate management reporting. This reliable statistics server allows resource planners to see actual demand and to better plan capacity upgrades.

PM2 is also the platform that can be configured as P Series Subscriber Manager, providing functions such as Radius, DHCP snooping to increase service provider ability to manage subscribers based on their service profiles.

## DATA MANAGEMENT

The PM2 is a reliable file server with two (2) or five (5) hard disk drives (HDD) in a RAID1 or RAID5 configuration. This enables fast writing of large data quantities and data resilience in case of a HDD failure.

Only relevant data from the P Series data identification and classification engine is sent to the PM2, which allows the PM2 to scale for multiple network platform management.

Typical installations manage from one to five P2 inline network elements per PM2, depending on type of traffic, user behavior and number of statistic rules. Multiple PM2 servers are required in networks that support large subscriber counts and high traffic volumes.

## DRIVING THE NETWORK EVOLUTION



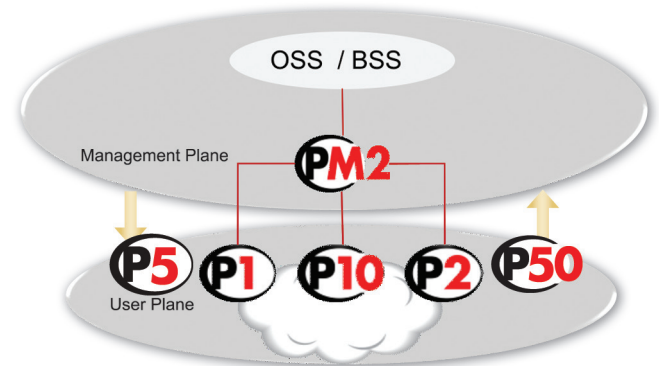
Data is sent from the in-line network platform to the PM2 at a configurable interval defined by the network platform rule set. The data is written to a proprietary database with optimized indexing for quick accessibility.

## REPORTING CAPABILITIES

The data is available as clickable diagrams – pie, bar and line diagrams – and the diagrams are configured via the P Series administration client. Data layout and distribution can easily be configured into graphics, values, 95% percentile, Quality of Experience and other formats.

Data can also be exported through the P Series Python API for processing elsewhere, like in Excel, 3rd party SQL server or a data warehouse. The PM2 graphical user interface (GUI) client is available for Windows, Linux and Mac OS X and data, or a selection of data, can be saved directly to PDF or CSV.

## EXAMPLES OF PM2 DEPLOYMENTS



## DEPLOYMENT OPTIONS

GENBAND PM2 statistics servers can be connected directly to the P Series rule system in the packet path, or remotely to the PM2's IP address. This allows the PM2 to be placed in a central location. Backups can be automated to push data from the PM2 to a central repository via SSH (SFTP). The PM2 will delete data in chronological order when running out of disk space.

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## PM2 CONFIGURATIONS AS A SUBSCRIBER MANAGER

PM2 configured as a Subscriber Manager integrates P Series solutions with service provider authentication, billing and operational support systems such as AAA, OSS and BSS, provisioning and policy management. This integration enables per user tracking and policies, as well as knowledge of the network sites that users are connecting into. The benefit for the service provider is increased awareness of users and their locations.

The combination of user and location awareness enables creation of personalized offerings, resolving congestion issues and enhancing Quality of Experience (QoE).

PM2 also features Application Programming Interface (API) for direct connection to authentication servers. With this method of implementation, interactions between authentication server and user will become available to the inline TPM network element, hence; enhancing its ability to apply Subscriber-ID based (SID\_based) policy rules per user. The subscriber management capabilities apply to both fixed and mobile networks. In mobile domain standard 3GPP specific RADIUS information are mapped to SID. In mobile domain, PM2 configuration as Subscriber Manager enhances roaming specific policies and congestion management.

In Subscriber Manager Configuration, PM2 can provide either plain text files or files in accordance with service provider's specific Call Detail Records (CDR) format. These files can be exported as billing information to the service provider's BSS.

In the mobile domain standard 3GPP specific RADIUS information is mapped to SID. In the mobile domain, PM2 configurations such as Subscriber Manager enhance roaming specific policies and improve congestion management.

## KEY FEATURES

### Statistics

- Granular and accurate traffic statistics
- Aggregation of data from multiple P Series in-line systems
- Out-of-band deployment
- Direct or remote connection to P Series in-line elements
- Report Studio

### Subscriber Manager

- Subscriber Manager configuration supports integration with authentication, policy control, charging and billing support systems
- Aggregated Quota (aka Family Plans)

- IPv6 Subscriber Management
- Gx support for PCRF interaction (IOTs complete with Oracle, Broad-hop, Bridgewater, etc..)
- Gy support for OCS integration (ZTE)

## SPECIFICATIONS

### CHASSIS (Statistics and Subscriber)

- Hardware - PM2 2 rack unit (RU), 19" rack-mounted
- Physical Dimensions (excluding handles and cable holders) - 3.40" (h) x 17.44" (w) x 26.80" (d) / 8.64cm (h) x 44.31cm (w) x 69.07cm (d)
- Weight - 57.54 lbs / 26.1 kg
- Power - 90-264 VAC or 36-72 VDC (DC Power is optional)
- AC Cord Rating - 15 Amps @ 120 VAC, 10 Amps @ 240 VAC
- Output Power - 870W
- Maximum Heat Dissipation - 2968.6 BTU per hour
- Interfaces - 4 x RJ-45 BASE-10/100/1000 copper

## CAPACITY AND PERFORMANCE

### Statistics

- Storage Capacity - 2 x 1TB HDD or 5 x 1TB HDD (RAID 5)
- Memory - 12GB RAM or 24GB RAM
- Subscribers - 5 M

### Subscriber Manager

- Concurrent Subscriber Sessions - 7.5 M
- Subscribers - 10 M
- Transactions per Second - Up to 50,000
- Memory - 24GB
- Storage Capacity - 2 x 300GB
- Interfaces - Python API, 3GPP compliant Gx I/f to Policy and Charging Rules Function (PCRF); 3GPP compliant Gy interface to Online Charging Systems (OCS); 3GPP compliant Gz adn Call Data Records (CDR) to Offline Charging Ssystems (OFCS); IPDR, Active Directory, vJSON-RPC, SOAP, Radius, DHCP

## CAPACITY

(depends on rule-set complexity<sup>1</sup>)

### NUMBER OF P SERIES IN-LINE ELEMENTS

Suitable for installations of up to

- 5 P2
- 1 P10 or P20

Please consult your GENBAND representative for capacity planning and system recommendations.



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### COMPLIANCES

US CFR Title 47, FCC Part 2, 1.5  
ANSI C63.4 2003  
Canadian ICES-003 Issue 4  
CAN/CSA C22.2 No 60950-1-07  
ANSI/UL 60950-1-2002 2nd edition  
CE (Available from DELL)

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