

Total Traffic Manager

Sophisticated Real-time Traffic and Policy Management

ClearSky's Total Traffic Manager (TTM) enables carriers to manage exponential growth in data traffic while increasing revenue from data plans. Providing carriers real-time visibility to what types of data traffic are running through their networks, TTM allows carriers to identify and create new services to increase data ARPU.

TTM actively monitors and analyzes data traffic as it flows through the carrier's network, and then generates actions based on detailed analysis and a set of pre-configured rules. This is accomplished by placing the ClearSky TTM Enforcement Platform in the data stream to measure traffic and subscriber patterns, and perform real-time traffic policy enforcement. The end result is the ability to create and bill for new services, satisfy existing subscribers with fair allocation of resources, and minimize costs of future network expansion.

TTM is an essential tool for carriers to manage today's rapid growth in data traffic. For example, carriers can:

- Offer plans that include a limited amount of access (e.g., 2GB for \$20, then provide subscribers the ability to self-manage their data plans to purchase incremental data access).
- Detect when a tablet or laptop is connected and enable charging an additional fee (e.g., \$20 extra per month to allow tethering).
- Send SMS alerts to subscribers when they are near their data caps, or when they are accessing data services when roaming.
- Throttle throughput for users of peer-to-peer networks such as BitTorrent, and users who are uploading and downloading of videos and music.
- Provide a bronze, silver, and gold tiered pricing plans based on levels of throughput.

Product Features

- **Traffic Identification:** Accurate, application-aware traffic identification in any routing environment.
- **Policy Decision:** Identification of network conditions and real-time rule evaluation to make policy decisions locally.
- **Flexibility:** Deploy anywhere, regardless of what last-mile technologies your network uses.
- **Minimal Latency:** In typical deployments, the in-network appliance introduces a 400 microsecond latency.
- **Reporting:** Business intelligence.

Carrier Benefits

- Facilitate new charging/billing mechanisms for value-added services.
- Satisfy subscribers with fair allocation of resources.
- Provide more tailored choices and entry-level data plans to subscribers, thus maximizing data ARPU.
- Define and enforce network policies.
- Ensure traffic flow continues unaffected, even if capacity limits are exceeded.
- Detect tethering and allow subscribers to opt-in to a data plan that enables tablet and laptop access.

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Frequently Asked Questions

How can TTM increase revenue?

Carriers can increase data ARPU by allowing subscribers to "top-up" when threshold limits are reached, purchasing additional capacity from an advice-of-charge page. ClearSky then generates a billing record for this additional purchase. Also, carriers can offer more tailored data plans, such as a social-media-only package, which gives the subscriber an entry level data plan for the most popular sites (like Facebook and Twitter) while prohibiting more data intensive applications such as streaming and VoIP.

How does TTM minimize congestion of a carrier's data network?

TTM takes into account four areas of input: subscriber usage profile, subscriber location, congestion, and application awareness. TTM uses these characteristics to target and alleviate the congestion in all levels of the carrier's data network including the subscriber access, cell site, network components, traffic backhaul, and at the ISP connection point.

How does TTM prevent bill shock?

TTM can generate text alerts to subscribers when specific thresholds are reached (e.g., 80% of the 4GB capped data plan) or when certain events occur (user starts a data session while roaming).

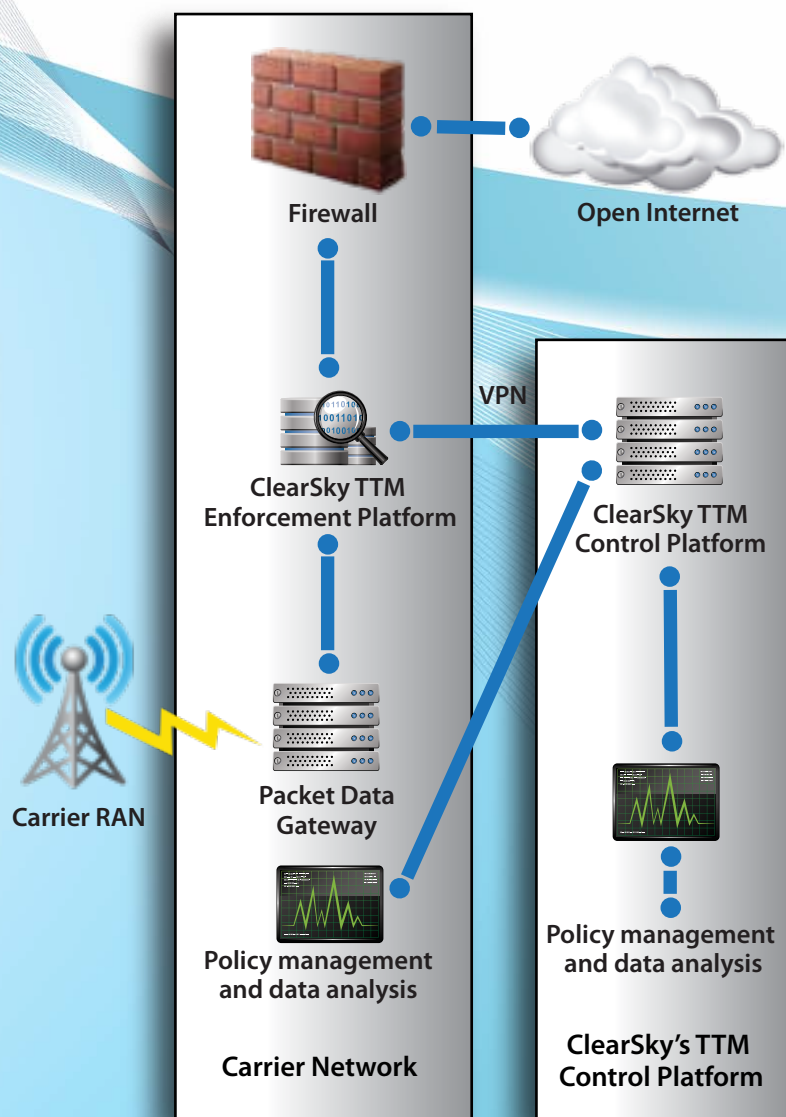
What type of reporting is available through TTM?

Business Intelligence and Network Demographics reporting is included with TTM, and is delivered via email on a regularly scheduled basis. TTM reports on many types of data at various levels such as total bandwidth, top mobile applications and OS, bytes by OS during a specific time period, over-the-top video provider analysis, heaviest users during peak hours, and more.

Can ClearSky assist with non-standard configuration or special features?

ClearSky's professional services team will be happy to work with you to define and implement custom functionality.

* Haven't found the answer you're looking for? Please contact sales or account management for more information.



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ClearSky's TTM leverages an in-network Enforcement Platform and a hosted Control Platform to address carriers' need to control data usage and charge for incremental revenue services.