



## Deep Packet Inspection & Bandwidth Management (DPI & BM)

As observed in both fixed line and mobile services, many traditional telecom services are plateauing while data-related services are taking over in significance as revenue contributors.

Intense competition is another crucial factor that puts pressure on communication service providers to create more innovative data services with quick time-to-market. Investments in additional bandwidth capacity will inevitably incur major capital expenditure (CAPEX) investment and installation time. Hence, telcos often find themselves facing the challenge of how to optimize the allocation of available bandwidth resources for new services without sacrificing their Subscribers current level of user experience.

WiseSpot DPI + BM Solution is a proven solution that has been successfully implemented in both fixed and mobile networks to provide operators with a **two-pronged solution** to their dilemma:

- In-depth network visibility and sophisticated usage analyses enable operators to implement appropriate network control policies for clients with specific requirements. The combination of tools offers precise management of network resources without sacrificing Quality of Experience (QoE)
- Quick turnaround for creation of new value-added service (VAS) and personalized data consumption plans, enabling operators to maximize existing data revenue streams and unlock new ones by better satisfying diverse subscriber demands

## Our Solution

The solution is a combination of **3 modules**. Compatible with one another, each module consists of specific functions to tackle various issues.

### ✓ Traffic Optimization Module

- A wide range of network control policies provides operators with the capability to manage bandwidth usage of their subscribers. It also assists with usage monitoring and network abuse prevention.

### ✓ Service Creation Module

- It enables subscriber database management and creation of new personalized data services and VAS plans.

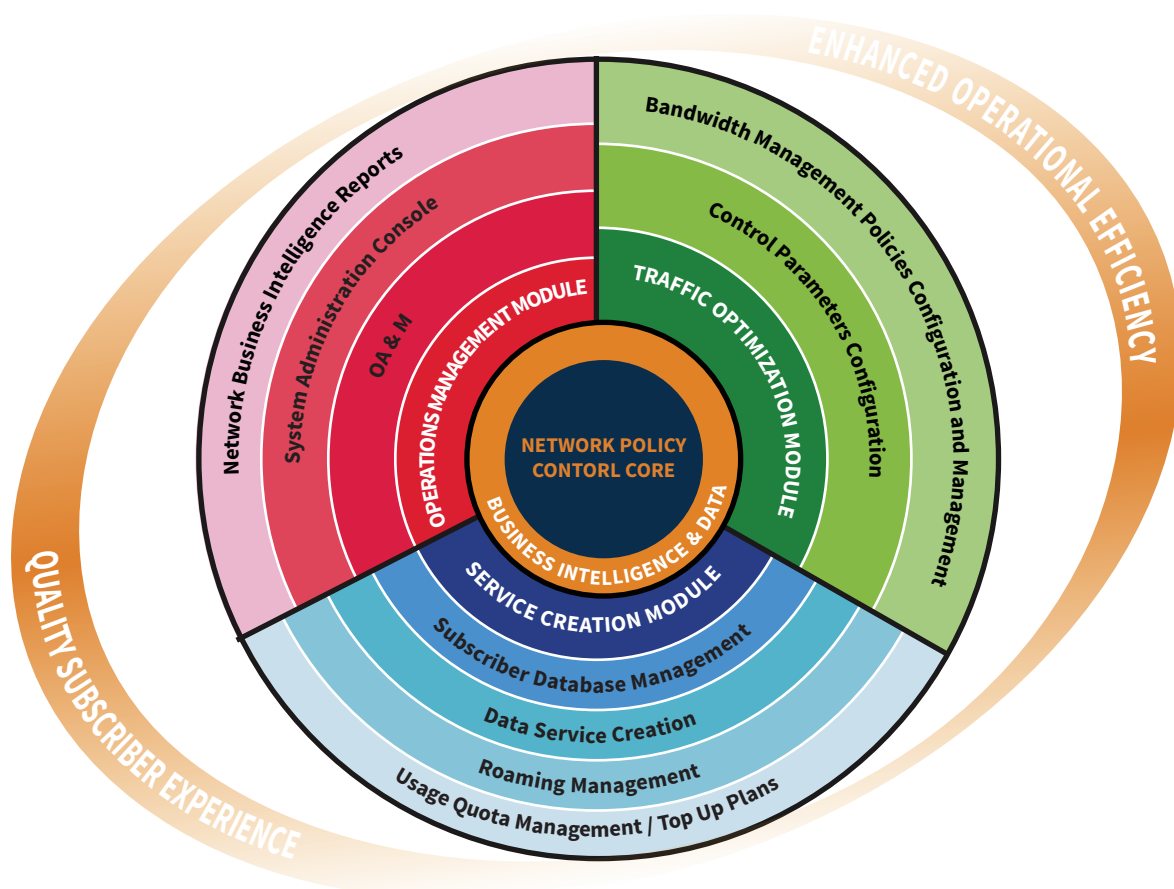
A few examples:

- Roaming Day Pass
- Piggyback Roaming
- Top up Plans
- Shared Data Plans
- Tethering Detection, Universal Service Plans Across Devices
- Real-time Local & Roaming Notification and Bill Shock Prevention

### ✓ Operations Management Module

- Provides detailed usage & business intelligence reporting, system administration, user account management and other operations.

## Solution Architecture



## The WiseSpot Advantage:

With successful installations in both fixed and mobile networks

Field Proven Solutions

With international market leading Deep Packet Inspection technology at its core

Best-of-breed Solutions

For smoother backend integration and better time-to-market customization

Localized Deployment Module

With years of product development and implementation experience

Experienced & Well-trained DPI Team

## Solutions Benefits:

Business Intelligence

- Measure the present to understand the past and predict the future. Aids in decision making by ensuring optimized returns
- Optimize network and service management

Traffic Optimization

- Maximize the QoE of subscribers for a given capital investment and extend infrastructure's lifetime
- Defer capital expenditure (CAPEX)

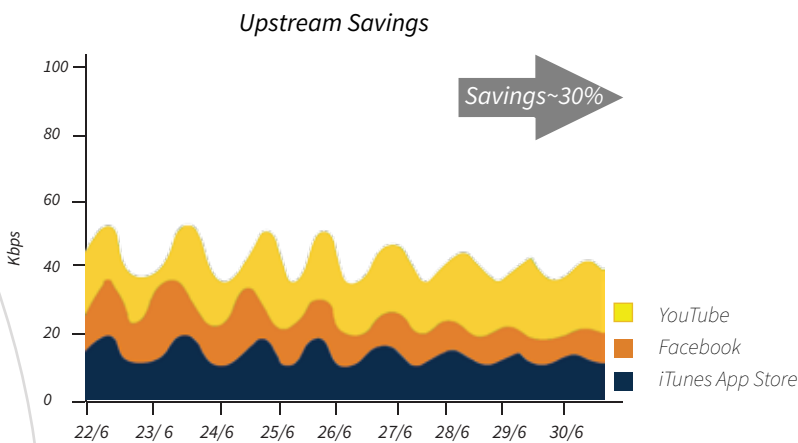
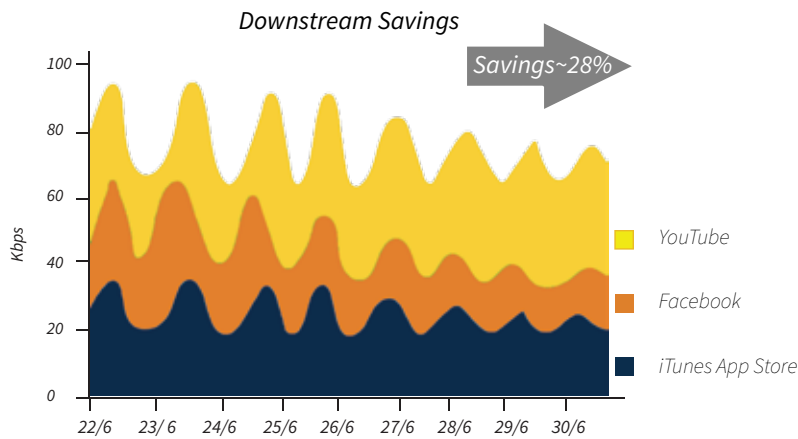
Operations Management

- Combat the misuse of valuable network resources and simplify compliance with regulatory requirements
- Reduce operational expenditure (OPEX)

Service Creation

- Increase revenue from existing sources and create new streams with innovative service tiers and bolt on packages
- Increase average revenue per user (ARPU)

# BM – Fair Usage Policy Application at a leading mobile operator in the US



## IMPROVEMENTS ACHIEVED

### FLEXIBLE POLICY

- FUP : 512Kbps is shown if usage is over 2G in one week
- Local Sudden Up : 512Kbps is shown and run for 24 hours if usage is over 300M in one hour

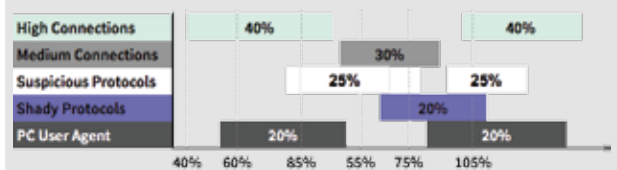
### MAJOR TRANSIT COST SAVINGS

## BM - POLICY FOR TETHERING DETECTION

### DETECTION CONDITIONS AND CONTROL

(EXAMPLE THRESHOLDS)

- High Connections (>30 concurrent)
- Medium Connections (>15 concurrent)
- Suspicious Protocols (BitTorrent, NNTP, SNMP)
- Shady Protocols (FTP, RapidShare)
- Impossible Protocols (Windows Update)
- PC User Agent (Windows NT, Mac OS X excluding iPhone/iPad)



### Why WiseSpot?

Headquartered in Hong Kong since 2001, WiseSpot Company Limited has become a leading developer of telecom solutions and system integrator with over 100 live installations covered by the 7x24x4 on-site support, spanning Greater China, Singapore, Australia, UK and USA. In addition to our dedicated product development center in Shenzhen and a full-service regional office in Taipei, we are a team that is well versed in the latest fixed, mobile and IP data technologies. Backed by an international network of best-in-class technology partners, we have a proven track record of successful implementation into live production networks with minimal risk of service interruption. Our experience ensures that the final solution ultimately installed is of uncompromising quality and meets both the business, technical and budgetary objectives.