

# The Changing Role of Policy Management

By **Shira Levine**  
Directing Analyst, Next Gen OSS and Policy  
Infonetics Research, Inc.

## Contents

<b>THE CHANGING ROLE OF POLICY MANAGEMENT</b>	<b>2</b>
Exhibit 1: Worldwide Policy Management Revenue Distribution: Fixed vs. Wireless Networks	2
<b>REGIONAL TRENDS: REGULATION, NETWORK OPTIMIZATION, AND INNOVATION</b>	<b>3</b>
Exhibit 2: Policy Management Revenue Breakdown by Region	4
<b>ELITECORE: TAKING A PLATFORM APPROACH TO POLICY</b>	<b>5</b>
<b>STRATEGIC OUTLOOK</b>	<b>5</b>
<b>ABOUT INFONETICS RESEARCH</b>	<b>6</b>

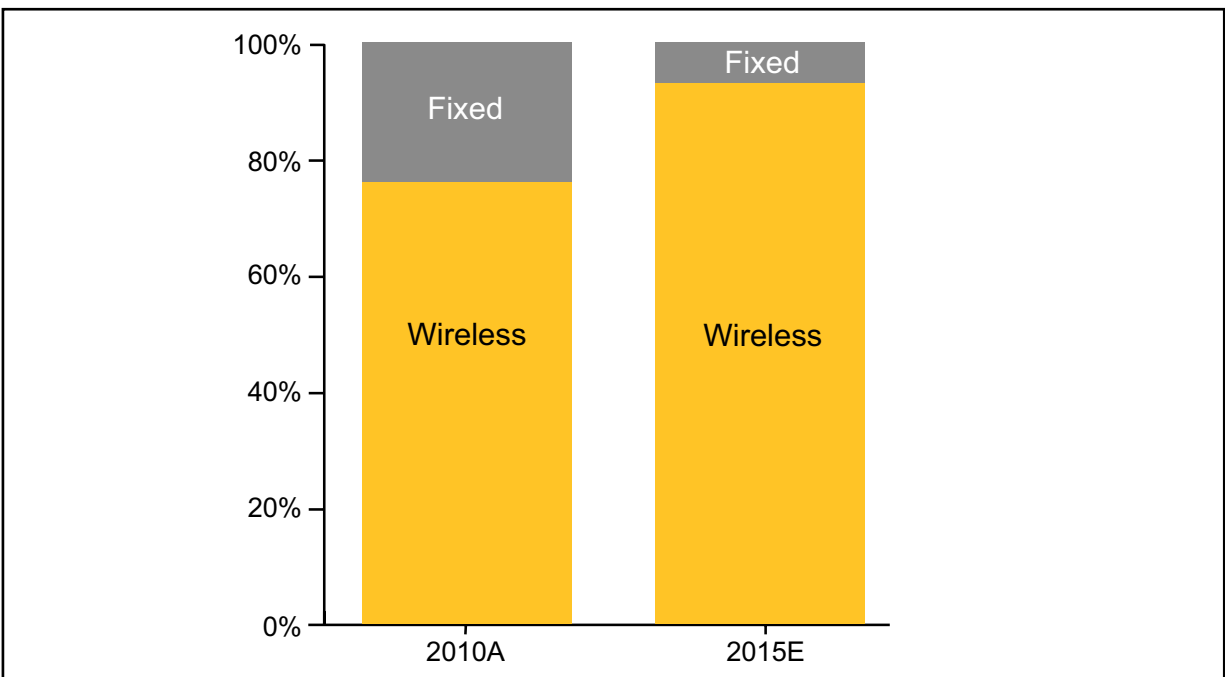
## THE CHANGING ROLE OF POLICY MANAGEMENT

At a very rudimentary level, policy management is software that uses business rules or logic to control subscribers' access to specific applications, services, or network. Over the last few years, policy management has evolved to handle not only static data such as subscriber, network, and device information, but also dynamic, session-based data such as the network bandwidth requirements of an application, which network routes or hops should be used to deliver the best QoS to a subscriber, and what QoS a subscriber is entitled to under his service agreement.

Policy management solutions were originally deployed in the cable industry, used by multiple systems operators to manage broadband usage. However, as Exhibit 1 shows, deployments in the wireless space are rapidly outpacing deployments in the largely mature fixed line market, and wireless revenue as a percentage of the entire policy management market will continue to increase over the forecast period.

The primary driver behind wireless policy deployments is alleviating strain on shared RAN resources caused by 3G and PC-based data services by better managing bandwidth usage during peak hours, implementing network resource utilization and application admission controls, and offloading traffic onto WiFi networks. There is also growing interest in using policy to enable value-added capabilities such as advanced subscriber control or variable charging based on time of day or subscriber profile. WiMAX and LTE deployments over the next several years will drive additional growth in the wireless policy market, as operators look to include PCRF-compliant policy control capabilities as part of their next gen network deployments to better monetize these network investments via mechanisms such as service tiers and "turbo" offerings.

**Exhibit 1: Worldwide Policy Management Revenue Distribution: Fixed vs. Wireless Networks**



Source: Infonetics Research, *Policy Management: Biannual Market Share, Size and Forecasts*, March 2011

*“Operators in emerging markets are investing in policy solutions, often in conjunction with convergent charging systems, to create innovative loyalty programs, payment options, and value-added services as a way to combat high churn rates.”*

Additional drivers behind growth in the policy market include the following:

- **Regulatory factors**, such as the data roaming regulations implemented in the EU that are likely to be replicated in North America, which require wireless operators to implement real-time subscriber spend notifications and a cut-off mechanism once the subscriber's bill reaches a certain limit; in the US, mobile operators are breathing a sigh of relief, as the FCC's net neutrality rules seem to exempt them from regulation, and ongoing challenges of the FCC's fixed line restrictions may result in those rules ultimately being overturned
- **Rapid growth of IP-based traffic**, and the need to move beyond best-effort management for IP services such as VoIP
- **Growth in peer-to-peer traffic**, which has led to interest in bandwidth control
- **Service innovation**, such as triple play services and off-peak bandwidth boosting, as well as value-added services such as parental control and enterprise management of employee cell phones
- **Plans and pricing**, including tiered service plans based on speed of connection, bandwidth consumed, or both, with subscribers who consume more than their allotted bandwidth often charged an extra fee as an incentive to move to the next tier up

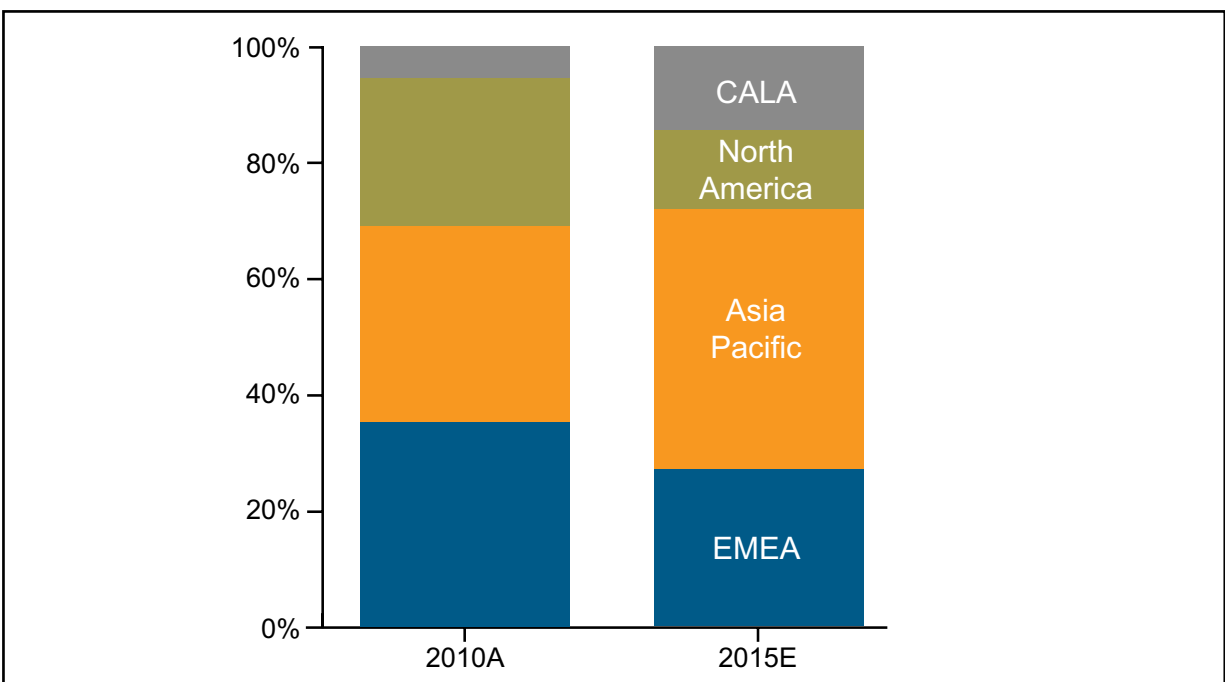
## REGIONAL TRENDS: REGULATION, NETWORK OPTIMIZATION, AND INNOVATION

As Exhibit 2 illustrates, APAC (Asia Pacific) and EMEA (Europe, Middle East, Africa) make up the majority of the worldwide market through 2015, particularly the more developed countries within those regions, where 3G data traffic and WiMAX and LTE implementation are driving policy management deployments. Operators in EU countries are also deploying policy management to support fair usage policies, and to manage regulations around roaming charges and “bill shock.” On the fixed line side, telcos in those regions that are deploying IPTV over their DSL networks are using policy control in conjunction with middleware to manage subscriber authorization functions for access to VOD (video on demand) content.

Operators in emerging markets—notably Africa, Latin America, Eastern Europe, and parts of Asia—are investing in policy solutions to manage the impact of subscriber growth on the network, but are also focusing on using policy control capabilities, often in conjunction with convergent charging systems, to create innovative loyalty programs, payment options, and value-added services as a way to combat high churn rates. For example, one Middle Eastern operator uses policy control to block calls during times traditionally reserved for prayer, using location, time of day, and time of year to determine those hours. Interest in policy management solutions is also on the rise in regions such as the Middle East and parts of Asia where the government has a strong interest in controlling its citizens' online access for security or religious reasons.

In North America, policy management investments have been historically dominated by cable MSOs such as Comcast, Cox, and Time Warner to help manage bandwidth usage among their broadband subscribers, assist in the rollout of DOCSIS 3.0 service, manage edge resources as part of their switched digital video upgrades and, more recently, support PacketCable 2.0 networks based on IMS. North American cable operators and telcos are also increasingly using policy management to support value-added capabilities such as tiered services, including service tiers based on application demands (online gaming, file sharing, etc.). On the wireless front, North American operators have been deploying policy to manage the QoS experience for subscribers accessing off-deck content. Investments over the next several years will be driven primarily by LTE deployments, as well as the need to better manage 3G network congestion caused by smartphones such as the iPhone and Android and by devices like the iPad and the Kindle.

Exhibit 2: Policy Management Revenue Breakdown by Region



Source: Infonetics Research, *Policy Management: Biannual Market Share, Size and Forecasts*, March 2011

## POLICY GOING FORWARD: IT PLAYING A GREATER ROLE

The role of policy management is expanding beyond its traditional position in the network realm to encompass a new range of operator requirements, including enabling differentiated services and supporting convergence strategies. As a result, there is a trend toward policy management investment decisions being made by groups other than the network operations divisions, with IT and marketing departments increasingly being brought to the table. We saw this trend begin in the emerging markets, where low ARPU and high churn rates drove interest in policy control solutions that were often pre-integrated with charging solutions to support value-added services and loyalty programs. Over the last six to eight months, this trend has begun to gain a foothold among the larger operators in more developed regions as well, often spurred by a specific requirement, such as complying with bill shock regulations, that then expands into additional use cases. The challenge for the more established policy vendors is then building relationships with these new constituencies within the operators, as well as potentially expanding their product portfolios to include adjacent capabilities, such as charging and subscriber data management.

## ELITECORE: TAKING A PLATFORM APPROACH TO POLICY

As the concept of next generation policy management has gained traction among operators, competition in the policy market has continued to heat up. Though the market remains dominated by pure play policy vendors and network equipment providers, there is a rapidly expanding category of BSS suppliers providing policy management capabilities as part of a larger end-to-end software portfolio focused more on monetizing next generation services than on traditional bandwidth management.

BSS company Elitecore is one such player. The company launched its policy management solution, NetVertex, in 2008. Though it can be delivered as an independent standalone policy manager, NetVertex can also be combined with Elitecore's Crestel suite offering of convergent billing, mediation, charging, voucher management, and its EliteAAA solutions for a more integrated, platform-based approach to policy control, which allows operators to more quickly and easily roll out new use cases. The portfolio integrates with the company's Service Selection Portal, a subscriber interface that allows customers to access service information on a real-time basis, including pricing, promotions, and advice of charge, and includes the ability to generate business intelligence reports from network and subscriber data. The company believes this end-to-end approach enables operators to better derive value from their new network infrastructures—whether those are 3G or 4G—by reducing the IT complexity associated with creating and deploying new services. A single-platform approach mitigates the risk and time associated with integrating multiple solutions, and helps reduce opex by reducing license, support, and maintenance costs.

The key advantage of a pre-integrated platform is a single, consolidated database across multiple applications. One of the challenges associated with a best-of-breed approach is that each application typically maintains its own representation of subscriber and service data, making it difficult to gain a centralized view of the customer and of the service. A single source for customer and product information that feeds directly into the policy and charging solution enables the operator to make real-time decisions based on factors including subscriber activity, preferences, and history, and it shortens provisioning intervals by requiring the operator to define the rules and policies associated with a new service only once, as opposed to for each individual system.

## STRATEGIC OUTLOOK

As operators roll out new services and capabilities, they have had to add new logic and control at the edges of their networks to better manage the requirements of these applications, as well as the wide range of end-user devices currently in use. The aim is for operators to have better visibility and control of their access networks so they can better manage overall and specific customer experience. Policy management is emerging as a key tool to achieve that goal, particularly when used in conjunction with the authorization and enforcement capabilities offered by other network resources, such as AAA and RADIUS servers, edge routers, and standalone policy enforcement solutions like deep packet inspection (DPI).

Operators are increasingly moving away from their traditional all-you-can-eat billing strategies and introducing tiered pricing, but they will need policy control capabilities to manage subscribers' bandwidth caps, particularly those distributed across multiple device or network types. When integrated with charging, policy control also enables operators to go beyond tiers and offer more real-time, flexible pricing models, such as offering variable pricing based on time of day or the subscriber's location, or charging for a bandwidth "boost" during peak usage hours for certain services. We believe this trend will drive continued integration between policy and charging solutions, and we expect to see partnerships and at least one M&A announcement between policy and charging vendors in the next year. ■

*This paper draws heavily from Infonetics Research's March 2011 Policy Management market size, share, and forecast report.*

## LEAD ANALYST / AUTHOR

### Shira Levine

Directing Analyst, Next Gen OSS and Policy  
 shira@infonetics.com | +1 408.583.3381 | twitter.com/ShiraLevine

## ABOUT INFONETICS RESEARCH

Infonetics Research is an international market research and consulting analyst firm serving the communications industry since 1990. A leader in defining and tracking emerging and established technologies in all world regions, Infonetics helps clients plan, strategize, and compete more effectively.

### Services

- Webinar, Conference, and Event Speaking
- Custom Brand and Demand-Side Market Research
- Custom Market Size and Forecasts
- Technology and White Papers
- Competitive Analysis and Due Diligence
- Market Share, Market Size, and Forecasts
- Enterprise/SMB and Service Provider Survey Research
- Continuous Research Services
- Service Provider Capex and Subscriber Analysis and Forecasts
- Consulting, Retainers, and Quick Consults

### Coverage Areas

- Mobile and Wireless
- FMC and Femtocell
- Mobile Backhaul and Microwave
- Service Provider VoIP and IMS
- Broadband Access
- Cable, Satellite, and IPTV Video
- Enterprise Voice, Video, and UC
- Telecom and Datacom Equipment Totals
- Next Gen OSS and Policy
- Carrier Routing, Switching, and Ethernet
- Optical
- Service Provider Outsourcing
- Service Provider Capex and Subscribers
- Data Center and Cloud
- Security
- Enterprise Networking

## SALES

### Larry Howard

Vice President (Sales) - Western North America, Asia Pacific, South America  
 larry@infonetics.com | tel: +1 408.583.3335 | fax: +1 408.583.0031

### Scott Coyne

Senior Account Director - Eastern North America, Texas, Midwest  
 scott@infonetics.com | tel: +1 408.583.3395 | fax: +1 408.583.0031

### George Stojavljevic

Senior Account Director - Europe, Middle East, Africa (EMEA)  
 george@infonetics.com | tel: +44 755.488.1623 | fax: +1 408.583.0031