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Telecom Italia: service exposure exploits opportunities for service providers

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Executive summary

In a nutshell

Web-based platforms and the viral distribution of applications via developer communities have changed the traditional service provider business model for good. However, service exposure and software developer kits (SDKs) present service providers with an opportunity to become a hub for an extended, open and collaborative application developer environment. Service exposure allows service providers to reap the benefits of viral distribution, and at the same time control access, and maintain security measures and policy management within their network and IT assets. Principal analyst Clare McCarthy reviews the business benefits from Telecom Italia's approach to service exposure.

Ovum view

Service providers around the world are battling against declining voice and access revenues in the face of increased competition and regulatory pressure. Alongside this, service providers are transforming their businesses so that all-IP cores can deliver multimedia services over high-speed broadband networks to all customer segments (consumer, enterprise and wholesale), and thereby meet their voracious appetites for mobility, rich and interactive content, innovative services and web-enabled applications.

However, costs are rising, web players are entering their markets and revenues are uncertain. Disruptive events, in the form of new competitors such as Google and Facebook, new technologies such as high-speed mobile broadband, Web 2.0 platforms and new advertising-based business models are chipping away at the service provider's business. They also threaten to disintermediate the service provider and loosen its grip on the customer relationship. Attempts to ring-fence services and applications (the walled-garden approach) have met with limited success. Slowly, service providers have begun to realise three things: firstly that they are losing hegemony in the communications space; secondly that they need to cooperate with, rather than crush, these upstarts as their own customers like the new order. Lastly, they cannot create all the innovation on their own.

Key messages

- Service exposure can support a sustainable revenue stream for service providers, either from the developer community paying to access their telco capabilities, such as presence and location for example, or from application service providers (ASPs), web services and independent software vendors (ISVs) hosting the application.
- Service providers need to leverage the principles of the Web 2.0. If they allow third parties to access their platforms and capabilities, they in turn will gain access to a larger addressable market.
- Platforms are still a core business for integrated incumbent service providers and these assets can be exploited. The network, SLA management, policy enforcement and their customer facing system including billing and service profiles are all areas of competitive advantage.
- Other business benefits include faster validation processes and increased innovation and time to market, as well as reduced cost of development to the service provider for new applications.

The changing face of the service provider

Service providers are redefining themselves

In the Ovum report *Disruptive competitors to the wireline telco* (January 2009), we outlined the perceived threat service providers face from Google and Facebook *et al*, and the impact this has had on the service provider business model. These new competitors use the Web as their communications and distribution platform. They rely on other players within the ecosystem – ASPs, ISVs and end users to create content and applications, which they then make available free of charge across the Web. Google will then exploit the addressable market within that ecosystem to attract advertising revenues on to its search pages.

This has made customers question the role and value of the service provider. They expect to pay a lot less for more bandwidth, content and services. This has also led to an identity crisis for some service providers, and as they struggle with rising costs and uncertain revenue streams, they are constantly on the look out for the next big thing that will addict their customer base and drive revenues.

Telecom Italia has identified service exposure as a means of ensuring a sustainable business model. By capitalising on its own telco capabilities and the flexibility of web-based ecosystems, it is opting for an inclusive future and one that will ensure greater agility and innovation.

Project objectives

Identifying new business enablers

Telecom Italia recognised that the traditional service provider models were not sustainable and began exploring options for more collaborative and sustainable ways of working with its partners.

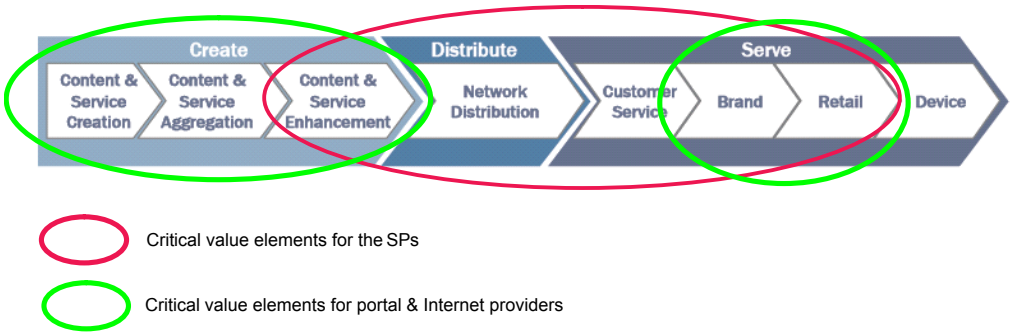
As a first step, Telecom Italia identified the relative strengths of its own position and those players from the web-based domains. *Figure 1* shows the areas Telecom Italia identified as its own core assets that it could leverage.

- The network – critical for standards-based, reliable transport and distribution and supporting APIs, SDKs, authentication and identity management, and crucially policy enforcement and SLA management.
- Customer facing and personalised elements – billing, usage data and the service profile.

Similarly, there are sweet spots for the content owners and portal and Internet providers, also shown in *Figure 1*, that are complementary.

Interestingly, while we have seen a number of recent high profile managed services and network outsourcing announcements from Vodafone and Orange, for example, Telecom Italia sees mission critical elements of network and IT still remaining in-house. This is not an uncommon view among former incumbents. BT, Deutsche Telekom and Telefonica share this view. To a greater or lesser extent, they also agree with Telecom Italia's premise that more services will fall into an open and collaborative model that will allow and support more user-generated content.

Figure 1 **Critical elements for selected players in the value chain**



Source Telecom Italia, Ovum

Telecom Italia's objective is to create an ecosystem where every interaction with its partners adds value. The advantage is that the ecosystem is protected, and to some extent assured by Telecom Italia.

Service exposure of critical assets

Telecom Italia sees service exposure as a "flexible intermediation layer" and a means of virtualising and protecting its network and IT infrastructure. This also protects access control, security and SLA management of its network and IT assets, while also allowing third parties to draw on its telco capabilities. Telecom Italia has exposed the following elements in its network and customer facing systems:

- integrated location
- messaging
- network presence
- instant messaging presence
- third-party session control
- digital media content services
- MVNO provisioning
- HLR look-up.

Developers are able to download software libraries and access Telecom Italia's capabilities for creating client side and server-based applications. Telecom Italia manages the third-party access with policy controls, which in turn allows it to deal with developers based on the developer's profile. This is then aligned with a credit system that charges the developer for the exposed capabilities.

Implementation of the solution

Telecom Italia is upgrading and transforming its IT platforms and sees the service delivery platform (SDP) as a core project supporting service exposure and the development of SDKs.

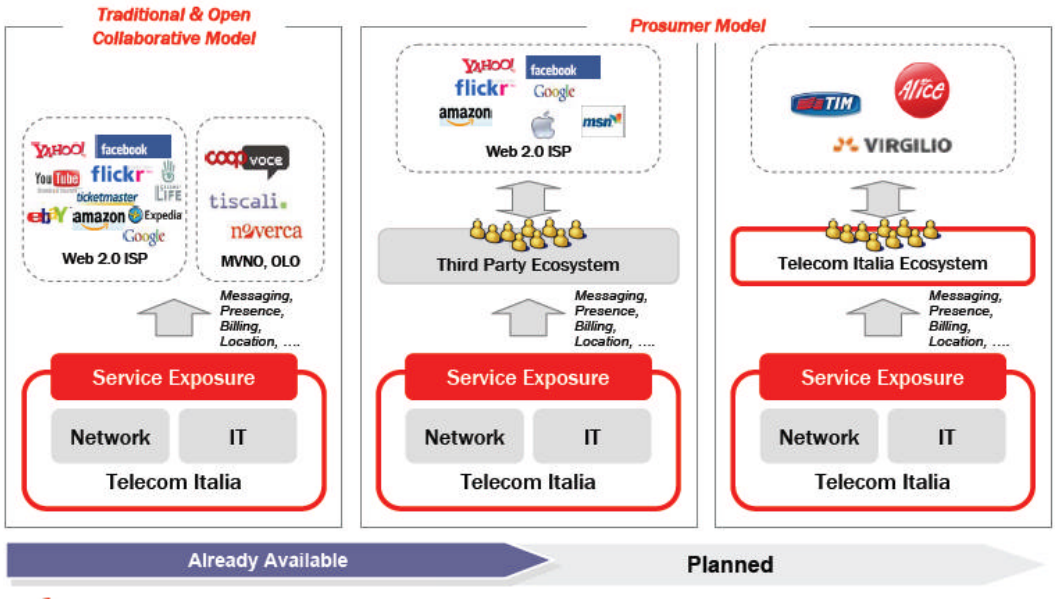
Gianni Canal, Head of Service Layer Engineering at Telecom Italia noted that while COTS-based approaches are in vogue in the market, SDPs do not exist as plug & play products or solutions. SDPs are reference frameworks and more similar to systems integrator solutions that draw on best-of-breed products and SOA principals such as service feature separation, reusability and abstraction. The components of SDPs include: telecoms network access (from the PSTN, wireless and IP networks), service creation and execution, service enablers, service orchestration and management, and service exposure. This links into the telecoms applications as well as the web and IT applications including the service provider's own OSS/BSS.

For this project, Telecom Italia has worked with system integrators for the SDP service exposure and integration work. It has an installed base of BEA and Oracle SDP software and enterprise middleware products and has deployed Oracle Communications Service Gatekeeper and Oracle Communications Converged Application Server to make service exposure and converged web-telecoms services possible.

How does it work?

Figure 2 shows Telecom Italia's view of the opportunity models associated with service exposure.

Figure 2 **Telecom Italia's Service Exposure Opportunity Models**



Source Telecom Italia, February 2009

In the traditional model, the service provider's functions are exposed to third parties but controlled through one-to-one commercial agreements. This has evolved so that the Telecom Italia's capabilities are integrated into third-party ecosystems. Telecom Italia is able to exploit the viral distribution of the developer communities and the many-to-many relationships that will drive towards mass customisation. The 'prosumer' identified by Telecom Italia in this model is the customer or proactive consumer who generates content.

Currently, Telecom Italia needs to validate every ASP, ISV and every application that they will use to interface with Telecom Italia; this is a never-ending and time-consuming process that slows down potential innovation, lengthens the time to market and reduces revenue potential. This is the main driver to rely on a new framework to lower the barrier to enable third-party access.

The next step is a pragmatic move to alleviate the burden on both Telecom Italia and the developers. By offering a template to third parties that maps onto Telecom Italia's key network and IT attributes, the developers can adapt their software and code to fit with the Telecom Italia's platform. This means that while Telecom Italia is exposing its open interfaces, it is able to do so in a controlled and secure way – much like a software release methodology.

The business benefit

Streamlined processes

Allowing ASPs and ISVs to access its telco capabilities has mutual benefits. For the developers, it lowers the technology barriers of entry for the developer community. It also reduces the costs of developments as they already know what is required by 'Telecom Italia compliant'. They can also benefit from the associated brand value of close association with Telecom Italia.

For Telecom Italia, using service exposure for SDKs and mash-ups provides the following business benefits:

- speeds up the application validation process
- encourages innovation on its own platform
- sees faster pull through of applications and speeds up time to market delivery
- offers a wider range of applications at a fraction of the internal development cost
- increases its own addressable market.

By allowing this 'outsourcing' of development and innovation, the concept-to-market timeline will speed up. There will be shorter development and delivery cycles and faster revenue generation.

Monetising the assets

Charging and billing between the service provider, the content and application providers, and the developers, as well as between these partners and the customers, is time sensitive and a mission critical function that sits within Telecom Italia. As it owns the billing relationship with the customer, Telecom Italia is able to collect and share revenues with other members in a particular value chain. Telecom Italia may also white label the service should it wish to.

The other option is for ASPs and ISVs to host the application and then charge a subscription or usage fee for each customer deployment or use of the service. The ASP/ISV then pays a share of the revenue for the access and use of the service provider and its billing capabilities to Telecom Italia's wholesale unit.

Arguably, the mass culture is fading and the growth area is mass customisation, with customers looking for, and willing to pay for, niche interest items. It is this 'long-tail' of revenue opportunity, made possible by Internet inventory, virtualisation, search and recommendation engines, and of course communities of interest, which service exposure can also exploit for revenue potential. And most importantly, it seems to be a sustainable revenue stream.