

Service delivery platforms for the multimedia marketplace

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Ericsson enables operators and media brands to pursue the vision of a multimedia marketplace where people and other internet entities can meet, collaborate, socialize, expose offers, trade, sell, buy, produce, and consume by means of multimedia services.

Companies like Google, Amazon, and Microsoft might be leading the way, but there is yet plenty of room in this arena for many other players. Behind some of the new emerging marketplaces are enterprises consisting primarily of operators and media brands.

Ericsson's recent acquisitions of Drutt, LHS, and Tandberg combine with homegrown products, solutions, and delivery capacity to put Ericsson in a strong position to set up new internet multimedia marketplaces and offer a service delivery platform (SDP) that has what it takes going forward.

Realizing the multimedia marketplace

Introduced in 1976 as state-of-the-art digital switching technology, AXE quickly became a huge success. For the first time, it was possible to use computer technology to set up, monitor and charge for a voice connection between two subscribers (Figure 1).

The fundamentals that drove AXE forty years ago are unchanged today in the telecom and internet industries. Certainly, the complexity, in terms of accesses, devices, services, media types, and business models, is greater, but at the core, it is still all about creating a computer system that can connect, monitor, and charge for communication between multiple entities. In 1976 we called these entities

subscriber A and *subscriber B*. Today we call them mobile users, agents, GAMEY, mash-ups, widgets, internet storefronts, communities, social networks, and mobile, fixed or converged operators.

The key notion is that peer-to-peer communication between entities is of greatest relevance. This is the kind of communication that players are willing to pay for. Therefore, while one should support business models for retailing content and advertising, in essence these are merely examples of what is being communicated. They represent only the tip of the communication iceberg. Other topics, such as culture, friends, family, and all other aspects of humanity and business, are equally important.

The telecom industry often cites the advertisement and media industries as *the* future sources of revenue. But in reality even if the telecom industry took over the combined revenues of the entire digital ad and media market they would not match the telecom industry's current revenue levels.

So instead of trying to enforce a walled-garden approach by selling content and ad space, operators should focus their attention on delivering a platform that truly enables internet players to meet, communicate, socialize and trade in a world of multimedia and mobile users.

Ericsson's Multimedia business unit calls this new service and communication platform the *multimedia marketplace*. It is a vision of a place where different entities or players can meet, collaborate, socialize, expose, trade, sell, buy, produce, and consume products and services. Companies like Google, Amazon, Yahoo!, Apple and Microsoft have already started to pursue this vision, but there is still plenty of room for many others to join in.

Some players will be operators. Others will emerge from the media industry (Figure 2).

To succeed, the marketplace must have advanced large-scale service and technology platforms that can handle millions of multimedia items, users, and a wide range of communication channels. Ericsson's global presence and its recent acquisitions of Drutt, LHS, and Tandberg combine with homegrown products, solutions, and services to put it in a strong position to set up new multimedia marketplaces on the internet.

The challenge for Ericsson is to join forces with customers and build the "AXE for the 21st century" thereby making the multimedia marketplace a reality.

Service delivery platform

What then must a service delivery platform (SDP) that supports the vision of a multimedia marketplace live up to? A service delivery platform enables players to communicate about different topics. Accordingly, it must manage different types of players and business models. In addition, it must support a wide range of services that facilitate a variety of communication needs between players (Figure 3).

Players

In this context, the primary players are people, operators, enterprises, and advertisers and ad brokers.

People are the center of the universe in this business. They consume services and content provided by other players. They also produce content (private, as well as public).

Operators provide people and organizations with network access. An operator can thus own a marketplace or function as a player that exposes services that reach customers via a variety of multimedia channels.

Enterprises range from companies that provide internet-based services to e-commerce companies that sell and market their offerings via the marketplace.

Advertisers and ad brokers seek to publish ads or marketing campaigns via the marketplace.

Business models

An SDP that supports the multimedia marketplace must embrace multiple business models, including retail, wholesale, marketing, and social networking.

A retail business model enables a company or person to sell services, content and

Figure 1
AXE telephone station, Saudi Arabia, 1978.





Figure 2
The multimedia marketplace.

goods to consumers. For example, a telecom company can sell services such as messaging, voice, VoIP, and video conferencing together with music, TV, and community services.

A wholesale business model is used to resell content and services via external storefronts or to other non-consumer players. One example is when an operator exposes its telecom services (SMS, MMS, voice, and so on) to an array of internet sites.

Advertisers and ad brokers employ marketing business models to launch marketing campaigns that use ad space provided by other market players.

Services

The services that an SDP should support range from plain old telephone service (POTS) to video conferencing, broadband and mobile TV, communities, music stores, video on demand, multiplayer games, news, and weather.

In addition, an SDP should give organizations a variety of options for setting up agreements that regulate what they are allowed to do in the marketplace. For example, should the partner be able to control pricing and offerings, or is this something the marketplace owner wants to control?

Besides covering the business perspective in terms of concrete support for all relevant business models and services, an SDP must be flexible and open enough to support changes to, as well as the customization and extension of, production and management logic.

Finally, an SDP must support fixed and mobile operator environments as well as enable convergence between the two.

Ericsson's SDP offering

Ericsson can present a portfolio that addresses the key aspects of the multimedia marketplace (Figure 4). At the core of the SDP is a set of truly advanced products. Using mature prepackaged products, Ericsson can deliver the following key offerings with low risk:

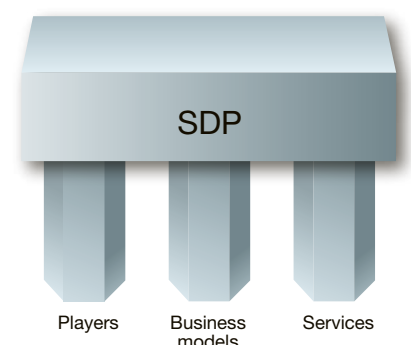
- **Storefront** – this offering sets up a retail business in the marketplace. The storefront is accessible via mobile browsers, client applications, and messaging. Ericsson's Drutt MSDP delivers a complete Storefront offering.
- **Open Surf** – this offering enables operators to track and maintain customer relationships – even while these customers are surfing the open internet. Ericsson's Drutt MSDP delivers a complete Open Surf offering.
- **Rich Media** – this offering facilitates the commercial exchange of media assets (video clips, music, ringtones, images, streams, and so on) in the marketplace. Rich Media is an option to the Storefront offering in Drutt MSDP. The Rich Media offering can be extended further with workflow using Watchpoint from Tandberg.
- **Service Brokering** – this offering enables operators to expose capabilities externally and internally using products such as the service integration gateway (SIG) and provisioning support together with third-party products for service orchestration and service buses.
- **Mobile Marketing** – this offering facilitates agreements with ad brokers and advertisers, making it possible to launch, run and follow up campaigns in the marketplace.

Looking ahead, numerous out-of-the-box offerings are now also ready to be packaged and put into production. **Messaging commerce** functionality, for example, enables users to request and purchase services and content. An **on-device portal** manages the life cycle of client applications including the creation, adaptation (to device), personalization, and provisioning of the applications.

In addition, several closely related offerings build on the core SDP offerings. The **mobile and broadband TV** offering, enabled by the Tandberg portfolio, combines with the Ericsson Drutt MSDP, which is used as a storefront for selling and accessing services.

The **Music** offering provides entertainment solutions for video and music. At present, Ericsson offers three types of solutions based on its Media Delivery Platform (MDP): Napster Mobile, white-label solutions, and customized entertainment solutions.

Figure 3
Three main pillars of Ericsson's SDP: Players, business models, and services.



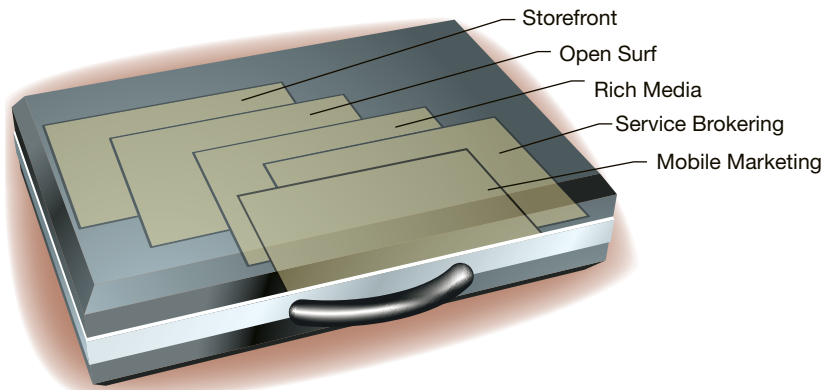


Figure 4
Ericsson's SDP: a portfolio of services.

The **Mobile Media Management** offering is a predefined business solution that enables media brands to set up and run an advanced service-delivery business. Ericsson, in turn, hosts the service.

Other areas addressed by Ericsson's SDP offering are common provisioning, device management, location-based services, service creation, networked advertising, commerce, settlement, lifestore, and recommendations.

In addition, SDP integrates seamlessly with adjacent Ericsson offerings, such as convergent charging and billing.

Finally, in the context of the evolution toward all-IP telecommunication networks, operators must be able to leverage investments in the multimedia marketplace for IMS-based multimedia services. From an IMS perspective, an SDP is an enabler of IMS applications, allowing them to interact with legacy infrastructure (for example, OSS and BSS) and external partners. IMS can also interact with the SDP service-creation-and-execution capabilities for legacy (SMS, MMS) and location-based services.

TERMS AND ABBREVIATIONS

| | |
|-----|------------------------------|
| BSS | Base station subsystem |
| IMS | IP multimedia subsystem |
| MDP | Media delivery platform |
| OSS | Operations support system |
| SDP | Service delivery platform |
| SIG | Service integration gateway |
| SPM | Service-provisioning manager |

Putting SOA to work

The backbone of Ericsson's SDP is based on the software products described above. They are implemented as agile, high-performance SDP subsystems that optimize specific business aspects, objects and use cases. They can be packaged and delivered as stand-alone products or as components in highly customized solutions.

The service-oriented architecture (SOA) is an integral and fundamental concept of the Ericsson SDP both in terms of building products and delivering complex customized SDP solutions. SOA guarantees flexibility, making it possible for SDP subsystems to interwork. Ericsson's SDP primarily uses SOA to create a common set of services and a common conception of business processes and business object life cycles (for example, customers, services, products, and resources).

In addition, SOA is used for integrating external systems with the SDP. Consequently, applicable web services, orchestration, and service bus concepts become natural technical ingredients of complex SDP solutions. Operators who build the SDP using SOA-compliant subsystems can evolve it gradually, thereby maximizing the benefits and minimizing the risks associated with each step.

Future outlook

SDP is about enabling multimedia communication between a wide range of networked players – players who will pay more for devices, broadband access, and high-quality peer-to-peer multimedia services than they will ever pay for media and ad placement.

To get onboard, operators and media brands must make the transition from being mere retailers of telecom services and content to enablers of advanced multimedia services, social networking, and wholesale marketing.

As a concept, the wholesale business has been around for many years, mainly in the form of premium SMS services. Today, it is expanding to include location, presence, streaming, and service creation, setting the stage for rapid development of new composite services.

This is in line with trends in the internet world where sets of well-defined APIs enable service developers to create mash-ups. A famous example is Facebook, which made APIs available in May 2007. A few months later, more than 17,000 applications had been developed. From a technology perspective, the foundation has been laid and the next step is commoditization.

We are also seeing an ecosystem in which different players resell or reuse one another's content and service offerings.

SOA enables a high degree of standardization and flexibility in solution design by combining well-defined and optimized products that support key business processes. This is a fundamental premise for the Ericsson SDP.

The multimedia marketplace is the "21st century AXE" – this is the vision that drives Ericsson's SDP. Several marketplaces are beginning to emerge thanks to the efforts of early movers, such as Amazon, Microsoft and Google. But this is only the beginning and there is yet plenty of room for other players to join in. Ericsson's SDP has the concepts and components to deliver and help operators to get their version of the 21st century AXE up and running today.