

## Business model for mobility and interactivity in heterogeneous convergent environment – a study case

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**Abstract:** - This paper presents a study for a business model applied to heterogeneous systems for a mobility and interactivity framework. The main idea is a system based in heterogeneity and convergence technological oriented to end-user. Nowadays, the conventional systems are formed only by homogeneous systems and not always end-to-end. For this study the plane formed by the technological framework and application framework was added by a third dimension building in a trihedral which gives the mobility and interactivity framework sustainability in terms of completeness and applicability.

**Key-Words:** - business model, heterogeneous systems, technological convergence, heterogeneity

### 1 Introduction

Nowadays the information and communication systems are formed by an available set of applications and services, tight and independent operating. These services were created and defined to attend a particular application or a service provider, with no concern about interaction and integration between these operators. Nevertheless, in most cases these are proprietary systems.

Multiservice networks (next generation networks) should be able to deliver voice, data and video signals, allowing support for mobile applications and information traffic at high speed (HOUET; PIERRE, 2005) and ensure service quality for the user

An architecture based on convergent heterogeneous networks, in theory, allows to the moving end user, with a terminal, to access their applications and services.

Should still enable the user to interact with your provided services.

Note that the mobility is seen as a limited user or terminal movement, with or without continuity of accessed service and can be confused with nomadism.

Nomadism is defined by frequent movement with temporary fixation and then nomadic computing is user mobility with remote access, from anywhere visited, but not connected when the user in transit (LA PORTA et al, 1996).

A single access terminal to different services does not

mean the unification of service deliveries but implies in a technological convergence, where the same terminal is enable for multiple technologies. The service provision becomes a problem because the end-to-end service, derived from the content provider shall be delivered to the end user, regardless of the media that it circulates

By the other hand, the involved technologies are known reality, the business process approach is still primitive and people involved in these processes dependent

### 2 Model

This study the plane formed by the technological framework and application framework was added by a third dimension building in a trihedral which gives the mobility and interactivity framework sustainability in terms of completeness and applicability.

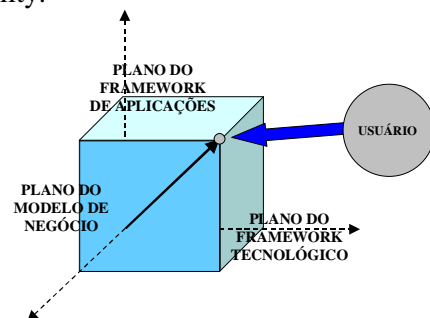


Figure 1 – Trihedral framework

The end user view can be defined as the service functional decomposition to be provided, such as shown in context diagram in the Figure 2.

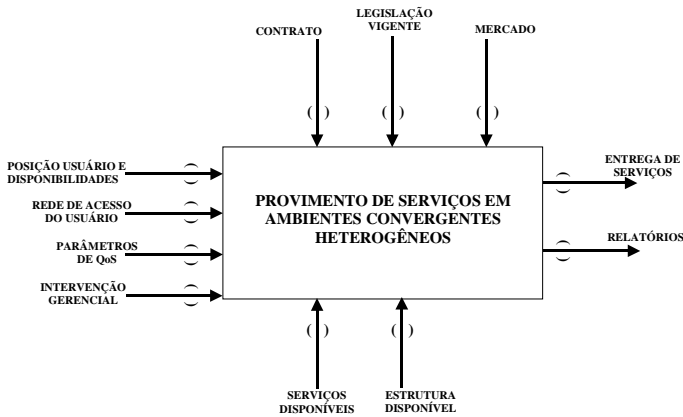


Figure 2 – Context Diagram (KARAM, 2006)

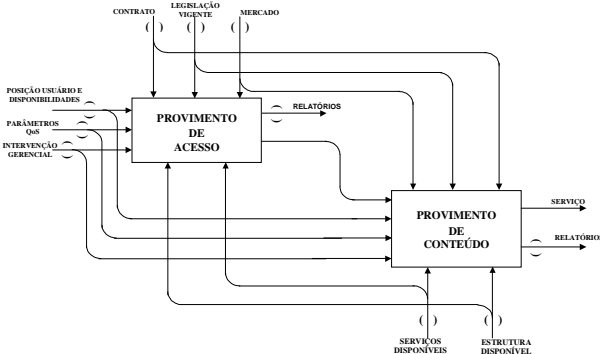


Figure 3 – Detailed Context Diagram (KARAM, 2006)

The delivery service process use user's geographical location, of access networks availability, QoS parameters inputs which will generate the outputs requested by the user, respecting the rules and regulations as well as the tools available at that moment.

An user movement brings new inputs (such as position and networks available) and therefore new process attitudes may be generate new output.

The main idea is a service provider and a user connecting to several content and services through various providers.

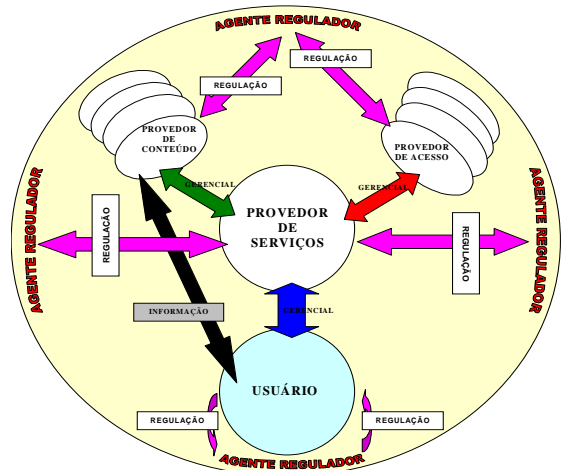


Figure 4 – Business model (KARAM, 2006)  
The Figure 4 shows a generic business model where heterogeneity and convergence are present.

### 3 Conclusion

Business model is nota business process but considering a simplified description and representation idea, this model enable the understanding of business information flows and activities inside the environment to be supported by users oriented processes. In this model, several users are connected a single service provider and a single user can connect to several service providers

Building the process, ontology, business relationships are effectively the transactions between the several stakeholders and compose a business process. A set of transactions becomes a business process and joint these processes make a business model.

By the other side, the user's view, a teleological vision (decomposition vision), the provider services business model in a heterogeneous environment, that requires convergent and heterogeneous, should be composed of objective variables and others subjective under the user understanding about quality and the service may be able to supply it. This vision shows a blackbox, which means only results achieved are the objectives.

By simplified manner, the applicability of this model, can be evaluated in cellular mobile telephony services that exist today

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