

#### The Digital TV Marketplace

#### Different players, different goals

- □ Broadcasters
  - > Access to the "right" number of channels to distribute content
- □ Pay TV Operators
  - > Subscription TV with cross-subsidized channels
- Manufacturers / Device Makers
  - Networked devices with continuing revenues
- □ Retailers
  - > Online content stores to all devices in the lineup
- Developers
  - Which player is my client? How can I sell my application to your TV?

Must all others fail for one to win?
Is there a possible scenario to include everyone?





#### Connected TV – Broadband TV - Widget TV – Is this Internet@TV?

The first initiatives that tried to combine Broadcast TV + Internet

Primarily a TV manufacturer strategy. No standards yet.

- > A closed approach to Internet access with a "walled-garden".
- ➤ Viewers have limited access to "widgets" that enable Internet access to specific Internet portals, content repositories (Youtube, Hulu), social networks (Facebook, Orkut) and small applications (weather, news).
- ➤ Manufacturers have complete control over available widgets and can strike revenue sharing business models with Web content providers.

Benefits and opportunities for TV manufacturers

- Increasing competitiveness and market demand.
- > Possibility of getting a revenue share out of video content distribution.





### Convergent solution: inclusive scenario

Interactivity + Broadband TV is a convergent solution: this means the inclusion of different players in the same scenario

A convergent (hybrid) approach would enable integration of a Broadband TV solution with Broadcaster-controlled Interactive TV.



Broadband TV and Internet-enabled consumer devices.



**Broadcasters** 



Sponsors and marketing agencies (all segments that use TV media)



Financial and commerce market (t-banking and t-commerce)



Government agencies (t-government)



## A new solution based on Ginga already deployed in Brazil







#### **Advanced Interactivity in ISDB-T**

#### Sticker Center as a complete inclusive solution

➤ This new approach is a solution that harmonizes different scenarios in an advanced model:



- ➤ Broadcaster's control over broadcaster's stickers. Increases tenfold the business potential of traditional interactivity.
- ➤ Opens business model for pre-loaded stickers where TV manufacturer gets a revenue sharing with big advertisers / sponsors (retailers, banks, etc.).
- ➤ Includes an open JAVA (and NCL) application store concept / model for application downloading through broadband.
- ➤ Is prepared for on-demand video content distribution via broadband access to content providers or broadcasters portals.
- ➤ Is based on an up-to-date, best of breed, open standard already embraced by global standard organizations such as ITU.





#### **Advanced Interactivity in ISDB-T**

#### What are Stickers?

Stickers are small Ginga applications.



- ➤ They can be sent as a normal Ginga application, over the air, by the broadcaster.
- ➤ They can be downloaded from an Application Store by the user, using the Broadband TV connection or the Interactivity channel in the DTV setop-box.
- ➤ They can be factory loaded in the Digital TV receiver by the manufacturer.

#### What about Java Stickers?

➤ Java Stickers are developed in the same way as Ginga-J applications, using Java DTV and Ginga-J APIs.



# Broadcaster Stickers Advanced interactivity for Broadcasters







#### Interactivity with Stickers

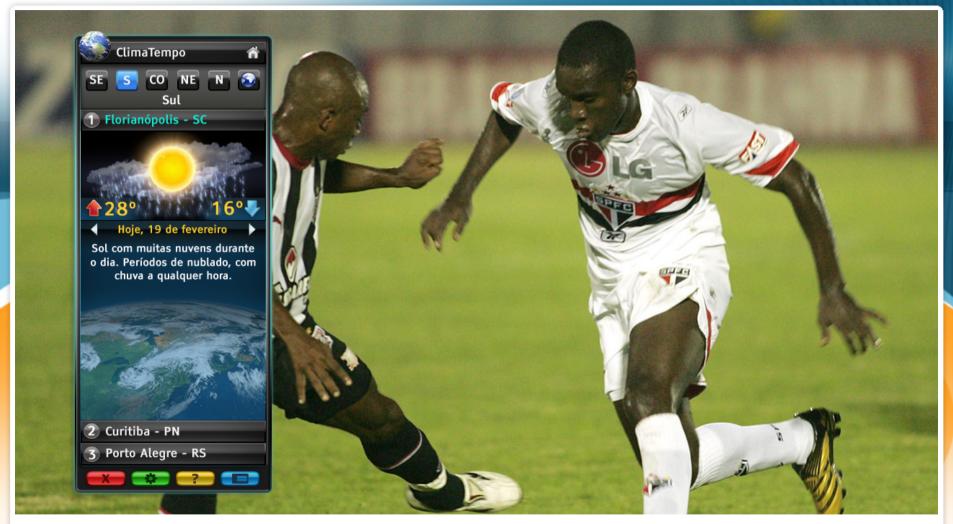


Stickers represent an advanced model presented by an application bar offered and managed by the Broadcaster. Only Stickers sent by the currently tuned broadcaster are presented. When the user changes channel, new Stickers for the new Broadcaster are shown.





#### **Broadcaster Stickers**



When accessing a **Broadcast Sticker** it is shown over the main video, but the broadcaster is controlling all presentation aspects, exactly as in a traditional Ginga application.



# Broadband Stickers User applications with an Internet access model







#### **Broadband Stickers**



MyStickers is the area represented by an icon that enables access to applications stored on the receiver's memory and downloaded via Broadband. Each user in the receiver can have his exclusive account with differentiated content.





#### **Broadband Stickers**

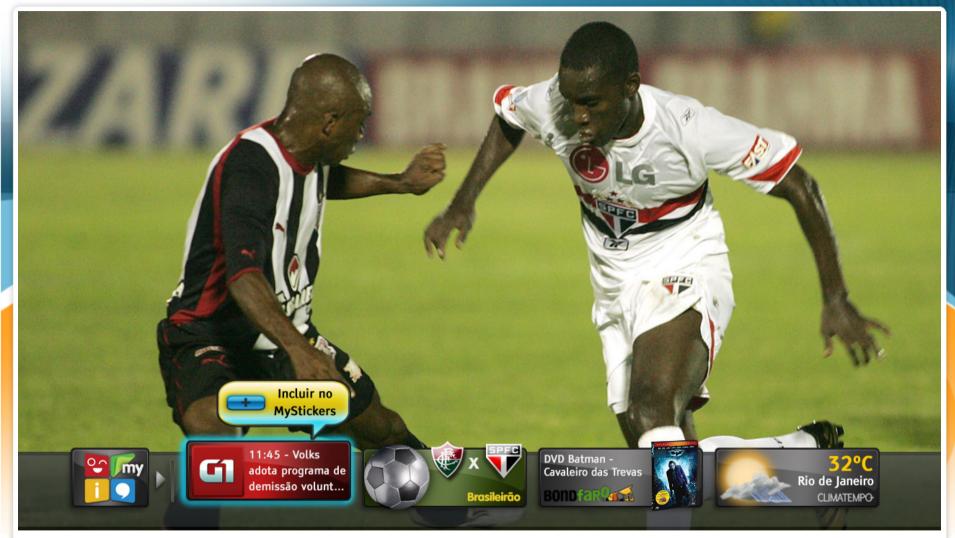


The user area can present factory stored Stickers or receive Stickers sent via **Broadband**. These Stickers can be purchased or downloaded for free from an application store – the **Sticker Shop**.





#### **Storing Broadcaster Stickers**



The tuned Broadcaster can also transmit special **Broadcast Stickers** that can be added by the user to the **MyStickers** area.



# Sticker Shop Java Application Store + NCL/Lua Application Store







#### **Sticker Shop**



The user Stickers acquired from the Sticker Shop can be provided by many different developers, software companies, advertisers, and by any company interested in bringing content and services to the TV. Ginga-J or Ginga-NCL Stickers can be uploaded to the store and purchased directly by the end user.





#### **Sticker Shop**



As a typical application store model, the **Sticker Shop** works with a pre-loaded credit system. The credit loading can be done via credit card (in a special site) or using a special code (available in a store card) via the site or directly in the TV.





#### Real samples of the Sticker model

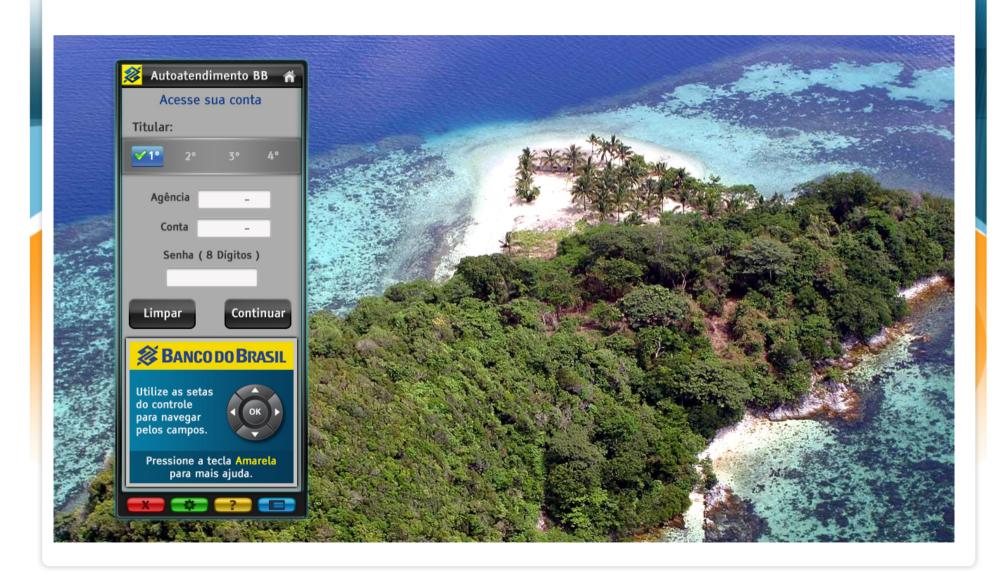
All Stickers are standard Ginga applications (Java or NCL/Lua)





#### Sticker Banco do Brasil (t-banking)

Access to a bank account information.

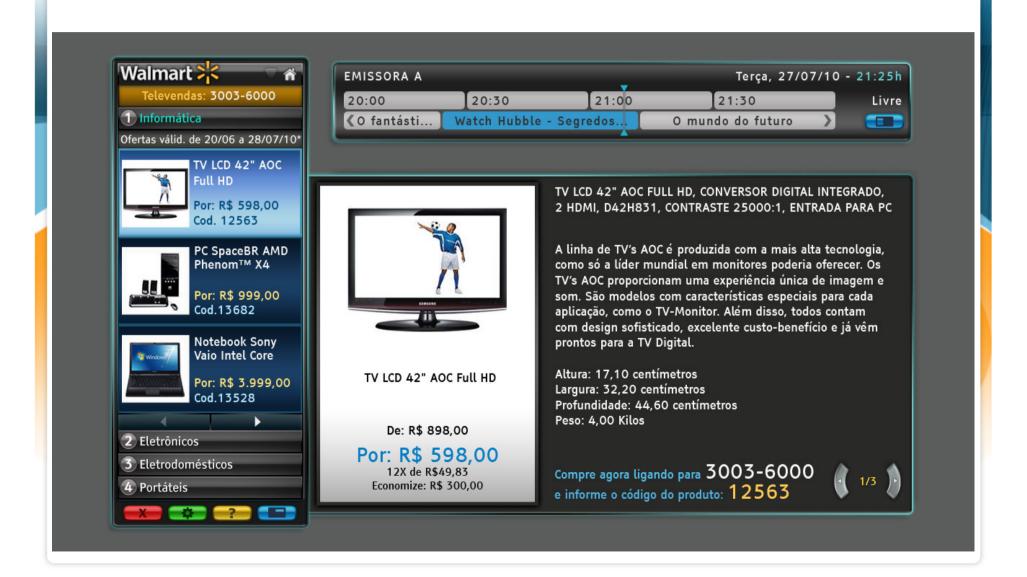






#### **Sticker Walmart**

Access to an e-commerce retail chain product info portal.







#### **Sticker Telejornal Band**

Access to a News Portal from a Broadcaster.







Access to updated news from an Internet Portal. UOL is the biggest Internet provider in Brazil.





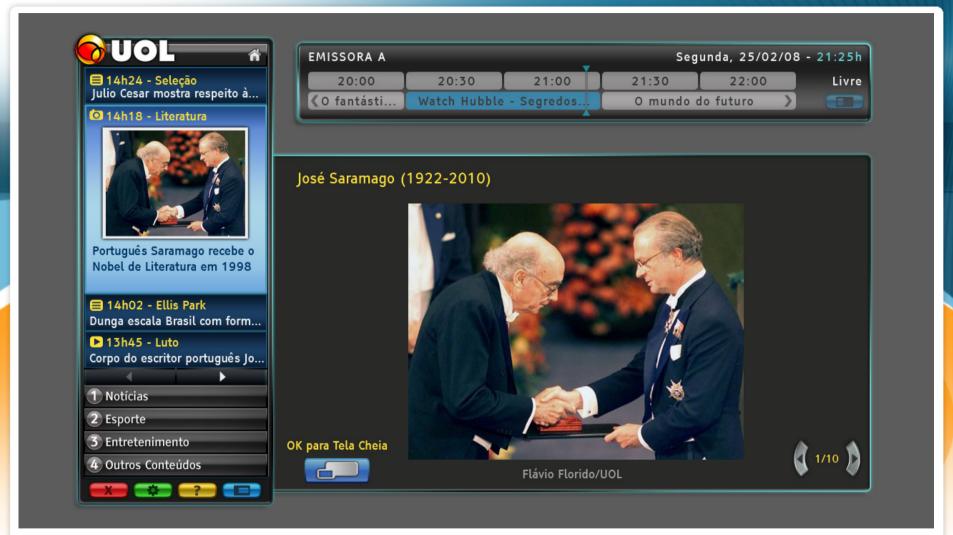


Access to other contents (Science & Health) from the Internet Portal.









The photos shown in the smaller slide run through a slideshow. When a certain picture is selected it is displayed in full screen mode.







Slide-show, full screen mode.







In this sample the smaller windows shows a thumbnail of a video that can be played by the user in half screen or in full screen mode.







Full Screen video playing.





#### Sticker TV Globo Online



Catch-up TV scenario: Soap Opera from TV Globo.





#### Sticker TV Globo Online



Catch-up TV scenario: Soap Opera from TV Globo.





#### Sticker TV Globo Online



Catch-up TV scenario: Full-screen playing.



#### StickerCenter Web Tools







#### StickerCenter Web Portal



The **StickerCenter Portal** allows searching and buying Stickers with a pre-paid card or credit card. At the portal the user also fills all data necessary to do transactions.





### Developer's Portal



#### StickerCenter - Portal do Desenvolvedor





#### O que é o Portal do Desenvolvedor?

O Portal do Desenvolvedor é um ambiente com recursos para integrar o processo de desenvolvimento e testes de stickers e produtos para o StickerShop.

+ Saiba mais



#### O que são Stickers?

Stickers são os aplicativos que você pode baixar, instalar e usar na sua TV, como se fosse num computador! Cada Sticker que você baixa vira um ícone na tela e você pode arrumá-los do jeito que quiser!

+ Saiba mais



The **Developer's Portal** allows developers to send **Stickers** to be certified and made available to TV users in the **StickerShop**. It will also enable the uploading of new versions of the **Stickers**.



#### **Important Highlights**

- Ginga-J and Java DTV application market in Brazil has enormous potential with big players taking part.
- Ginga-J is an Open Standard and can have widespread adoption throughout Latin America and even other ISDB-T countries.
- To the **Broadcasters** Broadband TV option only becomes a solution within a scenario that enables less costly content production (open App Store scenario) and that also enables integration with broadcasted applications.
- To the Manufacturer an inclusive solution increases possibility of revenue-sharing model with partners and not clashing with broadcasters.
- To Software companies and developers: Real opportunity to offer new creative product ideas to all the players in this new scenario (games, tools, services, t-commerce, t-government, etc.).

### Highlights

#### **Important Highlights**

- To the Java ME international community: real opportunity to offer new products like authoring tools, services, training and consulting in Java.
- Experience in Test and Conformance Centers acquired in the ME world will also be highly demanded throughout Latin America as content developers and middleware implementors must certify their applications.
- To the JCP: the new aspects of Java development like integration with Dynamic languages is a fantastic potential of strengthening the Java ME adoption and community development. Good ideas may be:
  - Integration with Lua, which is already used in US telco players like Verizon;
  - Integration with HTML5
- Also inside the JCP, the evolution of JavaTV (JSR 927) with possible adoption of Java DTV features can be considered.
- The Java world has an enormous potential with the success of Ginga-J Java applications. Risk: not enough attention and nurturing of this community and participation on these standards evolution can give grounds to an adoption of only NCL-Lua based implementations and content generation.





- ➤ ABNT 15606 (Ginga) Specifications
  <a href="http://www.forumsbtvd.org.br/materias.asp?id=112">http://www.forumsbtvd.org.br/materias.asp?id=112</a>
- ➤ Ginga-J Specification (ABNT 15606 Vol. 4)
  <a href="http://www.forumsbtvd.org.br/materias.asp?id=112">http://www.forumsbtvd.org.br/materias.asp?id=112</a>
- ➤ Java DTV specification (ABNT 15606 Vol. 6) <a href="http://www.forumsbtvd.org.br/materias.asp?id=200">http://www.forumsbtvd.org.br/materias.asp?id=200</a> <a href="http://www.forumsbtvd.org.br/materias.asp?id=112">http://www.forumsbtvd.org.br/materias.asp?id=112</a>
- StickerCenter

https://www.stickercenter.com.br/StickerWeb/en\_US/index.html https://www.stickercenter.com.br/StickerWeb/en\_US/faq.html

How Brazil is changing DTV
<a href="http://www.robglidden.com/2009/09/the-bric-that-could-how-brazil-is-changing-tv/">http://www.robglidden.com/2009/09/the-bric-that-could-how-brazil-is-changing-tv/</a>







#### Thank you!

www.tqtvd.com www.totvs.com.br

Aguinaldo Boquimpani@totvs.com.br

#### Rio de Janeiro

Rua da Assembléia, 66 / 20° andar - Centro

CEP: 20011-8600

Tel: (55 21) 3147-8604



#### São Paulo

Av. Braz Leme, n 1.717 Jardim São Bento - SP - Brasil

CEP: 02511-000

Tel: (55 11) 5505-4584