

Interactive IPTV: Leveraging Infrastructure to Stay in the Game

By H. Leopold



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Today's telcos are facing a battle for survival against a background of a large number of new market entrants, focused mainly on voice service and Internet access, that are driving a decline in voice revenues.

Those telcos with the clearest vision of how the industry is changing – driven by competition and by user demand for anytime, anywhere, low-cost broadband – will stand the best chance of survival. They are already examining their assets and realizing that future revenue streams will be derived from monetizing the ubiquity of their existing and planned broadband infrastructures, from developing applications that leverage these unique assets and from creating emotional ties with customers to ensure continued loyalty.

An obvious means of achieving these ambitions is through the development of multimedia applications that engage customers in a way that creates new potential markets and that cannot easily be replicated by new market entrants. This is the approach we have taken at Telekom Austria. Our company invests approximately €40 million (\$62 million USD) per year in R&D aimed at migrating our voice, data and multimedia networks to a next-generation platform that will underpin our future success.

Multimedia applications enhance the attractiveness of fixed lines and decrease customer churn. In particular, interactive IPTV that relies heavily on user-generated content offers the opportunity to involve end users emotionally in the services offered, driving a level of involvement and loyalty that rivals the success of free online video sharing services like YouTube.

From the Test Bed to the Real World

We were convinced of the need to develop a unique selling-point for our multimedia services to counter declining voice revenues. Therefore, we decided to test this theory in a real-life environment. This led to the creation, in 2004, of a pilot project called Buntes Fernsehen (Colorful TV).

We chose a small community called Engerwitzdorf, in Upper Austria. Engerwitzdorf is an interesting example of a common recent phenomenon. The village is close to a large city, and many of its 8,000 inhabitants are recent arrivals who commute to the city each day. The mayor was concerned that community cohesion was disappearing fast and was interested in seeing if a sense of community could be rekindled among newcomers who had nothing in common except their place of residence. The scenario was also a perfect test bed for us: if our idea of involving users in content generation and community communication could work here, it could work pretty much anywhere.

In earlier times, the local fountain, marketplace or town hall bulletin would have served as the main information source for local residents. Telekom Austria proposed something new in keeping with the digital age: an IPTV service which offered not only the standard broadcast channels and pay-per-view Hollywood movies, but also programs and channels featuring content created locally.

The feedback before we started was clear: people were interested in community channels and programs but not interested in the “standard” approach of a local website. They wanted something

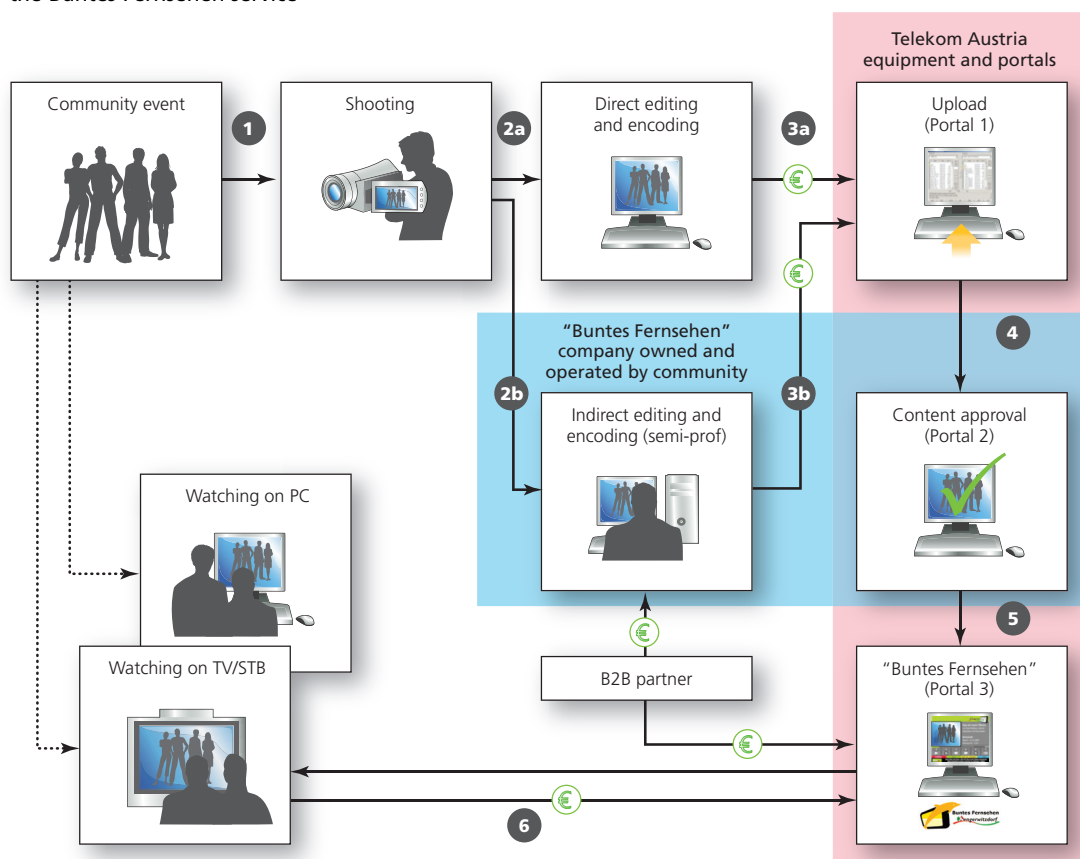
they could watch, contribute to and interact with via their TV sets, not just their PCs. Picture quality and convenience of use were key factors for the TV push.

The main objective of the project is to test the wide range of possibilities offered by broadband technology, as well as to investigate the types of technology and content that will attract and retain users in the future. We are gathering extensive market and technical experience from Buntes Fernsehen that will allow us to shape our strategy going forward, develop business models that accurately answer user demands and add a unique selling point to Telekom Austria's offer. Media-on-demand is a new concept, and the pilot will help us understand consumer usage and consumption patterns before embarking on huge development projects.

Offering an IPTV service is one possible tactic for a telco. However, unless there is something to differentiate the offer from the competition, users will question why they need to subscribe. After all, they already receive national broadcast channels and may well subscribe to cable TV or satellite services. Why would they want to pay more money for a duplicate service that uses new technology and an extra set-top box? There has to be a unique selling point (USP) – something that represents a compelling emotional reason to sign up for the service.

So we offered the citizens of Engerwitzdorf the chance to participate in generating content for the service, turning them into content producers and aggregators and making them part of an interactive TV channel. The major challenge was to make complex technical content understandable to the average person and to design a pilot project that could measure up to international benchmarks and be regarded as a best practice in comparison to concepts like Current.tv and YouTube (Figure 1).

Figure 1: Unlike the passive nature of traditional TV, interaction among all participants takes center stage in the Buntes Fernsehen service



Creating the Buzz

Telekom Austria provided a DSL-based distribution platform for the content generated by the local community. In addition to technical support, we organized and sponsored training and coaching sessions to teach the citizens of Engerwitzdorf how to make a film, how to choose content that is emotionally and socially relevant to their community, and how to shoot, edit and upload the content via a feedback channel to the distribution platform. Our company also provided the hardware and software to turn video footage into edited programs.

The ubiquity of digital video cameras means that one of the traditional hurdles to viewers generating their own content has now disappeared. There is no longer a need for expensive cameras and lighting rigs to produce basic content.

We took on an enabling and coaching role, to guide citizens through the generation, production, integration and distribution of local content using our broadband infrastructure and extensive expertise. In addition to functioning as a digital and multimedia tutor, we also needed to stimulate the content production process. To do this, our company set up the “Golden Dolphin” awards for the best videos, backed by a major local, national and international publicity campaign.

The campaign was so successful that in the three months leading up to the 2007 awards, some 130 contributions were received. To date, around 500 user-generated films have been developed for Bunte Fernsehen, many of remarkably high quality.

Media coverage of the pilot scheme has been extensive both at home and abroad, with the UK’s BBC News producing a special report on the community’s TV station. The project was also awarded Austria’s State Innovation Prize for Interactive Applications in Digital Broadcasting in 2005.

The Keys to Success

The pilot has been so successful that Telekom Austria now believes user-generated content will be a key factor in the success of tomorrow’s applications. In addition to becoming a USP for telcos that possess the infrastructure to offer such interactive services, it will also represent a significant differentiator from other providers and will drive usage of broadband-based multimedia platforms.

We are convinced that communicating to micro-level audiences with highly personalized, emotionally and socially relevant content will play a crucial role for IPTV and overall profitability going forward. This will change the nature of advertising and will have a disruptive effect on the broadcasting industry as a whole.

The pilot in Engerwitzdorf demonstrated that, in addition to locally relevant content, a robust interactive capability and a good user interface are fundamental elements in developing a successful interactive IPTV service.

Moreover, by addressing local issues and problems, self-generated content provides a good platform for local politics and lobbying: it is proving to be a very effective way to raise awareness, foster discussions and impact the decision-making processes within the community – all of which contribute to engaging more and more customers in the project.

In addition, self-generated content can be used as an effective business tool, especially for subject matter experts, providing local and niche businesses with a unique platform to address highly relevant micro-audiences in a cost-effective way.

The pilot further demonstrated that, for interactive micro-content, DSL is the best mass-market technology of those already deployed, since both cable and satellite communications cannot offer the same degree of interaction, personalization and scalability.

Modeling for the Future

Telekom Austria is already examining possible future business models for interactive IPTV services that rely on local, user-generated content to supply a compelling reason to sign up for the service.

Although research is ongoing, several possible future business models are under consideration. We are still modeling how best to deploy and monetize the system we have created. The pilot has been deployed, essentially free of charge, as a pure test bed. We are now looking at customer usage behaviors to determine the best business models for these types of service.

Options include the obvious: a service subscription, pay-per-view for video-on-demand services or a simple fee to access the service. At the same time, we need to assess whether we need to offer access to the platform to content generators free-of-charge, to stimulate the very content that will make the service attractive to potential users. However, as penetration of such services increases – to, say, 10% of Austrian households (approximately 300,000 homes) – then other options, such as personalized advertising, become attractive means of increasing service revenues.

Wider and Deeper Research

To ensure the reliability of the research data used to formulate future strategies, Telekom Austria has encouraged the involvement of BUNTES Fernsehen in an international community TV project. Citizen Media is a 30-month EU-level project that aims to enable multiple non-professional users to co-create networked applications and experiences based on their own user-generated content.

This project investigates new, innovative ways of exploiting the huge amount of user-generated content to support people in their daily lives and looks at how technology will allow users to co-create networked applications. This work will introduce new concepts that may modify the role of stakeholders in the classic value chain for content delivery.

Applications, services, systems, infra-structure, technology and architectures will be developed based on a user-centric approach. The goal is to enable any user at any location with any device to consume, author and publish his or her own content using a networked A/V system.

The project currently links Engerwitzdorf to communities in Cologne (Germany) and Oslo (Norway). The international element of the project will enable us to gather market research and usage patterns across a wider universe of users, which will indicate both similarities and differences in usage and consumption between different countries and communities.

Developing a Strategy for Survival

We still have several months of research and analysis ahead of us. At the end of this project, we intend to deliver a range of strategy scenarios that will support our future business.

That's why we're investing so heavily in this real-world test bed, to find out which interactive services people want, how they want them configured and how they will actually use them to enhance their daily lives. If we can find the answer to those questions, we can define the correct business model to ensure that Telekom Austria stays at the competitive edge in future markets.

We are using IPTV middleware and systems integration expertise provided by Alcatel-Lucent, and we are confident that our next-generation IPTV platform has the robustness and scalability to cope with huge future demand for interactive IPTV services that rely heavily on user-generated content.

It's certainly an exciting time for our company. We have found the partners we need to help us meet the challenge of surviving the fierce competition we face today, and we are optimistic about our prospects going forward. The market will certainly never stop changing, and neither will Telekom Austria. ☒

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