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myTV

Report TV Anytime Forum Fifth Meeting
Osaka, Japan, 28-30 March

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Introduction

The 5th meeting of the TV-Anytime forum took place in the Rihga Royal Hotel, Osaka, Japan from Tuesday 28th March through Thursday 30th March 2000. This was an international forum with representatives from broadcasters, consumer device manufacturers and internet-biased software companies. Some 60 companies were represented.

The following myTV project members actively participated this meeting in the activities of the TV-Anytime Forum:

David Bradshaw (BBC): Rights Management & Protection
Nigel Earnshaw (BBC), Edwin Montie (Philips): Content reference
Alex Ashley, Ronald Tol (Philips): System design
Peter Mulder (NOB): Metadata
Kimmo Loytana (Nokia): several topics

Meeting Objectives

The objective of the meeting was to generate and complete the text and graphics for the technical requirements documents covering; business models, system description, metadata, content referencing, and rights management. Of these documents the first two provide an informative outline of the system environment, the rest capture the technical requirements of the TV-Anytime system.

For each of the above documents, an initial draft had already been prepared at the last TV-Anytime forum meeting in Sunnyvale and these had been made available for comment on the TV-Anytime ftp site.

Meeting Organisation

The meeting met in plenary sessions and working groups. The technical working groups were organised along the same lines as the output document structure as outlined above, namely; business models, system, metadata, content referencing and rights management.

The initial plenary session was used to review some of the contributions received by the TV-Anytime forum as a result of the publication of TV-Anytime Call for Contributions (TV014r3) and initial draft requirements documents. Those contributions presented in the plenary were those judged to be relevant to all working groups.

Each of the working groups had a chairman or group leader, and an editor. The group leader made presentations of progress to the plenary at various intervals.

Contributions Arising from Publication of Draft Documents and CFC.

There were 28 individual listed contributions to the TV-Anytime forum as a result of the previous publication of the Call for Contribution and draft requirements documents. Many were comments or suggestions contained on a single side of A4. There were also proposals from Hitachi to support the concept of Hybrid Video on Demand System and a co-ordinated list of suggestions and comments from over 15 Japanese companies represented by the Japanese Content Id Forum.

Additionally there were outline solution based contributions from NDS, the myTV project, and the Telecommunication Advancement Organisation of Japan Waseda University.

Technical Working Group Progress

Initially, each of the working groups revisited each of the contributions and reviewed the initial draft documents in the light of the suggestions and demands of the solution based contributions. There was an issue, aired at the plenary, to do with the appropriateness of the solution based contributions. It was felt that since they had been admitted to the TV-Anytime forum they can be held and reviewed again at the next meeting when solution technologies will be considered. For the moment it was only necessary to extract any implied requirements.

Content Reference Working Group. (Chaired by Oren Simon, Homing Inc)

Each of the proposals relevant to the concept of content referencing were individually scrutinised. Changes were made to the structure and text of the document to accommodate the suggestions or clarify the position where necessary.

Most of the discussion centred around the requirements placed upon the identifier. In particular Nigel argued that a content identifier could not be completely ad hoc or random and that some mechanism for avoiding namespace collisions should be implied. Ideally a system that gave rise to unique reference (at least for a reasonable time period) would be desirable and that any authority implied by the literal representation of the reference identifier, say by carrying a brand name in the leading fields, would be representative of the issuing authority. In this way we would avoid misrepresentation, ‘passing off’ or brand sabotage.

This view was in conflict with the strong view of the chairman and the standing requirement that the reference should be independent of a central registration authority. Nigel’s viewpoint was supported by Edwin Montie from Philips and the Japanese representative that this was an onerous requirement which none of the proposed solutions could pass and would be difficult to engineer in its purest form. It was eventually removed with the recommendation that excessive central registration should be avoided but central co-ordination of namespaces would be allowed..

Although the group had a series of similar debates the atmosphere was always friendly and professional. Some discussions continued during dinner and by Thursday everyone felt they had a much clearer idea of what is required from a TV-Anytime system.

Business Models (Chaired by Gary Hayes, BBC)

This group produced an informative document outlining business model scenarios to be supported by a TV-Anytime system. This gives an overall picture of the functional requirements of a TV-Anytime system. This group completed and approved their document.

Metadata Requirements (Chaired by Jean Paul Evain, EBU)

This group produced a document outlining the source and flow of metadata within a TV-Anytime environment. The impression given was that they felt very pushed for time and are keen to scope the requirements in the light of external activities, particularly MPEG7.
One of the important issues is that TV-Anytime services only work when the Broadcaster can use the information that is already available in the production environment. Therefore a lot of debate was about MPEG-7 against SMPTE / EBU solutions for metadata.
An other point of discussion was that SMPTE metadata coding is designed for minimum overhead in transport streams and MPEG-7 just started to look in to this. In following meetings this debate will go on for some time in the future. The same related discussion is going on in MPEG-7 and there is a liaison between MPEG-7 and TV-Anytime and a Liaison between MPEG-7 and SMPTE/EBU. Hopefully this will result in a workable solution for CE manufacturers and content providers.
The resulting document of the meeting covers the requirements on metadata produced by the different nodes within the TV-Anytime system and explains what is meant by these source entities, e.g., creator, provider etc.

System Description(Chaired by Frits Klok, KPN)

This group developed an informative document (editor: Alex Ashley, Philips) describing an overall system reference architecture of the TV-Anytime system. The document serves the purpose of creating a context and common understanding of the different parts of the TV-Anytime system.

For this meeting the goals of the system group were:
- to check the consistency of the system model with other groups
- to distil a final requirement set, and
- to produce a new version of the system description document

The group reviewed the input documents AN072 and AN054 and included the relevant comments in the document.

To clarify the simple system model as developed in the Sunnyvale meeting, we considered two basic instances of a TV Anytime system: 1) the classical broadcast model and 2) a bi-directional network example. This helped a lot to identify what functional elements a TV Anytime systems consists of and it lead to a better description of those functional elements.

We further held meetings with the other working groups to explain the system model and to check whether the model fitted with the current thinking in those groups.

Rights Management(in absence of the regular chairman, Guy Hirson of NDS, led by Albert Stienstra of Philips)

As the work of the Rights Management Group lags that of the other groups, an additional pre-meeting was arranged for the two days preceding the main meetings of the Forum.

The main work of the Rights Management group was to consider the responses received to the Call for Contributions in respect of user requirements for rights management, conditional access and copy protection schemes. The group decided to use the term Rights Management and Protection System (RMP) to cover these and to use the term Rights Management and Protection Information (RMPI) for the data included in a distributed or broadcast signal to implement a RMP system.

Consideration of the responses involved, in many cases, a clarification of the response as it applied to the TV Anytime model, collation, categorisation and prioritisation of the responses so as to eliminate duplication between the responses and to identify the most important requirements.

During the meeting David Bradshaw of BBC acted as editor for the group and proposed a scheme for categorising the diverse responses according to the part of the signal chain to which they applied (content creation, distribution, content acquisition by the consumer, etc.). This enabled the work of identifying conflicting and duplicate requirements to be delegated to other attendees. Despite the extended meeting, the group was only able to reach the point of assigning work, with the results to be returned to the chairman by email immediately after the meeting. The Rights Management section of the Forum's Requirements Document has been issued but only as a work-in-progress document as an indication of what it will contain.

Rights Management is the most difficult part of the TV Anytime model and the group is probably the smallest of the working groups with little representation from broadcasters. BSkyB, NDS, Canal Plus, OpenTV and Philips are the main players.

Output Documents

The documents for TV-Anytime are publicly available from the ftp site tva@ftp.bbc.co.uk. This is also pointed at on the website http://www.TV-Anytime.org.

The output documents referred to above can be found in the Plenary directory as:

- TV035r2.zip: - Business Model Requirements Document R-1
- TV036r2.zip:- System Design Requirements Document R-2
- TV037r2.zip:- Metadata Requirements Document R-3
- TV038r2.zip:- Content Referencing Document R-4
- TV039r2.zip:- Rights Management Document R-5 (work in progress).

The next meeting of the TV-Anytime forum will be 30th May–1st June in New York City.