

SwarmTv: The end-user experience

By Erick van Rijk

SwarmTv is meant to be a robust library for implementation in end products ranging from PC and server applications to embedded devices such as home entertainment sets or Personal Video Recorders (PVRs). "Content anytime, everywhere."

The idea of SwarmTv is built around end-users: the content providers and consumers. The content providers:

The content providers (the people/companies that make the content (audio/video etc.)) will be able to provide the content to the consumers by utilizing the P2P networks as distribution. Using P2P networks decreases the cost of distribution exponentially because the cost of sending the content to the consumer is shared along all the other connected users, hence the swarm effect. Once the content provider has created their content and made it ready for distribution, the content provider sets up their own Virtual Channel (VC). A Virtual Channel is a channel related to the content provider or specific relational content inside the channel. For example a specific sitcom will have a new episode every week. When the sitcom is ready to be distributed it will be published on the Virtual Channel, and made available for the public.

The consumers:

On the consumer-side, compatible applications (either software or embedded systems) will be able to subscribe to the VCs provided by the content providers. If a consumer is a fan of the sitcom mentioned above, he/she will subscribe to the VC and when the content provider releases a new episode, the application will automatically download the sitcom for local viewing. During the process of getting the episode the already downloaded part of the sitcom will be shared among other users subscribed to the same channel, in the same way current P2P systems work (Bittorrent for example).

Result:

By using this distribution system the consumer will get the latest episodes (older ones also if provided in the VC by the content provider) to be viewed at a time the consumer wants. The content provider will reduce the costs of providing the content and will receive a loyal consumer base (since they have subscribed to the channel one would expect they will download and view the next episode as well) in return.

Possible implementations:

When thinking of the "Content anytime, everywhere." concept you want to be able to add subscriptions to you subscription list anywhere at anytime. Be it at a friend's house, at work or in the train. By making the SwarmTv lib Internet compatible a web accessible interface can be created to add/edit the subscriptions on the application. So you can access your PC application or PVR with a PC using a browser, an Internet capable phone or a Java application that will connect to the SwarmTv lib. Another possibility is that the PVR application of SwarmTv can be made accessible by MHP standard.