

79<sup>th</sup> IETF, November 2010, Beijing, China

# Channel Reflector

- Revive the session announcement draft ? -

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# Previously...

- We worked for the session announcement requirement draft
  - draft-ietf-mboned-session-announcement-req-03
  - No update because of lack of interests...
- Goal of that draft was
  - Clarify the issues SAP causes
  - Describe the functional requirements for IP multicast session announcement protocols / procedures
  - No protocol definition nor technical solution proposed in this draft

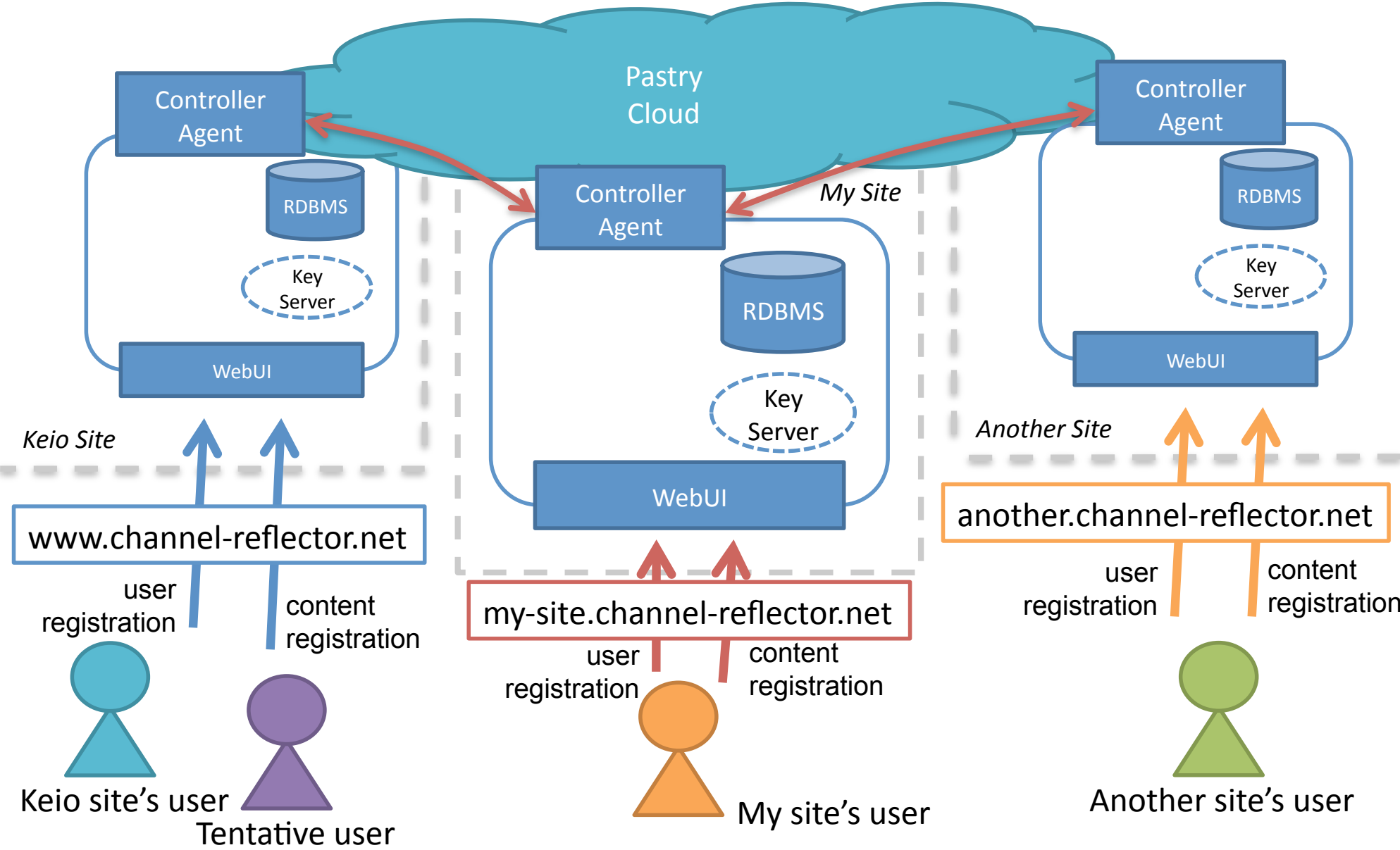
# Functional Requirements

- Information consistency
- Low information update latency
- Low bandwidth consumption
- Scalability
- High availability
- Scope control
- Sender control
- User access control
- No dependency on a routing architecture
- Security consideration

# Channel Reflector

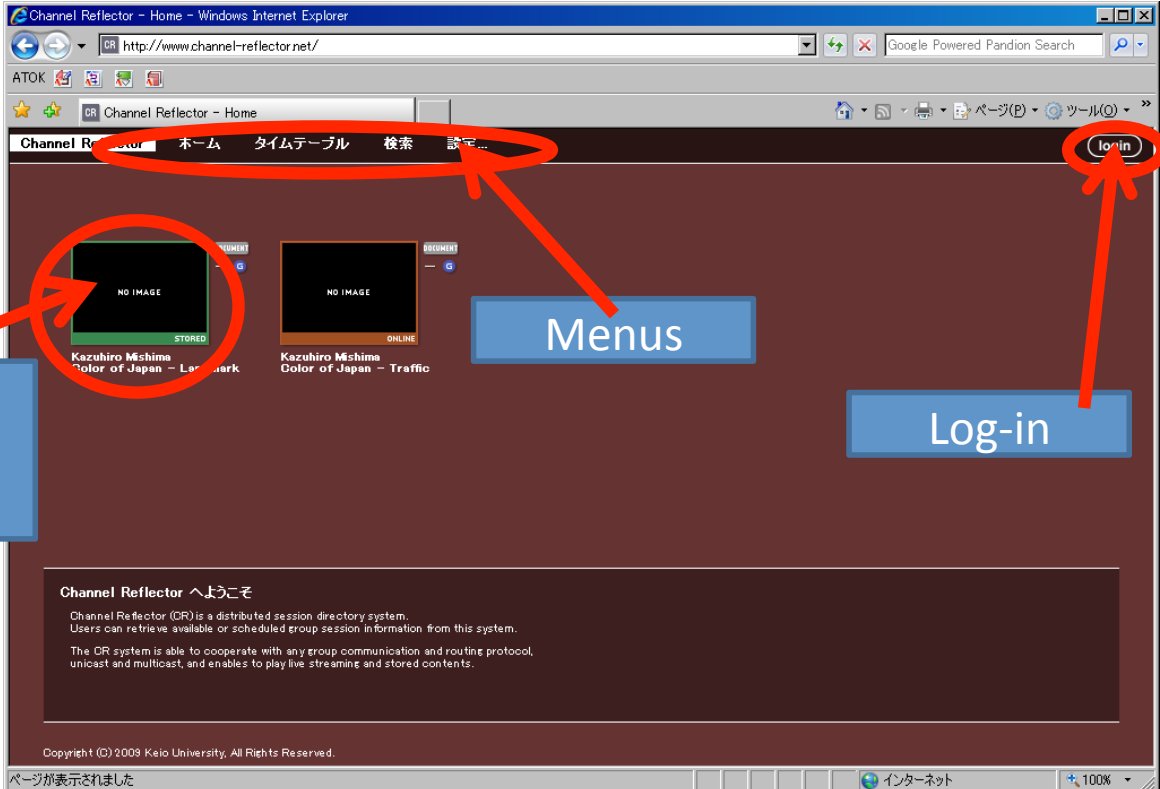
- Channel Reflector (CR) is
  - Web-based multicast session/channel announcement system
    - It is NOT a VoD server
  - No SAP, no ASM, no multicast routing dependency for announcement
  - Support global and site-local channel information
    - But this site-local information does NOT depend on routing topology
  - Content information can be expressed by various formats, e.g. SDP, metafile
    - You can use VLC, MediaPlayer, Real, DVTS, etc.
  - User management by web-based access control
  - Support secure streaming (by pointing group key server)
- CR's components
  - Enhanced DHT with controller agent
  - Local RDB (MySQL)
  - HTTP server

# CR Use Image



# Getting Started

- You can (tentatively) use our site CR
  - Open and global Channel Reflector Site  
<http://www.channel-reflector.net/>



The screenshot shows the Channel Reflector website in a Windows Internet Explorer browser window. The address bar displays <http://www.channel-reflector.net/>. The website has a dark red background and a navigation menu at the top with links for 'ホーム' (Home), 'タイムテーブル' (Time Table), '検索' (Search), and 'ログイン' (Log in). The 'ログイン' link is circled in red. Below the menu, there are two content cards for 'Kazubiro Meshima Color of Japan - Landmark'. The first card is labeled 'STORED' and has a 'NO IMAGE' placeholder; it is circled in red. The second card is labeled 'ONLINE'. A blue callout box with an arrow pointing to the 'STORED' card contains the text: 'Click to get content information, launch VLC player to playback'. Another blue callout box with an arrow pointing to the 'ログイン' link contains the text: 'Log-in'. A third blue callout box with an arrow pointing to the navigation menu contains the text: 'Menu'. At the bottom of the page, there is a copyright notice: 'Copyright (C) 2008 Keio University. All Rights Reserved.' and a status bar at the very bottom that says 'ページが表示されました' (Page displayed).

# Getting Started

The screenshot shows the Channel Reflector website in a Windows Internet Explorer browser. The address bar displays 'http://www.channel-reflector.net/'. The navigation menu includes 'ホーム', 'タイムテーブル', '検索', and '設定...'. A language selection dropdown is visible with options for '英語(米)' and '日本語'. A 'login' button is located in the top right corner. The main content area contains a welcome message in Japanese and English, and a copyright notice for Keio University.

Channel Reflector Home - Windows Internet Explorer

http://www.channel-reflector.net/

Channel Reflector ホーム タイムテーブル 検索 設定...

言語... 英語(米)  
アカウント 日本語

login

Show the timetable

Search the content

Locale change, Account creation

In order to register the content, login is required

Channel Reflector へようこそ

Channel Reflector (CR) is a distributed session directory system.  
Users can retrieve available or scheduled group session information from this system.

The CR system is able to cooperate with any group communication and routing protocol, unicast and multicast, and enables to play live streaming and stored contents.

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インターネット 100%

# Call for Participants

- Multiple CR servers create the CR system
  - Please install CR server on your site!
    - More CR servers will make the CR system be robust
    - Local CR server enable to register the site-local channel information
- Server requirements
  - OS
    - CentOS5, RHEL5 (recommended)
    - Fedora 12 or later
  - CR package, including the following common S/W;
    - Apache Web Server
    - MySQL RDB Server
    - Simple Overlay Toolkit DHT Service



# How to install your site CR

- To complete installing the CR, you need only few installation steps
- See INSTALL guide on this URL
  - <http://www.channel-reflector.org/rel1/INSTALL>
- If you cannot install the server on your site but want to use it...
  - For browsing page and contents, you can just access to the global CR site, visit <http://www.channel-reflector.net>
  - For channel announcement, please tell me. I'll enable your account at the global CR site tentatively, and you can register content information on that CR

# Next Step

- Next release includes
  - Secure Streaming Support
    - IPsec tunnel-based Streaming Tool
  - Group Key Management
    - Key Server, Management Tool for IPsec based secure streaming cooperated with CR
- And now, can we revive the draft for moving forward ?
  - draft-ietf-mboned-session-announcement-req-03