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Brief explanation of HTML5 apis for interaction scenario

June 15th, 2012 @ Makuhari, Chiba
W3C Workshop on Web-based Signage

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Today's main Idea

- Explain some HTML5 apis in terms of interaction use-case of Web-based digital signage scenario.

  - Keyword
    - Interaction
    - bi-directional
    - discovery
    - How to choose services

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Agenda

- Introduction
- Naive demonstration
- Explanation of today's APIs
- Scenarios for moving forward

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Sample image of web-based signage

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Can you see?

Can you see?

MAKUHARI area information
highlight touched <p>
Summary top
Broadly speaking, the regional and district Hanamigawa current side had been referred to as "Makuhari" since ancient times, the 1960s , Mihama-ku, divided into regions of the current side were established by the landfill later.
Makuhari in a broad top
Originally Shimofusa country seems to be said (or additional horse) refers to the area west of the county Makuhari, Chiba. Next in Chiba , Narashino, became the shape of the current is 1954 , but which is, the current at this time Yachiyo and Funabashi City at the time and around claiming to be "Narashino" of town Makuhari was
photo top

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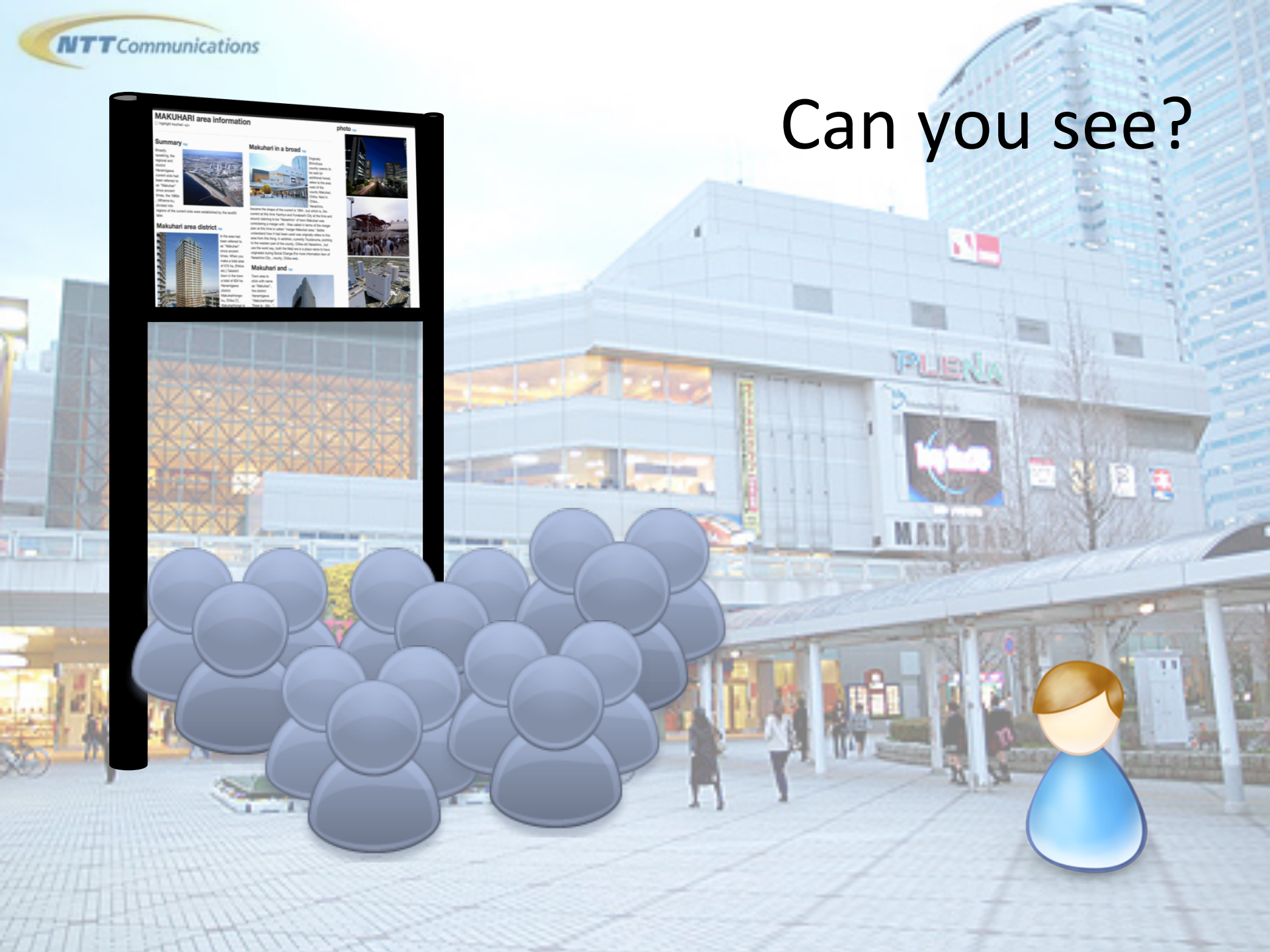
Can you see?



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We need solution!!

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One option

Apply adequate design!!

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Another option

- Use second device!!

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Makuhari | Info | Camera | Whiteboard

MAKUHARI area information

highlight touched <p>

Summary top

Broadly speaking, the regional and district Hanamigawa current side had been referred to as "Makuhari" since ancient times, the 1960s , Mihama-ku, divided into regions of the current side were established by the landfill later.

Makuhari area district top

Is the area had been referred to as "Makuhari" since ancient times. When you make a total area of 515 ha, (Police etc.) Takeishi town in the town a total of 624 ha Hanamigawa district Makuharihongo-ku, Chiba [1] . Makuharihongo is closer to the Narashino Of

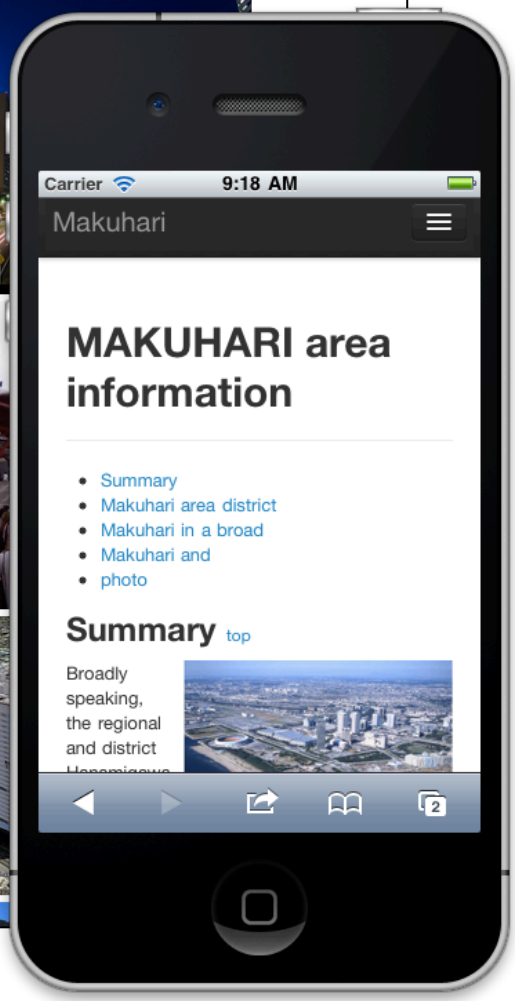
Makuhari in a broad top

Originally Shimofusa country seems to be said (or additional horse) refers to the area west of the county Makuhari, Chiba. Next in Chiba , Narashino, became the shape of the current is 1954 , but which is, the current at this time Yachiyo and Funabashi City at the time and around claiming to be "Narashino" of town Makuhari was considering a merger with . Was called in terms of the merger plan at this time is called "merger Makuhari area." Better understand how it had been used was originally refers to this area from this thing. In addition, currently Tsudanuma, pointing to the western part of the county, Chiba old Narashino , but use the word say, both the Meiji era is a place name to have originated during Social Change (For more information item of Narashino City , county, Chiba see) .

Makuhari and top

Town area to stick with name as "Makuhari", the district Hanamigawa "Makuharihongo" There is - (to) - "- Makuhari town"

photo top



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CSS3 Media Queries

Switch design based on screen size.

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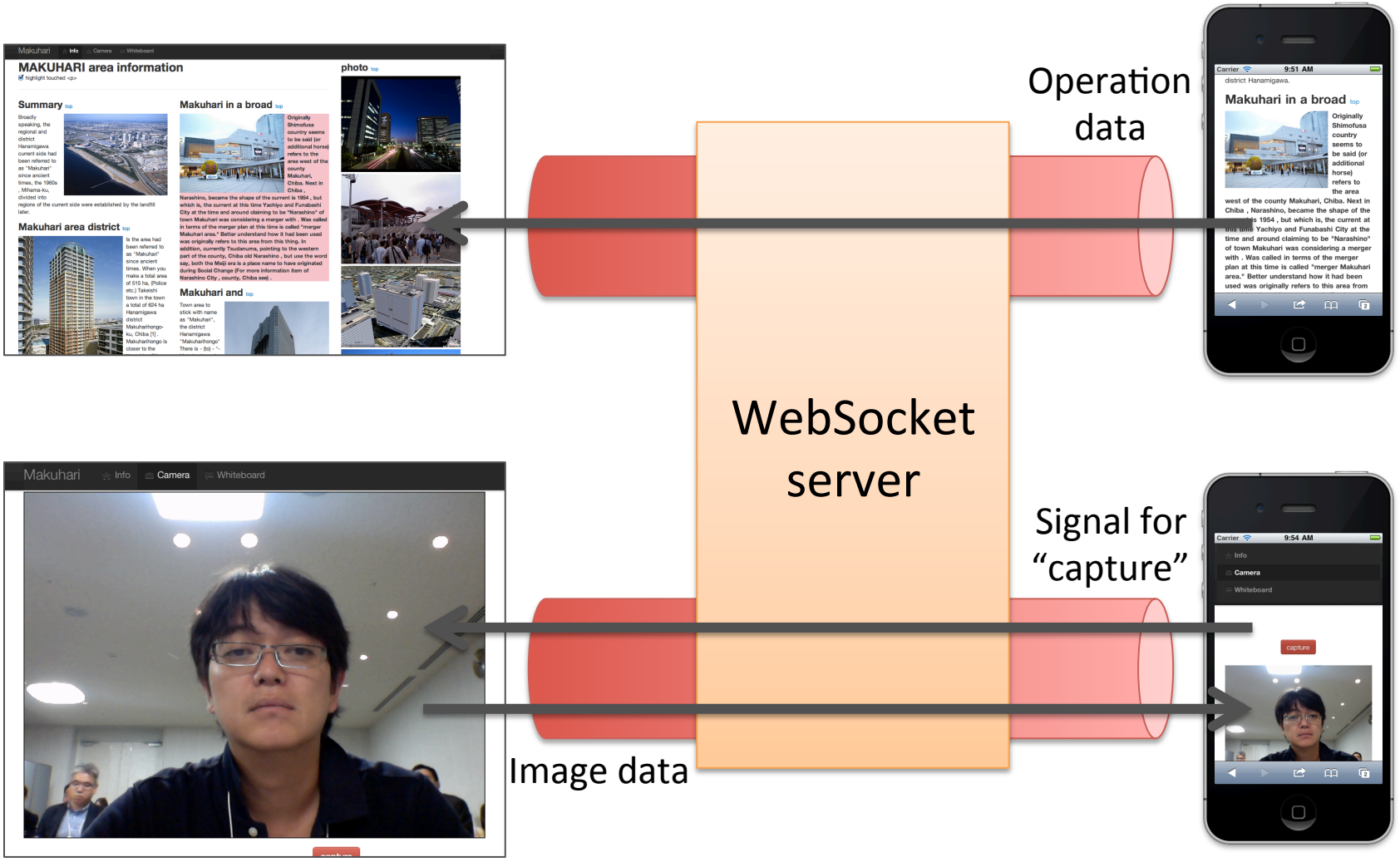
CSS3 Media Queries

```
.container {
    width: 972px;
}

@media (max-width: 480px) {
        .container {
            width: 100%;
        }
}
```

WebSocket

- Enable bi-directional communication on top of Web layer



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WebSocket

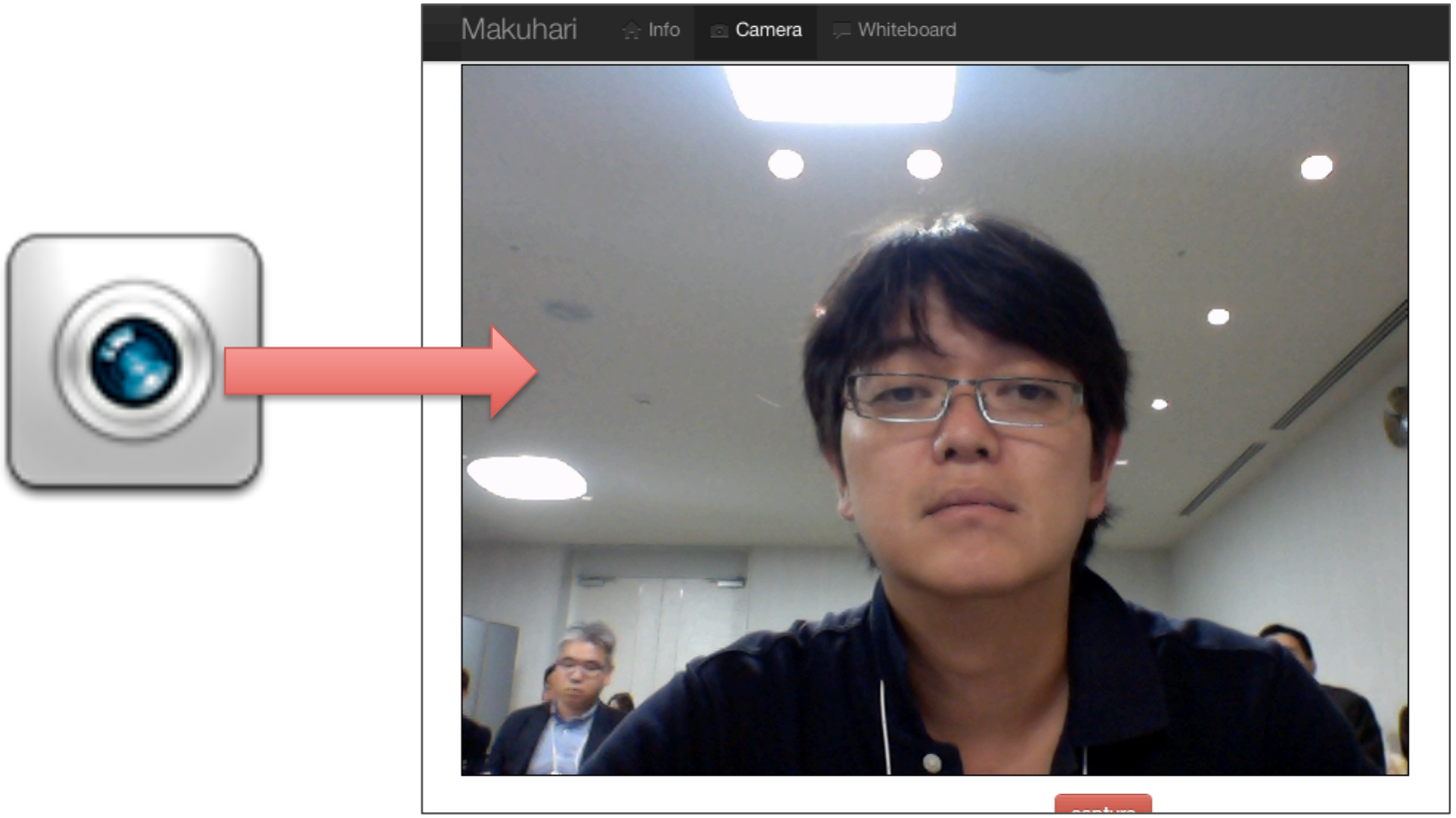
```
var ws = new WebSocket('ws://example.com/');

ws.send("hello");

ws.onmessage = function(e) {
  alert(e.data);
}
```

getUserMedia

- Get Streaming data from Camera and Microphone w/ Javascript API



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getUserMedia

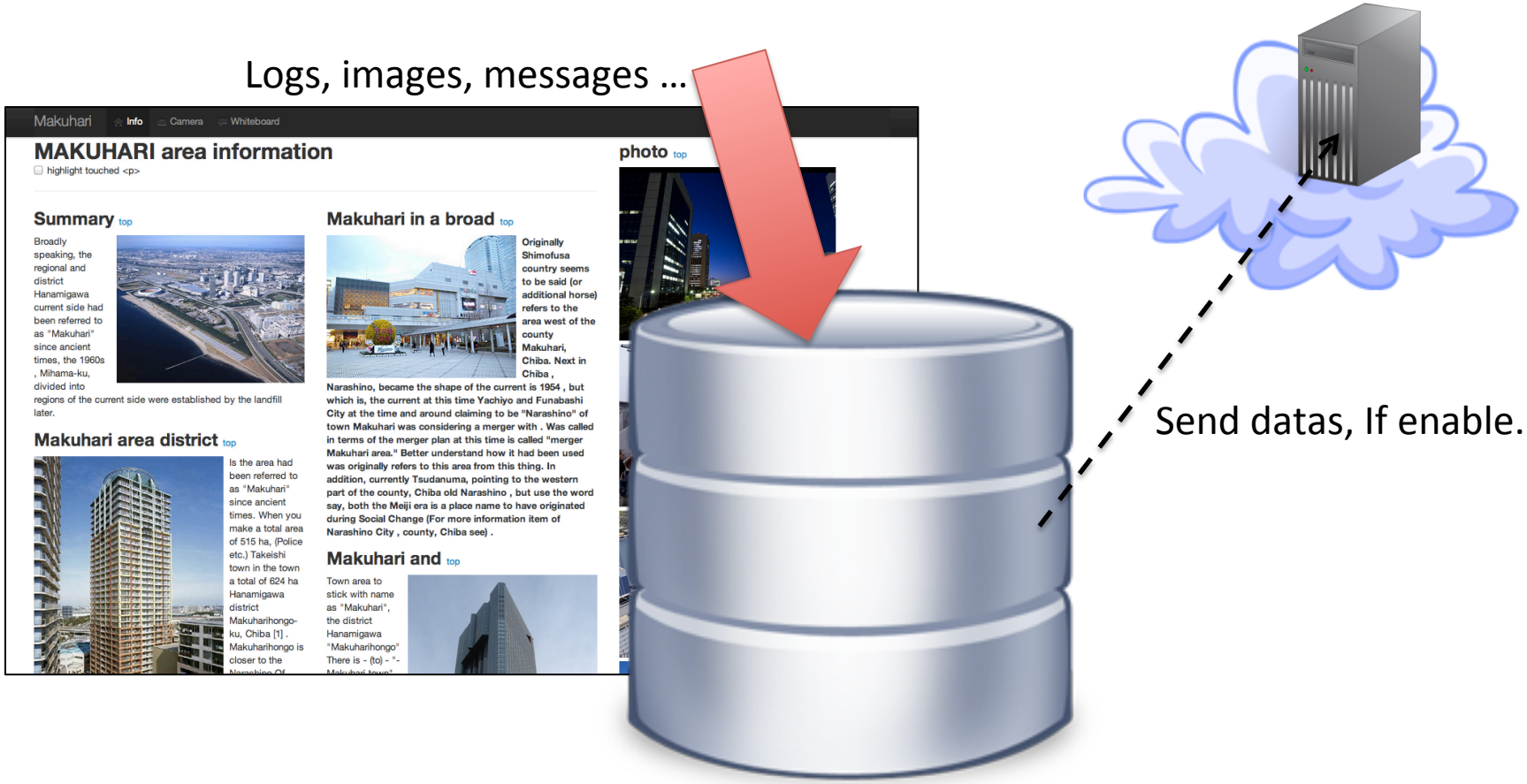
```
var video = document.querySelector(’video');
var canvas = document.querySelector(’canvas');

navigator.getUserMedia({video:true}, function(stream){
   video.src = URL.createObjectURL(stream);
};

function snapshot() {
   canvas.getContext('2d').drawImage(video, 0, 0);
   var data = canvas.toDataURL(‘image/png’);
}
```

Indexed Database

- Store operation logs, images, messages ….



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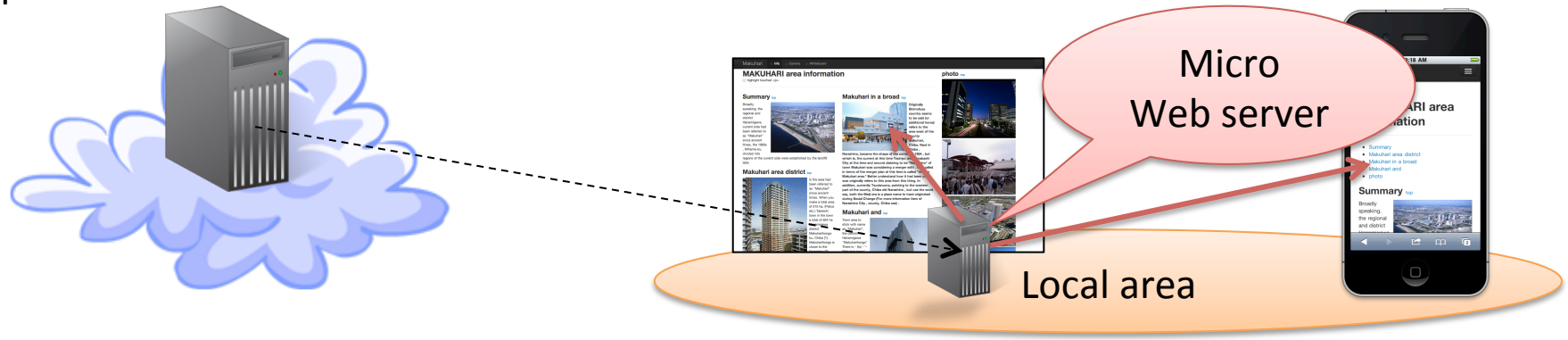
Architectures for the use-case.

Option 1 : Cloud source model

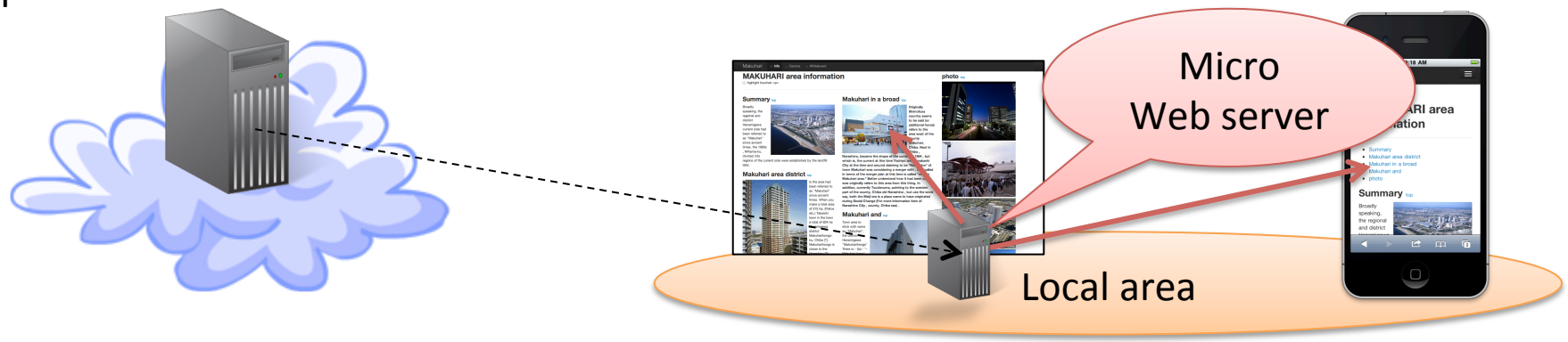
Option 2 : Micro Web server model



I like option 2!!

- Because…
  - Not so care about the connectivity to internet
  - In Emergency case, works fine than option 1

Option 2 : Micro Web server model



Other issues

How do I know URL?
How do I choose each signage?

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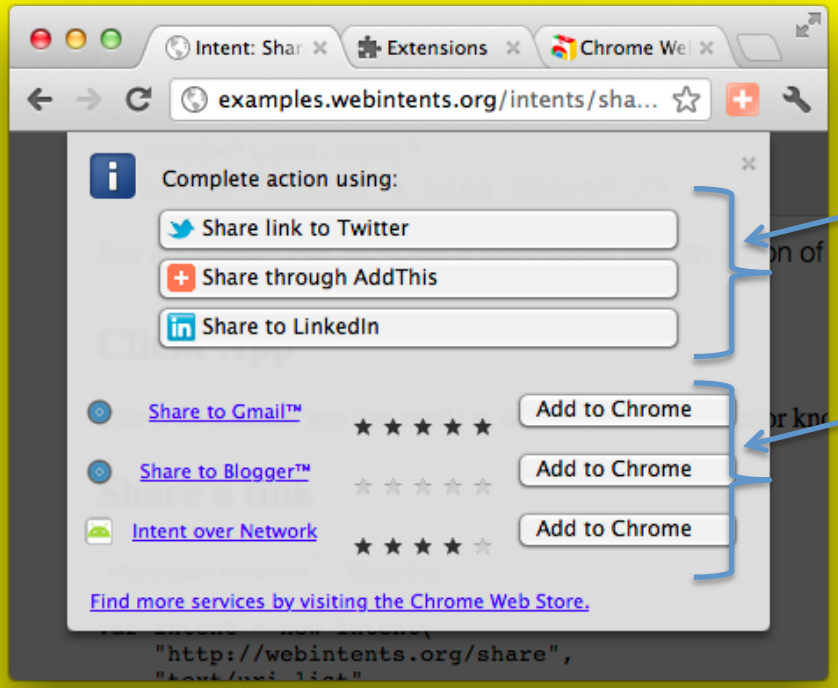
One solution

Another solution (choosing Web-based services)

- Cutting-Edge ::=> **Web Intents**
  - Give some way to choose web services.



Registered services

Suggested services

Append signage services will be nice idea.

Need auto-discovery feature. And join together w/ Web Intents

- Proposed by SONY Mobile
- Use SSDP to discover services
  - Little modification is now proposed
  - http://www.w3.org/wiki/WebIntents/SonyMobile_-_Local_Network_Service_Discovery

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Of course, there are lots of things to consider.

- NFC, BT
- Security
- Privacy
- Trustiness
- Access control (User group management)
- Handle streaming data
- Peer-to-peer connection
- ……

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Thank you!!

June 15th, 2012@Makuhari Chiba

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