P802.19.1 General Architecture

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Authors:

<table>
<thead>
<tr>
<th>Name</th>
<th>Company</th>
<th>Address</th>
<th>Phone</th>
<th>email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stanislav Filin</td>
<td>NICT</td>
<td>3-4 Hikarino-oka, Yokosuka, Japan</td>
<td>+81-90-6485-8930</td>
<td><a href="mailto:sfilin@nict.go.jp">sfilin@nict.go.jp</a></td>
</tr>
<tr>
<td>Tuncer Baykas</td>
<td>NICT</td>
<td>3-4 Hikarino-oka, Yokosuka, Japan</td>
<td></td>
<td><a href="mailto:tbaykas@nict.go.jp">tbaykas@nict.go.jp</a></td>
</tr>
<tr>
<td>Hiroshi Harada</td>
<td>NICT</td>
<td>3-4 Hikarino-oka, Yokosuka, Japan</td>
<td></td>
<td><a href="mailto:harada@nict.go.jp">harada@nict.go.jp</a></td>
</tr>
<tr>
<td>Azizur Rahman</td>
<td>NICT</td>
<td>3-4 Hikarino-oka, Yokosuka, Japan</td>
<td></td>
<td><a href="mailto:aziz@nict.go.jp">aziz@nict.go.jp</a></td>
</tr>
<tr>
<td>Chen Sun</td>
<td>NICT</td>
<td>3-4 Hikarino-oka, Yokosuka, Japan</td>
<td></td>
<td><a href="mailto:sun@nict.go.jp">sun@nict.go.jp</a></td>
</tr>
<tr>
<td>Yohannes Alemseged</td>
<td>NICT</td>
<td>3-4 Hikarino-oka, Yokosuka, Japan</td>
<td></td>
<td><a href="mailto:yohannes@nict.go.jp">yohannes@nict.go.jp</a></td>
</tr>
<tr>
<td>Zhou Lan</td>
<td>NICT</td>
<td>3-4 Hikarino-oka, Yokosuka, Japan</td>
<td></td>
<td><a href="mailto:lan@nict.go.jp">lan@nict.go.jp</a></td>
</tr>
<tr>
<td>Ha Nguyen Tran</td>
<td>NICT</td>
<td>3-4 Hikarino-oka, Yokosuka, Japan</td>
<td></td>
<td><a href="mailto:haguen@nict.go.jp">haguen@nict.go.jp</a></td>
</tr>
<tr>
<td>Gabriel Villardi</td>
<td>NICT</td>
<td>3-4 Hikarino-oka, Yokosuka, Japan</td>
<td></td>
<td><a href="mailto:gpvillardi@nict.go.jp">gpvillardi@nict.go.jp</a></td>
</tr>
<tr>
<td>Chin Sean Sum</td>
<td>NICT</td>
<td>3-4 Hikarino-oka, Yokosuka, Japan</td>
<td></td>
<td><a href="mailto:sum@nict.go.jp">sum@nict.go.jp</a></td>
</tr>
<tr>
<td>Junyi Wang</td>
<td>NICT</td>
<td>3-4 Hikarino-oka, Yokosuka, Japan</td>
<td></td>
<td><a href="mailto:junyi.wang@nict.go.jp">junyi.wang@nict.go.jp</a></td>
</tr>
<tr>
<td>Chunyi Song</td>
<td>NICT</td>
<td>3-4 Hikarino-oka, Yokosuka, Japan</td>
<td></td>
<td><a href="mailto:songe@nict.go.jp">songe@nict.go.jp</a></td>
</tr>
<tr>
<td>Chang Woo Pyo</td>
<td>NICT</td>
<td>3-4 Hikarino-oka, Yokosuka, Japan</td>
<td></td>
<td><a href="mailto:cwpyo@nict.go.jp">cwpyo@nict.go.jp</a></td>
</tr>
</tbody>
</table>

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Abstract

This contribution proposes general system architecture for P802.19.1
General system architecture 1/2

TVWS database

Coexistence database

Coexistence management server

TVBD network 1

Coexistence Enabler

TVBD network 2

Coexistence Enabler
General system architecture 2/2

- **Coexistence Database**
  - Contains information required for TVWS coexistence
  - Provides this information to Coexistence Management Server
  - Provides this information to Coexistence Enablers

- **Coexistence Management Server**
  - Makes TVWS coexistence decisions
  - Provides TVWS coexistence guidelines to Coexistence Enablers

- **Coexistence Enabler**
  - Obtains information required for TVWS coexistence
  - Provides this information to Coexistence Database
  - Exchanges this information with other Coexistence Enablers
  - Makes TVWS coexistence decisions within the guidelines (if any) received from Coexistence Management Server
  - Implements TVWS coexistence decisions
Deployment options

- **Deployment option 1**
  - Coexistence Enablers use “direct discovery” (e.g. direct dedicated connection, wired/wireless beacon)
  - Coexistence decisions are done by Coexistence Enablers

- **Deployment option 2**
  - Coexistence Enablers use Coexistence Database for registration and discovery
  - Coexistence decisions are done by Coexistence Enablers

- **Deployment option 3**
  - TVBD networks use Coexistence Database for registration and for conveying information from Coexistence Enablers to Coexistence Management Server
  - Coexistence decisions are done in Coexistence Management Server and reconfiguration guidelines are provided to Coexistence Enablers
  - Coexistence Enablers make coexistence decisions within the guidelines received from Coexistence Management Server and implement these decisions
Deployment option 1

TVWS database

Coexistence Enabler
TVBD network 1

Coexistence Enabler
TVBD network 2
Deployment option 3

TVWS database

Coexistence database

Coexistence management server

Coexistence Enabler

TVBD network 1

TVBD network 2

S. Filin et al, NICT
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