

IPv6 Ready Logo Program;

- Worldwide interop concept, and the way forward -



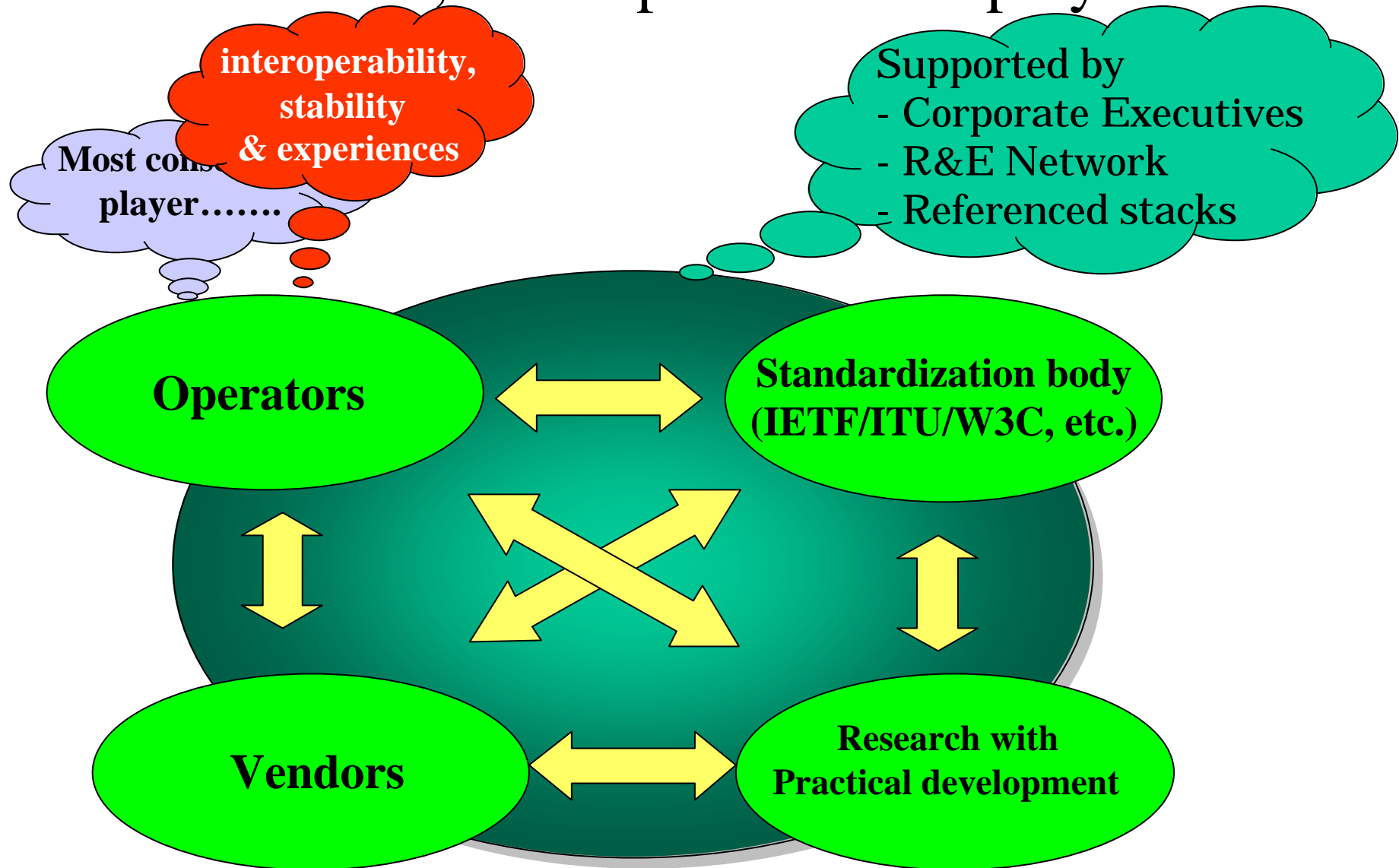
Chair of IPv6 Forum IPv6 Ready Logo Committee

The University of Tokyo / WIDE Project

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Community interaction in the Internet industry for research, development and deployment



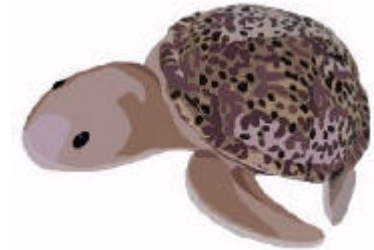
Steps to Establish Interoperability

- Technical Standardization
 - IETF
- Referenced Implementation
 - e.g., ISC(bind), KAME(BSD), USAGI(Linux)
- Conformance testing
 - e.g., TAHI
- Interoperability testing
 - e.g., Moonv6/ UNH-IOL, PLUGTEST, Connectathon, TAHI
- Testbed operation
 - e.g., Abilene, 6NET/EURO6IX/GEANT, JGN/WIDE, APAN

IPv6 Referenced Implementation

- **KAME IPv6 for *BSD* (since 1998)**

- Keio Univ., Univ. of Tokyo, Fujitsu, IJ, NEC
Hitachi,, Toshiba, Yokogawa
- <http://www.kame.net>



- **USAGI IPv6 for LINUX (since 2000)**

- Keio Univ., Yokogawa, Toshiba, IBM, Sharp,
Hitachi, NTT-Soft, Univ.of Tokyo, HUT
- <http://www.linux-ipv6.org>



- **TAHI IPv6 Test & Evaluation (since 1998)**

- Yokogawa, Univ.of Tokyo, NTT Group, Yasukawa,
- IPv6 Promotion Council Certificate WG
- <http://www.tahi.org>



- **DNS and BIND (since 2001)**

- USC-ISI, ISC



IPv6 Ready Logo Program run by IPv6 Forum



<<http://www.ipv6ready.org>>



September 1, 2003

- 1. Test Specification Released**
- 2. Practical logo program starts**

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Structure of Program

- Board of IPv6 Forum
 - Chairperson : Latif Ladid
 - Technical Directorate Chairperson : Jim Bound @HP
- IPv6 Ready Logo Program
 - Chairperson
 - Hiroshi Esaki @ WIDE/IPv6-PC
 - Technical Officers
 - Cesar Viho @ IRISA
 - Benjamin Schultz / Rob Wolff @ UNH-IOL
 - Hiroshi Miyata @ TAHI / Yokogawa

(*) special thanks to Philippe Cousin (ETSI) and to Laurent Toutain (IRISA) for boot strap phase of program and for continuous supporting and contribution

Responsibilities

Chair
Hiroshi ESAKI

Technical

Hiroshi MIYATA
(TAHI/IPv6-PC)

Market

Ben Shultz
(UNH-IOL)

Administrative

Cesar Viho
(IRISA)

Legal

Philippe Cousin
(ETSI)

Face-to-Face Meetings

- 1st Meeting
 - 14th May, 2003 @ Madrid
- 2nd Meeting
 - 21st July @ ETSI Sophia Antipolis
- 3rd Meeting
 - 22nd September @ Brussels (14:30 at Theater)
- 4th Meeting
 - 8th December @ Arlington

Objectives

- Phase 1, i.e., minimum requirements
 - Encourage every organizations that will deploy IPv6
 - Inform ordinary people of equipment and service interoperability and conformance for equipments and services
- Phase 2, i.e., complete requirements
 - Check and ensure the equipment and service interoperability and conformance according to the IPv6 technical standards.

Notes

- Phase 1 program runs, even after the release of Phase 2
- Logo Design
 - Logo of Phase 1 and Phase 2 can be distinguished
 - Phase 1 : Silver background
 - Phase 2 : Gold background
 - Logo ID includes
 - Serial Number
 - Version number for testing specification
 - Approved functional component(s)
- List of products approved for the IPv6 Ready Logo is published on the Web.

Notes (Cont')

- Co-operation with other programs
 - Interoperability Laboratories
 - UNH-IOL(at USA), NICI(at Taiwan)
 - Interoperability events
 - Connectathon, PLUGTEST, UNH-IOL, TAHI
 - Moonv6
- Focusing on complex/complete interoperability against advanced functions, e.g., routing protocol

Products for Phase 1 Logo

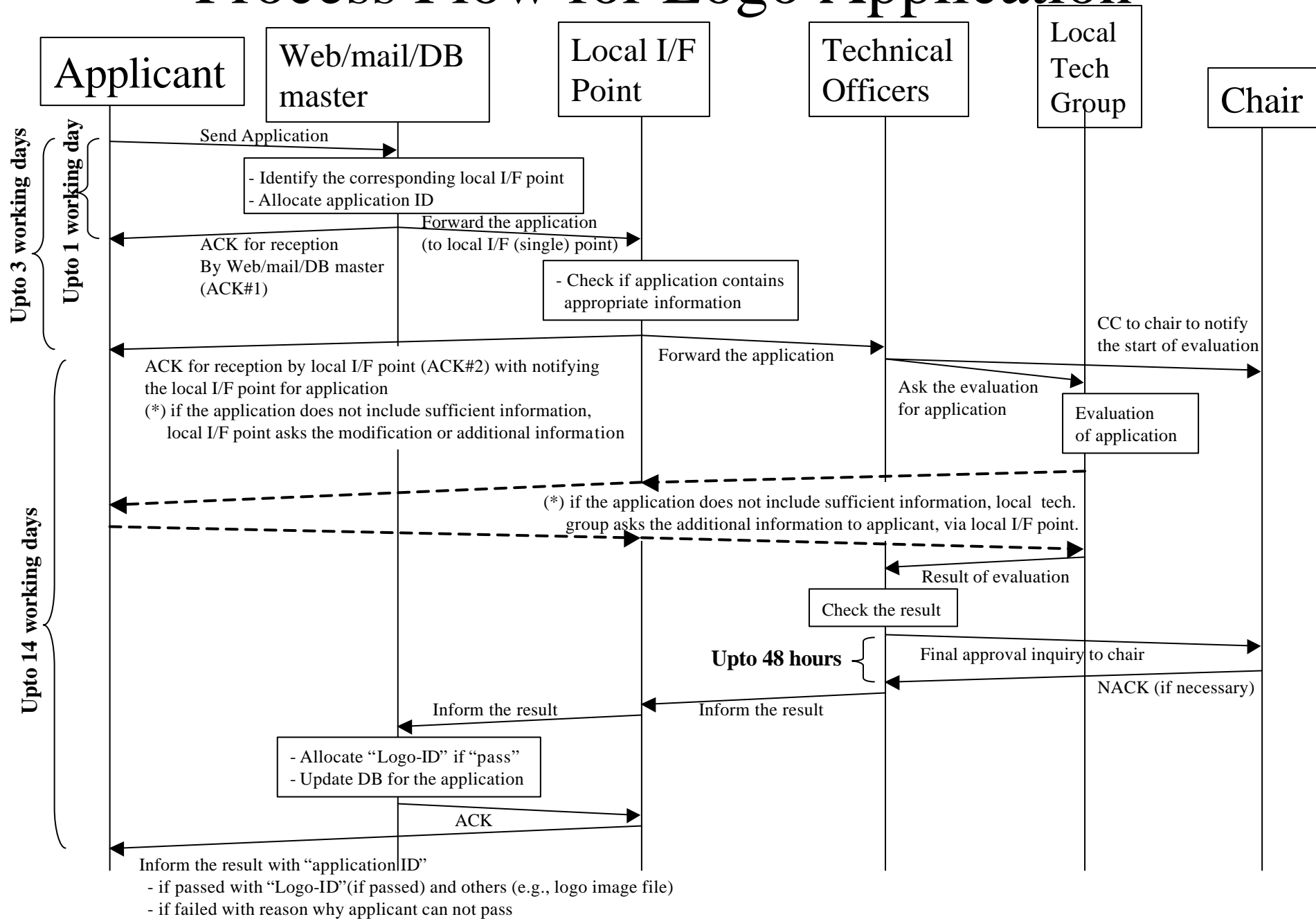
- Host equipment
 - Router equipment
 - Operating System (e.g., Linux)
 - IPv6 Protocol Stack (e.g., VxWorks)
- (*) Application (e.g., mail server) and service (e.g., ISP) is for further study

Application Procedure

1. Conformance testing by Self-test
2. Interoperability testing with two Routers and two Host
3. Fill out application form and send to the following e-mail address with the test log
< v6-apply@v6pc.jp >
4. Agree the logo license agreement

(*) Self-test base and Interoperability test event base are essentially based on the same testing criteria, which is Phase 1 test specification.

Process Flow for Logo Application



Notes

- Contact for application

- Web <http://www.ipv6ready.org>
- Mail [<v6-apply@v6pc.jp>](mailto:v6-apply@v6pc.jp)

- Application ID

{local I/F}-{date(yyymmdd)}-{serial_number(6digits)}

(*) serial number is global unique

[example] “KR-20031013-000111”

- Logo ID

{Phase(2digits)}{[additional_infor]}-{serial_number(6digits)}

[example] “01-000123” (stating from “01-000111”)

(*) for Phase 2, [additional information] shall indicates conformed items (e.g., IPsec, MIPv6), something like TCP’s control bits.

“01101101”(binary) → “6E” (digit)

- 1. mail will be sent to <v6-apply@v6pc.jp>**
 - v6-apply@v6pc.jp will be destined to DB master. DB master will forward this to the appropriate country/regional I/F point**
 - * country / region must be described in the subject line**
 - * For the web interface, check the country/regional dot**

- 2. reception ack message with Application ID is sent from <v6-apply@v6pc.jp> within 1 working day.**
 - * application is forwarded to local I/F point**
 - * In the web case, web system return the ack and application ID, and forward the application to Local I/F point directly**

- 3. local I/F point will return the ack to confirm the start of application processing, within 3 working days and check if the application includes complete information**
 - * if not, then {contact with applicant}**
 - * if yes, then, {forward to Tech Officers for examination}**

- 4. Tech officer exams application**
 - * if information is not sufficient, then {return to Local I/F point}**
 - * if result is Good, then {the result will forward to Chair for final approval}**
 - Chair will give negative ack only if he reject the judge within 48 hours**

- 5. Tech officer will return the result to Local I/F point and Web master**

- 6. Web master will register Logo ID, then, notify the Local I/F point the Logo ID registration has been done**

- 7. Local I/F point will return the results**

- 8. Applicant can start use Logo right away**
 - ** Total procedure will be done in 2 weeks**
 - ** all questions from applicants go to Local I/F point**

Phase I Approved Products

- As of December 8, 2003

Coverage and Primary Responsibility for Phase 2

IPv6 Core	MLD	MIPv6	IPsec	Migration
UNH/IOL	UNH/IOL	IPv6PC/TAHI	IPv6PC/TAHI	IRISA

Nov.2003 Nov.2003 Oct.2003 Feb.2004 Jan.2004

[Due for the first draft test specification]

(*) Self-test suites ; Targeting 2Q of 2004.

Policy of Phase 2 Logo

- Our assumption is ;
that the vendor will apply core and MLD, first.
Then, they add IPsec, MIPv6 and migration.
- From this perspective, core and MLD is basic and IPsec/MIPv6/Migration is an optional.
- We give a logo, when the product passes at least one component.
- Which component(s) the product passes is represented by Logo-ID.
(*) it would be like a control flag in TCP header.

Summary

- IPv6 Forum “IPv6 Ready Logo Program”
 - Global unique test specification/criteria
 - Global collaboration
 - Encourage the deployment of IPv6 technology
- Contact for application
 - Web <http://www.ipv6ready.org>
 - Mail [<v6-apply@v6pc.jp>](mailto:v6-apply@v6pc.jp)
 - Chair Hiroshi Esaki [<hiroshi@wide.ad.jp>](mailto:hiroshi@wide.ad.jp)



THANK YOU

.....Oh, by the way,.....

“5th TAHI/v6PC Test Event”



- **January 19-23, 2004.**
- **Makuhari (near downtown Tokyo), JAPAN**
- **<http://www.tahi.org/>**

by Hiroshi Esaki <hiroshi@wide.ad.jp>