Outline of Application for Specification Compliance Certification of ECHONET Lite (Self-certification)

ECHONET Lite Specification Ver. 1.0*

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ECHONET Consortium

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1. Overview

Applications for specification compliance certification of devices compatible with the ECHONET Lite Specification are based on the results of voluntary testing by applicants, and the certification body determines conformance or non-conformance of the specifications in writing. In this outline, a self-statement of conformance to specification compliance certification based on such voluntary testing is referred to as "self-certification".

2. Objects of Certification

2.1 Devices Eligible for Certification

(1) Devices eligible for specification compliance certification

The devices eligible for specification compliance certification are "full ECHONET Lite devices" and "ECHONET ready devices" as defined in Part I, Chapter 4, Section 4.2 of the ECHONET Lite Specification and "ECHONET Lite middleware adapters" as defined in Part I, Chapter 4, Section 4.3 of the Specification.

(2) Scope of ECHONET Lite middleware adapter communication interface

In this outline, the following types are subject to certification of the ECHONET Lite middleware adapter communication interface:
・Object generation type
・Peer-to-peer type

2.2 Software Eligible for Certification

(1) Software eligible for certification of conformance to specifications

Certification is specified for application software to be installed in PCs, mobile devices and other general-purpose devices for use. The said software shall realize ECHONET Lite functions equal to those of "Full ECHONET Lite Devices" specified in 4.2, Chapter 4, Part 1 of the ECHONET Lite Specification.

The said software shall satisfy the following requirements:
・It must have a product model number assigned.
・It must run on a software OS or a platform not dependent on OS.
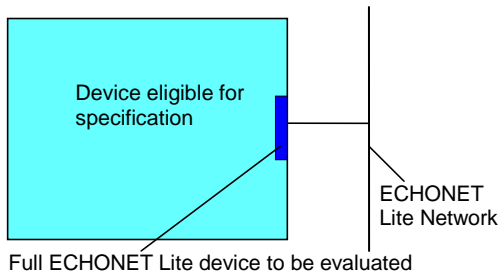<Supplement>
Certification does not apply to DLLs or plugins to be incorporated in other application software.
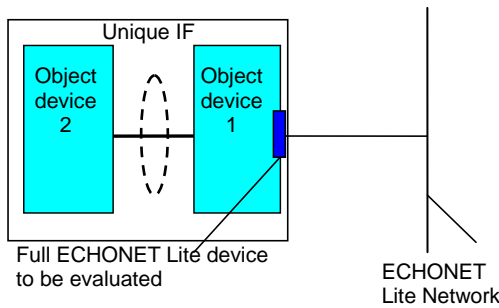
Supplement: Conceptual diagram of objects eligible for specification compliance certification

The concept of evaluation and certification is as follows:

Full ECHONET Lite device

The whole package is certified as a full ECHONET Lite device.
*However, the form of implementation is not especially regulated.

If the device constitutes a full ECHONET Lite device through a combination of devices possessing their own unique interface (I/F), compliance may be certified under the fixed combination.
(In the figure, the combination of device 1 connecting with the ECHONET Lite network and device 2 connecting with device 1 through the use of a unique IF enables certification.)
Logo marks may be attached to each device.

ECHONET Lite ready device
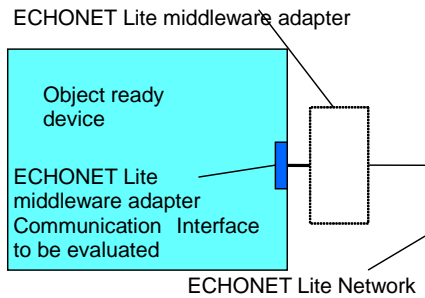
Certification is issued for a main unit with a middleware adapter communication interface compatible with the ECHONET Lite Specification.

ECHONET Lite middleware adapter

Certification is issued for a middleware adapter with a middleware adapter interface compatible with the ECHONET Lite Specification.

ECHONET Lite software

General-purpose equipment
Object software
Application
ECHONET Lite middleware

ECHONET Lite software to be evaluated

ECHONET Lite Network
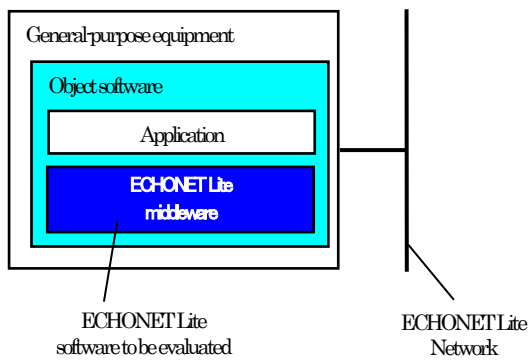
Certification as ECHONET Lite software
For certification, evaluation equal to that on a full ECHONET Lite device will be carried out. Hardware, OS and application software, however, will not be evaluated.
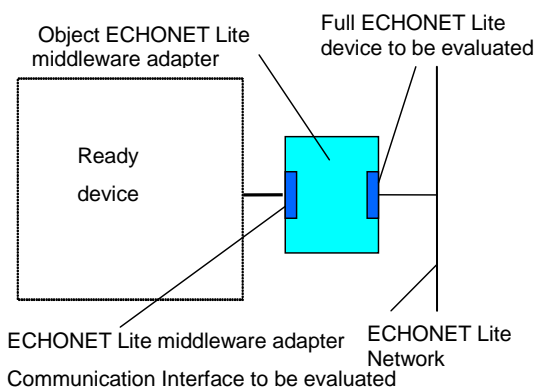
(Remarks)

Object of evaluation: An object to be judged as to its conformance to specifications on the basis of the certification test specifications.

Object of certification: An object to which a certification registration number is issued if conformance is verified by the above evaluation.

3. Scope of Evaluation

The scope of evaluation for eligible devices is indicated below, with reference to schematic diagrams of the ECHONET Lite communication layer.

(1) For full ECHONET Lite device and software

Scope of evaluation for a full ECHONET Lite ready device

OSI Layer

7	Application
6	
5	Device objects Profile objects
4	ECHONET Lite Communication Processing Block
3	
2	Lower communication layers (Layers 1 to 4 not defined)
1	

ECHONET Lite Communication Middleware
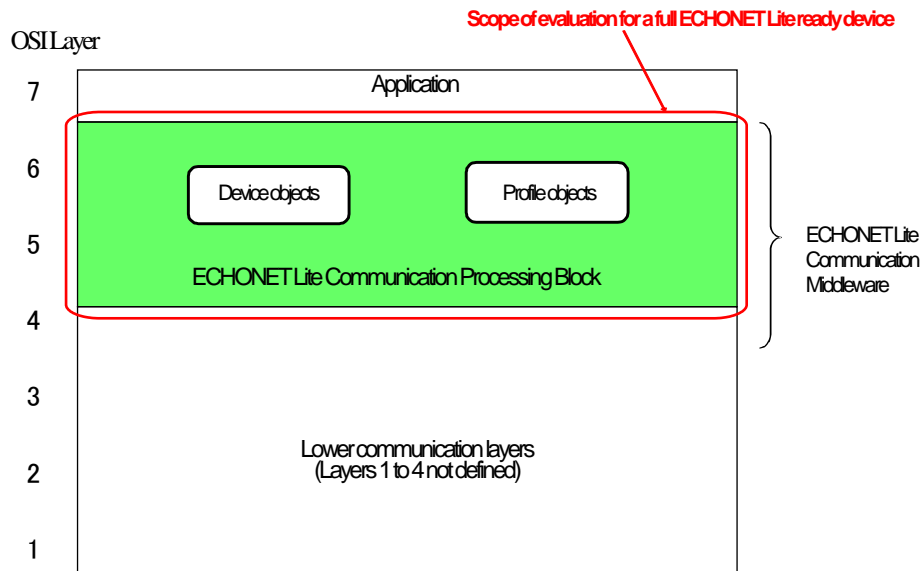
(2) For ECHONET Lite ready devices and ECHONET Lite middleware adapters
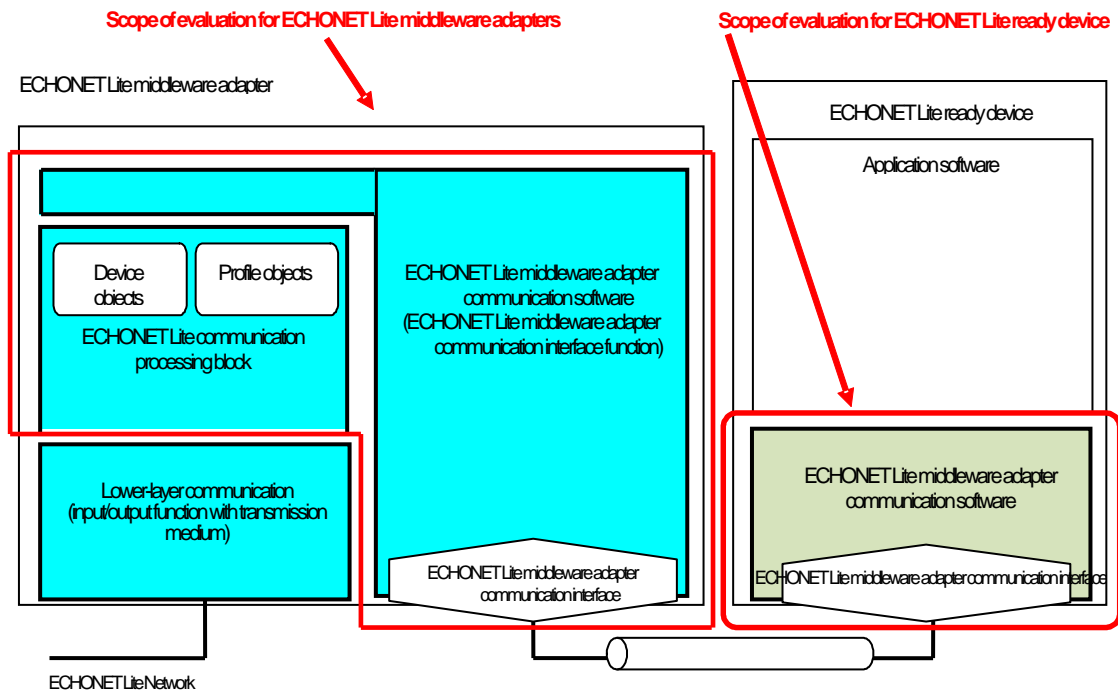
4. Applicable Specifications

In this certification application outline, ECHONET Lite Specification Ver. 1.0* shall apply to object devices and software. The asterisk in Ver. 1.0* indicates minor revisions to errors in wording or the like in the Specification, with a revision represented by a numeral (e.g. Ver. 1.00, Ver. 1.01, etc.). When the ECHONET Lite Specification or the Detailed Requirements for ECHONET Device Objects is revised, the latest standard shall be applied.

5. Certification Test Specifications

The following are certification test specifications for ECHONET Lite devices (including a declaration of test results), describing the content of certification testing, and released for members only on the web.

(1) Declaration dossier on certification test specifications for ECHONET Lite devices based on ECHONET Lite Specification Ver. 1.0*

Test specifications (1) above take the form of application documents for recording installed functions, self-certification test results and other verified details, and the results of verification, with respect to certification of the communications operations (protocols) of ECHONET Lite devices and software as seen from the outside.

6. Steps in the Certification Process

The steps followed by the ECHONET Consortium in certifying compliance with the specification are outlined below. The details verified may differ depending on the functions installed in the device in question and the test specification used.

```
                          ┌─────────────────────┐
                          │  Certification begins │
                          └──────────┬──────────┘
                                     │         Failed initial or
                                     │         previous
                                     ▼         certification *1
              ┌──────────────────────────────────────────┐
              │ Verify application for specification compliance │
              │              certification                  │
              └──────────────────────────────────────────┘
                                     │
                                     ▼
              ┌──────────────────────────────────────────┐
              │    Verify declaration of installed functions  │
              └──────────────────────────────────────────┘
                                     │
                                     ▼
              ┌──────────────────────────────────────────┐
              │  Verify declaration of pre-verification results │
              └──────────────────────────────────────────┘
                                     │
                                     ▼
              ┌──────────────────────────────────────────┐
              │  Verify declaration of self-certification results │
              └──────────────────────────────────────────┘
                                     │
                                     ▼
                           ◇ Results of documentation        Fail
                             screening  ◇──────────────────┐
                                     │                       │
                                  Pass                       ▼
                          ┌────────────────┐       ┌──────────────────┐
                          │ Prepare certifica- │     │ Prepare notice of inadequate │
                          │ tion registration  │     │ application documentation    │
                          │ certificate        │     └──────────────────┘
                          └────────┬───────┘              │ *2
                                   │◄─────────────────────┘
                                   ▼
                          ┌────────────────┐
                          │ Certification ends │
                          └────────────────┘
```

*1. Reduced testing may be appropriate depending on which areas passed the previous certification.

*2. In case of inadequate documentation, the inadequate portions need to be resubmitted.

7. Implementation of Certification Testing

- When implementing self-compliance testing, please check the scope of application of the certification test specifications for ECHONET Lite devices or software. Also check the scope of testing for the device for which the application is being made. Use the latest published version of the certification test specifications for the version of the ECHONET Lite Specification in question. When the certification test specifications are updated, the previous version is available for six months from the release of the updated specification.
- Certification outlines are included in the declaration of self-certification results; please carry out testing in such a way as to satisfy these. Also, refer to the certification test specifications for a table giving such details as requirements for filing declarations, and whether or not a declaration is needed when a function is installed, in accordance with each category of device or software.

8. Application for Specification Compliance Certification

It is possible to apply for specification compliance certification by submitting the completed application form released by the ECHONET Lite certification body for members of the ECHONET Consortium.

(1) Applicant
- Only a member of the ECHONET Consortium may be an applicant.
- Even if an agent is filing the application, the applicant must be a member of the ECHONET Consortium.

(2) Agent
- The agent need not be a member. If an agent is filing on the applicant's behalf, a power of attorney from the applicant is required.

9. Certification Registration

- In case of compliance, a certificate of specification compliance registration will be issued in writing.
- Please contact each certification body concerning the cost of certification and the period of time from receipt of the application to testing and issuance of the certificate of registration.
- In case of compliance, the name of the company, the product name and number, the certification registration number, and the date of certification registration can be posted on the ECHONET Consortium's website. The application form contains a question about whether or not this information is to be posted, and if so, the date of publication may be stated on the form.

10. Interoperability

Acquisition of specification compliance certification does not guarantee complete interoperability of actual equipment. Although you are not required to perform interoperability tests using actual equipment when applying for specification compliance certification, you are recommended to test for interoperability with other vendors in order to ensure interoperability.

11. Displaying the Logo Mark

The logo mark for ECHONET Lite or ECHONET Ready devices may be displayed on each certified device or software upon signing a trademark license agreement.

12. Inquiries

Please send any inquiries about the contents of this outline to the ECHONET Consortium website.