

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29

Conformance Test Specification for Marlin Broadband Shared Domain Topology Specification

Version 1.0
Final

Source	Marlin Developer Community
Date	September 17, 2009

30 **Notice**

31 THIS DOCUMENT IS PROVIDED "AS IS" WITH NO REPRESENTATION OR
32 WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE
33 COMPLETENESS, ACCURACY, OR APPLICABILITY OF ANY
34 INFORMATION CONTAINED IN THIS DOCUMENT. THE MARLIN
35 DEVELOPER COMMUNITY ("MDC") ON BEHALF OF ITSELF AND ITS
36 PARTICIPANTS (COLLECTIVELY, THE "PARTIES") DISCLAIM ALL
37 LIABILITY OF ANY KIND WHATSOEVER, EXPRESS OR IMPLIED, ARISING
38 OR RESULTING FROM THE RELIANCE OR USE BY ANY PARTY OF THIS
39 DOCUMENT OR ANY INFORMATION CONTAINED HEREIN. THE PARTIES
40 COLLECTIVELY AND INDIVIDUALLY MAKE NO REPRESENTATIONS
41 CONCERNING THE APPLICABILITY OF ANY PATENT, COPYRIGHT
42 (OTHER THAN THE COPYRIGHT TO THE DOCUMENT DESCRIBED
43 BELOW) OR OTHER PROPRIETARY RIGHT OF THIS DOCUMENT OR ITS
44 USE, AND THE RECEIPT OR ANY USE OF THIS DOCUMENT OR ITS
45 CONTENTS DOES NOT IN ANY WAY CREATE BY IMPLICATION,
46 ESTOPPEL OR OTHERWISE, ANY LICENSE OR RIGHT TO OR UNDER
47 ANY PATENT, COPYRIGHT, TRADEMARK OR TRADE SECRET RIGHTS
48 WHICH ARE OR MAY BE ASSOCIATED WITH THE IDEAS, TECHNIQUES,
49 CONCEPTS OR EXPRESSIONS CONTAINED HEREIN.

50 Use of this document is subject to the agreement executed between you and
51 the Parties, if any.

52 Any copyright notices shall not be removed, varied, or denigrated in any
53 manner.

54 Copyright © 2003 - 2009 by MDC, 415-112 North Mary Avenue #383 Sunnyvale, CA
55 94085, USA. All rights reserved. Third-party brands and names are the property
56 of their respective owners.

57 **Intellectual Property**

58 A commercial implementation of this specification requires a license from the Marlin
59 Trust Management Organization.

60 **Contact Information**

61 Feedback on this specification should be addressed to: [editor@marlin-](mailto:editor@marlin-community.com)
62 [community.com](mailto:editor@marlin-community.com)

63 Contact information for the Marlin Trust Management Organization can be found at:
64 <http://www.marlin-trust.com/>

Contents

65			
66			
67	1	Introduction	4
68	1.1	Document Organization	4
69	1.2	Overview	4
70	1.3	Conformance Conventions	4
71	1.4	Abbreviations	4
72	1.5	References	4
73	2	Conformance Test Items for Marlin BB DRM Client	6
74	2.1	Profile Capability Signalling	6
75	3	Conformance Test Items for UPnP Extensions	7
76	3.1	Joining a Marlin Broadband Shared Domain Locally	7
77	3.2	Distribution of Nodes and Links	7
78	4	Conformance Test Items for Registration Service of the Broadband Shared Domain	
79	Manager		8
80	4.1	Node Acquisition	8
81	4.2	Link Acquisition	8
82	4.2.1	Security Policy and Message Security Bindings	8
83	4.2.2	Link Acquisition Message	8
84	4.3	Deregistration	8
85	4.3.1	Security Policy and Message Security Bindings	8
86	4.3.2	Deregistration Message	9
87	4.3.3	Deregistration Derivative	9
88	5	Conformance Test Items for Registration Service	10
89	5.1	Node Acquisition	10
90	5.2	Link Acquisition	10
91	5.2.1	Security Policy and Message Security Bindings	10
92	5.2.2	Link Acquisition Message	10
93	6	Conformance Test Items for License Service	11
94	6.1	License Acquisition	11
95	6.1.1	Security Policy and Message Security Bindings	11
96	6.1.2	License Acquisition Message	11
97	7	Conformance Test Items for Marlin License Evaluation	12
98	7.1	Variation 1	12
99	7.2	Variation 2	12
100	7.3	Variation 3	12
101	7.4	Variation 4	13
102	8	Scenario for CTS (Informative)	14
103	8.1	Scenario 1	14
104	8.2	Scenario 2	15
105	8.3	Scenario 3	15
106	8.4	Scenario 4	15
107	8.5	Scenario 5	15
108	8.6	Scenario 6	16
109	8.7	Scenario 7	16
110	8.8	Scenario 8	16
111	8.9	Scenario 9	16
112	8.10	Scenario 10	17
113			

1 Introduction

1.1 Document Organization

This document describes a Conformance Test Specification for client and service implementations for the Marlin Broadband Shared Domain Topology Specification (BBSD). It is organized as follows:

- (this) introduction, overview, conformance conventions and references
- Sections for each of the Conformance Test Items. These are:
 - Conformance Test Items for Device
 - Conformance Test Items for Registration Service of the Broadband Shared Domain Manager
 - Conformance Test Items for Registration Service at the Service Provider
 - Conformance Test Items for License Service
 - Conformance Test Items for Marlin License Evaluation
- Scenarios for Conformance Test Items

1.2 Overview

This document describes Conformance Test Specification for client and service implementations of the Marlin Broadband Shared Domain Topology Specification [MBSD]. The goal for this specification is to help ensure interoperability between independent implementations of Marlin BB DRM Clients and Marlin BB Services supporting Broadband Shared Domain Topology by testing functions specified in [MBSD]. In other words, this Conformance Test Specification does not ensure 100% coverage of the specification. It is expected that the tests are expanded upon as implementers verify interoperability with each other.

1.3 Conformance Conventions

The key words “MUST”, “MUST NOT”, “REQUIRED”, “SHALL”, “SHALL NOT”, “SHOULD”, “SHOULD NOT”, “RECOMMENDED”, “MAY”, and “OPTIONAL” in this specification are to be interpreted as described in IETF RFC 2119 [RFC 2119].

1.4 Abbreviations

BB	Broadband
BBSD	Broadband Shared Domain
BBSD Dereg	Broadband Shared Domain Deregistration
BBSD Lic Acq	Broadband Shared Domain License Acquisition
BBSD Link Acq	Broadband Shared Domain Link Acquisition
DRM	Digital Rights Management

1.5 References

Normative References

[MBB]	Marlin Broadband Delivery System Specification, Version 1.2
[MBNS]	Marlin - Broadband Network Service Profile Specification, Version 1.0
[MBSD]	Marlin - Broadband Shared Domain Topology Specification, version 1.0
[MUPnP]	Marlin - UPnP Extension Specification, version 1.0 Draft WD002

[CTSBNS]	Conformance Test Specification for Marlin Broadband Network Service Profile Specification, version 1.0
[MCS]	Marlin - Core System Specification, version 1.3
[MPAC]	Marlin - Profile and Capability Signaling, Version 1.0
[RFC 2119]	S. Bradner, <i>RFC 2119 - Key words for use in RFCs to Indicate Requirement Levels</i> , IETF, March 1997, http://www.ietf.org/rfc/rfc2119.txt

146

2 Conformance Test Items for Marlin BB DRM Client

This section describes common functions REQUIRED for Marlin BB DRM Clients across the Marlin BB System Protocols. The Marlin BB DRM Client is assumed to implement [MBNS] Extended Topology and it MUST conform to the conformance test items defined in Section 2 of [CTSBNS].

2.1 Profile Capability Signalling

The support for profile signalling is RECOMMENDED for a Marlin BB DRM Client that implements [MBSD].

The following SHALL be tested for the Marlin BB DRM Client that indicates it implements the mandatory functionality in [MBSD]:

- The Marlin BB DRM Client SHALL follow the profile signalling defined in section 3 of [MBSD] and the Marlin BB DRM Client SHALL support the mandatory functionality in [MBSD].

The Conformance Test SHALL confirm the specifications above for the client.

3 Conformance Test Items for UPnP Extensions

The support for [MUPnP] and its extensions to support [MBSD] is OPTIONAL for the Marlin BB DRM Client and the local Broadband Shared Domain Manager that implement [MBSD].

The following SHALL be tested for the Marlin BB DRM Client and the local Broadband Shared Domain Manager that indicate it implements extensions to [MUPnP] to support [MBSD]:

3.1 *Joining a Marlin Broadband Shared Domain Locally*

- From Section 5.4 of [MBSD], when a Marlin BB DRM Client supporting [MBSD] requests to join a Marlin Broadband Shared Domain from a Broadband Shared Domain Manager in a local area network, the Domain Manager SHALL invoke X_PutMarlinActionToken() to deliver an Action Token to the Marlin BB DRM Client.
- From Section 5.4 of [MBSD], when the Domain Manager in a local area network discovers a new Marlin BB DRM Client that supports [MBSD], it MAY invoke X_PutMarlinActionToken() to deliver an Action Token to the Marlin BB DRM Client.

The Conformance Test SHALL confirm the specifications above for the Domain Manager.

- From Section 5.2 and 5.3 of [MBSD], when a DMC invokes X_JoinDomain() on a DMR, the DMR SHALL invoke X_GetMarlinActionToken() on the designated Domain Manager in the local area network to acquire an Action Token. The input parameter of X_JoinDomain() SHALL be used as the input parameter of X_GetMarlinActionToken().

The Conformance Test SHALL confirm the specifications above for the client.

3.2 *Distribution of Nodes and Links*

- From Section 5.5 of [MBSD], when a Marlin BB DRM Client supporting [MBSD] gets an invocation of X_GetMarlinNodeLinks() in the local area network, the Octopus bundle to be returned MUST conform to the output parameter defined in Section 5.5.1 of [MBSD].
- From Section 5.6 of [MBSD], when the Domain Manager in the local area network invokes X_PutMarlinNodeLinks() on a Marlin BB DRM Client supporting [MBSD], the Octopus Nodes and Links in the input parameter SHALL be used to update the corresponding Octopus Nodes and Links stored in the Marlin BB DRM Client that have the same "ContextTag" as those in the input parameter.

The Conformance Test SHALL confirm the specifications above for the client.

4 Conformance Test Items for Registration Service of the Broadband Shared Domain Manager

This section describes the functions REQUIRED for Marlin BB DRM Client and Registration Service of the Broadband Shared Domain Manager in each of corresponding Marlin BB System Protocols for Registration Service. The Registration Service hosted in the Broadband Shared Domain Manager issues Domain Nodes and Domain Links to the Marlin BB DRM Clients. It is assumed that both Marlin BB DRM Client and the Registration Service implement [MBNS] Extended Topology and they MUST conform to the conformance test items defined in Section 3.1 of [CTSBNS].

4.1 Node Acquisition

The Marlin BB DRM Client and the Registration Service MUST conform to the conformance test items defined in Section 3.2 of [CTSBNS].

4.2 Link Acquisition

4.2.1 Security Policy and Message Security Bindings

The Marlin BB DRM Client and the Registration Service MUST conform to the conformance test items defined in Section 3.3.1 of [CTSBNS].

4.2.2 Link Acquisition Message

4.2.2.1 Main Test Items

The following message parameters SHALL be tested for Link Acquisition:

- From section 3.1.1 of [MBB], set Domain Node ID to Domain ID attribute of Domain Link.
- From section 3.1.1 of [MBB], set the assigned organization value to Domain Policy attribute of Domain Link.

The Conformance Test SHALL confirm the specifications above for the service.

4.2.2.2 Link Acquisition with Broadband Shared Domain Topology

The support of Broadband Shared Domain Topology [MBSD] is REQUIRED for Marlin BB DRM Client which implements [MBSD]. This SHALL be tested for message combination patterns for Link Acquisition emulated in the following table:

	From Node in Request	To Node in Request	AgentCarrier in Response	AgentResultBlock in Confirmation
BBSD Link Acq-1	Personality Node	Domain Node	Exist	Exist
BBSD Link Acq-2	Personality Node	Domain Node	Not exist	Not exist

The Conformance Test SHALL confirm the specifications above for client.

4.3 Deregistration

4.3.1 Security Policy and Message Security Bindings

The Marlin BB DRM Client and the Registration Service MUST conform to the conformance test items defined in Section 3.4.1 of [CTSBNS].

4.3.2 Deregistration Message

4.3.2.1 Deregistration with Broadband Shared Domain Topology

The support of Broadband Shared Domain Topology [MBSD] [MBSD][MBSD] is REQUIRED for the Marlin BB DRM Client which implements [MBSD]. This SHALL be tested for message combination pattern for Deregistration emulated in the following table:

	From Node in Request	To Node in Request	AgentCarrier in Response	AgentResultBlock in Confirmation
BBSD Dereg.-1	Personality Node	Domain Node	Exist	Exist

The Conformance Test SHALL confirm the specifications for client.

4.3.3 Deregistration Derivative

From section 3.1.1 of [MBB], if a Marlin BB DRM Client is deregistered, content accessible to the Domain from which the Marlin BB DRM Client deregistered MUST NOT be playable on the deregistered Marlin BB DRM Client.

The Conformance Test SHALL confirm the specifications above for the client.

5 Conformance Test Items for Registration Service

This section describes the functions REQUIRED for Marlin BB DRM Client and Registration Service at the Service Provider in each of the corresponding Marlin BB System Protocols. The Registration Service at the Service Provider issues User Nodes, Subscription Nodes, User Links and Subscription Links to the Marlin BB DRM Client. It is assumed that both Marlin BB DRM Client and the Registration Service implement [MBNS] Extended Topology and they MUST conform to the conformance test items defined in Section 3.1 of [CTSBNS].

5.1 Node Acquisition

The Marlin BB DRM Client and the Registration Service MUST conform to the conformance test items defined in Section 3.2 of [CTSBNS].

5.2 Link Acquisition

5.2.1 Security Policy and Message Security Bindings

The Marlin BB DRM Client and the Registration Service MUST conform to the conformance test items defined in Section 3.3.1 of [CTSBNS].

5.2.2 Link Acquisition Message

5.2.2.1 Main Test Items

The following message parameters SHALL be tested for Link Acquisition:

- From section 3.1.1 of [MBB], set Domain Node ID to Domain ID attribute of User Link.
- From section 4.3 of [MBSD], set ContextTag of the User Node to the ContextTag attribute of the User Link.
- From section 4.3 of [MBSD], set ContextTag of the User Node to the ContextTag attribute of the Subscription Node.
- From section 4.3 of [MBSD], set ContextTag of the User Node to the ContextTag attribute of the Subscription Link.

The Conformance Test SHALL confirm the specifications above for the service.

5.2.2.2 Link Acquisition with Broadband Shared Domain Topology

The support of Broadband Shared Domain Topology [MBSD] is REQUIRED for the Marlin BB DRM Client which implements [MBSD]. In addition to the message combination patterns for Link Acquisition defined in Section 3.3.2.2 and 3.3.2.3 of [CTSBNS], this SHALL be tested for message combination patterns for Link Acquisition emulated in the following table:

	From Node in Request	To Node in Request	AgentCarrier in Response	AgentResultBlock in Confirmation
BBSD Link Acq-1	Domain Node	User Node	Not exist	Not exist

The Conformance Test SHALL confirm the specifications above for client.

6 Conformance Test Items for License Service

This section describes the functions REQUIRED for Marlin BB DRM Clients and License Services in Marlin BB System Protocols. It is assumed that both Marlin BB DRM Client and the License Service implement [MBNS] Extended Topology and they MUST conform to the conformance test items defined in Section 4.1 of [CTSBNS].

6.1 License Acquisition

6.1.1 Security Policy and Message Security Bindings

The Marlin BB DRM Client and the License Service MUST conform to the conformance test items defined in Section 4.2.1 of [CTSBNS].

6.1.2 License Acquisition Message

6.1.2.1 Main Test Items

The following message parameters SHALL be tested for License Acquisition:

- From section 4.3 of [MBSD], set ContextTag of the User Node to the ContextTag attribute of the Marlin License Object.

The Conformance Test SHALL confirm the specifications above for the service.

6.1.2.2 License Acquisition with Broadband Shared Domain Topology

The support of Broadband Shared Domain Topology [MBSD] is REQUIRED for the Marlin BB DRM Client which implements [MBSD]. When the Broadband Shared Domain Topology functionality is supported by Marlin BB DRM Client, The message combination patterns for License Acquisition emulated in the following table SHALL be tested:

	Octopus Node in Request
BBSD Lic Acq-1	Personality Node
BBSD Lic Acq-2	User Node
BBSD Lic Acq-3	Subscription Node
BBSD Lic Acq-4	Domain Node

The Conformance Test SHALL confirm the specifications above for client.

7 Conformance Test Items for Marlin License Evaluation

This section describes variations of Marlin Licenses RECOMMENDED to be used for the license evaluation test of Marlin BB DRM Client. The license evaluation test is to confirm whether Marlin BB DRM Clients can evaluate the Marlin License as expected.

The intent of this section is to define a set of license conditions that correspond to current business models and to the mandatory requirements in [MBSD].

It is understood that Marlin's Octopus engine can express infinitely more conditions than defined here, so while implementers SHOULD attempt to test all Octopus constructs, an exhaustive test case specification is difficult to define.

7.1 Variation 1

This variation assumes a purchase model where Marlin Licenses are shared among devices which are members of a Marlin Broadband Shared Domain. The Octopus Bundle of the Marlin License includes:

- Control object (quantity=1)
 - ✧ Targeted to Octopus User Node
- Controller object (quantity=1)
 - ✧ ContentKeyReference (quantity=1)
 - ✧ Includes an HMAC signature and a public key signature
- ContentKey object (quantity=1)
 - ✧ Bound to Scuba Sharing Secret Key used for Octopus User Node
- Protector object (quantity=1)
 - ✧ ContentReference (quantity=1)

7.2 Variation 2

This variation assumes a purchase model where Marlin Licenses are shared among devices which are members of a Marlin Broadband Shared Domain. The Octopus Bundle of the Marlin License includes:

- Control object (quantity=1)
 - ✧ Targeted to Octopus Domain Node
- Controller object (quantity=1)
 - ✧ ContentKeyReference (quantity=1)
 - ✧ Includes an HMAC signature and a public key signature
- ContentKey object (quantity=1)
 - ✧ Bound to Scuba Sharing Secret Key used for Octopus Domain Node
- Protector object (quantity=1)
 - ✧ ContentReference (quantity=1)

7.3 Variation 3

This variation assumes a subscription model where Marlin Licenses are shared among devices who are members of a Marlin Broadband Shared Domain, and the subscription period is specified in the Subscription Link. The Octopus Bundle of the Marlin License includes:

- Control object (quantity=1)
 - ✧ Targeted to Octopus User Node
 - ✧ Targeted to Octopus Subscription Node
- Controller object (quantity=1)

- 357 ✧ ContentKeyReference (quantity=1)
- 358 ✧ Includes an HMAC signature and a public key signature
- 359 • ContentKey object (quantity=1)
- 360 ✧ Bound to Scuba Sharing Public Key used for Octopus User Node
- 361 • Protector object (quantity=1)
- 362 ✧ ContentReference (quantity=1)

363 **7.4 Variation 4**

364 This variation assumes a subscription model where Marlin Licenses are shared
 365 among the users with the same subscription. The Octopus Bundle of such a Marlin
 366 License includes:

- 367 • Control object (quantity=1)
- 368 ✧ Targeted to Octopus Subscription Node
- 369 • Controller object (quantity=1)
- 370 ✧ ContentKeyReference (quantity=1)
- 371 ✧ Includes an HMAC signature and a public key signature
- 372 • ContentKey object (quantity=1)
- 373 ✧ Bound to Scuba Sharing Public Key used for Octopus Subscription
- 374 Node
- 375 • Protector object (quantity=1)
- 376 ✧ ContentReference (quantity=1)

8 Scenario for CTS (Informative)

This section introduces several test scenarios. The Conformance Test can efficiently confirm all Conformance Test Items defined in this document by sequentially executing the scenarios in this section.

Table 1 enumerates suggested scenario sequences. For instance scenario sequence Run1 suggests running first Scenario 1 then Scenario 2, Scenario 3 and finally Scenario 4.

Table 2 enumerates the REQUIRED and the OPTIONAL Test Items for each scenario; the corresponding sections in this document are provided.

Run 1	Run 2	Run 3	Run 4	Run 5	Run 6
Scenario 1 Scenario 2 Scenario 3 Scenario 4	Scenario 1 Scenario 2 Scenario 5	Scenario 1 Scenario 2 Scenario 6	Scenario 1 Scenario 2 Scenario 3 Scenario 7 Scenario 8	Scenario 1 Scenario 2 Scenario 3 Scenario 9	Scenario 10

Table 1: Suggested scenario sequence runs.

Scenario	REQUIRED Test Items	OPTIONAL Test Items
Scenario 1	4.1, 4.2	2.1, 3.1
Scenario 2	5.1, 5.2	
Scenario 3	6.1	2.1
Scenario 4	7.1, 7.2	2.1
Scenario 5	5.1, 5.2, 7.3	
Scenario 6	5.1, 5.2, 7.4	
Scenario 7	4.3.1, 4.3.2	2.1
Scenario 8	4.3.3	2.1
Scenario 9	3.1, 3.2, 7.1, 7.2, 7.3, 7.4	2.1
Scenario 10	3.1, 3.2, 7.1, 7.2, 7.3, 7.4	2.1

Table 2: Enumeration of Test Items REQUIRED and OPTIONAL for each scenario.

8.1 Scenario 1

This scenario is to confirm REQUIRED specifications related to Node Acquisition and Link Acquisition from the Broadband Shared Domain Manager by assuming the following sequence:

1. Acquisition of Action Token: The Conformance Test Items described in Section 3.1 MAY be confirmed by the sequence.
2. Acquisition of Configuration Token
3. Acquisition of Octopus Domain Node: The Conformance Test Items described in section 4.1 are to be confirmed by the sequence.
4. Acquisition of Domain Link: The Conformance Test Items described in section 4.2 are to be confirmed by the sequence.

As the result of the sequences, the Marlin BB DRM Client gets corresponding Octopus Domain Node and Domain Link.

8.2 Scenario 2

This scenario is to confirm REQUIRED specifications related to Node Acquisition and Link Acquisition from the Service Provider by assuming the following sequence. Note that this scenario assumes that Scenario 1 is successfully completed.

1. Acquisition of Action Token
2. Acquisition of Configuration Token
3. Acquisition of Octopus User Node: The Conformance Test Items described in section 5.1 are to be confirmed by the sequence.
4. Acquisition of User Link in which the Domain Node is linked to the User Node: The Conformance Test Items described in section 5.2 are to be confirmed by the sequence.

As the result of the sequences, the Marlin BB DRM Client gets corresponding Octopus User Node and User Link.

8.3 Scenario 3

This scenario is to confirm REQUIRED specifications related to License Acquisition by assuming the following sequence. Note that this scenario assumes that Scenario 1 and Scenario 2 are successfully completed.

1. Acquisition of Action Token
2. Acquisition of a License. The Conformance Test Items described in section 6.1 are to be confirmed by the sequence.

This scenario is executed for acquiring a License corresponding Variation 1 and Variation 2 in section 7.

As the result of the scenario sequences, the Marlin BB DRM Client gets the corresponding Marlin Licenses targeted and bound to the Domain Node acquired in the Scenario 1 or targeted and/or bound to the Octopus User Node acquired in Scenario 2.

8.4 Scenario 4

This scenario is to confirm REQUIRED specifications regarding evaluation of a Marlin License by assuming the following sequence. Note that this scenario assumes that Scenario 1, Scenario 2 and Scenario 3 are successfully completed.

1. Evaluation of Licenses acquired in Scenario 3: The corresponding Conformance Test Items described in section 7 are to be confirmed by the sequence.

As the result of the sequences, the Marlin BB DRM Client successfully consumes the Marlin Licenses acquired in Scenario 3.

8.5 Scenario 5

This scenario is to confirm REQUIRED specifications regarding evaluation of a Marlin License by assuming the following sequence. Note that this scenario assumes that Scenario 1 and Scenario 2 are successfully completed.

1. Acquisition of Action Token
2. Acquisition of Configuration Token
3. Acquisition of Octopus Subscription Node
4. Acquisition of Subscription Link with a given subscription period
5. Acquisition of License targeted to the Octopus Subscription Node and User Node
6. Evaluation of License acquired: The corresponding Conformance Test Items described in section 7 are to be confirmed by the sequence.

451 This scenario is executed for acquiring a License corresponding Variation 3 in
 452 section 7.
 453 As the result of the sequences, the Marlin BB DRM Client successfully consumes the
 454 Marlin License acquired.

455 **8.6 Scenario 6**

456 This scenario is to confirm REQUIRED specifications regarding evaluation of a Marlin
 457 License by assuming the following sequence. Note that this scenario assumes that
 458 Scenario 1 and Scenario 2 are successfully completed.

- 459 1. Acquisition of Action Token
- 460 2. Acquisition of Configuration Token
- 461 3. Acquisition of Octopus Subscription Node
- 462 4. Acquisition of Subscription Link
- 463 5. Acquisition of License targeted and bound to the Octopus Subscription Node.
- 464 6. Evaluation of License acquired: The corresponding Conformance Test Items
 465 described in section 7 are to be confirmed by the sequence.

466
 467 This scenario is executed for acquiring a License corresponding Variation 4 in
 468 section 7.
 469 As the result of the sequences, the Marlin BB DRM Client successfully consumes the
 470 Marlin License acquired.

471 **8.7 Scenario 7**

472 This scenario is to confirm REQUIRED specifications related to Deregistration by
 473 assuming the following sequence. Note that this scenario assumes Scenario 1 is
 474 successfully completed.

- 475 1. Acquisition of Action Token
- 476 2. Process of Deregistration: The Conformance Test Items described in section
 477 4.3.1 and 4.3.2 are to be confirmed by the sequence.

478 As the result of the sequences, the Marlin BB DRM Client deregisters from the
 479 Broadband Shared Domain registered in the Scenario 1.

480 **8.8 Scenario 8**

481 This scenario is to confirm REQUIRED specifications evaluating Marlin License
 482 targeted to Octopus User Node. Note that this scenario assumes that Scenario 1,
 483 Scenario 2, Scenario 3 and Scenario 7 are successfully completed.

- 484 1. Evaluation of License: The Conformance Test Items described in section
 485 4.3.3 are to be confirmed by the sequence.

486 As the result of the sequences, the Marlin BB DRM Client fails to consume the Marlin
 487 License acquired in the Scenario 3.

488 **8.9 Scenario 9**

489 This scenario is to confirm specifications to distribute Marlin Octopus nodes and links
 490 and evaluating a Marlin License obtained from other clients in the local area network
 491 via UPnP. Note that this scenario assumes Scenario 1, Scenario 2, and Scenario 3
 492 are successfully completed.

- 493 1. Add a new Marlin BB Device into the Shared Domain: The Conformance Test
 494 Items described in Section 3.1 SHALL be confirmed by the sequence.
- 495 2. Acquisition of Domain Node and Link.
- 496 3. Acquisition of content and License: The new Marlin BB Device browses
 497 content from the DMS in the local area network via UPnP and obtains the
 498 content and License.

- 499 4. Acquisition of Octopus nodes and links: The new Marlin BB Device obtains
500 the necessary Octopus Nodes and Links in the local area network using
501 X_GetMarlinNodeLinks(). The Conformance Test Items described in Section
502 3.2 SHALL be confirmed by the sequence.
503 5. Evaluation of License: The Conformance Test Items described in section 7
504 are to be confirmed by the sequence.
505 As a result of the sequences, the Marlin BB DRM Client successfully consumes the
506 License acquired from the DMS in the local area network.

507 **8.10 Scenario 10**

- 508 This scenario is to confirm specifications to proactively distribute Marlin Octopus
509 nodes and links in the local area network via UPnP.
510 1. Add two Marlin BB Devices (RefDev, TestDev) into the Shared Domain: The
511 Conformance Test Items described in Section 3.1 SHALL be confirmed by the
512 sequence.
513 2. Acquisition of Domain Node and Link.
514 3. Acquisition of User Node, Links and License: TestDev registers with the
515 Service Provider and acquires a Marlin License for a purchased content as
516 described in Scenario 2 and Scenario 3.
517 4. TestDev pro-actively distributes the User Nodes and Links obtained from the
518 Service Provider in Step 3 by invoking X_PutMarlinNodeLinks() on the
519 RefDev: The Conformance Test Items described in Section 3.2 SHALL be
520 confirmed by the sequence.
521 5. Acquisition of content and License: RefDev browses content from the DMS in
522 the local area network via UPnP and obtains the content and License.
523 6. Evaluation of License: The Conformance Test Items described in section
524 4.3.3 are to be confirmed by the sequence.
525 As the result of the sequences, the Marlin BB DRM Client (RefDev) successfully
526 consumes the License acquired from the DMS in the local area network.