# Calendar, Tasks and Notes Profile (CTN)

### Bluetooth® Implementation Conformance Statement (ICS) Proforma

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# 1 Identification of the implementation

# 1.1 Implementation Under Test (IUT) identification

Identification of the Implementation Under Test (IUT) is to be filled in to provide as much detail as possible regarding version numbers and configuration options.

An ICS contact person to respond to queries regarding information supplied in this ICS proforma is named in the Declaration of Compliance: Summary of Selected Specifications in Implementation.



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#### 1.2 Versions

Table 0: X.Y Versions

Item	Version	Reference	Status
1	CTN v1.0	[1]	М

Table 0a: X.Y.Z Versions

Item	Version	Reference	Status
1	CTN v1.0.1	[1]	C.1

C.1: Optional IF CTN 0/1 "CTN v1.0", otherwise Excluded.

#### 1.3 Roles

**Table 1: Role Requirements** 

Item	Role	Reference	Status
1	CTN Client Equipment	[1] 2.2	C.1
2	CTN Server Equipment	[1] 2.2	C.1

C.1: Mandatory to support at least one.

# 1.4 CTN Client Equipment (CCE)

#### 1.4.1 CTN Services

**Table 2: Supported CTN Services CCE** 

Prerequisite: CTN 1/1 "CTN Client Equipment"

Item	Feature	Reference	Status
1a	CTN Access Service, single account	[1] 3.5	М
1b	CTN Access Service, multiple accounts	[1] 3.5	0
2	CTN Notification Service	[1] 4.3	0

#### 1.4.2 CTN Profile Features

**Table 3: Supported Features CCE** 

Prerequisite: CTN 1/1 "CTN Client Equipment"

Item	Feature	Reference	Status
1	CTN Account Management	[1] 4.2	М
1a	GetCTNAccountInformation	[1] 5.9	М
1b	CTNNotificationRegistration	[1] 5.2	C.1
1c	SyncCTNAccount	[1] 5.10	0
2	CTN Notification	[1] 4.3	C.1, C.2



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Item	Feature	Reference	Status
2a	SendCTNEvent	[1] 5.1	C.3
3	CTN Browsing	[1] 4.4	C.2
3a	GetCTNListing	[1] 5.3	C.4
4	CTN Downloading	[1] 4.5	М
4a	GetCTNObject	[1] 5.4	М
4b	SetCTNStatus	[1] 5.5	М
5	CTN Uploading	[1] 4.6	0
5a	PushCTNObject	[1] 5.6	C.5
6	CTN Forward	[1] 4.7	0
6a	ForwardCTN	[1] 5.7	C.6
7	Supported bCal object types	[1] 3.3	N/A
7a	EVENT	[1] 3.3.1	C.7
7b	TASK	[1] 3.3.1	C.7
7c	NOTE	[1] 3.3.1	C.7
8	CTN Delete	[1] 4.8	0
8a	SetCTNStatus	[1] 5.5	C.8

- C.1: Mandatory IF CTN 2/2 "CTN Notification Service", otherwise Excluded.
- C.2: Mandatory to support at least one.
- C.3: Mandatory IF CTN 3/2 "CTN Notification", otherwise Excluded.
- C.4: Mandatory IF CTN 3/3 "CTN Browsing", otherwise Excluded.
- C.5: Mandatory IF CTN 3/5 "CTN Uploading", otherwise Excluded.
- C.6: Mandatory IF CTN 3/6 "CTN Forward", otherwise Excluded.
- C.7: Mandatory to support at least one.
- C.8: Mandatory IF CTN 3/8 "CTN Delete", otherwise Excluded.

# 1.5 CTN Server Equipment (CSE)

#### 1.5.1 CTN Services

**Table 4: Supported CTN Services CSE** 

Prerequisite: CTN 1/2 "CTN Server Equipment"

Item	Feature	Reference	Status
1a	CTN Access Service, single account	[1] 3.5	М
1b	CTN Access Service, multiple accounts	[1] 3.5	0
2	CTN Notification Service	[1] 4.3	М



#### 1.5.2 CTN Profile Features

**Table 5: Supported Features CSE** 

Prerequisite: CTN 1/2 "CTN Server Equipment"

Item	Feature	Reference	Status
1	CTN Account Management	[1] 4.2	М
1a	GetCTNAccountInformation	[1] 5.9	М
1b	CTNNotificationRegistration	[1] 5.2	М
1c	SyncCTNAccount	[1] 5.10	0
2	CTN Notification	[1] 4.3	М
2a	SendCTNEvent	[1] 5.1	М
3	CTN Browsing	[1] 4.4	М
3a	GetCTNListing	[1] 5.3	М
4	CTN Downloading	[1] 4.5	М
4a	GetCTNObject	[1] 5.4	М
4b	SetCTNStatus	[1] 5.5	М
5	CTN Uploading	[1] 4.6	М
5a	PushCTNObject	[1] 5.6	М
6	CTN Forward	[1] 4.7	М
6a	ForwardCTN	[1] 5.7	М
7	Supported bCal object types	[1] 3.3	N/A
7a	EVENT	[1] 3.3.1	C.1
7b	TASK	[1] 3.3.1	C.1
7c	NOTE	[1] 3.3.1	C.1
8	CTN Delete	[1] 4.8	0
8a	SetCTNStatus	[1] 5.5	М

C.1: Mandatory to support at least one.



# 2 Requirements Towards Other Bluetooth Layers

## 2.1 GAP requirements

**Table 6: GAP Mode Requirements (CCE)** 

Prerequisite: CTN 1/1 "CTN Client Equipment"

Item	Feature	Reference	Status	Inter-Layer Dependency
1	General discoverable mode	[1] 6.4, [2] 6.4.1	C.1	[3] GAP 1/3
1a	Limited discoverable mode	[1] 6.4, [2] 6.4.1	C.1	[3] GAP 1/2
2	Bondable mode	[1] 6.4, [2] 6.4.1	М	[3] GAP 1/7

C.1: Mandatory to support at least one.

Table 7: No longer used

Table 8: GAP Mode Requirements (CSE)

Prerequisite: CTN 1/2 "CTN Server Equipment"

Item	Feature	Reference	Status	Inter-Layer Dependency
1	No longer used	N/A	N/A	N/A
2	Bondable mode	[1] 6.4, [2] 6.4.1	М	[3] GAP 1/7

Table 9: GAP Idle Mode Requirements (CSE)

Prerequisite: CTN 1/2 "CTN Server Equipment"

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Initiation of general inquiry	[1] 6.4, [2] 6.4.3	М	[3] GAP 3/1
2	No longer used	N/A	N/A	N/A
3	Initiation of general bonding	[1] 6.4, [2] 6.1.1	М	[3] GAP 3/5

# 2.2 **GOEP requirements**

# 2.2.1 GOEP requirements (CCE)

**Table 10: CCE OBEX Functions Support for CAS** 

Prerequisite: CTN 1/1 "CTN Client Equipment"

Item	OBEX Operation	Reference	Status
1	Connect (Client)	[1] 6.2.2	М
2	Disconnect (Client)	[1] 6.2.2	М
3	Put (Client)	[1] 6.2.2	М



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Item	OBEX Operation	Reference	Status
4	Get (Client)	[1] 6.2.2	M
5	Abort (Client)	[1] 6.2.2	М

**Table 11: CCE OBEX Functions Support for CNS** 

Prerequisite: CTN 1/1 "CTN Client Equipment"

Item	OBEX Operation	Reference	Status
1	Connect (Server)	[1] 6.2.2	C.1
2	Disconnect (Server)	[1] 6.2.2	C.1
3	Put (Server)	[1] 6.2.2	C.1
4	Abort (Server)	[1] 6.2.2	C.1

C.1: Mandatory IF CTN 2/2 "CTN Notification Service", otherwise Optional.

**Table 12: CCE OBEX Header Support** 

Prerequisite: CTN 1/1 "CTN Client Equipment"

Item	OBEX Header	Reference	Status
1	Name	[1] 6.2.3	М
2	Туре	[1] 6.2.3	М
3	Body	[1] 6.2.3	М
4	End of Body	[1] 6.2.3	М
5	Target	[1] 6.2.3	М
6	Who	[1] 6.2.3	М
7	Connection ID	[1] 6.2.3	М
8	Application Parameters	[1] 6.2.3	М
9	SRM	[1] 6.2.3	М
10	Receive SRMP	[1] 6.2.3	М
11	Send SRMP	[1] 6.2.3	0

**Table 13: CCE OBEX Client Error Codes Recognition** 

Prerequisite: CTN 1/1 "CTN Client Equipment"

Item	OBEX Operation	Reference	Status
1	Bad Request	[1] 6.2.6, [2] 6.2.7	М
2	Not Implemented	[1] 6.2.6, [2] 6.2.7	М
3	Unauthorized	[1] 6.2.6, [2] 6.2.7	М
4	Precondition Failed	[1] 6.2.6, [2] 6.2.7	М
5	Not Found	[1] 6.2.6, [2] 6.2.7	М
6	Not Acceptable	[1] 6.2.6, [2] 6.2.7	М



Item	OBEX Operation	Reference	Status
7	Service Unavailable	[1] 6.2.6, [2] 6.2.7	M
8	Forbidden	[1] 6.2.6, [2] 6.2.7	М

**Table 14: CCE OBEX Server Error Codes Reporting** 

Prerequisite: CTN 2/2 "CTN Notification Service"

Item	OBEX Operation	Reference	Status
1	Bad Request	[1] 6.2.6, [2] 6.2.7	М
2	Not Implemented	[1] 6.2.6, [2] 6.2.7	М
3	Unauthorized	[1] 6.2.6, [2] 6.2.7	0
4	Precondition Failed	[1] 6.2.6, [2] 6.2.7	0
5	Not Found	[1] 6.2.6, [2] 6.2.7	0
6	Not Acceptable	[1] 6.2.6, [2] 6.2.7	0
7	Service Unavailable	[1] 6.2.6, [2] 6.2.7	0
8	Forbidden	[1] 6.2.6, [2] 6.2.7	0

## 2.2.2 GOEP requirements (CSE)

**Table 15: CSE OBEX Functions Support for CAS** 

Prerequisite: CTN 1/2 "CTN Server Equipment"

Item	OBEX Operation	Reference	Status
1	Connect (Server)	[1] 6.2.2	М
2	Disconnect (Server)	[1] 6.2.2	М
3	Put (Server)	[1] 6.2.2	М
4	Get (Server)	[1] 6.2.2	М
5	Abort (Server)	[1] 6.2.2	М
6	No longer used	N/A	N/A

**Table 16: CSE OBEX Functions Support for CNS** 

Prerequisite: CTN 1/2 "CTN Server Equipment"

Item	OBEX Operation	Reference	Status
1	Connect (Client)	[1] 6.2.2	М
2	Disconnect (Client)	[1] 6.2.2	М
3	Put (Client)	[1] 6.2.2	М
4	Abort (Client)	[1] 6.2.2	М



Table 17: CSE OBEX Header Support

Prerequisite: CTN 1/2 "CTN Server Equipment"

Item	OBEX Header	Reference	Status
1	Name	[1] 6.2.3	М
2	Туре	[1] 6.2.3	М
3	Body	[1] 6.2.3	М
4	End of Body	[1] 6.2.3	М
5	Target	[1] 6.2.3	М
6	Who	[1] 6.2.3	М
7	Connection ID	[1] 6.2.3	М
8	Application Parameters	[1] 6.2.3	М
9	SRM	[1] 6.2.3	М
10	Receive SRMP	[1] 6.2.3	М
11	Send SRMP	[1] 6.2.3	0

**Table 18: CSE OBEX Client Error Codes Recognition** 

Prerequisite: CTN 1/2 "CTN Server Equipment"

Item	OBEX Operation	Reference	Status
1	Bad Request	[1] 6.2.6, [2] 6.2.7	М
2	Not Implemented	[1] 6.2.6, [2] 6.2.7	М
3	Unauthorized	[1] 6.2.6, [2] 6.2.7	М
4	Precondition Failed	[1] 6.2.6, [2] 6.2.7	М
5	Not Found	[1] 6.2.6, [2] 6.2.7	М
6	Not Acceptable	[1] 6.2.6, [2] 6.2.7	М
7	Service Unavailable	[1] 6.2.6, [2] 6.2.7	М
8	Forbidden	[1] 6.2.6, [2] 6.2.7	М

**Table 19: CSE OBEX Server Error Codes Reporting** 

Prerequisite: CTN 4/2 "CTN Notification Service"

Item	OBEX Operation	Reference	Status
1	Bad Request	[1] 6.2.6, [2] 6.2.7	М
2	Not Implemented	[1] 6.2.6, [2] 6.2.7	М
3	Unauthorized	[1] 6.2.6, [2] 6.2.7	0
4	Precondition Failed	[1] 6.2.6, [2] 6.2.7	0
5	Not Found	[1] 6.2.6, [2] 6.2.7	0
6	Not Acceptable	[1] 6.2.6, [2] 6.2.7	0
7	Service Unavailable	[1] 6.2.6, [2] 6.2.7	0
8	Forbidden	[1] 6.2.6, [2] 6.2.7	0



# 2.3 SDP requirements

Table 20: SDP Requirements (CCE)

Prerequisite: CTN 1/1 "CTN Client Equipment"

Item	Feature	Reference	Status	Inter-Layer Dependency
1	ProtocolDescriptorList	[1] 7.3	М	[4] SDP 9/2
2	BluetoothProfileDescriptorList	[1] 7.3	М	[4] SDP 9/14
3	ServiceName	[1] 7.3	М	[4] SDP 9/9

Table 21: SDP Requirements (CSE)

Prerequisite: CTN 1/2 "CTN Server Equipment"

Item	Feature	Reference	Status	Inter-Layer Dependency
1	ProtocolDescriptorList	[1] 7.2	М	[4] SDP 9/2
2	BluetoothProfileDescriptorList	[1] 7.2	М	[4] SDP 9/14
3	ServiceName	[1] 7.2	М	[4] SDP 9/9

# 3 References

- [1] Bluetooth Calendar, Tasks and Notes Profile Specification, Version 1.0 or later
- [2] Bluetooth Profile Generic PIM Profile Specification, Version 1.0 or later
- [3] ICS Proforma for Generic Access Profile (GAP)
- [4] ICS Proforma for Service Discovery Protocol (SDP)



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# 4 Revision history and acknowledgments

## Revision History

Publication Number	Revision Number	Date	Comments
	0.7r01	2013-03-21	Initial draft
	0.7r02	2013-06-06	Changes after BTI review
	0.9r01	2013-06-18	Editorials
	0.9r02	2013-12-11	Editorials
	0.9r03	2014-01-16	Editorials
	0.9r04	2014-01-16	Removed conditional statement for the delete function Fixed numberings
	0.9r05	2014-01-20	Fixed numberings Added delete feature again based on SetCTNStatus
	PS	2014-01-28	Adopted as Prototyping Specification by the Board of Directors
	1.0.0r00	2014-04-09	Addressed comments from IOP & WG. Prepared for review.
0	1.0.0	2014-09-18	Approved by BoD
	1.0.1r00	2017-10-08	TSE 9955 (rating 1): Updated template. Removed General Statement of Conformance section. Removed table number fields. Fixed tables in Section 2 to conform to the current template conventions.
1	1.0.1	2018-07-01	Approved by BTI. Prepared for TCRL 2018-1 publication.
	1.0.1.0r00	2018-11-09	Updated version number to 1.0.1.0 to align with adoption of the specification 1.0.1. Added Table 0a and item 0a/1 for the new version.
2	1.0.1.0	2018-11-21	Approved by BTI. Prepared for TCRL 2018-2 publication.
	p3r00-r02	2023-10-12 – 2023-11-20	TSE 19241 (rating 1): Made editorial edits to align the document with the latest ICS template, including updates to the IUT identification section, table titles, and spacing. Removed Support columns and "is supported" language. Updated C.1 for Tables 1 and 5. Updated the prerequisite for Tables 2–21. In Table 3, updated C.1–C.8. In Table 6, added an ILD column, deleted unnecessary headings within the table, updated the Reference and Status values for Item 1, added Item 1a, updated the Feature and Reference values for Item 2, and updated C.1. Marked Table 7 as no longer used. In Table 8, added an ILD column, deleted unnecessary headings within the table, marked Item 1 as no longer used, and updated the Reference value for Item 2. In Table 9, added an ILD column, updated the Reference value for Item 1, marked Item 2 as no longer used, updated the Reference and Status values for Item 3, and deleted C.1. Deleted an introductory statement for Section 2.2. In Table 10, updated the references and deleted C.1.



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Publication Number	Revision Number	Date	Comments
			In Table 11, updated the Reference values and updated C.1. In Tables 12, 13, 16, 17, and 19, updated the Reference values. In Tables 14 and 18, updated the Reference values and updated all values for Item 5. In Table 15, updated the Reference values and marked Item 6 as no longer used. In Tables 20 and 21, added an ILD column and updated the Reference values. Updated the references.  Replaced the Bluetooth logo in the footer and updated the copyright page to align with the latest version of the DNMD. Created separate sections for Roles and Versions. Moved the revision history and acknowledgments to the end of the document. Added a Publication Number column to the Revision History. Revised the document numbering convention, setting the last release publication of 1.0.1.0 as p2.
3	р3	2024-07-01	Approved by BTI on 2024-05-22. Prepared for TCRL 2024-1 publication.

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