Generic Access Profile (GAP)

*Bluetooth® Implementation Conformance Statement (ICS) Proforma*

- **Revision:** GAP.ICS.p35
- **Revision Date:** 2020-01-07
- **Group Prepared By:** BTI
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Contents

1 Identification of the Implementation

1.1 Implementation Under Test (IUT) Identification

1.2 Device and Version Configuration

1.3 BR/EDR Capability Statement

1.3.1 Modes

1.3.2 Security Aspects

1.3.3 Idle Mode Procedures

1.3.4 Establishment Procedures

1.4 LE Only Capability Statement

1.4.1 Broadcaster

1.4.1.1 Physical Layer

1.4.1.2 Link Layer Features

1.4.1.3 Connection Modes and Procedures

1.4.1.4 Broadcasting and Observing

1.4.1.5 Privacy Feature

1.4.1.6 Periodic Advertising Modes and Procedures

1.4.1.7 Security Aspects

1.4.2 Observer

1.4.2.1 Physical Layer

1.4.2.2 Link Layer Features

1.4.2.3 Connection Modes and Procedures

1.4.2.4 Broadcasting and Observing

1.4.2.5 Privacy Feature

1.4.2.6 Periodic Advertising Modes and Procedures

1.4.2.7 Security Aspects

1.4.3 Peripheral

1.4.3.1 Physical Layer

1.4.3.2 Link Layer Features

1.4.3.3 Discovery Modes and Procedures

1.4.3.4 Connection Modes and Procedures

1.4.3.5 Bonding Modes and Procedures

1.4.3.6 Security Aspects

1.4.3.7 Privacy Feature

1.4.3.8 Generic Access Profile Characteristics

1.4.3.9 Periodic Advertising Modes and Procedures

1.4.4 Central

1.4.4.1 Physical Layer

1.4.4.2 Link Layer Features

1.4.4.3 Control Procedures

1.4.4.4 Discovery Modes and Procedures

1.4.4.5 Connection Modes and Procedures

1.4.4.6 Bonding Modes and Procedures

1.4.4.7 Security Aspects

1.4.4.8 Privacy Feature

1.4.4.9 Generic Access Profile Characteristics

1.4.4.10 Periodic Advertising Modes and Procedures
1.5 BR/EDR/LE Capability Statement ........................................................................................................... 29
1.5.1 Central .................................................................................................................................................. 30
1.5.1.1 Modes .............................................................................................................................................. 30
1.5.1.2 Idle Mode Procedures ....................................................................................................................... 30
1.5.1.3 Security Aspects ............................................................................................................................... 30
1.5.1.4 Simultaneous Transports .................................................................................................................. 30
1.5.2 Peripheral ............................................................................................................................................. 31
1.5.2.1 Modes .............................................................................................................................................. 31
1.5.2.2 Security Aspects ............................................................................................................................... 31
1.5.2.3 Simultaneous Transports .................................................................................................................. 31
2 References .................................................................................................................................................. 32
3 Revision History and Contributors ............................................................................................................. 33
1 Identification of the Implementation

Identification of the Implementation Under Test (IUT) shall 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 shall be named in Appendix A of the Declaration of Compliance: Summary of Selected Specifications in Implementation.

1.1 Implementation Under Test (IUT) Identification

IUT Name:

IUT Version (Hardware/Software ID):

IUT Supplier:
1.2 Device and Version Configuration

Table 0: Device Configuration

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
</table>

C.1: Mandatory IF (SUM ICS 32/3 “BR/EDR GAP” AND NOT SUM ICS 34/2 “LE GAP”) is supported, otherwise Excluded.

C.2: Mandatory IF (SUM ICS 34/2 “LE GAP” AND NOT SUM ICS 32/3 “BR/EDR GAP”) is supported, otherwise Excluded.

C.3: Mandatory IF (SUM ICS 32/3 “BR/EDR GAP” AND SUM ICS 34/2 “LE GAP”) is supported, otherwise Excluded.

Table 0a: No longer used

1.3 BR/EDR Capability Statement

1.3.1 Modes

Table 1: Modes

Prerequisite: GAP 0/1 “BR/EDR” OR GAP 0/3 “BR/EDR/LE”

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Non-Synchronizable</td>
<td>[6] or [7] 4.4.1</td>
<td>C.3</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>9</td>
<td>Synchronizable</td>
<td>[6] or [7] 4.4.2</td>
<td>C.4</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Mandatory IF GAP 1/2 “Limited-discoverable mode” is supported, otherwise Optional.

C.2: Mandatory IF GAP 3/5 “Initiation of general bonding” is supported, otherwise Optional.

C.3: Mandatory IF BB 3a/1 “Connectionless Slave Broadcast Transmitter” is supported, otherwise Excluded.

C.4: Optional IF BB 3a/1 “Connectionless Slave Broadcast Transmitter” is supported, otherwise Excluded.
### 1.3.2 Security Aspects

#### Table 2: Security Aspects

**Prerequisite:** GAP 0/1 “BR/EDR” OR GAP 0/3 “BR/EDR/LE”

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>7a</td>
<td>Security mode 4, level 4</td>
<td>[3] or [7] 5.2.2.8</td>
<td>C.9</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>11</td>
<td>Secure Connections Only Mode</td>
<td>[7] 5.2.2</td>
<td>C.8</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>12</td>
<td>56-bit minimum encryption key size</td>
<td>[12] 5.2.2.8</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Mandatory IF (GAP 2/5 “Security mode 2” OR GAP 2/6 “Security mode 3”) is supported, otherwise Optional.

C.2: Excluded IF GAP 2/7 “Security mode 4” is supported, otherwise Optional.

C.3: No longer used.

C.4: No longer used.

C.5: Mandatory IF (GAP 2/5 “Security mode 2” OR GAP 2/6 “Security mode 3” OR GAP 2/7 “Security mode 4”) is supported, otherwise Optional.

C.6: Mandatory to support at least one of these features IF GAP 2/7 “Security mode 4” is supported, otherwise Excluded.

C.7: Optional IF NOT GAP 2/7 “Security mode 4” is supported, otherwise Excluded.

C.8: Optional IF (LMP 2/26 “Secure Connections” AND GAP 2/7a “Security mode 4, level 4”) is supported, otherwise Excluded.

C.9: Optional IF GAP 2/7 “Security mode 4” is supported, otherwise Excluded.

Note 1: The “Authentication Procedure” in item GAP 2/1 is the one described in Fig. 5.1 in the GAP Profile Specification and not the LMP-Authentication.

Note 2: A Core 2.1 or later device shall always support secure communication in Security Mode 4, and shall use that mode to connect with another Core 2.1 or later device. It shall use Security Mode 2 only for backward compatibility purposes with Core 2.0 and earlier devices. Security Mode 1 is excluded for Core 2.1 or later devices.
1.3.3  Idle Mode Procedures

Table 3: Idle Mode Procedures
Prerequisite: GAP 0/1 “BR/EDR” OR GAP 0/3 “BR/EDR/LE”

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
</table>

C.1: Mandatory to support at least one of (GAP 3/1 “Initiation of general inquiry” OR GAP 3/2 “Initiation of limited inquiry”) IF GAP 3/5 “Initiation of general bonding” is supported, otherwise Optional.

1.3.4  Establishment Procedures

Table 4: Establishment Procedures
Prerequisite: GAP 0/1 “BR/EDR” or GAP 0/3 “BR/EDR/LE”

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Support synchronization establishment as receiver</td>
<td>[3] or [6] or [7] 7.5</td>
<td>C.1</td>
<td>o Yes o No</td>
</tr>
</tbody>
</table>

C.1: Mandatory IF BB 3a/2 “Connectionless Slave Broadcast Receiver” is supported, otherwise Optional.
1.4 LE Only Capability Statement

Table 5: LE Roles

Prerequisite: GAP 0/2 “LE”

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Broadcaster</td>
<td>[3] or [7] 2.2.2</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Observer</td>
<td>[3] or [7] 2.2.2</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>3</td>
<td>Peripheral</td>
<td>[3] or [7] 2.2.2</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>4</td>
<td>Central</td>
<td>[3] or [7] 2.2.2</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Mandatory to support at least one of the defined roles.

Note: Table 5 is applicable for LE-only configurations. For BR/EDR/LE configurations, see Table 38 for role declarations.

1.4.1 Broadcaster

1.4.1.1 Physical Layer

Table 6: Broadcaster Physical Layer

Prerequisite: GAP 5/1 “Broadcaster LE-Only” OR GAP 38/1 “Broadcaster BR/EDR/LE”

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Transmitter</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Receiver</td>
<td>[3] or [7] 2.2.2</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

1.4.1.2 Link Layer Features

1.4.1.2.1 Link Layer States

Table 7: Broadcaster Link Layer States

Prerequisite: GAP 5/1 “Broadcaster LE-Only” OR GAP 38/1 “Broadcaster BR/EDR/LE”

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Standby</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Advertising</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>3</td>
<td>Isochronous Broadcasting State</td>
<td>[13] 2.2.2</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Excluded IF SUM ICS 31/17 “Core v4.2” OR SUM ICS 31/18 “Core v4.2+HS” OR SUM ICS 31/19 “Core v5.0” OR SUM ICS 31/20 “Core v5.1” is supported, otherwise Optional.
### 1.4.1.2.2 Advertising Event Types

**Table 8: Broadcaster Link Layer Advertising Event Types**

*Prerequisite: GAP 5/1 “Broadcaster LE-Only” OR GAP 38/1 “Broadcaster BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Non-Connectable Undirected Event</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>○ Yes   ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Scannable Undirected Event</td>
<td>[3] or [7] 2.2.2</td>
<td>O</td>
<td>○ Yes   ○ No</td>
</tr>
<tr>
<td>3</td>
<td>Non-Connectable and Non-Scannable Directed Event</td>
<td>[10] 2.2.2</td>
<td>C.1</td>
<td>○ Yes   ○ No</td>
</tr>
<tr>
<td>4</td>
<td>Scannable Directed Event</td>
<td>[10] 2.2.2</td>
<td>C.1</td>
<td>○ Yes   ○ No</td>
</tr>
</tbody>
</table>

C.1: Excluded IF (SUM ICS 31/1 “Core Spec version 4.2” OR SUM ICS 31/18 “Core Spec Version 4.2+HS”) is supported, otherwise Optional.

### 1.4.1.3 Connection Modes and Procedures

**Table 8A: Broadcaster Link Layer Advertising Data Types**

*Prerequisite: GAP 5/1 “Broadcaster LE-Only” OR GAP 38/1 “Broadcaster BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AD Type – Service UUID</td>
<td>[3] 11.1.1</td>
<td>O</td>
<td>○ Yes   ○ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[4] 1.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>AD Type – Local Name</td>
<td>[3] 11.1.2</td>
<td>O</td>
<td>○ Yes   ○ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[4] 1.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>AD Type – Flags</td>
<td>[3] 11.1.3</td>
<td>O</td>
<td>○ Yes   ○ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[4] 1.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>AD Type – Manufacturer Specific Data</td>
<td>[3] 11.1.4</td>
<td>O</td>
<td>○ Yes   ○ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[4] 1.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>AD Type – TX Power Level</td>
<td>[3] 11.1.5</td>
<td>O</td>
<td>○ Yes   ○ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[4] 1.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>AD Type – Security Manager Out of Band (OOB)</td>
<td>[3] 11.1.6</td>
<td>C.1</td>
<td>○ Yes   ○ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[4] 1.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>AD Type – Security Manager TK Value</td>
<td>[3] 11.1.7</td>
<td>O</td>
<td>○ Yes   ○ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[4] 1.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item</td>
<td>Capability</td>
<td>Reference</td>
<td>Status</td>
<td>Support</td>
</tr>
<tr>
<td>------</td>
<td>-----------------------------------</td>
<td>-----------------</td>
<td>--------</td>
<td>------------------</td>
</tr>
<tr>
<td>8</td>
<td>AD Type – Slave Connection Interval Range</td>
<td>[3] 11.1.8, [4] 1.9</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>9</td>
<td>AD Type – Service Solicitation</td>
<td>[3] 11.1.9, [4] 1.10</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>11</td>
<td>AD Type – Appearance</td>
<td>[4] 1.1.12</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>12</td>
<td>AD Type - Public Target Address</td>
<td>[4] 1.1.13</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>13</td>
<td>AD Type – Random Target Address</td>
<td>[4] 1.1.14</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>14</td>
<td>AD Type – Advertising Interval</td>
<td>[4] 1.1.15</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>15</td>
<td>AD Type – LE Bluetooth Device Address</td>
<td>[4] 1.1.16</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>16</td>
<td>AD Type – LE Role</td>
<td>[4] 1.1.17</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>17</td>
<td>AD Type – URI</td>
<td>[4] 1.1.18</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Optional IF SM 2/4 “OOB supported” is supported, otherwise Excluded.

**Table 9: Broadcaster Connection Modes and Procedures**

Prerequisite: GAP 5/1 “Broadcaster LE-Only” OR GAP 38/1 “Broadcaster BR/EDR/LE”

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Non-Connectable Mode</td>
<td>[3] or [7] 9.3.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

### 1.4.1.4 Broadcasting and Observing

**Table 10: Broadcaster Broadcasting and Observing Features**

Prerequisite: GAP 5/1 “Broadcaster LE-Only” OR GAP 38/1 “Broadcaster BR/EDR/LE”

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Broadcast Mode</td>
<td>[3] or [7] 9.1.1</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Broadcast Isochronous Synchronizability mode</td>
<td>[13] 8.6.1</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>
### Generic Access Profile (GAP) / ICS

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Broadcast Isochronous Broadcasting mode</td>
<td>[13] 8.6.2</td>
<td>C.2</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>4</td>
<td>Broadcast Isochronous Terminate procedure</td>
<td>[13] 8.6.5</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>5</td>
<td>Broadcast Isochronous Channel Map Update Procedure</td>
<td>[13] 8.6.4</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Mandatory IF GAP 10/3 “Broadcast Isochronous Broadcasting mode” is supported, otherwise Excluded.

C.2: Excluded IF SUM ICS 31/17 “Core v4.2” OR SUM ICS 31/18 “Core v4.2+HS” OR SUM ICS 31/19 “Core v5.0” OR SUM ICS 31/20 “Core v5.1” is supported, otherwise Optional.

#### 1.4.1.5 Privacy Feature

**Table 11: Broadcaster Privacy Feature**

**Prerequisite:** GAP 5/1 “Broadcaster LE-Only” OR GAP 38/1 “Broadcaster BR/EDR/LE”

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Privacy Feature</td>
<td>[3] [7] [8] 10.7</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Resolvable Private Address Generation Procedure</td>
<td>[3] [7] [8] 10.8.2.2 [9] 1.3.2.2</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>3</td>
<td>Non-Resolvable Private Address Generation Procedure</td>
<td>[3] [7] [8] 10.8.2.1 [9] 1.3.2.2</td>
<td>C.2</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Mandatory IF GAP 11/1 “Privacy Feature” AND NOT GAP 11/3 “Non-Resolvable Private Address Generation Procedure” is supported, otherwise Optional.

C.2: Mandatory IF GAP 11/1 “Privacy Feature” AND NOT GAP 11/2 “Resolvable Private Address Generation Procedure” is supported, otherwise Optional.

#### 1.4.1.6 Periodic Advertising Modes and Procedures

**Table 11a: Periodic Advertising Modes and Procedures**

**Prerequisite:** GAP 5/1 “Broadcaster LE-Only” OR GAP 38/1 “Broadcaster BR/EDR/LE”

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Periodic Advertising Synchronizability mode</td>
<td>[8] 9.5.1</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Periodic Advertising mode</td>
<td>[8] 9.5.2</td>
<td>C.2</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Excluded IF (SUM ICS 31/17 “Core Spec Version 4.2” OR SUM ICS 31/18 “Core Spec Version 4.2+HS”) is supported; Optional IF LL 3/10 “Periodic Advertising” is supported, otherwise Excluded.
C.2: Mandatory IF GAP 11a/1 “Periodic Advertising Synchronizability mode” is supported, otherwise Excluded.

### 1.4.1.7 Security Aspects

**Table 11b: Broadcaster Security Aspects Features**  
*Prerequisite: GAP 5/1 “Broadcaster LE-Only” OR GAP 38/1 “Broadcaster BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LE Security Mode 3</td>
<td>[13] 9.2.5</td>
<td>C.1</td>
<td>☐ Yes ☐ No</td>
</tr>
</tbody>
</table>

C.1: Excluded IF SUM ICS 31/17 “Core v4.2” OR SUM ICS 31/18 “Core v4.2+HS” OR SUM ICS 31/19 “Core v5.0” OR SUM ICS 31/20 “Core v5.1” is supported, otherwise Optional.

### 1.4.2 Observer

#### 1.4.2.1 Physical Layer

**Table 12: Observer Physical Layer**  
*Prerequisite: GAP 5/2 “Observer LE-Only” OR GAP 38/2 “Observer BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Receiver</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>☐ Yes ☐ No</td>
</tr>
<tr>
<td>2</td>
<td>Transmitter</td>
<td>[3] 2.2.2</td>
<td>O</td>
<td>☐ Yes ☐ No</td>
</tr>
</tbody>
</table>

### 1.4.2.2 Link Layer Features

#### 1.4.2.2.1 Link Layer States

**Table 13: Observer Link Layer States**  
*Prerequisite: GAP 5/2 “Observer LE-Only” OR GAP 38/2 “Observer BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Standby</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>☐ Yes ☐ No</td>
</tr>
<tr>
<td>2</td>
<td>Scanning</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>☐ Yes ☐ No</td>
</tr>
</tbody>
</table>
### 1.4.2.2.2 Scanning Types

**Table 14: Observer Link Layer Scanning Types**

*Prerequisite: GAP 5/2 “Observer LE-Only” OR GAP 38/2 “Observer BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Passive Scanning</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>Yes  No</td>
</tr>
<tr>
<td>2</td>
<td>Active Scanning</td>
<td>[3] or [7] 2.2.2</td>
<td>O</td>
<td>Yes  No</td>
</tr>
</tbody>
</table>

### 1.4.2.3 Connection Modes and Procedures

**Table 15: Observer Connection Modes and Procedures**

*Prerequisite: GAP 5/2 “Observer LE-Only” OR GAP 38/2 “Observer BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Non-Connectable Mode</td>
<td>[3] or [7] 9.3.2</td>
<td>M</td>
<td>Yes  No</td>
</tr>
</tbody>
</table>

### 1.4.2.4 Broadcasting and Observing

**Table 16: Observer Broadcasting and Observing Features**

*Prerequisite: GAP 5/2 “Observer LE-Only” OR GAP 38/2 “Observer BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Broadcast Isochronous Synchronization Establishment procedure</td>
<td>[13] 8.6.3</td>
<td>C.1</td>
<td>Yes  No</td>
</tr>
<tr>
<td>3</td>
<td>Broadcast Isochronous Termination procedure</td>
<td>[13] 8.6.5</td>
<td>C.2</td>
<td>Yes  No</td>
</tr>
<tr>
<td>4</td>
<td>Broadcast Isochronous Channel Map Update Procedure</td>
<td>[13] 8.6.4</td>
<td>C.2</td>
<td>Yes  No</td>
</tr>
</tbody>
</table>

C.1: Excluded SUM ICS 31/17 “Core v4.2” OR SUM ICS 31/18 “Core v4.2+HS” OR SUM ICS 31/19 “Core v5.0” OR SUM ICS 31/20 “Core v5.1” is supported, otherwise Optional.

C.2: Mandatory IF GAP 16/2 “Broadcast Isochronous Synchronization Establishment procedure” is supported, otherwise Excluded.
1.4.2.5 Privacy Feature

Table 17: Observer Privacy Feature
Prerequisite: GAP 5/2 “Observer LE-Only” OR GAP 38/2 “Observer BR/EDR/LE”

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Privacy Feature</td>
<td>[3] [7] [8] 10.7</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Non-Resolvable Private Address Generation Procedure</td>
<td>[3] [7] [8] 10.8.2.1 [9] 1.3.2.2</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>3</td>
<td>Resolvable Private Address Resolution Procedure</td>
<td>[3] [7] [8] 10.8.2.3 [9] 1.3.2.2</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Mandatory IF GAP 17/1 “Privacy Feature” AND GAP 14/2 “Active Scanning” AND NOT GAP 17/4 “Resolvable Private Address Generation Procedure” is supported, otherwise Optional.
C.2: Mandatory IF GAP 17/1 “Privacy Feature” AND GAP 14/2 “Active Scanning” AND NOT GAP 17/2 “Non-Resolvable Private Address Generation Procedure”) is supported, otherwise Optional.

1.4.2.6 Periodic Advertising Modes and Procedures

Table 17a: Periodic Advertising Modes and Procedures
Prerequisite: GAP 5/2 “Observer LE-Only” OR GAP 38/2 “Observer BR/EDR/LE”

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Periodic Advertising Synchronization Establishment procedure without</td>
<td>[8] 9.5.3</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td></td>
<td>listening for periodic advertising</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Periodic Advertising Synchronization Establishment procedure with</td>
<td>[8] 9.5.3</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td></td>
<td>listening for periodic advertising</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

C.1: Excluded IF (SUM ICS 31/17 “Core Spec Version 4.2” OR SUM ICS 31/18 “Core Spec Version 4.2+HS”) are supported, otherwise Optional IF LL 4/8 “Periodic Scanning” OR LL 11/1 “Synchronizing to Periodic Advertising” are supported, otherwise Excluded.
1.4.2.7 Security Aspects

Table 17b: Observer Security Aspects Features

Prerequisite: GAP 5/2 “Observer LE-Only” OR GAP 38/2 “Observer BR/EDR/LE”

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LE Security Mode 3</td>
<td>[13] 9.2.5</td>
<td>C.1</td>
<td>○ Yes   ○ No</td>
</tr>
</tbody>
</table>

C.1: Excluded IF SUM ICS 31/17 “Core v4.2” OR SUM ICS 31/18 “Core v4.2+HS” OR SUM ICS 31/19 “Core v5.0” OR SUM ICS 31/20 “Core v5.1” is supported, otherwise Optional.

1.4.3 Peripheral

1.4.3.1 Physical Layer

Table 18: Peripheral Physical Layer

Prerequisite: GAP 5/3 “Peripheral LE-Only” OR GAP 38/3 “Peripheral BR/EDR/LE”

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Transmitter</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Receiver</td>
<td>[3] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

1.4.3.2 Link Layer Features

1.4.3.2.1 Link Layer States

Table 19: Peripheral Link Layer States

Prerequisite: GAP 5/3 “Peripheral LE-Only” OR GAP 38/3 “Peripheral BR/EDR/LE”

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Standby</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Advertising</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>3</td>
<td>Connection, Slave Role</td>
<td>[3] 2.2.2, 13.1.2.2 [7] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>
### 1.4.3.2.2 Advertising Event Types

#### Table 20: Peripheral Link Layer Advertising Event Types
*Prerequisite: GAP 5/3 “Peripheral LE-Only” OR GAP 38/3 “Peripheral BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Connectable and Scannable Undirected Event</td>
<td>[3] 2.2.2, 13.1.1.2, [7] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Connectable Directed Event</td>
<td>[3] 2.2.2, 13.1.1.2, [7] 2.2.2</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2a</td>
<td>Item no longer used</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>3</td>
<td>Non-Connectable and Non-Scannable Undirected Event</td>
<td>[3] 2.2.2, 9.2.2.2, 9.3.1, 9.3.2, [7] 2.2.2</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>4</td>
<td>Scannable Undirected Event</td>
<td>[3] 2.2.2, 9.2.2.2, 9.3.1, 9.3.2, [7] 2.2.2</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>5</td>
<td>Connectable Undirected Event</td>
<td>[10] 2.2.2</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>6</td>
<td>Non-Connectable and Non-Scannable Directed Event</td>
<td>[10] 2.2.2</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>7</td>
<td>Scannable Directed Event</td>
<td>[10] 2.2.2</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Excluded IF (SUM ICS 31/17 “Core Spec Version 4.2” OR SUM ICS 31/18 “Core Spec Version 4.2+HS”) is supported, otherwise Optional.

### 1.4.3.2.3 Advertising Data Types

#### Table 20A: Peripheral Link Layer Advertising Data Types
*Prerequisite: GAP 5/3 “Peripheral LE-Only” OR GAP 38/3 “Peripheral BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AD Type – Service UUID</td>
<td>[3] 11.1.1 [4] 1.1</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>AD Type – Local Name</td>
<td>[3] 11.1.2 [4] 1.2</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>3</td>
<td>AD Type – Flags</td>
<td>[3] 11.1.3 [4] 1.3</td>
<td>C.2</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>Item</td>
<td>Capability</td>
<td>Reference</td>
<td>Status</td>
<td>Support</td>
</tr>
<tr>
<td>------</td>
<td>-----------------------------------------------</td>
<td>--------------------</td>
<td>--------</td>
<td>---------------</td>
</tr>
<tr>
<td>4</td>
<td>AD Type – Manufacturer Specific Data</td>
<td>[3] 11.1.4</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[4] 1.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>AD Type – TX Power Level</td>
<td>[3] 11.1.5</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[4] 1.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>AD Type – Security Manager Out of Band (OOB)</td>
<td>[3] 11.1.6</td>
<td>C.3</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[4] 1.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>AD Type – Security Manager TK Value</td>
<td>[3] 11.1.7</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[4] 1.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>AD Type – Slave Connection Interval Range</td>
<td>[3] 11.1.8</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[4] 1.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>AD Type - Service Solicitation</td>
<td>[3] 11.1.9</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[4] 1.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>AD Type – Service Data</td>
<td>[3] 11.1.10</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[4] 1.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>AD Type – Appearance</td>
<td>[4] 1.1.12</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>12</td>
<td>AD Type - Public Target Address</td>
<td>[4] 1.1.13</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>13</td>
<td>AD Type – Random Target Address</td>
<td>[4] 1.1.14</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>14</td>
<td>AD Type – Advertising Interval</td>
<td>[4] 1.1.15</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>15</td>
<td>AD Type – LE Bluetooth Device Address</td>
<td>[4] 1.1.16</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>16</td>
<td>AD Type – LE Role</td>
<td>[4] 1.1.17</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>17</td>
<td>AD Type – URI</td>
<td>[4] 1.1.18</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Optional IF (GAP 20/1 “Connectable and Scannable Undirected Event” OR GAP 20/3 “Non-Connectable and Non-Scannable Undirected Event” OR GAP 20/4 “Scannable Undirected Event”) is supported, otherwise Excluded.

C.2: Mandatory IF (GAP 22/2 “Limited Discoverable Mode” OR GAP 22/3 “General Discoverable Mode”) is supported, otherwise Optional.

C.3: Optional IF ((GAP 20/1 “Connectable and Scannable Undirected Event” OR GAP 20/3 “Non-Connectable and Non-Scannable Undirected Event” OR GAP 20/4 “Scannable Undirected Event”) AND SM 2/4 “OOB supported”) is supported otherwise Excluded.
### 1.4.3.2.4 Control Procedures

**Table 21: Peripheral Link Layer Control Procedures**

*Prerequisite: GAP 5/3 “Peripheral LE-Only” OR GAP 38/3 “Peripheral BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
</table>
| 1    | Connection Update Procedure | [3] 2.2.2, 13.1.2.2  
[7] 2.2.2 | M | ○ Yes ○ No |
| 2    | Channel Map Update Procedure | [3] 2.2.2, 13.1.2.2  
[7] 2.2.2 | M | ○ Yes ○ No |
| 3    | Encryption Procedure | [3] 2.2.2, 13.1.2.2 | O | ○ Yes ○ No |
| 4    | Master Initiated Feature Exchange Procedure | [3] 2.2.2, 13.1.2.2  
[7] 2.2.2 | M | ○ Yes ○ No |
| 5    | Version Exchange Procedure | [3] 2.2.2, 13.1.2.2  
[7] 2.2.2 | M | ○ Yes ○ No |
| 6    | Termination Procedure | [3] 2.2.2, 13.1.2.2  
[7] 2.2.2 | M | ○ Yes ○ No |
| 7    | LE Ping Procedure | [7] 2.2.2 | O | ○ Yes ○ No |
| 8    | Slave Initiated Feature Exchange Procedure | [7] 2.2.2 | C.1 | ○ Yes ○ No |
| 9    | Connection Parameter Request Procedure | [7] 2.2.2 | O | ○ Yes ○ No |
| 10   | Data Length Update Procedure | [7] 2.2.2 | O | ○ Yes ○ No |
| 11   | PHY Update Procedure | [7] 2.2.2 | C.2 | ○ Yes ○ No |
| 12   | Minimum Number Of Used Channels Procedure | [7] 2.2.2 | C.2 | ○ Yes ○ No |

C.1: Mandatory IF GAP 21/9 “Connection Parameter Request Procedure”) is supported, otherwise Optional.

C.2: Excluded IF (SUM ICS 31/17 “Core Spec Version 4.2” OR SUM ICS 31/18 “Core Spec Version 4.2+HS”) is supported, otherwise Optional.
### 1.4.3.3 Discovery Modes and Procedures

**Table 22: Peripheral Discovery Modes and Procedures**

*Prerequisite: GAP 5/3 “Peripheral LE-Only” OR GAP 38/3 “Peripheral BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Name Discovery Procedure</td>
<td>[3] or [7] 9.2.7</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

**C.1:** Mandatory IF (GAP 5/3 “LE Roles – Peripheral role” AND (NOT GAP 22/2 “Limited Discoverable Mode”)) is supported; Optional IF (GAP 5/3 “LE Roles – Peripheral role” AND GAP 22/2 “Limited Discoverable Mode”) is supported; Mandatory IF (GAP 38/3 “BR/EDR/LE Roles – Peripheral Role” AND NOT GAP 22/2 “Limited Discoverable Mode”) is supported; Optional IF (GAP 38/3 “BR/EDR/LE Roles – Peripheral Role” AND GAP 22/2 “Limited Discoverable Mode”) is supported, otherwise Excluded.

### 1.4.3.4 Connection Modes and Procedures

**Table 23: Peripheral Connection Modes and Procedures**

*Prerequisite: GAP 5/3 “Peripheral LE-Only” OR GAP 38/3 “Peripheral BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Undirected Connectable Mode</td>
<td>[3] 9.3.4, 13.1.2.2 [7] 9.3.4</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>Item</td>
<td>Capability</td>
<td>Reference</td>
<td>Status</td>
<td>Support</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
<td>-----------</td>
<td>--------</td>
<td>---------</td>
</tr>
<tr>
<td>6</td>
<td>Connected Isochronous Stream Request procedure</td>
<td>[13] 8.3.14</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>7</td>
<td>Connected Isochronous Stream Termination procedure</td>
<td>[13] 8.3.15</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Mandatory IF LL 9/32 “Connected Isochronous Stream Slave” is supported, otherwise Excluded.

### 1.4.3.5 Bonding Modes and Procedures

**Table 24: Peripheral Bonding Modes and Procedures**

*Prerequisite: GAP 5/3 “Peripheral LE-Only” OR GAP 38/3 “Peripheral BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Non-Bondable Mode</td>
<td>[3] 9.4.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Optional IF GAP 24/2 “Bondable Mode” is supported, otherwise Excluded.

### 1.4.3.6 Security Aspects

**Table 25: Peripheral Security Aspects Features**

*Prerequisite: GAP 5/3 “Peripheral LE-Only” OR GAP 38/3 “Peripheral BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Security Mode 1</td>
<td>[3] 10.2.1, 13.1.2.2, [7] 10.2.1</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>Item</td>
<td>Capability</td>
<td>Reference</td>
<td>Status</td>
<td>Support</td>
</tr>
<tr>
<td>------</td>
<td>------------------------------------------------</td>
<td>-------------------------</td>
<td>--------</td>
<td>---------------</td>
</tr>
<tr>
<td>5</td>
<td>Connection Data Signing Procedure</td>
<td>[3] 10.4.1, 13.1.2.2, [7] 10.4.1</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>7</td>
<td>Authenticated Pairing (LE security mode 1 level 3)</td>
<td>[3] 10.3, 13.1.2.2, [7] 10.3</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>8</td>
<td>Unauthenticated Pairing (LE security mode 1 level 2)</td>
<td>[3] 10.3, 13.1.2.2, [7] 10.3</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>9</td>
<td>LE Security Mode 1 Level 4</td>
<td>[8] 10.3</td>
<td>C.3</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>10</td>
<td>Secure Connections Only Mode</td>
<td>[8] 10.2.4</td>
<td>C.4</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Optional IF GAP 25/1 “LE Security Mode 1” is supported, otherwise Excluded.
C.2: No longer used.
C.3: Mandatory IF SM 2/5 “LE Secure Connections” is supported, otherwise Excluded.
C.4: Optional IF GAP 25/9 “LE Security Mode 1 Level 4” is supported, otherwise Excluded.

### 1.4.3.7 Privacy Feature

Table 26: Peripheral Privacy Feature

Prerequisite: GAP 5/3 “Peripheral LE-Only” OR GAP 38/3 “Peripheral BR/EDR/LE”

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Privacy Feature</td>
<td>[3] [7] [8] 10.7</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Non-Resolvable Private Address Generation Procedure</td>
<td>[3] [7] [8] 10.7, 10.8.2.1, [9] 1.3.2.2</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>3</td>
<td>Resolvable Private Address Generation Procedure</td>
<td>[3] [7] [8] 10.7, 10.8.2.2, [9] 1.3.2.2</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>4</td>
<td>Resolvable Private Address Resolution Procedure</td>
<td>[3] [7] [8] 10.7, 10.8.2.3, [9] 1.3.2.2</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Mandatory IF GAP 26/1 “Privacy Feature” is supported, otherwise Optional.
1.4.3.8 Generic Access Profile Characteristics

Table 27: Peripheral GAP Characteristics
Prerequisite: GAP 5/3 “Peripheral LE-Only” OR GAP 38/3 “Peripheral BR/EDR/LE”

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Device Name</td>
<td>[3] [7] 12.1</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Appearance</td>
<td>[3] [7] 12.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>3</td>
<td>Item no longer used</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>4</td>
<td>Item no longer used</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>5</td>
<td>Peripheral Preferred Connection Parameters</td>
<td>[3] [7] 12.5</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>6</td>
<td>Writeable Device Name</td>
<td>[3] [7] 12.1</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>7</td>
<td>Writeable Appearance</td>
<td>[3] [7] 12.2</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>8</td>
<td>Item no longer used</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>9</td>
<td>Central Address Resolution</td>
<td>[8] 12</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Optional if LL 2/5 “Resolution of Private Addresses” is supported, otherwise Excluded.

1.4.3.9 Periodic Advertising Modes and Procedures

Table 27a: Periodic Advertising Modes and Procedures
Prerequisite: (GAP 5/3 “Peripheral LE-Only” OR GAP 38/3 “Peripheral BR/EDR/LE”) AND NOT (SUM ICS 31/17 “Core Spec Version 4.2” OR SUM ICS 31/18 “Core Spec Version 4.2+HS” OR SUM ICS 31/19 “Core Spec version 5.0”)

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Periodic Advertising Synchronization Transfer procedure</td>
<td>[11] 9.5.1</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Periodic Advertising Synchronization Establishment procedure over an LE connection without listening for periodic advertising</td>
<td>[11] 9.5.3</td>
<td>C.2</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>3</td>
<td>Periodic Advertising Synchronization Establishment procedure over an LE connection with listening for periodic advertising</td>
<td>[11] 9.5.3</td>
<td>C.3</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Optional if LL 9/26 “Periodic Advertising Sync Transfer – Sender” is supported, otherwise Excluded.
C.2: Optional if LL 9/27 “Periodic Advertising Sync Transfer – Recipient” is supported, otherwise Excluded.
C.3: Optional IF (LL 11/1 “Synchronizing to Periodic Advertising” AND LL 9/27 “Periodic Advertising Sync Transfer – Recipient”) are supported, otherwise Excluded.

### 1.4.4 Central

#### 1.4.4.1 Physical Layer

**Table 28: Central Physical Layer**

*Prerequisite: GAP 5/4 “Central LE-Only” OR GAP 38/4 “Central BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Transmitter</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Receiver</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

#### 1.4.4.2 Link Layer Features

#### 1.4.4.2.1 Link Layer States

**Table 29: Central Link Layer States**

*Prerequisite: GAP 5/4 “Central LE-Only” OR GAP 38/4 “Central BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Standby</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Scanning</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>3</td>
<td>Initiating</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>4</td>
<td>Connection, Master Role</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

#### 1.4.4.2.2 Scanning Types

**Table 30: Central Link Layer Scanning Types**

*Prerequisite: GAP 5/4 “Central LE-Only” OR GAP 38/4 “Central BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Passive Scanning</td>
<td>[3] or [7] 2.2.2</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Active Scanning</td>
<td>[3] or [7] 2.2.2</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Mandatory IF (NOT GAP 30/1 “Passive Scanning”) is supported; otherwise Optional.
### 1.4.4.3 Control Procedures

**Table 31: Central Link Layer Control Procedures**

*Prerequisite: GAP 5/4 “Central LE-Only” OR GAP 38/4 “Central BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Connection Update Procedure</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Channel Map Update Procedure</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>3</td>
<td>Encryption Procedure</td>
<td>[3] or [7] 2.2.2</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>4</td>
<td>Master Initiated Feature Exchange Procedure</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>5</td>
<td>Version Exchange Procedure</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>6</td>
<td>Termination Procedure</td>
<td>[3] or [7] 2.2.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>7</td>
<td>LE Ping Procedure</td>
<td>[7] 2.2.2</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>8</td>
<td>Slave Initiated Feature Exchange Procedure</td>
<td>[7] 2.2.2</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>9</td>
<td>Connection Parameter Request Procedure</td>
<td>[7] 2.2.2</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>10</td>
<td>Data Length Update Procedure</td>
<td>[7] 2.2.2</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>11</td>
<td>PHY Update Procedure</td>
<td>[7] 2.2.2</td>
<td>C.2</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>12</td>
<td>Minimum Number Of Used Channels Procedure</td>
<td>[7] 2.2.2</td>
<td>C.2</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Mandatory IF GAP 31/9 “Connection Parameter Request Procedure” is supported, otherwise Optional.

C.2: Excluded IF (SUM ICS 31/17 “Core Spec Version 4.2” OR SUM ICS 31/18 “Core Spec Version 4.2+HS”) is supported, otherwise Optional.

### 1.4.4.4 Discovery Modes and Procedures

**Table 32: Central Discovery Modes and Procedures**

*Prerequisite: GAP 5/4 “Central LE-Only” OR GAP 38/4 “Central BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
</table>
### 1.4.4.5 Connection Modes and Procedures

**Table 33: Central Connection Modes and Procedures**

*Prerequisite: GAP 5/4 “Central LE-Only” OR GAP 38/4 “Central BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Auto Connection Establishment Procedure</td>
<td>[3] or [7] 9.3.5</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>General Connection Establishment Procedure</td>
<td>[3] 9.3.6, 13.3.1, [7] 9.3.6</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>3</td>
<td>Selective Connection Establishment Procedure</td>
<td>[3] or [7] 9.3.7</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>4</td>
<td>Direct Connection Establishment Procedure</td>
<td>[3] or [7] 9.3.8</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>5</td>
<td>Connection Parameter Update Procedure</td>
<td>[3] or [7] 9.3.9</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>7</td>
<td>Connected Isochronous Stream Creation procedure</td>
<td>[13] 8.3.13</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>8</td>
<td>Connected Isochronous Stream Termination procedure</td>
<td>[13] 8.3.15</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Mandatory IF LL 9/31 “Connected Isochronous Stream Master” is supported, otherwise Excluded.

### 1.4.4.6 Bonding Modes and Procedures

**Table 34: Central Bonding Modes and Procedures**

*Prerequisite: GAP 5/4 “Central LE-Only” OR GAP 38/4 “Central BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
</table>
### Table 35: Central Security Features

**Prerequisite: GAP 5/4 “Central LE-Only” OR GAP 38/4 “Central BR/EDR/LE”**

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Security Mode 1</td>
<td>[3] or [7] 10.2.1</td>
<td>O</td>
<td>○ Yes  ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Security Mode 2</td>
<td>[3] or [7] 10.2.2</td>
<td>O</td>
<td>○ Yes  ○ No</td>
</tr>
<tr>
<td>5</td>
<td>Connection Data Signing Procedure</td>
<td>[3] or [7] 10.4.1</td>
<td>O</td>
<td>○ Yes  ○ No</td>
</tr>
<tr>
<td>6</td>
<td>Authenticate Signed Data Procedure</td>
<td>[3] or [7] 10.4.3</td>
<td>O</td>
<td>○ Yes  ○ No</td>
</tr>
<tr>
<td>7</td>
<td>Authenticated Pairing (LE security mode 1 level 3)</td>
<td>[3] or [7] 10.3</td>
<td>C.1</td>
<td>○ Yes  ○ No</td>
</tr>
<tr>
<td>8</td>
<td>Unauthenticated Pairing (LE security mode 1 level 2)</td>
<td>[3] or [7] 10.3</td>
<td>C.1</td>
<td>○ Yes  ○ No</td>
</tr>
<tr>
<td>9</td>
<td>LE Security Mode 1 Level 4</td>
<td>[8] 10.3</td>
<td>C.2</td>
<td>○ Yes  ○ No</td>
</tr>
<tr>
<td>10</td>
<td>Secure Connections Only Mode</td>
<td>[8] 10.2.4</td>
<td>C.3</td>
<td>○ Yes  ○ No</td>
</tr>
</tbody>
</table>

C.1: Optional IF GAP 35/1 “LE Security Mode 1” is supported, otherwise Excluded.
C.2: Mandatory IF SM 2/5 “LE Secure Connections” is supported, otherwise Excluded.
C.3: Optional IF GAP 35/9 “LE Security Mode 1 Level 4” is supported, otherwise Excluded.
### 1.4.4.8 Privacy Feature

**Table 36: Central Privacy Feature**

*Prerequisite: GAP 5/4 “Central LE-Only” OR GAP 38/4 “Central BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Privacy Feature</td>
<td>[3] [7] [8] 10.7</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Non-Resolvable Private Address Generation Procedure</td>
<td>[3] [7] [8] 10.7, 10.8.2.1 [9] 1.3.2.2</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>3</td>
<td>Resolvable Private Address Resolution Procedure</td>
<td>[3] [7] [8] 10.7, 10.8.2.3 [9] 1.3.2.2</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>4</td>
<td>Item no longer used</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>5</td>
<td>Resolvable Private Address Generation Procedure</td>
<td>[3] [7] [8] 10.7, 10.8.2.2 [5] 2.2.5 [9] 1.3.2.3</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Mandatory IF GAP 36/1 “Privacy Feature” is supported, otherwise Optional.

### 1.4.4.9 Generic Access Profile Characteristics

**Table 37: Central GAP Characteristics**

*Prerequisite: GAP 5/4 “Central LE-Only” OR GAP 38/4 “Central BR/EDR/LE”*

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Device Name</td>
<td>[3] [7] 12.1</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Appearance</td>
<td>[3] [7] 12.2</td>
<td>M</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>3</td>
<td>Central Address Resolution</td>
<td>[8] 12.4</td>
<td>C.1</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

C.1: Mandatory IF LL 2/5 “Resolution of Private Addresses” is supported, otherwise Excluded.
1.4.4.10 Periodic Advertising Modes and Procedures

Table 37a: Periodic Advertising Modes and Procedures
Prerequisite: (GAP 5/4 “Central LE-Only” OR GAP 38/4 “Central BR/EDR/LE”) AND NOT (SUM ICS 31/17 “Core Spec Version 4.2” OR SUM ICS 31/18 “Core Spec Version 4.2+HS” OR SUM ICS 31/19 “Core Spec Version 5.0”)

<table>
<thead>
<tr>
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<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Periodic Advertising Synchronization Transfer procedure</td>
<td>[11] 9.5.1</td>
<td>C.1</td>
<td>○ Yes   ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Periodic Advertising Synchronization Establishment procedure over an LE connection without listening for periodic advertising</td>
<td>[11] 9.5.3</td>
<td>C.2</td>
<td>○ Yes   ○ No</td>
</tr>
<tr>
<td>3</td>
<td>Periodic Advertising Synchronization Establishment procedure over an LE connection with listening for periodic advertising</td>
<td>[11] 9.5.3</td>
<td>C.3</td>
<td>○ Yes   ○ No</td>
</tr>
</tbody>
</table>

C.1: Optional IF LL 9/26 “Periodic Advertising Sync Transfer – Sender” is supported, otherwise Excluded.
C.2: Optional IF LL 9/27 “Periodic Advertising Sync Transfer – Recipient” is supported, otherwise Excluded.
C.3: Optional IF (LL 11/1 “Synchronizing to Periodic Advertising” AND LL 9/27 “Periodic Advertising Sync Transfer – Recipient”) are supported, otherwise Excluded.

1.5 BR/EDR/LE Capability Statement

Table 38: BR/EDR/LE Roles
Prerequisite: GAP 0/3 “BR/EDR/LE”

<table>
<thead>
<tr>
<th>Item</th>
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<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Broadcaster</td>
<td>[3] or [7] 13</td>
<td>C.1</td>
<td>○ Yes   ○ No</td>
</tr>
<tr>
<td>2</td>
<td>Observer</td>
<td>[3] or [7] 13</td>
<td>C.1</td>
<td>○ Yes   ○ No</td>
</tr>
<tr>
<td>3</td>
<td>Peripheral</td>
<td>[3] or [7] 13</td>
<td>C.1</td>
<td>○ Yes   ○ No</td>
</tr>
<tr>
<td>4</td>
<td>Central</td>
<td>[3] or [7] 13</td>
<td>C.1</td>
<td>○ Yes   ○ No</td>
</tr>
</tbody>
</table>

C.1: Mandatory to support at least one of the defined roles.

Note: Table 38 is applicable for BR/EDR/LE configurations. For LE-only configurations, see Table 5 for role declarations.
1.5.1 Central

This section should be completed by suppliers with implementations supporting this role.

1.5.1.1 Modes

Table 39: No longer used

1.5.1.2 Idle Mode Procedures

Table 40: No longer used

1.5.1.3 Security Aspects

Table 41: Central BR/EDR/LE Security Aspects

Prerequisite: GAP 38/4 “Central BR/EDR/LE”

<table>
<thead>
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<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Security Aspects</td>
<td>[3] 14</td>
<td>M</td>
<td>★ Yes ★ No</td>
</tr>
<tr>
<td>2a</td>
<td>Derivation of BR/EDR Link Key from LE LTK</td>
<td>[8] 14.1</td>
<td>O</td>
<td>★ Yes ★ No</td>
</tr>
<tr>
<td>2b</td>
<td>Derivation of LE LTK from BR/EDR Link Key</td>
<td>[8] 14.1</td>
<td>O</td>
<td>★ Yes ★ No</td>
</tr>
</tbody>
</table>

1.5.1.4 Simultaneous Transports

Table 44: Central Simultaneous BR/EDR and LE Transports

Prerequisite: GAP 38/4 “Central BR/EDR/LE”

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Simultaneous BR/EDR and LE Transports – BR/EDR Slave to the same device</td>
<td>[3] [7] 13.1.1</td>
<td>O</td>
<td>★ Yes ★ No</td>
</tr>
<tr>
<td>2</td>
<td>Simultaneous BR/EDR and LE Transports – BR/EDR Master to the same device</td>
<td>[7] 13.1.1</td>
<td>O</td>
<td>★ Yes ★ No</td>
</tr>
</tbody>
</table>
1.5.2 Peripheral

1.5.2.1 Modes

Table 42: No longer used

1.5.2.2 Security Aspects

Table 43: Peripheral BR/EDR/LE Security Aspects

Prerequisite: GAP 38/3 “Peripheral BR/EDR/LE"

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
<th>Reference</th>
<th>Status</th>
<th>Support</th>
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</thead>
<tbody>
<tr>
<td>2a</td>
<td>Derivation of BR/EDR Link Key from LE LTK</td>
<td>[8] 14.1</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>2b</td>
<td>Derivation of LE LTK from BR/EDR Link Key</td>
<td>[8] 14.1</td>
<td>O</td>
<td>○ Yes ○ No</td>
</tr>
</tbody>
</table>

1.5.2.3 Simultaneous Transports

Table 45: Peripheral Simultaneous BR/EDR and LE Transports

Prerequisite: GAP 38/3 “Peripheral BR/EDR/LE"

<table>
<thead>
<tr>
<th>Item</th>
<th>Capability</th>
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<th>Status</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Simultaneous BR/EDR and LE Transports – BR/EDR Slave to the same device</td>
<td>[3] [7] 13.1.1</td>
<td>O</td>
<td>○ Yes ○ No</td>
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<tr>
<td>2</td>
<td>Simultaneous BR/EDR and LE Transports – BR/EDR Master to the same device</td>
<td>[7] 13.1.1</td>
<td>O</td>
<td>○ Yes ○ No</td>
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</table>
2 References

[4] Generic Access Profile references that apply to the latest adopted version of the Bluetooth Core Specification Supplement (CSS), Part A or later
[12] Core Erratum 11838 Key Size Updates
## 3 Revision History and Contributors

### Revision History

<table>
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<td>Editorial changes. Changed reference and document numbering to D12 to reflect applicable Bluetooth version.</td>
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<td>Changed document number, updates to Table 2 status and footnotes</td>
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<td>TSE 2638, TSE 2631, TSE 2494; Add rows to Table 2.</td>
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<td>Document merge between GAP ICS 2.1.E.3 and LE specific GAP ICS called 0.9d3 dated 2010-06-09. References to Volume 3 Part C versions 2.0 or later [1] separated from references to Volume 3 Part C versions 4.0 or later [2]. TSE3788 “Pairable” changed to “Bondable” in table 1. Updated BR/EDR/LE ICS to align with the latest errata in Tokyo v13. Updated BR/EDR/LE ICS with review comment resolution. SUM ICS references added to 0/x- conditions. Change in C.1, table 22. Table 38, informative note removed – created more problems than it solved. 0/3 added as a prerequisite in section 1.4. BR/EDR/LE Central and Peripheral prerequisite added to relevant ICS sub-sections of section 1.4 LE Capability Statement. 0/3 is no longer a prerequisite in section 1.4. Comment resolutions to the addition of the BR/EDR/LE Central and Peripheral prerequisites. Corrections, where prerequisites were transferred to conditions in tables 18-24, 28-37. Corrected confusion around multiple C.1 in table 34. Update contributors list.</td>
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<td>Add prerequisite 5/4 from tables 27 to 38</td>
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<td>Input SL’s comments: TSE 3849: fix footnote, fix Rev. His.</td>
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<td>TSE 4305: Add prerequisite: “GAP 5/3 or GAP 38/3” to Tables: 18, 19, 20, 20A, 21, 22, 23, 24, 25, 26 &amp; 27; Add prerequisite: “GAP 5/4 or GAP 38/4” to Tables: 28, 29, 30, 31, 32, 33, 34, 35, 36 &amp; 37</td>
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<td>2011-07-20</td>
<td>Prepare for publication. Add Reference section in place of Section 1 text.</td>
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<td>2011-11-21</td>
<td>TSE 4560 Table 27: Two new rows</td>
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<td>TSE 4451: Change Table 27 C.2 to refer to correct table</td>
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<td>TSE 4330: Update Prerequisite for Table 8</td>
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<td>2012-03-30</td>
<td>Changed wording in §1.1.1. Prepare for publication</td>
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|                    | 4.0.3r0          | 2012-05-16 | TSE 4568 Table 24: add row 4 and footnote C.3  
TSE 4573 Table 25, add row 8 and footnote C.1; Table 35, change status from C.1 to O, add rows 7 and 8; modify footnote C.1  
TSE 4740: Change Table 2/3 and Table 2/10  
TSE 4741: Add 27/8 and 36/4  
TSE 4751: Table 5, Table 38: Change titles, add notes. Table 38: Change O to C.1 and add conditional footnote. |
|                    | 4.0.3r1          | 2012-06-11 | Editorial updates for TSE 4741  
Table 0a introduced for CSA3 declaration and requirements. C.2 updated in Table 27 to address errata 4202 requirements.                                                                                   |
| 20                 | 4.0.3            | 2012-07-24 | Prepare for publication.                                                                                                                                                                               |
|                    | 4.0.4r0          | 2012-10-10 | TSE 4966: Update to conditionals in Table 17 and addition of Item 4.  
TSE 4873: Added conditional to Table 8 A and Table 20A.                                                                                                                                                 |
|                    | 4.0.4r1          | 2012-11-29 | Per BQB review:  
Added [3] Core Specification Supplement (CSS) v2, Part A  
Add section reference to [3] in table 8A and table 20A.                                                                                                                                               |
|                    | 4.0.4r2          | 2012-12-05 | TSE 5033: Correction to Table 20A conditionals to remove Connected Directed Event and Add Scannable Undirected Event.                                                                                |
| 21                 | 4.0.4            | 2012-11-29 | Prepare for Publication                                                                                                                                                                               |
|                    | 4.0.5r1          | 2012-12-21 | Connectionless Broadcast Change Request                                                                                                                                                                |
|                    | 4.0.5r2          | 2013-01-02 | Connectionless Broadcast Review:  
Table 1 revised C.4 conditional  
Table 4, revised C.1 conditional                                                                                                                                                                         |
|                    | 4.0.5r3          | 2013-01-03 | Connectionless Broadcast Review:  
Table 1/9 synchronizable mode edit to conditional C.4.                                                                                                                                                 |
|                    | 4.0.5r4          | 2013-01-22 | Connectionless Broadcast Review (Jason & Magnus)  
Added “…or later” after CSA4 conditionals  
Update to References Section, added CSA3 and CSA4 cross-references                                                                                                                                       |
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|                    | 4.0.5r5         | 2013-01-24| Connectionless Broadcast Review (Jason, Alicia, Meagan)  
Edit for consistent language and syntax for conditionals.                                                                                       |
|                    | 22              | 4.0.5      | Prepare for Publication                                                                                                                                                                                   |
|                    | 4.0.6r1         | 2013-02-12| Editorial error in Table 17. C.1 Conditional corrected to read 17/1 (Privacy Feature). C.1 and C.3 edited for clarity. Approved by BTI & BQRB                                                                 |
|                    | 23              | 4.0.6      | Prepare for Publication                                                                                                                                                                                   |
|                    | 4.0.7r1         | 2013-05-30| TSE 5063:  
• Updated title of section 1.4 to “LE Only Capability Statement”  
• Removed conditionals from Table 19, already covered in the prerequisite. All items changed to Mandatory.  
• Removed conditionals from Table 20, already covered in the prerequisite. Item 1 and 4 changed to Mandatory, Item 2 and 3 as optional.  
• Updated conditionals for Table 22, removed “AND (20/1 OR 20/3 OR 20/4) from C.1, and updated parenthesis and language in C.2 and C.3.  
• Removed C.1 and C.2 from Table 23, updated C.3 to be C.1. Item 1 status changed to C.1, items 2 and 4 changed to optional, and items 3 and 5 updated to Mandatory.  
TSE 5091: Updated Table 20A item 6 status to C.3, added “C.2: Mandatory if 22/2 or 22/3 is supported, otherwise Optional” C.2 had been included in an earlier version and was still needed, former C.2 became C.3.  
TSE 5100: Updated C.4 in Table 2 to remove “SUM ICS 31/5" because the item no longer exists. |

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<td>2013-06-04</td>
<td>Fixed the TSE reference number in the Change History. Table 0a – changed Device to Version Configuration to match the Table title. Added the ICS item description in parenthesis to conditionals where it wasn’t yet indicated for consistency and clarity: Tables 1-3, 20A, 22-25, 30, 32-36. Table 2: Further review of TSE 5100 showed there was a missing ICS item that needed adding due to the Sum ICS re-shuffle: SUM ICS 31/11 (Core Specification 4.0 + HS). Updated C.4 with this item. Table 3 conditional C.1 had 2 references to GAP 3/1 it is an obvious mistake that one should say 3/2. In Tables that had been updated for the pre-requisites affected by previous TSE’s 4330 and 4305 consistent with changes in TSE 5063 changed the pre-requisites that stated either Optional or Mandatory to Support based on the support of the Table’s pre-requisites to simply “M” or “O”: Tables 18, 28, 29, 30, 31, 34, 36, and 37. Simplified conditionals by removing the pre-requisite items from the conditionals leaving only the dependencies in Table 30 item C.1 and Table 36 items C.1 and C.2. Misc. editorial changes.</td>
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<td>TSE 5288: Revised conditional statement C.3 in Table 1.</td>
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<td>4.1.0.r14</td>
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<td>Added new item 3 in Table 0a to allow mandate CSA.3 centric changes for GAP Authentication and Lot Bond, Private Address Changes, Connection Parameters Changes and Dual Mode Addressing Changes absorbed in Core v4.1. Introduced to allow GAP.TS TCMT to remove SUM ICS references.</td>
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<td>TSE 5477: Corrected Reference for 44/1, 44/2, and 45/1. Corrected Prerequisite for Table 45, from GAP 38/4 to GAP 38/3. TSE 5463: Updated Table 36, C.1.</td>
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<td>TSE 5579: Added 4.1 and 4.1 + HS references to conditionals and updated from otherwise Optional to otherwise Excluded for all conditionals in Table 39, Table 40, and Table 42.</td>
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<td>TSE 5652: Added C.2 to Table 8A. Updated 8A/3 from M to C.2. TSE 5765: Table 26, C.2, Corrected item reference for Privacy Feature v1.1 to be 26/1a instead of 26/2. TSE 5781: Updated Table 25 C.2 to include 31/10 and 31/10a. TSE 5944: Removed 20/2a, updated to Item no longer used, Removed C.3.</td>
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<td>TSE 5633: Updated status of 23/4 from C.2 to C.1.</td>
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<td>Integrated Section 1.3 of Core_Enhanced_Privacy_1_2.TS.CR.R05 &amp; Section 5 of Core_LE_Secure_Connections.TS.CR.R16</td>
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<td>Integrated comments from Rasmus, Jason, and Mayank, and added Privacy CR changes.</td>
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<td>Updated Table 11 after further review from Jason.</td>
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<td>BTI Rejected TSE 5781. Changes from that TSE undone and conditionals updated. Updated 0a Conditionals</td>
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| 4.2.1r00           | 2015-05-08      |            | TSE 6259: Corrected typos in C.4 of Table 21  
TSE 6130: Deleted tables 39, 40, and 42.                                             |
| 4.2.1r01           | 2015-05-18      |            | Reinstated tables 39, 40, and 42. Implemented changes  
from TSE 6130 by removing SUM ICS references to 4.1 or later in those tables and extending prerequisite statements. |
| 4.2.1r02           | 2015-06-05      |            | Deleted Section 1.2 (Global Statement of Conformance)  
per current ICS template standards.                                                               |
| 4.2.1r03           | 2015-06-08      |            | Adjusted section numbering following deletion of Section 1.2 at 4.2.1r02.                                                                 |
| 4.2.1r04           | 2015-06-22      |            | Integrated changes from Core Specification Supplement v6.  
Advertising URI: Added items to tables 8A and 20A.  
Efficient Non-Connectable Advertising: Revised C.2 in Table 8A. |
| 4.2.1r05           | 2015-06-23      |            | Revised CSSv6 changes to account for corresponding updates to SUM ICS.                                                                   |
| 28                 | 4.2.1           | 2015-07-14 | Prepared for TCRL 2015-1 publication                                                                                                    |
| 4.2.2r00           | 2015-10-09      |            | TSE 6485: Split item 41/2 into two items and 43/2 into two items.  
TSE 6169 & 6323: Rewrote Tables 11, 17, 26, 27, 36, 37 and corresponding conditionals to resolve issues with Privacy feature. |
| 29                 | 4.2.2           | 2015-12-22 | Prepared for TCRL 2015-2 publication.                                                                                                    |
| 5.0.0r00           | 2016-10-03      |            | Issue 7732: Added new item support for Bluetooth Core Specification v5.0 and new conditional C.5 to Table 0a.  
Added two new tables 11a and 17a for Periodic Advertising Modes and Procedures.  
Added new reference for Bluetooth Core Specification v.5.0 to References section. |
| 5.0.0r01           | 2016-10-13      |            | TSE 7297: Updated conditional C.3 for Table 27.  
TSE 7058: Updated conditionals in Tables 24 (C.1), 33 (C.1), and 34 (C.2). |
<p>| 5.0.0r02           | 2016-11-08      |            | Issue 7872: Corrected reference in 0a/5 from [1] to [11].                                                                                 |</p>
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<td>Issue 7803: Added two new items 8/3 and 8/4 and conditional C.1 to Table 8. Added three items 20/5, 20/6, and 20/7 and conditional C.3 to Table 20. Modified items 20/1 and 20/3. Updated conditionals for Table 20A. Issue 7884: Global edit. Added support in conditionals and prerequisites for Core Spec version 5.0.</td>
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<td>2016-11-16</td>
<td>Updated to current template. Removed unnecessary parentheses and replaced with quotation marks. Simplified the “or later” issue in Tables 39, 40, and 42 by revising the Conditionals to exclude anything other than Core Spec v4.0 or 4.0+HS and added the informative note.</td>
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<td>Updated references and conditionals for Core Specification Supplement (CSS) v7.</td>
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<td>Simplified conditionals in Tables 39, 40 and 42 by adding a prerequisite requirement for 4.0 support.</td>
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<td>TSE 7816: Added new item GAP 2/7a. Added new conditional statement, C.9. Updated conditional statement C.8.</td>
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<td>TSE 8704: Revised Table 42 prerequisite by adding “GAP 38/3 “Peripheral BR/EDR/LE” AND”.</td>
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<td>TSE 7816: Fixed cross references to 5.0 and odd hidden formatting. Made font size uniform within the tables and Change History. Removed extra row in the Change History that didn’t add any material information. Enhanced the change History where it was stated that “rows were added” which might explain what a tech editor did but what someone looking at the Change History would rather know is that items 20/3, 20/4, and 20/5 were added. Updated copyright/disclaimer.</td>
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<td>TSE 9678: Revised Security Aspects table note C.9.</td>
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<td>TSE 9937: Added LL control procedures to Tables 21 and 31.</td>
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<td>2018-07-17</td>
<td>Incorporated Core_PAST_CLE_TEST_CR_r05: Modified conditional note C.1 for Table 17a. Added 2 new sections, both titled “Periodic Advertising Modes and Procedures,” as well as Tables 27a and 37a, to sections “Peripheral” and “Central,” respectively.</td>
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<td>Drafted changed for deprecation and withdrawal. Affects 27/3-4 and 27/8 as well as 0a/1 and 0a/2.</td>
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<td>Replaced TBD and [X] values with actual values. Added new reference for Bluetooth Core Specification version 5.1.</td>
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<td>Updated Madrid styles – changed light grey text to black text.</td>
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<td>Added entry 0a/6 for Core Specification version 5.1 and updated conditionals to include the new version.</td>
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<td>Corrected implementation of conditionals referencing 5.1.</td>
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<td>Added item 0a/0a for Core 4.0 and updated Table 17a/C.1 as well as the prerequisites for 27a and 37a with the new item.</td>
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<td>Marked C.5 of Table 21 and C.3 of Table 31 as no longer used (as they duplicated C.3 and C.1 respectively. Updated the status for the two items referencing those conditionals.</td>
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<td>2019-04-09–2019-07-18</td>
<td>TSE 11552 (rating 2): Removed ICS items that are no longer applicable to Specifications 4.2 or later. Simplified conditionals. Updated, simplified, or removed tables throughout. Moved Revision History and Contributors tables to the end of the document. Incorporated changes associated with Key Negotiation Changes specification erratum 11838: Added new ICS entry to Table 2 (item 12) to indicate if the IUT enforces a minimum encryption key size of 56 bits.</td>
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<td>2019-08-06 – 2019-11-22</td>
<td>Added test groups to accommodate adoption of Core Specification Milan with regard to Isochronous Channels CR 120 (includes Issues 11742, 11762, 11777, 11778, 11779, 11783, 11786, 11804, 11817, 11819, 11820, 11852, 11917, 11919, 11928, 11929, 11930, 11983, 11740, 11801, 11941, 12029, 12030, 12043, 12052, 12053, 12054, 12055, 12059, 12061, 12071, 12072, 12073, 12077, 12084, 12031, 12078, 12094, 12095, 12106, 12107, 12130, 12132, 12133, 12251, 12280, and 12321). Added item 3 and note C.1 to Table 7; added items 2–5 and notes C.1 and C.2 to Table 10; added Section “Security Aspects” (1.4.1.7) and Table 11b; added items 2–4 and notes C.1 and C.2 to Table 16; added Section “Security Aspects” (1.4.2.7) and Table 17b; added items 6 and 7 and note C.1 to Table 23; added items 7 and 8 and note C.1 to Table 33; updated references section with new Core Specification. TSE 12751 (rating 1): Updated to SUM ICS 31 per TSE 12647 and made minor editorial updates, which included deleting Tables 0a, 39, 40, and 42; updating C.1 and C.2 for Table 1; updating item 12 and C.3 for Table 2; updating C.1 for Tables 7, 8, 11a, 11b, 16, 17a, 17b, and 20; updating C.2 for Tables 10, 21, and 31; and updating prerequisites for Tables 27a and 37a. Updated .X and Milan references to real numbers. Revised document numbering convention, setting last release publication of 5.1.1 as p34; added publication number column to Revision History.</td>
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**Contributors**

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<tr>
<th>Name</th>
<th>Company</th>
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<tbody>
<tr>
<td>Elisabeth Domínguez Cañizares</td>
<td>AT4 wireless</td>
</tr>
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<td>Noemí Pérez Dans</td>
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<td>Cloud2GND LLC</td>
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<tr>
<td>Gene Chang</td>
<td>Cloud2GND LLC</td>
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<tr>
<td>Mayank Batra</td>
<td>CSR</td>
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<td>James Dent</td>
<td>Nokia</td>
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<td>Jonathan Tanner</td>
<td>Nokia</td>
</tr>
<tr>
<td>Brian A. Redding</td>
<td>Qualcomm</td>
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