

# ISO 21806-14:2021-05 (E)

## Road vehicles - Media Oriented Systems Transport (MOST) - Part 14: Lean application layer

---

<b>Contents</b>		<b>Page</b>
Foreword	.....	v
Introduction	.....	vi
<b>1</b>	<b>Scope</b> .....	<b>1</b>
<b>2</b>	<b>Normative references</b> .....	<b>1</b>
<b>3</b>	<b>Terms and definitions</b> .....	<b>1</b>
<b>4</b>	<b>Symbols and abbreviated terms</b> .....	<b>3</b>
4.1	Symbols.....	3
4.2	Abbreviated terms.....	3
<b>5</b>	<b>Conventions</b> .....	<b>3</b>
<b>6</b>	<b>Basic principles</b> .....	<b>3</b>
<b>7</b>	<b>Node kinds</b> .....	<b>4</b>
7.1	General.....	4
7.2	Root node.....	4
7.2.1	General.....	4
7.2.2	Lean network services.....	5
7.2.3	Network descriptor.....	5
7.3	Remote node.....	6
7.4	Listen-only node.....	6
<b>8</b>	<b>Node addressing</b> .....	<b>6</b>
<b>9</b>	<b>Data transport</b> .....	<b>7</b>
<b>10</b>	<b>Network configuration</b> .....	<b>7</b>
10.1	General.....	7
10.2	Network.....	7
10.3	Node.....	8
10.4	Path.....	8
10.5	Coupling.....	8
10.6	Streaming socket.....	9
10.7	Network socket.....	9
<b>11</b>	<b>Network supervisor/application interface (NSAI)</b> .....	<b>10</b>
11.1	Overview.....	10
11.2	Requests, responses, and events.....	11
11.2.1	Network startup and shutdown.....	11
11.2.2	Connection management.....	11
11.2.3	Diagnosis.....	11
<b>12</b>	<b>Lean network services interface (LNSI)</b> .....	<b>12</b>
12.1	Overview.....	12
12.2	Requests, responses, and events.....	14
12.2.1	Lean network services.....	14
12.2.2	Network startup and shutdown.....	14
12.2.3	Node discovery.....	14
12.2.4	Connection management.....	15
12.2.5	Diagnosis.....	15
<b>13</b>	<b>Network management</b> .....	<b>15</b>
13.1	Network startup and shutdown.....	15
13.2	Network events.....	15

13.2.1	General.....	15
13.2.2	End of network activity.....	16
13.2.3	Unlock and critical unlock.....	16
13.2.4	Network change event.....	16
13.2.5	Source drop.....	16
13.3	Node discovery.....	16
13.3.1	General.....	16
13.3.2	Addresses.....	17
13.3.3	Scanning the network.....	17
13.3.4	Adding nodes to the network.....	18
13.3.5	Reset detection.....	21
13.4	Connection management.....	23
13.4.1	General.....	23
13.4.2	Sockets.....	24
13.4.3	Couplings.....	24
13.4.4	Paths.....	25
13.4.5	Activating paths.....	25
13.4.6	Deactivating paths.....	26
13.4.7	Re-creation of lost paths.....	27
13.4.8	Monitoring.....	27
13.5	Network management message format.....	27
13.5.1	General.....	27
13.5.2	Command and report reference.....	27
13.5.3	Message IDs for commands and reports.....	30
<b>14</b>	<b>Diagnosis.....</b>	<b>31</b>
14.1	General.....	31
14.2	Full-duplex network diagnosis.....	31
14.3	Half-duplex network diagnosis.....	32
14.4	Network diagnosis using diagnosis line.....	32
<b>15</b>	<b>Timing definitions.....</b>	<b>33</b>
15.1	Overview.....	33
15.2	Timer $t_{\text{Hello}}$ .....	34
15.2.1	Purpose.....	34
15.2.2	Start and stop conditions.....	34
15.2.3	Timer expiration.....	34
15.3	Timer $t_{\text{RD}}$ .....	34
15.3.1	Purpose.....	34
15.3.2	Start and stop conditions.....	34
15.3.3	Timer expiration.....	35
15.4	Timer $t_{\text{LNS\_Termination}}$ .....	35
15.4.1	Purpose.....	35
15.4.2	Start and stop conditions.....	35
15.4.3	Timer expiration.....	35
<b>16</b>	<b>Service interface definition to transport layer and network layer.....</b>	<b>35</b>
	<b>Annex A (normative) Parameters for LNSI and network management messages.....</b>	<b>36</b>
	<b>Annex B (informative) XSD for validation of XML.....</b>	<b>43</b>
	<b>Annex C (informative) Network descriptor example.....</b>	<b>53</b>
	<b>Bibliography.....</b>	<b>55</b>