

# ISO/IEC 21559-3:2022-03 (E)

## Telecommunications and information exchange between systems - Future network protocols and mechanisms - Part 3: Networking of everything

---

<b>Contents</b>		<b>Page</b>
<b>Foreword</b>		<b>v</b>
<b>Introduction</b>		<b>vi</b>
<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>Abbreviated terms</b>	<b>4</b>
<b>5</b>	<b>FN-NoE functional description</b>	<b>5</b>
5.1	General	5
5.2	Thing-user social community organization procedure	5
5.3	Thing-user social community maintenance procedure	6
5.4	Thing-user experiences sharing procedure	8
5.5	Coordinated thing-user discovery procedure	8
5.6	Proximal path establishment procedure	9
<b>6</b>	<b>FN-NoE services</b>	<b>10</b>
6.1	General	10
6.2	NoE SAP interface	11
6.2.1	Thing-user centric communication service primitive	11
6.2.2	Thing-user autonomous coordination	15
6.3	TSN SAP interface	15
6.3.1	Thing-user social community organization primitives	15
6.3.2	Thing-user social community join primitives	17
6.3.3	Thing-user social community maintenance primitives	18
6.3.4	Thing-user subscribe/publish primitives	19
6.4	PDN SAP interface	20
6.4.1	Thing-user discovery primitives	20
6.4.2	Proximal path management primitives	22
<b>7</b>	<b>FN-NoE protocols</b>	<b>23</b>
7.1	General	23
7.2	TSN protocols	24
7.2.1	Search a social community request message	24
7.2.2	Search a social community report message	25
7.2.3	Setup a new social group request message	26
7.2.4	Setup a new social group report message	26
7.2.5	Join a thing-user network request message	27
7.2.6	Join a thing-user network report message	27
7.2.7	Join a cluster request message	28
7.2.8	Join a cluster report message	29
7.2.9	Leave a TSN request message	29
7.2.10	Leave a TSN report message	30
7.2.11	Renew a coordinator request message	31
7.2.12	Renew a coordinator report message	31
7.2.13	Vote for a new coordinator request message	31
7.2.14	Vote for a new coordinator report message	32
7.2.15	Accept as a new coordinator message	33
7.2.16	Subscribe thing-users request message	33
7.2.17	Subscribe thing-users report message	33
7.2.18	Publish to subscriber report message	34

7.3	PDN protocols.....	34
7.3.1	Set proximity measure request message .....	34
7.3.2	Set proximity measure report message.....	35
7.3.3	Discover a peer request message.....	36
7.3.4	Discover a peer report message.....	36
7.3.5	Maintain proximal path to a peer request message .....	37
7.3.6	Maintain proximal path to a peer report message .....	37
<b>Bibliography</b> .....		<b>39</b>