

# ISO/IEC TS 30180:2025-08 (E)

## Internet of Things (IoT) - Functional requirements to determine the status of self-quarantine through Internet of Things data interfaces

---

<b>Contents</b>	<b>Page</b>
FOREWORD.....	3
INTRODUCTION.....	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions .....	5
4 Abbreviated terms .....	7
5 Functional entities .....	7
5.1 General.....	7
5.2 Mandatory functional entity.....	8
5.3 Optional functional entities .....	8
6 Functional requirements and provisions .....	9
6.1 General.....	9
6.2 Provisions for monitoring entity.....	9
6.3 Provisions for monitoring tag .....	10
6.4 Requirements and provisions for proxy managing entity .....	11
6.5 Requirements and provisions for managing entity .....	12
6.6 Requirements and provisions for the protection of data and privacy.....	12
Annex A (informative) Reference configurations of functional entities.....	14
A.1 General.....	14
A.2 Reference configurations.....	14
A.2.1 Four realized functional elements .....	14
A.2.2 Peer-to-peer self-quarantine management scheme .....	14
A.2.3 Three-tier self-quarantine management scheme.....	15
A.2.4 Four-tier self-quarantine management scheme .....	15
A.3 Reference interface relations.....	16
Annex B (informative) Self-quarantine management model .....	18
B.1 General.....	18
B.2 Management levels .....	18
B.2.1 General .....	18
B.2.2 Level 0: No self-quarantine and no management.....	18
B.2.3 Level 1: Voluntary self-quarantine and no management .....	18
B.2.4 Level 2: Instructed self-quarantine and passive management.....	18
B.2.5 Level 3: Instructed self-quarantine and active management.....	19
B.2.6 Level 4: Instructed self-quarantine and tag-based active management .....	19
B.3 Application guidelines .....	19
Annex C (informative) Use-case scenarios .....	21
Annex D (informative) Ethical considerations .....	23
D.1 General.....	23
D.2 Local laws and regulations .....	23

D.3	Consideration of personal circumstances of a self-quarantined individual .....	23
D.4	Ethical care of co-residents of self-quarantined individuals.....	24
D.5	Transparency, accuracy, and respect in communications to the public.....	24
D.6	Moral integrity and appropriate level of competence.....	25
D.7	Private sector participation .....	25
D.8	Research for the effectiveness and impact of the self-quarantine management process .....	26
Annex E (informative)	Development cases of self-quarantine management .....	27
Bibliography	.....	30
Figure 1	– Reference configuration topology for self-quarantine management entities .....	8
Figure A.1	– Peer-to-peer self-quarantine management through remote monitoring .....	14
Figure A.2	– Tag-based three-tier self-quarantine management through remote monitoring for more managed self-quarantine.....	15
Figure A.3	– Proxy-based three-tier self-quarantine management through remote monitoring for distributed management.....	15
Figure A.4	– Four-tier self-quarantine management through remote monitoring .....	16
Figure A.5	– Reference interface relations.....	16
Table E.1	– Development cases of self-quarantine management.....	27