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

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CONTENTS

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

FOREWORD

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ISO/IEC 30180 has been prepared by subcommittee SC 41: Internet of Things and Digital Twin, of ISO/IEC joint technical committee 1: Information technology. It is a Technical Specification.

The text of this Technical Specification is based on the following documents:

Draft	Report on voting
JTC1-SC41/508/DTS	JTC1-SC41/533/RVDTS

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Technical Specification is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1, and the ISO/IEC Directives, JTC 1 Supplement available at www.iec.ch/members_experts/refdocs and www.iso.org/directives.

INTRODUCTION

This document applies IoT functionality to self-quarantine status monitoring to mitigate the spread of highly contagious diseases, as determined by appropriate public health authorities as representing a serious threat to public health unless self-quarantine measures are enacted. This document only applies to self-quarantine requirements imposed for the purposes of public health as deemed clinically and scientifically necessary by an appropriate public health authority. This document does not apply to self-quarantine for any other purpose, including but not limited to legal, political, or social objectives. This document can help demonstrate how to implement an IoT-based technical solution by utilizing the following IoT components: monitoring entity, managing entity, proxy managing entity, and monitoring tag.

"Self-quarantine" for the purposes of this document can be defined as a need for individuals to quarantine by themselves (i.e. self-quarantine) due to a diagnosis, or a desire to quarantine by themselves due to public health authorities' recommendations based on the best publicly available scientific evidence pertaining to the specific public health threat identified to minimize the spread of documented infectious disease. It is a very effective way to mitigate contagious disease spread as it minimizes the connections of potential confirmed cases with the public.

Self-quarantined individuals must remain at a self-quarantine place, separate themselves from others for a particular observation period during which it is important that they monitor their health conditions for themselves, and follow self-quarantine directions from public health authorities. Public health authorities can determine and establish scientifically-based self-quarantine options and rules for their jurisdictions.

1 Scope

This document specifies the functional requirements of the following items to determine the status of self-quarantine through IoT data interfaces working over a set of hand-held devices, monitoring tag, and a management system:

– functional requirements for monitoring entity and monitoring tag at a self-quarantine place;

– functional requirements for managing entity and proxy managing entity at the management side; and

– functional requirements for the protection of the self-quarantine status and the privacy information.

2 Normative references

There are no normative references in this document.