



# SYSTEMS REFERENCE DELIVERABLE

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**Smart city use case collection and analysis - Managing public health  
emergencies in smart cities -  
Part 2: Use case analysis**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**Smart city use case collection and analysis -  
Managing public health emergencies in smart cities -  
Part 2 : Use case analysis**

## FOREWORD

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IEC SRD 63347-2 has been prepared by IEC systems committee Smart Cities: Electrotechnical aspects of smart cities. It is a Systems Reference Deliverable.

The text of this Systems Reference Deliverable is based on the following documents:

Draft	Report on voting
SyCSmartCities/403/DTS	SyCSmartCities/428/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 Systems Reference Deliverable 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 ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

A list of all parts in the IEC 63347 series, published under the general title *Smart city use case collection and analysis - Managing public health emergencies in smart cities*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under [webstore.iec.ch](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

## INTRODUCTION

The construction of a smart city can create benefits for a society and its stakeholders. Tracking infectious diseases, responding to public health emergency, maintaining social order and recovering to normal life are critical to support urban long-term development and to keep good health and well-being as UN 17 Sustainability Goals. Early testing, effective treatment, medical supplies and related public services are important focal areas for IEC SyC Smart Cities.

This document focuses on leveraging Information and communication technology (ICT) to enhance the management of public health emergencies in smart cities. As demonstrated by the Covid 19 pandemic, technology simultaneously provides methods and approaches for achieving high visibility of diseases and controlling them.

A gap exists in effective coordination and clear orientation across sectors, which hinder industry and stakeholders' engagement.

Major stakeholders include citizens, the government sectors, healthcare facilities, business entities, research institutes, global professional organization and financial services provider. Each stakeholder has specific concerns and challenges on dealing with public health emergency.

Modelling these complex interactions into a systems architecture is a valuable exercise in understanding the issues, gaps and opportunities for sustainable development.

This document focuses on use case collection and analysis to refine requirements to support technical committees such as ISO/TC 224 and ISO/TC 147 in preparing standards.

This document also seeks to inform IEC technical committees to enable them to provide the technical standards needed.

The IEC SRD 63347 series contains two parts:

- IEC SRD 63347-1: Smart city use case collection and analysis - Managing public health emergencies in smart cities - Part 1: High level analysis
- IEC SRD 63347-2: Smart city use case collection and analysis - Managing public health emergencies in smart cities - Part 2: Use case analysis

This document aims to develop the list of user stories and the database of use cases, conduct integrative analyses of the use cases, scope out the requirements about management of public health emergencies system standards and provide recommendations for IEC and other standard development organizations (SDOs).

## **1 Scope**

This part of IEC SRD 63347 develops the list of user stories and the database of use cases, conducts integrative analyses of the use cases, scopes out the requirements of management of public health emergencies standards and provides recommendations for IEC and other standard development organizations (SDOs).

## **2 Normative references**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC SRD 63347-1, *Smart city use case collection and analysis - Managing public health emergencies in smart cities - Part 1: High level analysis*

## Bibliography

IEC 62559 (all parts), *Use case methodology*

IEC TR 62559-1:2019, *Use case methodology - Part 1: Concept and processes in standardization*

IEC 62559-2:2015, *Use case methodology - Part 2: Definition of the template for use cases, actor list and requirements list*

IEC 62559-3:2017, *Use case methodology - Part 3: Definition of use case template artefacts into an XML serialized format*

ISO/IEC 19501:2005, *Information technology - Open distributed processing - Unified modelling language (UML) Version 1.4.2*

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