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Smart city use case collection and analysis — Smart urban planning for smart cities

Part 2: Use case analysis



AS IEC SRD 63320.2:2026

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Australian Smart Communities Association
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Energy Networks Australia
Engineers Australia
Essential Energy
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(a) "should" means that something is recommended.

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Structure of Standards

A Standard always has the following parts:

(i) The Preface states who developed the Standard, what the Standard is aiming to do, and how it relates to other documents.

(ii) The Scope states what the Standard is about, what it covers and what it does not cover.

(iii) The Normative references clause lists other documents that are referenced in the Standard as part of requirements.

(iv) The Terms and definitions clause defines important terms to help with understanding the Standard.

A Standard may also include other parts, such as the following:

(1) A normative appendix sets additional requirements that need to be conformed to.

(2) An informative appendix provides additional information or guidance. They usually do not contain requirements. If an informative appendix does contain requirements, the Standard will explain when those requirements apply.

(3) A Bibliography lists documents referenced in the Standard but not as part of requirements.

Many Standards include notes. Notes provide recommendations and/or guidance only. They never contain requirements.

Preface

This Standard was prepared by the Standards Australia Committee IT-269, Smart Cities Systems.

The objective of this document is to deal with the smart urban planning (SUP) for smart city from the perspective of market relationship based on the analysis of AS IEC SRD 63320.1.

This document establishes a framework between existing standards and stakeholder requirements, aimed at scoping out standard requirements and further standardization work.

This document is a contribution to the IEC use case management repository, which aims to collect, administer, maintain, and analyse use cases.

This document is identical to, and has been reproduced from, IEC SRD 63320-2:2025, *Smart city use case collection and analysis —Smart urban planning for smart cities — Part 2: Use case analysis.*

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(b) A full point substitutes for a comma when referring to a decimal marker.

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FOREWORD

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IEC SRD 63320-2 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/365/DTS	SyCSmartCities /376/RVDTS

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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 ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 63320 series, published under the general title *Smart city use case collection and analysis - Smart urban planning for 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 in the data related to the specific document. At this date, the document will be

— reconfirmed,

— withdrawn, or

— revised.

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INTRODUCTION

In recent years, research about relationship between information and communication technology (ICT) and cities, focused on imagining the future of urban planning, has been one of the most interesting topics in the industry. The concept of smart urban planning (SUP) has indeed gradually emerged with the development of smart cities. The "smartness" of urban planning describes the intensive use of digital technologies to optimize the urban planning process. The concept of "smart city" has been implemented and developed all over the world. In order to construct a smart city successfully, knowing how to implement SUP for smart cities is essential, because SUP for smart cities is the foundation of smart urban construction. However, at present, reaching a consensus on the overall architecture of standards of SUP for smart cities is still challenging. The direction and user requirements of standards development is not clear, which affects the development and application effectiveness of international standards of SUP for smart cities.

Aiming at addressing the above problems, a systems approach to collect and analyse SUP for smart cities use cases is put forward. The purpose of this document is to collect SUP for smart cities use cases globally, to sort out the current situation of SUP for smart cities both domestically and internationally, including methods, framework, ideas, and GAPS model, and to analyse the needs of SUP for smart cities work and its stakeholders.

Understanding the use cases makes it easier to describe SUP for smart cities clusters and highlight use cases' commonalities. All use cases that are selected have actual legitimacy. Planning requirements are extracted from the use cases, and recommendations are given for future standardization items related to SUP for smart cities. Collecting the use cases provides SUP for smart cities to validate the SUP for smart cities reference model and reference architecture.

The target users and practitioners for this document include the following stakeholders who have interest in SUP for smart cities:

1) smart city planners and service providers, who can learn about SUP for smart cities needs and how to implement the ideas;

2) government agencies and heads, who can use SUP for smart cities and implement in future works;

3) citizens that want to have a better understanding of SUP for smart cities;

4) SUP for smart cities operators who shall understand the requirements;

5) regulators who are responsible for developing and managing SUP for smart cities and related regulations.

The IEC SRD 63320 series contains two parts:

— IEC SRD 63320-1 which gives a high level analysis;

— IEC SRD 63320-2 which gives a use case analysis.

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Smart city use case collection and analysis — Smart urban planning for smart cities

Part 2: Use case analysis

1 Scope

This part of IEC SRD 63320 deals with the smart urban planning (SUP) for smart city from the perspective of market relationship based on the analysis of IEC SRD 63320-1. This document establishes a framework between existing standards and stakeholder requirements, aimed at scoping out standard requirements and further standardization work. This document is a contribution to the IEC use case management repository, which aims to collect, administer, maintain, and analyse use cases.

2 Normative references

There are no normative references in this document.

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— IEC Electropedia: available at https://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

3.1.1
smart urban planning
digital and intelligent urban planning system, in which advanced technologies are used in all aspects, from urban data collection, data analysis, decision-making, compiling, reviewing to evaluation

3.1.2
use case
specification of a set of actions performed by a system, which yields an observable result that is, typically, of value for one or more actors or other stakeholders of the system

[SOURCE: ISO/IEC 19505-2:2012, 16.3.6]

3.1.3
stakeholder
individual, team, organization (IEV 831-01-14), or classes thereof, having an interest in a system (IEV 831-01-21)

Note 1 to entry: Usually, a stakeholder can affect or is affected by the organization or the activity.

[SOURCE: IEC 60050-831:-, 831-04-05]

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