

Recommendation

ITU-T L.1632 (08/2024)

SERIES L: Environment and ICTs, climate change, e-waste, energy efficiency; construction, installation and protection of cables and other elements of outside plant

Circular and sustainable cities and communities

Identification method for building infrastructure equipment in a sustainable city

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Environment and ICTs, climate change, e-waste, energy efficiency; construction, installation and protection of cables and other elements of outside plant

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Recommendation ITU-T L.1632

Identification method for building infrastructure equipment in a sustainable city

Summary

Buildings are one of the major key city assets and it is important to effectively and easily manage building infrastructure in order to realize a sustainable city. A number of pieces of equipment exist at building infrastructures, and building infrastructure management systems are separately utilized for dedicated infrastructure management services in terms of efficiency, safety and sustainability. Buildings may have different management systems depending on the type of facility, such as firefighting management systems, energy management systems, electrical safety management systems and building automation systems. The different management systems use the separate identification method, so the different methods may cause inefficiency and inconvenience for managing the many pieces of equipment at the building. In order to realize a sustainable city, it is important to efficiently manage a number of pieces of equipment within a city. By allocating identifiers to the equipment in buildings, the city asset management system in a sustainable city can improve their manageability.

Recommendation ITU-T L.1632 defines the identification method for equipment at the building infrastructure which improves the manageability and interworking between facilities at the building. The identification method includes the identifier structure and identifier management procedure which are easily recognizable, understandable mapping between identifier and device, and consistency in the equipment category. The identification method defined in this Recommendation is used within a building infrastructure and can be operated in conjunction with the city-level identification system that uniquely identifies the city assets such as buildings, energy resources, etc. Therefore, it can help realize a sustainable city.

History *

Edition	Recommendation	Approval	Study Group	Unique ID
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Building, building infrastructure, identification, management system, sustainable city.

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The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

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Recommendation ITU-T L.1632

Identification method for building infrastructure equipment in a sustainable city

1 Scope

This Recommendation describes a specification of an identification method for building infrastructure equipment at the building infrastructure as follows:

- overview of the building infrastructure management system;
- identification method for the building equipment;
- operational procedures of the identification method.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

[ITU-T L.1630] Recommendation ITU-T L.1630 (2023), *Framework of a building infrastructure management system for sustainable city*.

3 Definitions

3.1 Terms defined elsewhere

This Recommendation uses the following terms defined elsewhere:

3.1.1 energy equipment [ITU-T L.1630]: An individual item of equipment consisting of an energy infrastructure and classified as energy receiving equipment and energy distribution equipment.

3.1.2 energy infrastructure [ITU-T L.1630]: A set of equipment that receives various types of energy such as electricity, gas and water from the energy providers and distributes the energy to the building infrastructure.

3.1.3 energy infrastructure management [ITU-T L.1630]: A function that supports the operation of energy equipment and communication using a data model and provides an intelligent energy equipment management service.

3.1.4 fire detection and identifying equipment [b-ITU-T L.1631]: Equipment that generates a set of fire-related data and sends it to the firefighting infrastructure management system (FIMS).

3.1.5 firefighting equipment [ITU-T L.1630]: An individual equipment consists of a firefighting infrastructure, and is classified as communication-less legacy firefighting equipment and communication capable firefighting equipment.

3.1.6 firefighting infrastructure [ITU-T L.1630]: A set of equipment that protects or evacuates people by detecting and notifying fires, enables immediate firefighting activities at the early stage of a fire, and extinguishes fires by automatic or manual operation.

3.1.7 firefighting infrastructure management [ITU-T L.1630]: A function that supports the operation of fire alarm control equipment and the communication using data model and provides the intelligent firefighting equipment management service.