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OUTSIDE PLANT

Minimum data set and communication interface requirements for data centre energy management

Recommendation ITU-T L.1301

ITU-T

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Minimum data set and communication interface requirements for data centre energy management

Summary

Recommendation ITU-T L.1301 establishes a minimum data set necessary to manage data centres and telecommunication rooms in an environmentally responsible manner.

The Recommendation specifies the communication interface and defines the parameters to be communicated depending on the equipment used in data centres, such as power systems (alternating current (AC)/direct current (DC) and uninterruptible power supply (UPS) and energy distribution), cooling systems and information and communication technology (ICT) equipment.

History

Edition	Recommendation	Approval	Study Group	Unique ID*
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Table of Contents

	Page
1 Scope.....	1
2 References.....	1
3 Definitions	1
3.1 Terms defined elsewhere	1
3.2 Terms defined in this Recommendation.....	1
4 Abbreviations and acronyms	2
5 Conventions	2
6 Architecture of data centre energy management	2
7 Managed entities	3
8 General requirements for data centre energy management	3
8.1 Requirements for communication interfaces.....	3
8.2 Requirements for measuring data	4
9 Minimum data set for energy management in data centres	4
9.1 Minimum set of static data	4
9.2 Minimum set of dynamic data	5
10 Data definition and requirements.....	6
10.1 Requirements for data items of ICT equipment	6
10.2 Requirements for data items of facility equipment	7
Appendix I – Examples of an optional data set for energy management in a cloud data centre.....	8
I.1 Managed entities.....	8
I.2 Minimum data set	8
Appendix II – Examples of use cases for a minimum data set	10
Appendix III – Suggested accuracy value of measurement data	12
III.1 ICT equipment.....	12
III.2 Cooling equipment	12
III.3 Power equipment	12
Appendix IV – Related standardization activities in other standards development organizations.....	13
IV.1 Activities in ETSI	13
IV.2 Activities in ECMA	13
IV.3 Activities in IETF	13
Bibliography.....	14

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Recommendation ITU-T L.1301

Minimum data set and communication interface requirements for data centre energy management

1 Scope

This Recommendation aims to:

- establish a minimum data set necessary to manage data centres in an environmentally responsible manner;
- establish high-level interface requirements for information and communication technology (ICT) and facility equipment communication that contribute to energy saving, energy management and energy-saving evaluation.

2 References

None.

3 Definitions

3.1 Terms defined elsewhere

None.

3.2 Terms defined in this Recommendation

This Recommendation defines the following terms:

3.2.1 communication interface: An interface through which the management system communicates with the facility equipment and ICT equipment.

3.2.2 data centre: A physical location dedicated to computing, as well as a telecom operator location, with equipment dedicated to telecommunication functions (e.g., switching functionality, billing).

3.2.3 dynamic data: Data that is periodically obtained from information and communication technology (ICT) equipment and facility equipment.

3.2.4 facility equipment: Equipment that supports the information and communication technology (ICT) equipment (e.g., cooling systems and power feeding systems) used in data centres.

3.2.5 managed entity: An entity, which is a part of an equipment, that is monitored and managed.

3.2.6 management system: A system that collects dynamic/static data and also transmits control data through the communication interface for data centre energy management.

3.2.7 minimum data set: A data set that shall be an essential and minimum set of data transmitted over the communication interface for data centre energy management.

3.2.8 sensor: A device that transforms a physical value (e.g., temperature, current) into an electrical or logical unit. The sensor can be directly connected with a data stream to the management system or via a conversion device.

3.2.9 static data: Data which is constant during operation, such as: specification, configuration and location information.