



**Machine-to-Machine communications (M2M);
Applicability of M2M architecture to Smart Grid Networks;
Impact of Smart Grids on M2M platform**

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ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
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Contents

Intellectual Property Rights	5
Foreword.....	5
1 Scope	6
2 References	6
2.1 Normative references	6
2.2 Informative references.....	6
3 Definitions and abbreviations.....	8
3.1 Definitions.....	8
3.2 Abbreviations	9
4 Introduction and Background.....	10
4.1 Description of Smart Grids architecture concept.....	11
4.2 Key Technical Elements of Smart Grid.....	12
4.2.1 Distributed Energy Resources (DER)	12
4.2.2 Demand Response (DR)	13
4.2.3 Electric Vehicle (EV).....	13
4.2.4 Building/Home Energy Management (BHEM)	14
4.2.5 Smart Metering	14
4.2.6 Advanced Distribution Automation (ADA).....	15
4.2.7 Communications	16
4.3 Smart Grid Standardisation	16
4.3.1 European conceptual model.....	16
4.3.2 NIST conceptual model	17
4.4 Smart Grid Roles and Responsibilities.....	19
4.5 SG Communication Requirement values in Relation to M2M services	22
5 Smart Grid Use Cases.....	22
5.1 Smart Grid Energy Layer Use Case	23
5.1.1 Advanced Distribution Automation WAMS (Wide Area Measurement System)	23
5.1.1.1 Scope and Objectives of Use Case.....	23
5.1.1.2 Narrative of Use Case	23
5.1.1.3 Actors: People, Systems, Applications, Databases, the Power System, and Other Stakeholders.....	24
5.1.1.4 Issues: Legal Contracts, Legal Regulations, Constraints and others	24
5.1.2 DER control (Distributed Energy Resources).....	24
5.1.2.1 Scope and Objectives of Use Case.....	24
5.1.2.2 Narrative of Use Case	25
5.1.2.3 Actors: People, Systems, Applications, Databases, the Power System, and Other Stakeholders.....	25
5.1.2.4 Issues: Legal Contracts, Legal Regulations, Constraints and others	25
5.1.2.5 Drawing or Diagram of Use Case	26
5.1.3 DR control (Demand Response) for large scale application.....	26
5.1.3.1 Scope and Objectives of Use Case.....	26
5.1.3.2 Narrative of Use Case	27
5.1.3.3 Actors: People, Systems, Applications, Databases, the Power System, and Other Stakeholders.....	27
5.1.3.4 Issues: Legal Contracts, Legal Regulations, Constraints and others	27
5.1.3.5 Drawing or Diagram of Use Case	28
5.1.4 DS supervision (Distribution System)	28
5.1.4.1 Scope and Objectives of Use Case.....	28
5.1.4.2 Narrative of Use Case	28
5.1.4.3 Actors: People, Systems, Applications, Databases, the Power System, and Other Stakeholders.....	29
5.1.4.4 Issues: Legal Contracts, Legal Regulations, Constraints and others	29
5.1.4.5 Drawing or Diagram of Use Case	29
5.1.5 DER, DR/Microgrid control	30
5.1.5.1 Scope and Objectives of Use Case.....	30
5.1.5.2 Narrative of Use Case	30
5.1.5.3 Actors: People, Systems, Applications, Databases, the Power System, and Other Stakeholders.....	31

5.1.5.4	Issues: Legal Contracts, Legal Regulations, Constraints and others	31
5.1.5.5	Drawing or Diagram of Use Case	31
5.1.6	Electric Vehicle (EV) charging and power feed	32
5.1.6.1	Scope and Objectives of Use Case	32
5.1.6.2	Narrative of Use Case	32
5.1.6.3	Actors: People, Systems, Applications, Databases, the Power System, and Other Stakeholders.....	33
5.1.6.4	Issues: Legal Contracts, Legal Regulations, Constraints and others	34
5.1.6.5	Drawing or Diagram of Use Case	34
5.1.7	PV Generation (Photo Voltaic).....	34
5.1.7.1	Scope and Objectives of Use Case	34
5.1.7.2	Narrative of Use Case	35
5.1.7.3	Actors: People, Systems, Applications, Databases, the Power System, and Other Stakeholders.....	35
5.1.7.4	Issues: Legal Contracts, Legal Regulations, Constraints and others	36
5.1.7.5	Drawing or Diagram of Use Case	36
5.2	Control and Connectivity Layer Use Cases.....	36
5.2.1	Use Case for Service Providers Management.....	36
5.2.1.1	Scope and Objectives of Use Case	36
5.2.1.2	Narrative of Use Case	37
5.2.1.3	Actors: People, Systems, Applications, Databases, the Power System, and Other Stakeholders.....	38
5.2.1.4	Drawing or Diagram of Use Case	39
5.3	Service Layer Use Cases	39
5.3.1	Home-DR applications (Demand Response) for consumer appliances	39
5.3.1.1	Scope and Objectives of Use Case	39
5.3.1.2	Narrative of Use Case	40
5.3.1.3	Actors: People, Systems, Applications, Databases, the Power System, and Other Stakeholders.....	41
5.3.1.4	Drawing or Diagram of Use Case	42
5.3.2	Home Energy Management (HEM).....	42
5.3.2.1	Scope and Objectives of Use Case	42
5.3.2.2	Narrative of Use Case	43
5.3.2.3	Actors: People, Systems, Applications, Databases, the Power System, and Other Stakeholders.....	43
5.3.2.4	Issues: Legal Contracts, Legal Regulations, Constraints and others	44
5.3.2.5	Drawing or Diagram of Use Case	45
5.3.3	Submetering.....	45
5.3.3.1	Scope and Objectives of Use Case	45
5.3.3.2	Narrative of Use Case	46
5.3.3.3	Actors: People, Systems, Applications, Databases, the Power System, and Other Stakeholders.....	46
5.3.3.4	Issues: Legal Contracts, Legal Regulations, Constraints and others	46
5.3.3.5	Drawing or Diagram of Use Case	46
5.3.4	Smart Grid/Metering Service Layer.....	47
5.3.4.1	Use Scope and Objectives of Use Case.....	47
5.3.4.2	Narrative of Use Case	47
5.3.4.3	Issues: Legal Contracts, Legal Regulations, Constraints and others	49
5.3.4.4	Referenced Standards and / or Standardization Committees (if available)	51
5.3.4.5	Drawing or Diagram of Use Case	52
6	Applicability of M2M architecture to Smart Grids	53
7	Proposed New Requirements	54
7.1	Service Layer Security Requirements	54
7.2	Energy Layer Security Requirements.....	54
7.3	Energy Layer Requirements.....	55
7.4	Service Layer Requirements.....	55
8	Recommendations for future work.....	56
8.1	ETSI	56
8.2	Input to External Organisations.....	56
Annex A:	Bibliography	57
History		58

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Foreword

This Technical Report (TR) has been produced by ETSI Technical Committee Machine-to-Machine communications (M2M).

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1 Scope

The present document highlights the applicability of M2M architecture to smart grid networks. The present document develops the most relevant Smart grids use cases, used to derive high level requirements. In addition it provides a standard gap analysis (applicability of M2M APIs for Smart Grid applications, mechanisms to manage energy for end users, etc), and derives a set of recommendation for the work of ETSI M2M.

Finally it shows dependencies and relationships with other works within ETSI TCs and other standards organisations (including the ones covering the energy Layer: NIST, CEN/Cenelec and IEC in particular).

2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the reference document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <http://docbox.etsi.org/Reference>.

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2.1 Normative references

The following referenced documents are necessary for the application of the present document.

Not applicable.

2.2 Informative references

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

- [i.1] CEN/CENELEC/ETSI SMCG: "Functional reference architecture for smart metering systems" (Final draft Technical Report CEN/CLC/ETSI/FprTR 50572 July 2011).
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- [i.3] <http://www.sensus.com/> and <http://sensus.co.uk/documents/10303/259817/UK-licensing-brochure.pdf>.
- [i.4] <http://portal.etsi.org/portal/server.pt/community/TISPAN/339>.
- [i.5] IEC 62055-31: "Electricity metering - Payment systems - Part 31: Particular requirements - Static payment meters for active energy (classes 1 and 2)".
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- [i.20] M/441: "Smart Metering Mandate".
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- [i.22] ETSI TS 102 225: "Smart Cards; Secured packet structure for UICC based applications".
- [i.23] ETSI TS 102 226: "Smart Cards; Remote APDU structure for UICC based applications".
- [i.24] ETSI TS 102 690 (V1.1.1): "Machine- to- Machine communications (M2M); Functional architecture".
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- NOTE: Available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:135:0001:0080:EN:PDF>.