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Foreword

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

ITeH STANDARD PREVIEW
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Full standard:
<https://standards.iteh.ai/catalog/standards/sist/fdae7659-41e7-40c6-9cc6-256c7a6d604b/etsi-ts-102-690-v1.2.1-2013-06>

1 Scope

The present document describes the overall end to end M2M functional architecture, including the identification of the functional entities and the related reference points.

The M2M functional architecture is designed to make use of an IP capable underlying network including the IP network service provided by 3GPP, TISPAN and 3GPP2 compliant systems. The use of other IP capable networks is not intentionally excluded. Non IP data services are used in the context of the present document for the purpose of out of band communication. Details of such usage are not depicted in the present document.

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>.

NOTE: While any hyperlinks included in this clause were valid at the time of publication ETSI cannot guarantee their long term validity.

2.1 Normative references

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

- [1] ETSI TS 102 921: "Machine-to-Machine communications (M2M); mla, dla and mld interfaces".
- [2] IETF RFC 6267: "MIKEY-IBAKE: Identity-Based Authenticated Key Exchange (IBAKE) Mode of Key Distribution in Multimedia Internet KEYing (MIKEY)".
- [3] IETF RFC Draft: "An EAP Authentication Method Based on Identity-Based Authenticated Key Exchange".

NOTE: Available at <http://tools.ietf.org/html/draft-cakulev-emu-eap-ibake>.

- [4] IETF RFC Draft: "IBAKE: Identity-Based Authenticated Key Exchange".

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- [5] ETSI TS 124 109: "Universal Mobile Telecommunications System (UMTS); LTE; Bootstrapping interface (Ub) and network application function interface (Ua); Protocol details (3GPP TS 24.109)".
- [6] OMA-AD-DM-V1-3 (Version 1.3): "Device Management Architecture".
- [7] OMA-TS-DM-Notification-V1-3 (Version 1.3): "Device Management Notification Initiated Session".
- [8] OMA-TS-DM-Protocol-V1-3 (Version 1.3): "Device Management Protocol".
- [9] OMA-TS-DM-Sessionless-V1-3 (Version 1.3): "Device Management Sessionless Message".
- [10] Broadband Forum TR-069: "CPE WAN Management Protocol" Version 1.3, Issue: 1 Amendment 4. Issue Date: July 2011.

NOTE: Available at http://www.broadband-forum.org/technical/download/TR-069_Amendment-4.pdf

- [11] OMA-TS-MLP-V3-3-20110719-A (Version 3.3): "Mobile Location Protocol 3.3".

- [12] ETSI TS 123 271: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Functional stage 2 description of Location Services (LCS) (3GPP TS 23.271)".
- [13] OMA-TS-DM-StdObj-V1-3-20101207-C (Draft Version 1.3): "OMA Device Management Standardized Objects".
- [14] Broadband Forum TR-106: "Data Model Template for TR-069-Enabled Devices, Issue: 1 Amendment 6".
- [15] OMA-TS-DM-TND-V1-3 (Version 1.3): "Device Management Tree and Description".
- [16] OMA-TS-DCMO-V1-0 (Version 1.0): "Device Capability Management Object".
- [17] Broadband Forum TR-157: "Component Objects for CWMP, Issue: 1 Amendment 3".
- [18] OMA-TS-DiagMonFunctions-1-0 (Version 1.0): "DiagMon Functions Supplemental Specification".
- [19] Broadband Forum TR-181: "Device Data Model for TR-069", Issue 2 Amendment 2.
- [20] OMA-TS-LAWMO-V1-0 (Version 1.0): "Lock and Wipe Management Object".
- [21] OMA-TS-DiagMonTrapMOFrame-V1-2 (Version 1.2): "Diagnostics and Monitoring Trap Framework Management Object".
- [22] OMA-TS-DiagMonTrapEvents-V1-2 (Version 1.2): "Diagnostics and Monitoring Trap Events Specifications".
- [23] OMA-TS-DiagMonMO-V1-0 (Version 1.0): "Diagnostics and Monitoring Management Object".
- [24] OMA-TS-DM-FUMO-V1-0 (Version 1.0): "Firmware Update Management Object".
- [25] OMA-TS-DM-SCQMO-V1-0 (Version 1.0): "Software Component Management Object".
- [26] OMA-TS-GwMO-V1-0 (Version 1.0): "A Gateway Management Object technical Specification".
- [27] ETSI TS 102 671 (V9.0.0): "Smart Cards; Machine to Machine UICC; Physical and logical characteristics (Release 9)".
- [28] ETSI TS 102 310 (V9.0.0): "Smart Cards; Extensible Authentication Protocol support in the UICC (Release 8)".
- [29] ETSI TS 133 220: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Generic Authentication Architecture (GAA); Generic Bootstrapping Architecture (GBA) (3GPP TS 33.220)".
- [30] ETSI TS 187 003 (V2.3.2): "Telecommunications and Internet Converged Services and Protocols for Advanced Networking (TISPAN); NGN Security; Security Architecture".
- [31] ETSI TS 102 484: "Smart Cards; Secure channel between a UICC and an end-point terminal (Release 9)".
- [32] IETF RFC 2046: "Multipurpose Internet Mail Extensions (MIME) Part Two: Media Types".
- [33] IETF RFC 2560: "X.509 Internet Public Key Infrastructure Online Certificate Status Protocol - OCSP".
- [34] IETF RFC 2663: "IP Network Address Translator (NAT) Terminology and Considerations".
- [35] IETF RFC 2716: "PPP EAP TLS Authentication Protocol".
- [36] IETF RFC 4366: "Transport Layer Security (TLS) Extensions".
- [37] IETF RFC 3748: "Extensible Authentication Protocol (EAP)".
- [38] IETF RFC 3986: "Uniform Resource Identifier (URI): Generic Syntax".