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Machine-to-Machine Communications (M2M);
Study on Semantic support for M2M Data

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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 is motivated by the fact that within the ETSI M2M System semantic information needs to be available on M2M data that is transferred within the M2M system. Through such semantic information M2M data can be discovered by applications that do not have prior knowledge on them. The capability of the ETSI M2M System to enable applications to discover, interpret and use M2M data from different sources is considered essential for creating high-level M2M services and to develop open markets for M2M data.

- In this study pre-normative work is conducted in order to facilitate normative specification work in ETSI M2M Rel.-2 or later.
- The study analyses benefit, feasibility and potential requirements for the support of semantic information on application related M2M Resources in the M2M system.
  The ETSI M2M system would, however, only provide a means to create and handle such semantic information in the ETSI M2M system; ETSI M2M continues to stay independent of 'vertical' markets who in general would define the semantics of M2M data related to their field of expertise.
- The study creates use cases that illustrate provisioning and usage of such semantic information and that demonstrate the benefit for the M2M ecosystem.
- It investigates on the kind and amount of semantic information that would become available in the M2M system, keeping in mind a trade-off between complexity and usability.
- It investigates discovery mechanisms for semantic information in the ETSI M2M System. This should take into account how existing solutions from other standards or research could be used within the ETSI M2M architecture.
- It considers on issues of ownership/responsibility for application related M2M Resources in the case that the M2M system can provide semantic information on them. This needs to take into account the need for support of different levels of data privacy and confidentiality.

This study relates to WI 0014 (TR 102 966 [i.11] - Interworking between the M2M Architecture and M2M Area Network technologies), as a further step in the abstraction of LAN technologies and devices. Existing relevant standards are taken into account and the study aspires to benefit from inputs of related research projects.

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.

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2.1 Normative references

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

Not applicable.