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| Input Contribution |
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| Title:\* | STF 601 – Analysis Summary |
| Source:\* | Bob Flynn (Exacta GSS); bob.flynn@exactagss.comOn behalf of STF 601 |
| Date:\* | 2022-02-14 |
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| Decision requested or recommendation:\* | Agree for inclusion in TR-0068 |
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# Introduction

This contribution introduces a summary of the use case analysis from STF 601.

These findings may be directly relevant to the effort of this work item and are contributed for consideration.

This information is derived from TS 103 778.

There will be more information coming from the completion of ETSI TS 103 779

### -----------------------Start of change 1-------------------------------------------

## 8.4 Summary of analysis from ETSI STF 601

A preliminary analysis shows that a common aspect needed for each use case is the process of setting up and configuration of the scenario described. Setup here means connecting a sensor to the cloud and then sending data to an AI/ML component for processing the data. Scenarios can exist where a single sensor can be used for multiple purposes, i.e. a camera observing traffic can be used for traffic congestion analysis as well as weather related road conditions. In this case the data from the camera could be processed by more than one ML algorithm and the resulting outputs could have different distribution or notification needs.

Related to setup, sensor data format should also be described. This has to be done for the sensor data and the input requirements for the AI/ML algorithms.

Additionally, a format of the output data needs to be described so that the consumers of the AI/ML algorithm can effectively process the data. The following list should be considered for IoT platforms that enable AI/ML.

1. Setup: Easy way for sensor data to be directed to a user (human or ML algorithm).
2. Setup: describe data format such that it can be used without ambiguity by its intended user (human or ML algorithm).
3. Configuration: transform data, if necessary, for a ML algorithm input or human user installation.
4. Configuration: describe the sensor data quality, or suitability to use in different scenarios.
5. ML output: capture classification of ML algorithms along with the data of interest that generated the classification.
6. ML output: terms used for output: ontology for ML results.
7. ML output: organize output in a manner that is easy to find and understand “important” data without any ambiguity.
8. ML output: data duplication should be avoided, if possible, e.g. image from a camera is provided. Then it is “analysed” by an ML algorithm. A classification is determined. The image and classification are stored again (based on #7) but this should be avoided as it will create multiple instances of the same data (raw image) Just store the “classifications”.
9. ML output: identify the ML module used to provide a classification (traceability).
10. IoT system operation: timestamp and geolocate the data when necessary.
11. IoT system operation: ensure that data accessibility is enabled to all authorized users.
12. IoT system operation: ensure that data interoperability is enabled if data should be shared between different IoT systems.
13. IoT system operation: ensure that the system is properly maintained and default components can be easily identified.
14. Protect against privacy, security and data integrity breaches.

### -----------------------End of change 1-------------------------------------------